NORTH DAKOTA ADMINISTRATIVE CODE

VOLUME 1 of 5
(Pages 1 - 300)

Supplements 294 - 298

December 2003
January 2004
February 2004
March 2004
April 2004

Prepared by the Legislative Council staff
for the
Administrative Rules Committee

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TITLE 3

STATE BOARD OF ACCOUNTANCY

DECEMBER 2003

CHAPTER 3-01-02

3-01-02-01. Definitions. Unless specifically stated otherwise, the following definitions are applicable throughout this title:

1. "Accountant" means either a certified public accountant (CPA) or a licensed public accountant (LPA).

2. "Accounting concentration" means:

   a. Through December 31, 1999, thirty semester credits or equivalent of accounting and business law education; and

   b. After December 31, 1999, twenty-four semester credits or equivalent of accounting education, plus twenty-four credits of other business courses.

   c. After December 31, 2004, twenty-four semester credits or equivalent of accounting education (not including principles of accounting or equivalent classes), plus twenty-four credits of other business courses which could include principles of accounting or equivalent classes.

3. "AICPA" means the American institute of certified public accountants.

4. "Bookkeeping" means the maintaining of financial records and preparation of tax returns. Bookkeeping does not include the preparation of any financial statement or similar such documents on which language similar to that utilized by certified public accountants or licensed public accountants is placed including compilation and review language.

5. "Enterprise" means any person, persons, or entity, whether or not organized for profit, for which an accountant provides services.

6. "Financial statements" means a presentation of financial data, including any accompanying notes, intended to show financial position at a point in time or changes in financial position for a period of time in accordance with generally accepted accounting principles or another comprehensive basis of accounting. Incidental financial data included in management advisory services, reports to support recommendations to a client, and tax returns and supporting schedules are not financial statements.

7. "NSA" means the national society of accountants.

8. "NASBA" means the national association of state boards of accountancy.

9. "Practice of public accounting" does not include reviews conducted under the AICPA or NSA peer review programs or the AICPA's quality review program or the board's positive review program, or any other similar program approved by this board.

   The terms "public practice", "practice", "practice of public accountancy", and "practice public accounting", shall be synonymous with the term "practice of public accounting".

History: Amended effective January 1, 1987; July 1, 1991; March 1, 1995; October 1, 1999; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-03

CHAPTER 3-02-01

3-02-01-01. Examinations - Location. ~~The Board shall administer all examinations required for licensure in accounting in North Dakota.~~ The ~~written~~ examination administered to applicants for certification as certified public accountants shall be the uniform certified public accountant examination. All successful examination candidates will be required to complete an approved self-study ethics course before they will be issued a certificate. The ~~written~~ examination shall be given at a site or sites ~~selected~~ approved by the board~~, on dates specified by the board~~.

History: Amended effective July 1, 1985; March 1, 1995; October 1, 1999; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-04

3-02-01-02. Examinations - Passing conditions. ~~If~~ Prior to the implementation of the computer-based examination, if at a given sitting of the examination an applicant passes two or more but not all sections, then the applicant must be given credit for those sections passed and need not sit for reexamination in those sections, provided that:

1. The applicant wrote all sections of the examination at that sitting;

2. The applicant attained a minimum grade of fifty percent on each section not passed at that sitting, but this requirement does not apply to an applicant who has passed three sections at a given sitting;

3. The applicant passes the remaining sections of the examination within the six consecutive examinations given after the one at which the first sections were passed;

4. At each subsequent sitting at which the applicant seeks to pass any additional sections, the applicant writes all sections not yet passed; and

5. In order to receive credit for passing additional sections in any such subsequent sitting, the applicant attains a minimum grade of fifty percent on sections written but not passed on such sitting.

A minimum grade of forty percent is applicable to sections of the examination written prior to July 1, 1999.

Upon implementation of a computer-based examination, an applicant may take the examination sections individually and in any order. An applicant shall retain conditional credit for any section passed for eighteen months after the test date, without having to attain a minimum score on any failed sections, and without regard to whether the applicant has taken other sections. An applicant must pass all sections of the examination within a rolling eighteen-month period which begins on the date the applicant took the first section passed. An applicant may not

retake any section of the examination within the same testing window. A window refers to a three-month period in which candidates have an opportunity to take the exam, comprised of two months in which the exam is available to be taken and one month in which the exam will not be offered while maintenance and item refreshing is done. In the event all sections of the examination are not passed within the rolling eighteen-month period, credit will expire for any section passed outside the eighteen-month period. During the first year of the computer-based examination, the board may lengthen the eighteen-month period referenced above, if substantial scoring delays occur.

Candidates who have attained conditional status as of the launch date of the computer-based examination will be allowed a transition period to complete any remaining sections. The transition period consists of either the length of time or the number of writing opportunities they would have had remaining under the paper-based testing rules above, whichever is exhausted first by the candidate. A candidate who passes a section of the computer-based examination during the transition period will not lose conditional credit for that section before the end of the transition period.

History: Effective July 1, 1999; amended effective December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-04

CHAPTER 3-02-02

3-02-02-01. Examination fees. The following examination fees have been established by the board for the certified public accountants examination:

1. ~~One hundred seventy-five dollars to take the full examination effective with the November 2001 examination and two hundred thirty dollars effective with the November 2002 examination.~~ An application fee of one hundred twenty dollars. If the applicant has not passed the full examination by one year after the date of the applicant's last application, a reapplication fee of sixty dollars will be required.

2. ~~Forty-five dollars per subject for each reexamination provided the applicant has already passed two other parts of the examination, effective with the November 2001 examination, and sixty dollars per subject effective with the November 2002 examination.~~ Applicants will also be required to pay testing-related fees of not more than one hundred fifty dollars per exam section, either to the board or a third party designated by the board.

History: Amended effective July 1, 1981; July 1, 1985; July 1, 1987; July 1,1991; March 1, 1995; September 1, 2001; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-04

3-02-02-04. Certificate and license annual renewal fees. The annual renewal fee for every CPA and LPA shall be forty-five dollars. A CPA or LPA who fails to register or pay the renewal fee by July first of the board's current fiscal year shall pay a late filing fee of ~~twenty~~ fifty dollars in addition to the regular annual fee. Individuals working within the state under the substantial equivalency provisions are required to file an annual renewal form and pay an annual renewal fee of forty-five dollars, plus the late filing fee if applicable.

History: Amended effective August 1, 1981; October 1, 1982; July 1, 1987; June 1, 1988; July 1, 1991; March 1, 1995; September 1, 1997; October 1, 1999; December 1, 2000; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-03, 43-02.2-04, ~~43-02.2-05,~~ 43-02.2-07

3-02-02-04.1. Fee for annual firm permit. The annual fee for a firm permit is fifty dollars for firms with one or two licensees, one hundred dollars for firms with three to fifteen licensees, two hundred dollars for firms with sixteen to forty-nine licensees, and three hundred dollars for firms with fifty or more licensees. For firms which provide no audit, review, compilation, or examination of prospective financial information services, the fee is ten dollars. A late filing fee of ~~twenty~~ fifty dollars shall also be paid by a firm that fails to register or pay the annual firm permit fee by July first of the board's current fiscal year. A firm shall register and pay a firm permit fee before commencing any activity that requires such a permit. Failure to register and pay the appropriate firm permit fees may result in the board proceeding

to revoke, suspend, or refuse to renew the certificates and licenses of each of the firm's partners, officers, directors, shareholders, or owners.

History: Effective June 1, 1988; amended effective March 1, 1995; September 1, 1997; October 1, 1999; December 1, 2000; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-03, 43-02.2-06, 43-02.2-07

CHAPTER 3-03-01

3-03-01-01. Hours or days required. Continuing education reports are due from all CPAs and LPAs, except those on retired status, by ~~December thirty-first~~ June thirtieth of each year and any hours submitted must be for ~~that~~ the previous twelve months, ~~January~~ July first through ~~December thirty-first~~ June thirtieth. At the end of each continuing education reporting year, each CPA and LPA performing accounting, auditing, management or financial advisory, consulting, bookkeeping, or tax services for a client or an employer's client while holding out to the public as a licensee in this state must have completed one hundred twenty hours of acceptable continuing education in the immediate preceding three reporting periods and a minimum of twenty credit hours each ~~year~~ period. All other accountants who in any way hold out as a CPA or LPA in this state, except those on retired status and those who include the term "inactive" whenever using the CPA or LPA title or abbreviation, must have completed sixty hours of acceptable continuing education in the immediately preceding three reporting periods and a minimum of sixteen credit hours each ~~year~~ period. At the end of the first full ~~calendar~~ continuing education reporting year following receipt of an initial original certificate, an accountant must meet the applicable per year minimum and must meet the applicable three-year minimum ~~at the end of the third full calendar year~~ two years thereafter.

In order to transition from the calendar year reporting period in use prior to 2003, the continuing education period ending June 30, 2004, will consist of the period of January 1, 2003, through June 30, 2004, and accountants will be expected to have completed their normal annual minimum requirement during that period. Credit hours earned in calendar year 2002 will be assigned to the July 1, 2002, through June 30, 2003, period. Credit hours earned in calendar year 2001 will be assigned to the July 1, 2001, through June 30, 2002, period. Accountants will also be expected to have completed their normal three year total requirement by June 30, 2004.

History: Amended effective August 1, 1984; October 1, 1984; July 1, 1991; March 1, 1995; October 1, 1999; December 1, 2000; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-03, ~~43-02.2-05~~ 43-02.2-04

3-03-01-02. How credits determined.

1. Continuing education programs are measured in full-hour increments only, with one hour of credit awarded for each full fifty minutes of instruction. One-half hour increments are allowable for a program that is at least one hour in length.

2. Only class hours or self-study equivalents, and not preparation hours, are to be counted.

3. Service as a lecturer or discussion leader will receive credit to the extent that it contributes to the individual's professional competence, to a total

credit limit equal to twice the program's credit allowance for enrolled participants. ~~Credit for lecturer or discussion leader service is further limited to not more than half the total of all hours claimed for any one reporting year.~~ Repetitious presentations are not to be counted.

4. Courses taken for university or college credit may receive continuing education credit at the rate of fifteen hours per semester hour of institutional credit, or ten hours per quarter hour of institutional credit~~, subject to a total limit of not more than half the total of all hours claimed for any one reporting year~~.

5. A CPA or LPA teaching a specific university or college level accounting course for the first time may be granted credit for preparation and instruction to the extent that it contributes to the individual's professional competence, up to a limit of twice the continuing education course credit available for CPAs or LPAs taking the course. No credit is available for repetitious teaching of the course or for subsequent teaching of courses with similar content. ~~Total credit for these activities is limited to not more than half the total of all hours claimed for any one reporting year.~~

~~6. Total credit for self-study program hours is limited to not more than half the total of all hours claimed for any one reporting year.~~

History: Amended effective July 1, 1987; July 1, 1991; March 1, 1995; October 1, 1999; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-03, ~~43-02.2-05~~ 43-02.2-04

CHAPTER 3-03-03

3-03-03-01. Coverage of requirement. The continuing education requirements promulgated by the board will apply to all CPAs and LPAs except those on retired status. In order to enter public practice either full time or part time in North Dakota, an accountant must meet the continuing education requirements as specified in section 3-03-01-01 and furnish evidence of familiarity with current procedures and practices in the service areas they intend to practice.

A late filing fee of ~~twenty~~ fifty dollars will be imposed on any CPA or LPA whose continuing education reports are not received by the date indicated on the reporting form.

History: Amended effective July 1, 1991; March 1, 1995; October 1, 1999; December 1, 2000; December 1, 2003.
General Authority: NDCC 43-02.2-03
Law Implemented: NDCC 43-02.2-03, ~~43-02.2-05~~ 43-02.2-07

TITLE 7

AGRICULTURE COMMISSIONER

JANUARY 2004

CHAPTER 7-13-01

7-13-01-01. History. The first law providing inspection of meat slaughtering and processing facilities was enacted in 1951 as the standards for meat inspection, sanitation, and distribution under North Dakota Century Code chapter 36-23 (S.B. No. 201; S.L. 1951, ch. 223). In 1969, the existing meat inspection program was repealed because of disorganization caused by the lack of inspector training, inconsistency, and lack of guidance in the regulations (S.B. No. 251; S.L. 1969, ch. 322, § 10). It was immediately replaced by the North Dakota Meat Inspection Act under North Dakota Century Code chapter 36-23.1 (S.B. No. 251; S.L. 1969, ch. 322, §§ 1-8). This Act made the United States department of agriculture the only agency in North Dakota providing carcass inspection and inspection for meat slaughtering and processing facilities. North Dakota Century Code chapter 36-23.1 was repealed in 1991 (H.B. No. 1478; S.L. 1991, ch. 377, § 3).

In 1999, House Bill No. 1290 created a state meat inspection program, giving the North Dakota department of agriculture the authority to make rules and implement inspection of meat slaughtering and processing establishments, including custom-exempt plants. The intent of the program is to allow small and medium livestock producers more opportunities to market their animal products and to provide a means for processing alternative or nontraditional livestock. In 2003, Senate Bill No. 2220 added poultry to the program, creating a state meat and poultry inspection program.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-24
Law Implemented: NDCC 36-24-24

7-13-01-03. Federal law. All federal meat and poultry inspection regulations effective as of August 1, ~~2000~~ 2003, as provided under title 9, Code of Federal Regulations, parts 301-320, 325, 329, 381, 391, 416-417, 424, 441, and 500, but

excluding parts ~~307.4 and~~ 307.5 and 381.38, are incorporated by reference and made a part of this title.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-24
Law Implemented: NDCC 36-24-18, 36-24-24

7-13-01-04. Definitions. The terms used throughout this article have the same meaning as in title 9, Code of Federal Regulations, ~~part~~ parts 301 and 381, unless already defined in North Dakota Century Code section 36-24-01, in which case the North Dakota Century Code definitions shall govern. In addition, as used in this chapter or in applying title 9, Code of Federal Regulations, ~~part~~ parts 301 and 381:

1. "Administrator" as the term is used in title 9, Code of Federal Regulations, means the North Dakota agriculture commissioner unless made inappropriate by context.

2. "Commissioner" means the North Dakota agriculture commissioner or the agriculture commissioner's authorized representative.

3. "Department" means the North Dakota department of agriculture.

4. "Federal Act" means the Federal Meat Inspection Act, as amended [Pub. L. 90-201; 21 U.S.C. 601 et seq.].

5. "Food safety inspection service" or "FSIS" as used in title 9, Code of Federal Regulations, means the North Dakota agriculture commissioner unless made inappropriate by context.

6. "Official establishment" means a plant, facility, operation, or premises where animals are slaughtered for human consumption, or a plant or premises where meat or meat food products are processed, but does not include:

   a. Establishments subject to federal inspection.

   b. Premises of a person who is the owner of the animals to be slaughtered or of carcasses to be processed, and the resulting product is for exclusive use by that person, members of that person's household, or that person's nonpaying guests and employees.

7. "Overtime" means any time when meat inspection personnel are requested to work in an establishment, as follows:

   a. Saturday or Sunday.

b. New Year's Day, Martin Luther King Day, Presidents' Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, and Christmas Day. If any such holiday falls on Saturday or Sunday, the preceding Friday or succeeding Monday, respectively, shall be a holiday.

c. The day before Christmas Day and the day before New Year's Day.

d. Before 6 a.m. or after 6 p.m.

e. In excess of forty hours of "straight time" in any calendar week.

f. At any time other than a regularly scheduled slaughter period.

g. When an owner of an animal requests slaughter inspection from an official establishment at a nonregularly scheduled time.

"Overtime" does not include time spent traveling to or from an establishment.

8. "Secretary" or "secretary of agriculture" as used in title 9, Code of Federal Regulations, means the North Dakota agriculture commissioner unless made inappropriate by context.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-24
Law Implemented: NDCC 36-24-24

CHAPTER 7-13-02

7-13-02-03. Records requirement. Any slaughtering establishment, meat processing establishment, or custom-exempt plant that is required to be inspected pursuant to North Dakota Century Code chapter 36-24 to operate under this chapter must prepare and maintain those records required under title 9, Code of Federal Regulations, ~~part~~ parts 320 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-15
Law Implemented: NDCC 36-24-13, 36-24-14, 36-24-15

CHAPTER 7-13-03

7-13-03-01. Standards of identity. The composition of any meat or meat food product; whether or not in naturally occurring, processed, or composite and processed form; which is prepared, stored, handled, sold, or offered for sale in any establishment must comply with the definitions and standards of identity for such products as provided in title 9, Code of Federal Regulations, ~~part~~ parts 319 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-04
Law Implemented: NDCC 36-24-04

7-13-03-02. Required labeling. Any meat or meat food product offered for sale or barter must bear an appropriate label as provided in title 9, Code of Federal Regulations, ~~part~~ parts 317 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-04
Law Implemented: NDCC 36-24-04

7-13-03-04. Official marks. A person may not offer for sale or barter any meat or meat food product that is not properly marked or labeled as provided by title 9, Code of Federal Regulations, parts 312, 316, ~~and~~ 317, and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-04
Law Implemented: NDCC 36-24-07

7-13-03-05. Official state marks. The official mark used by state inspectors will be as prescribed in title 9, Code of Federal Regulations, parts 312 ~~and~~, 316, and 381.96, except that the letters "U.S." shall be replaced with the words "North Dakota", unless federal law is changed requiring that such product be stamped U.S. inspected. The commissioner may prescribe the size and shape of the official mark.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-04
Law Implemented: NDCC 36-24-04, 36-24-05

CHAPTER 7-13-04

7-13-04-01. Marking of products. All custom-exempt plants are required to mark all custom-exempt meat and meat food products, other than poultry, with the words "NOT FOR SALE", stamped in block letters. The letters must be at least three-eighths of one inch [0.95 centimeter] in height. Custom slaughtered poultry must be marked with the owner's or processor's name and address and the statement "Exempted - P.L. 90-492." Stamps, brands, and marks for custom-exempt meat and meat food product identification must be preapproved by the department.

1. Each side, quarter, or other part of a carcass, including detached organs or custom slaughtered or custom processed animals, not including poultry, must be legibly marked immediately after slaughter or, if the animal is not slaughtered at the plant, at the time the meat enters the plant for processing.

2. All boxes, cartons, packages, or containers of custom processed meat or meat food products, not including poultry, must be marked at the time of packaging with the name of the facility, or the registration number assigned by the department, with the words "NOT FOR SALE" at least three-eighths of one inch [0.95 centimeter] in height set forth in block letters.

3. All boxes, cartons, packages, or containers of custom slaughtered poultry or poultry food products must be marked at the time of packaging with the name of the owner or processor and the statement "Exempted - P.L. 90-492."

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-04
Law Implemented: NDCC 36-24-04, 36-24-07

7-13-04-04. Sanitary requirements. A person or facility may not conduct custom slaughtering, custom processing, or custom-exempt operations unless such operations are conducted in accordance with the sanitary requirements under title 9, Code of Federal Regulations, ~~part~~ parts 303 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-24
Law Implemented: NDCC 36-24-11

CHAPTER 7-13-05

7-13-05-01. Antemortem inspections. For the purpose of preventing the entry into or movement in intrastate commerce of any meat or meat food product that is adulterated and is capable of use as human food, the commissioner shall cause antemortem inspection to be made of all cattle, swine, sheep, goats, farmed cervidae, llama, ~~ratite,~~ horses, equines, ~~and~~ other large domesticated animal, ~~not including~~ and poultry, intended for slaughter in any establishment in this state where animals are slaughtered solely for intrastate commerce. Meat and meat food products inspected and passed under this title may be shipped in interstate commerce when federal law permits state-inspected meat and meat food products to be marketed interstate. All antemortem inspections must be done in accordance with title 9, Code of Federal Regulations, ~~part~~ parts 309 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-18, 36-24-24
Law Implemented: NDCC 36-24-24

7-13-05-02. Post-mortem inspections. ~~Except for poultry, the~~ The commissioner shall cause post-mortem inspections to be made on all carcasses and parts thereof of cattle, swine, sheep, goats, farmed cervidae, llama, ~~ratite,~~ horses, equines, ~~and~~ other large domesticated animal, and poultry usable as human food prepared at a slaughtering, meat canning, salting, packing, rendering, or similar establishment in this state in which carcasses or parts thereof are prepared solely for intrastate commerce. Animal carcasses or parts thereof determined to be unadulterated must be marked, stamped, tagged, or labeled as "Inspected and Passed". Inspectors shall label, mark, stamp, or tag as "Inspected and Condemned" animal carcasses or parts thereof found to be adulterated. Carcasses or animal parts inspected and condemned must be destroyed for food purposes by the establishment in the presence of an inspector. Meat and meat food products inspected and passed under this title may be shipped in interstate commerce when federal law permits state-inspected meat and meat food products to be marketed interstate. All inspections are to be done in accordance with title 9, Code of Federal Regulations, ~~part~~ parts 310 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-24
Law Implemented: NDCC 36-24-24

7-13-05-03. Pathogen reduction performance standards. Establishments that slaughter cattle, sheep, goats, equines, ~~or~~ swine, or poultry shall collect and test samples as required in title 9, Code of Federal Regulations, ~~part~~ parts 310 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-24
Law Implemented: NDCC 36-24-24

7-13-05-05. Dead, dying, disabled, or diseased animals. Any animal determined to be dead, dying, disabled, or diseased must be handled in accordance with title 9, Code of Federal Regulations, ~~part~~ parts 309 and 381.

History: Effective August 1, 2000; amended effective January 1, 2004.
General Authority: NDCC 36-24-17
Law Implemented: NDCC 36-24-17

TITLE 10

ATTORNEY GENERAL

FEBRUARY 2004

ARTICLE 10-16

MULTI-STATE LOTTERY

CHAPTER 10-16-01
GENERAL RULES

10-16-01-01. Definitions. As used in this article:

1. "Applicant's agent" means a general manager, sole proprietor, partner of a partnership, or, for a corporation, an officer or director who is primarily responsible for financial affairs or a shareholder who owns five percent or more of the common stock, of a business that is applying for or renewing a license. A general manager is a person who is onsite and primarily responsible and accountable for managing and controlling the day-to-day operation of the business.

2. "Draw" means the formal process of randomly selecting winning numbers or symbols that determine the number of winning tickets for each prize level of a game.

3. "Game" means an on-line game authorized by the lottery.

4. "Game board" means the area of a play slip that contains one or two sets of numbered squares to be marked by a player for a game. Each set contains a certain number of numbers or symbols that correspond to the game.

5. "Grand prize" means the top prize that can be won in a game.

6. "Lottery" means the North Dakota lottery.

7. "Multi-state lottery" means a lottery game that spans the individual borders of a state, province, district, commonwealth, territory, or country.

8. "MUSL" means the multi-state lottery association.

9. "On-line gaming system" means a computer system designed to control, monitor, communicate with a terminal, and record play transactions and accounting data.

10. "Play" means the numbers or symbols that are on a ticket to be played by a player.

11. "Play slip" means a card used in marking a player's game selections and containing one or more game boards.

12. "Product group" means a group of multi-state lotteries that have joined together to offer a particular game according to the terms of the MUSL and group's rules.

13. "Quick pick" means a random selection of two-digit numbers or symbols by a computer system that are printed on a ticket and played by a player in a game for a draw.

14. "Set prize" means all prizes, except the grand prize for POWERBALL® and HOT LOTTO®, that are advertised to be paid by a single cash payment and, except as provided by rule, will be equal to the prize amount established by the MUSL board for the prize level of the game.

15. "Terminal" means a device authorized by the lottery and operated by a retailer or the lottery to function in an on-line, interactive mode with the lottery's computer system to issue a ticket and enter, receive, and process a lottery transaction, including a purchase, validation of a ticket, and transmittal of a report.

16. "Ticket holder" means a person who has signed a ticket or possesses an unsigned ticket.

17. "Validation" means the process of determining whether a ticket presented for a prize is a winning ticket.

18. "Winning numbers" means the numbers or symbols randomly selected at a draw that are used to determine a winning play contained on a ticket.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-01-02. Advertising.

1. The lottery shall arrange for a retailer to be provided with:

   a. Point-of-sale promotional material, including decal, brochure, and customer display sign to promote or explain a game; and

   b. Brochure on problem gambling.

2. Advertising and promotional material provided by the lottery must:

   a. For a game brochure, indicate how a game is played, amount of prize offered, where and how a ticket may be bought, when a draw is held, odds on a game, and whether the grand prize is payable, at a player's option, on an annuitized basis or as a lump sum payment; and

   b. Present the lottery as a form of entertainment.

3. Advertising materials may not:

   a. Present a game as an investment to achieve financial security;

   b. Target a specific ethnic, racial, or religious group of people;

   c. Use the name, signature, or picture of a current elected or serving state official to promote a game;

   d. Indicate that a person has a better chance of winning by purchasing a ticket at a specific retailer's site;

   e. Promise or imply that a person will win or that a person who does not play has lost anything, other than a chance to win. However, advertising may promote the opportunity available to win;

   f. Misrepresent a chance of winning a prize; or

g. Degrade a person who does not buy a ticket.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-07, 53-12-18

10-16-01-03. Debt setoff of prize. In applying North Dakota Century Code section 53-12-34, if two or more persons or state agencies make a claim to part or all of a player's prize amount and one of the claims is for child support, the lottery shall transfer the amount claimed for child support directly to the state disbursement unit of the department of human services, transfer any remaining prize amount up to the amount of the other claim to Burleigh County district court, and then make a payment of any remaining prize amount to the player. However, if none of the claims is for child support, the lottery shall transfer an amount up to the total amount of the claims to Burleigh County district court and make a payment of any remaining prize amount to the player. The lottery shall notify each of the affected state agencies or persons of the amount transferred to district court. The lottery shall notify the player in writing of the proposed debt setoff and the player's recourse. If the player disputes the child support claim, the player shall pursue remedial action according to subsection 2 of North Dakota Century Code section 50-09-14. If the player disputes a claim unrelated to child support, the player may pursue remedial action through district court.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18, 53-12-32, 53-12-34

10-16-01-04. Audit of security. To comply with subsection 6 of North Dakota Century Code section 53-12-07, the lottery shall have a comprehensive study and evaluation performed on the lottery's security, including:

1. Physical premises;
2. Game management system;
3. Ticket sales, ticket validation, and prize payment procedures;
4. Unclaimed prize data;
5. Telecommunications network;
6. On-line and secondary on-line gaming system and primary and secondary internal control systems; and
7. General operation.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-07, 53-12-18

10-16-01-05. Restrictions and requirements.

1. An employee of the lottery or a member of the immediate family or a person who regularly resides in the same household of the employee may not receive a gift, gratuity, or other thing of value, excluding food, nonalcoholic beverage, or incidental item, from an applicant for a license, retailer, or vendor.

2. On a fiscal year basis, the lottery shall determine the amount of special funds that are to be transferred to the state treasurer for deposit in the compulsive gambling prevention and treatment fund. The lottery shall transfer the special funds to the state treasurer by September thirtieth.

3. The lottery shall arrange for the distribution of a terminal, ticket stock, point-of-sale items, and supplies to a retailer.

4. The lottery may waive a rule when it is in the best interest of the state, lottery industry, or public.

5. In applying subdivision d of subsection 1 of North Dakota Century Code section 53-12-28, personal information on a winning player does not include an amount won or the player's city or state of residence. If the player signs a release, the lottery may disclose or publish personal information that the player authorizes to be released.

6. If a lottery rule conflicts with an official or updated game rule of the MUSL, the MUSL official or updated game rule supersedes the lottery rule.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-18, 53-12-21, 53-12-28

CHAPTER 10-16-02
RETAILER

10-16-02-01. License application and fee.

1. An applicant shall initially apply for a license for a site on a form prescribed by the lottery and remit an application fee of fifty dollars that is not refundable. A retailer shall reapply for an annual license for a site before October first of each year. The licensing fiscal year is October first through September thirtieth. An applicant may apply for a license for more than one site. A separate application is required for each site. If a retailer has more than one terminal at a site, only one license is required for the site. Approval of an applicant is within the sole discretion of the lottery. Only one retailer may have a license for a specific site.

2. If the lottery approves an applicant for licensure for a site, the applicant shall remit a license fee of five hundred dollars for the applicant's first year for that site within fourteen days of when the applicant is notified by the lottery of its pending licensure. This fee is not prorated and not refundable on or after the date the vendor surveys the site for installing a terminal or telecommunications equipment at the site. After the first year of licensure, the annual license renewal fee for the site is one hundred fifty dollars and is not prorated or refundable.

3. If a licensed alcoholic beverage establishment and an organization that is licensed under North Dakota Century Code chapter 53-06.1 to conduct a game of chance at that site both desire to apply for a license for the site, the establishment has the first privilege to apply. If the establishment does not desire to apply and the organization does desire to apply for a license, the organization shall obtain written authorization from the establishment and provide the authorization with the application. If the organization is issued a license, the establishment's authorization is valid as long as the organization is licensed to conduct a game of chance at that site.

4. A license allows a retailer to sell a ticket for all authorized games.

5. The lottery may license a retailer on a seasonal basis or temporary basis for a special event. A special event is an infrequent, significant, and identifiable activity in the community, such as a fair.

6. The lottery may issue a conditional license to an applicant, shall designate the time period for which the license is valid, and may impose any conditions related to:

   a. Determining whether an applicant or retailer is eligible for a license;

   b. Issuing a license to an applicant or retailer whose regular license has been relinquished, suspended, or revoked;

   c. Applying a minimum sales program on an applicant or retailer; or

   d. Requiring an applicant or retailer to reimburse the lottery for the lottery's net cost of installing and maintaining the terminal and telecommunications equipment at a business if the applicant or retailer does not meet or maintain a mutually agreed minimum sales program.

7. A license is a privilege and an applicant or retailer does not have a vested or legal right to the license.

8. Except as provided by subsection 5, an applicant's site must be a permanent business location.

9. The lottery may require a security deposit from an applicant or retailer.

10. If required by law, an applicant must be currently registered with the secretary of state.

11. A license may not be sold, transferred, assigned, pledged, or otherwise conveyed from a retailer to another person.

12. A retailer shall provide the lottery a thirty-day written notice of the retailer's intent to sell or otherwise transfer ownership of the retail business to another person. The acquiring person shall apply for a new license for that site if the person desires to be a retailer.

13. If a license becomes lost or destroyed, a retailer shall apply for a duplicate license and explain to the lottery what happened to the original license.

14. If the lottery denies an applicant a license, the lottery shall notify the applicant and state the reason for the denial.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-09, 53-12-10, 53-12-11, 53-12-14, 53-12-15, 53-12-16, 53-12-18

10-16-02-02. Criteria for selecting an applicant. The lottery shall consider criteria in selecting an applicant for licensure or relicensure as a retailer, including:

1. Geographic or strategic location of a business in a town, city, or community, and its location in relation to population, highways, and traffic patterns;

2. Accessibility of a business to the public and an unrestricted public access policy;

3. Regular contact with a significant number of persons and the average number of customer sales transactions per day;

4. Normal business hours and days of the week that the business is open;

5. Number of years the business has been operating at its present location;

6. Historical gross sales of nonlottery products or expected gross sales of lottery tickets of a business, or both;

7. Physical security of a business, safety of the money derived from selling a ticket, and whether the business has a video surveillance or alarm system;

8. Financial condition, financial responsibility, and creditworthiness of the business;

9. Criminal history record, character, and reputation of the applicant's agent;

10. Sufficiency of an existing retailer to serve the public convenience in an applicant's town, city, or community;

11. Anticipated or proven capability of a business to best serve the public interest by actively promoting the sale of a ticket, including displaying and providing point-of-sale promotional items to the public;

12. Initial or incremental cost of installing and maintaining a terminal and telecommunications equipment at a business or difficulty of using preferred telecommunications equipment;

13. Type of business and type of product, service, or entertainment offered at a site and whether it is acceptable to the general public, not adversely impact the credibility, reputation, or image of the lottery, and not compete with the lottery's product. An applicant's primary retail business may not be to sell a lottery ticket;

14. Type and volume of state government services available at a business, including fishing and hunting licenses;

15. Recommendations of the vendor of the lottery's system and services;

16. Accessibility of a business to a person who is disabled;

17. Type of building housing the business; and

18. Site inspection.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-09, 53-12-13, 53-12-14, 53-12-18

10-16-02-03. Record and credit checks.

1. An applicant for a license shall request the lottery to do a North Dakota record check on the applicant's agent of the business. The record check is to determine whether the person has a criminal history record that would disqualify the applicant for a license according to subdivision b of subsection 1 of North Dakota Century Code section 53-12-13. The lottery may require fingerprints of the person. After the initial licensure of an applicant, the retailer shall request the lottery to do a North Dakota record check and, if necessary, an out-of-state record check, on a new applicant's agent within thirty days of when the change occurred. The lottery may periodically do a followup record check on an applicant's agent and charge a fee.

2. If the applicant's agent resides or has resided in a state other than North Dakota during the previous five years, the lottery shall do an out-of-state record check on that person through the other state. The person shall procure any necessary fingerprint card or special authorization form, or both, which is or are required by the other state from the lottery and return the completed card or form, or both, to the lottery within ten days after receiving it or them from the lottery.

3. An applicant shall request a record check on the applicant's agent by submitting a "lottery record/credit check" form for the applicant's agent and remit a nonrefundable fee in the amount prescribed by North Dakota Century Code section 12-60-16.9 for a North Dakota record check and, if an out-of-state record check is required, remit the nonrefundable fee

that is charged by the other state, to the lottery. The applicant shall remit the fee with the license application or form. However, if the person has had a record check done within one year of when the applicant applied for a license or renewal license and provides with the application a copy of the "lottery record/credit check" or similar form and, if applicable, a copy of the bureau of criminal investigation's criminal history record information the lottery may waive the requirement for a record check on that person.

4. A person's information on a criminal record may be disseminated only according to North Dakota Century Code chapter 12-60.

5. If an applicant's agent pleads guilty to or has been found guilty of a felony or misdemeanor offense as defined by the laws of this state, another state, or the federal government, the retailer shall immediately notify the lottery. Upon notification of a felony offense to the lottery:

   a. If the applicant's agent is a general manager, the retailer shall terminate the general manager from employment;

   b. If the applicant's agent is a partner of a partnership, the retailer shall terminate the partnership agreement with the affected partner;

   c. If the applicant's agent is an officer or director who is primarily responsible for financial affairs of a corporation, the retailer shall delegate that responsibility away from the affected officer or director;

   d. If the applicant's agent is a shareholder of a corporation, the retailer shall arrange for the shareholder to sell shares of stock to reduce the stock holding to less than five percent of the common stock; or

   e. The lottery shall suspend or revoke the retailer's license or take any other appropriation action.

6. The lottery shall do a credit check on an applicant that is a sole proprietorship, partnership, or corporation through a credit-reporting company or other reliable source to determine the applicant's financial condition and whether the applicant is financially responsible and credit worthy. The lottery shall prescribe the fee for a credit check. The fee is nonrefundable. The applicant shall remit the fee with the initial license application. The lottery may periodically do a followup credit check on a retailer and charge the fee.

7. A retailer shall retain a copy of the "lottery record/credit check" form for three years from the date it submitted the form to the lottery.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-09, 53-12-13, 53-12-14, 53-12-18

10-16-02-04. Change in business location, ownership, or name.

1. If a retailer changes its business location, the lottery may reissue a license to the retailer to sell a ticket at the new business location provided:

   a. The retailer notifies the lottery, in writing, thirty days before the change is to occur and explains the reason for the change;

   b. The retailer stops operating its retail business at the old business location before it begins operating its retail business at the new business location; and

   c. The lottery determines that reissuing a license to the retailer for the new business location would best serve the public convenience.

2. If a retailer changes its business ownership, including sole proprietorship, or from a sole proprietorship to a partnership or corporation, it shall notify the lottery in writing and apply for a new license thirty days before the change is to occur.

3. If a retailer changes the name of the business, it shall notify the lottery in writing thirty days before the change is to occur.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-09, 53-12-11, 53-12-12, 53-12-13, 53-12-14, 53-12-15, 53-12-16, 53-12-18

10-16-02-05. Required training. An employee of a retailer who is responsible for and who has no previous experience operating a terminal must be trained on how to properly operate the terminal by the retailer, field representative of a vendor, or lottery before the employee may sell or redeem a ticket. The lottery or vendor shall prescribe the scope of the training. The lottery shall provide the retailer with a placard containing the relevant provisions of the law and rules for employees to read and reference.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-09, 53-12-18

10-16-02-06. Duties. A retailer shall:

1. Comply with the lottery law, rules, directive, instruction, guideline, and terms of a license agreement prescribed by the lottery;

2. Display a lottery license in an area visible, but not accessible, to the public where a ticket is sold and redeemed. A retailer shall prominently display and make available to the public point-of-sale items and post a customer display sign provided by the lottery. A retailer may advertise and use or display other appropriate promotional and point-of-sale items. On request of the lottery, a retailer shall discontinue an advertisement or promotion that the lottery determines is in noncompliance with subsections 2 and 3 of section 10-16-01-02;

3. Display a brochure on problem gambling and helpline telephone number;

4. Provide a secure operating space for a terminal and printer at a location approved by the lottery or vendor. A retailer may not move the terminal to a different location at a retail site without written authorization from the lottery. If the retailer desires to have the terminal relocated at the site, only a qualified representative of the lottery or vendor may relocate the terminal and the retailer is responsible for all associated costs;

5. Provide dedicated alternating current to a duplex electrical receptacle for lottery equipment, including a terminal. Only lottery equipment may be on the circuit. A retailer shall pay the installation cost of the receptacle and monthly costs of electricity to operate the lottery equipment. The lottery shall provide the retailer with a schematic of the required amperage, voltage, and wiring of the receptacle;

6. As requested by the lottery, have employees attend a training session sponsored by the lottery or vendor, review training material, complete a terminal-based tutorial, or notify the lottery if a new employee needs training on operating a terminal;

7. Exercise care in operating a terminal and immediately notify the vendor and lottery by telephone of a terminal malfunction, including the issuance of an invalid ticket, inability to sell or redeem a ticket, and nonissuance of a ticket. Except to clear a paper jam, the retailer may not perform mechanical or electrical maintenance on the terminal. The retailer is responsible for a loss of or damage to the terminal. Unless approved by the lottery or vendor, a retailer may not attach or adhere any stickers, decals, or advertisements on a terminal;

8. Replace ticket stock and clear a paper jam as necessary in a terminal;

9. Monitor the supply of brochures, point-of-sale items, ticket stock, and play slips and notify the lottery or vendor when an item is in short supply;

10. Actively promote and sell a ticket and redeem a winning ticket during the retailer's normal business hours on the days that the retailer is open and when a terminal is operating. If the retailer's normal business hours are earlier or later, or both, than the hours that the terminal is operating, the retailer shall post the hours during which a person may redeem a winning ticket;

11. Prohibit a person under age eighteen from buying a ticket or redeeming a winning ticket;

12. Not extend credit to a player or accept a credit card from a player for the purchase of a ticket or accept a food stamp or food coupon as consideration for a ticket. A player shall pay for a ticket when the ticket is bought from a retailer. A retailer may not loan money to or accept a postdated check from a player;

13. Maintain a level of ticket sales set by the lottery based on a minimum sales program;

14. Be financially responsible and personally liable to the lottery for money derived from the sale of a ticket, less money related to a sales commission and money paid on a redeemed winning ticket. The retailer shall allow money from the sale of a ticket that is deposited by the retailer in a bank account to be transferred to the lottery by electronic funds transfer on a weekly basis or other period prescribed by the lottery;

15. Store ticket stock and supplies for a terminal in a safe place to prevent loss, theft, or damage;

16. Prominently post the winning numbers for a draw of a game where a ticket is sold as soon as reasonably possible after the draw for the game;

17. Redeem a winning ticket and pay a prize of up to five hundred ninety-nine dollars in cash or by business check, regardless of which retailer sold the ticket. The retailer may not charge a fee for redeeming a ticket and may not refuse to redeem a winning ticket sold by another retailer;

18. File a claim for credit for a printed defective ticket as prescribed by the lottery;

19. Permit an employee or agent of the lottery who has first shown proper identification to the retailer to review the retailer's accounting records and inspect, maintain, replace, or remove lottery equipment, supplies, ticket stock, or a record from the site without prior notice during the retailer's normal hours of operation;

20. Notify the lottery in writing thirty days before the change is to occur, if there is a change of the bank account maintained for electronic funds transfer;

21. Make it convenient for the public to buy and redeem a ticket;

22. Have a copy of the lottery law and rules at the site available near the terminal for review by any person;

23. Incur the loss from theft of a ticket;

24. Defend, indemnify, and hold harmless the lottery and state of North Dakota from any claim of any nature, including all costs, expenses, and attorney's fees, that may result from or arise out of an agreement with the lottery, except for a claim that results from or arises out of the state's sole negligence; and

25. Upon revocation, relinquishment, or nonrenewal of a license, return all lottery-related equipment and supplies, including unused ticket stock, and provide a final accounting of transactions to the lottery. The retailer is liable for money still owed the lottery.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-18

10-16-02-07. Sales commission. The lottery shall credit a retailer's account for a sales commission of five percent of the retail price of a ticket sold or otherwise issued by the retailer.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-02-08. Bank account and electronic funds transfer.

1. A retailer shall maintain a bank account at a financial institution that is insured by the federal deposit insurance corporation or federal savings and loan insurance corporation, located in North Dakota, and that is capable of electronic funds transfer. This account may be a special or general account used for deposit of money derived from selling a ticket. The amount deposited must be sufficient to cover the amount due the lottery. This amount is generally computed as gross sales, less the retailer's sales commission and value of validated redeemed winning tickets. The retailer shall deposit the amount in the account within one banking day after the date of the sale by the retailer. The lottery may transfer the amount due to the lottery on a weekly basis or on demand by electronic funds transfer on a day specified by the lottery. If the day specified for the transfer is on a federal or state holiday, the transfer

will be done on the following business day. The lottery may establish a payment term with a retailer to address a situation unique to that retailer. The retailer shall hold the money derived from selling a ticket in trust and in a fiduciary capacity for the lottery. The retailer is personally liable for the money owed the lottery and may not pledge the money in the account as collateral for a loan.

2. The lottery shall notify a retailer of the amount that is to be transferred from the bank account to the lottery before the electronic funds transfer occurs. A retailer shall notify the lottery of an error or dispute of the amount twenty-four hours before the transfer occurs.

3. A retailer shall pay the amount of a nonsufficient electronic funds transfer immediately by a certified or cashier's check or money order. If a nonsufficient funds transfer is not immediately covered, the lottery may assess the retailer a monetary fine, disable the terminal until the amount is paid or the issue is resolved, or suspend or revoke the retailer's license, or take any combination of these actions. The lottery may assess the retailer a service charge for the nonsufficient funds transfer.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-07, 53-12-18

10-16-02-09. Recordkeeping. A retailer shall maintain complete and accurate records and retain them for one year related to the sale and redemption of a lottery ticket. Records must include:

1. Inventory log of the receipt and use of ticket stock;

2. Daily terminal-issued signon information reports; and

3. Weekly terminal-issued reports of electronic funds transfer transactions.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-18

10-16-02-10. Denial, suspension, or revocation of a license. The lottery may deny, suspend, or revoke a license if the applicant's agent has a disqualifying criminal history record or an applicant or retailer:

1. Obtained a license by failing to complete, failing to disclose information, or misrepresenting data on an application;

2. Violated a lottery law, rule, or term of a license agreement;

3. Failed to meet or maintain eligibility criteria for licensure;

4. Failed to file a required security deposit;

5. Changed the location of a retail business;

6. Failed to demonstrate financial responsibility or maintain a reasonable financial condition of the business, a check issued for payment of a prize on a winning ticket or an electronic funds transfer of money from a retailer's bank account to the lottery was dishonored for any reason, or is delinquent in remitting money owed to the lottery;

7. Filed for, or was involuntarily placed in, bankruptcy or receivership;

8. Acted in a manner or is involved in an activity at a site that is harmful to the public confidence in the integrity, reputation, or image of the lottery;

9. Experienced recurring theft or other negative incidents at the site that endangers the security of the lottery;

10. Failed to produce for review a record, document, or other item required by a lottery law, rule, or term of a license agreement;

11. Knowingly sold a ticket to or redeemed a winning ticket from a person under age eighteen;

12. Failed to properly redeem or pay a player the proper prize for a winning ticket;

13. Failed to actively promote sales of tickets or properly display and provided point-of-sale promotional items to the public;

14. Failed to sell a minimum number of tickets as set by the lottery and another retailer adequately serves the public convenience;

15. Owes delinquent tax, interest, or penalty to this state, exclusive of an item under formal appeal according to statute; or

16. Failed to maintain an active federal employer identification number and, if necessary, North Dakota sales tax permit number.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-09, 53-12-10, 53-12-13, 53-12-14, 53-12-18

10-16-02-11. Monetary fine. The lottery may impose a monetary fine on a retailer for failure to comply with a lottery law, rule, or term of a license agreement.

The fine for each violation is a minimum of twenty-five dollars and may be in addition to or in place of a license suspension or revocation.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-18

CHAPTER 10-16-03
CONDUCT AND PLAY

10-16-03-01. Games authorized. The lottery may conduct on-line games of POWERBALL®, including the POWERBALL® power play promotion, HOT LOTTO®, and WILD CARD 2® that are managed by the MUSL.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-04, 53-12-07, 53-12-18

10-16-03-02. Ineligible player. A ticket issued by a retailer may not be bought by, or a prize won by that ticket may not be paid to:

1. An employee, officer, or director of a vendor, other than a retailer, that provides equipment or services to the lottery related to the operation of a game;

2. An employee, officer, or director of the MUSL;

3. A consultant under agreement with the MUSL to review the MUSL audit and security procedures;

4. An employee of an independent accounting firm under license with the MUSL to observe drawings or site operations of the lottery and actually assigned to the MUSL account and all partners, shareholders, or owners in the local office of the firm;

5. A parent, stepparent, child, stepchild, spouse, or sibling who resides in the same household of a person described in subsection 1, 2, 3, or 4; or

6. A minor.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-18, 53-12-25

10-16-03-03. Play slip. A play slip for a game must contain information on:

1. How to play the game;
2. How to complete a play slip;
3. How to win, including the probability of winning a prize of each prize tier;
4. How to claim a prize; and
5. General rules, including:
   a. Name of a game;
   b. Ticket price;
   c. Prize structure; and
   d. Drawing day and deadline for claiming a winning ticket.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-03-04. Multiple draw.

1. A player may buy a ticket for the next draw and for a number of subsequent draws as prescribed by the lottery. The player shall designate the number of multiple draws desired by marking that numbered multidraw box on a play slip. The additional draw for which the ticket is valid must be printed on the player's ticket.
2. A player shall pay the standard price per play for each additional draw.
3. Unless one of the multidraw boxes on a play slip is marked and the additional amount paid, the play will only be eligible for the next draw.
4. A player shall play the same numbers selected on a game board for multiple draws.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-03-05. Sale or gift of a ticket.

1. Only a retailer may sell a ticket and only at the site listed on a license. The sales price of a ticket is exempt from sales tax. A complete sales transaction between the retailer and a player must occur at a terminal, including the exchange of money, exchange of a play slip if the player uses it, and exchange of the ticket. The retailer shall accept cash and may, at its option, accept a check or debit card from a player. The retailer may not extend credit to a player or accept a food stamp or food coupon as consideration for a ticket. A player shall pay for a ticket when the ticket is bought from a retailer. A retailer may not loan money to a player or accept a postdated check from the player. A retailer is responsible for a check that is not collectible for any reason. This subsection does not prevent a person who may lawfully buy a ticket from giving a gift of the ticket to another person, except to a person under age eighteen or an ineligible player according to section 10-16-03-02.

2. A person may buy a ticket on behalf of another person or group of people, provided that the person provides the ticket on a nonprofit basis and the other person is not, or the group of people does not include, a person under age eighteen or an ineligible player according to section 10-16-03-02.

3. A player shall place a play through a retailer who acts as an agent for the player in entering the play. The player shall place a play by using and hand-marking a play slip provided by the retailer or requesting the retailer to place a quick pick. However, the retailer may assist and train a player how to complete a play slip. It is the sole responsibility of the player to verify the accuracy of a game play and other data printed on a ticket. The retailer may not use a copy of a play slip or other material in a terminal's play slip reader or permit any device to be connected to a terminal to enter a play.

4. A retailer shall issue a ticket containing the selected sets of numbers and, for WILD CARD 2®, the card symbol, each set of which is a play. A retailer's sale of a ticket is final. A player may not void or cancel a ticket by returning the ticket to the retailer and the retailer may not buy back a ticket from a player. If data printed on a ticket is incorrect, a ticket is printed in error, an employee, volunteer, or agent of a retailer steals a ticket from the retailer, or if any other issued ticket can be used to claim a prize, the retailer cannot void or cancel the ticket or return the ticket to the lottery for credit. If the retailer cannot sell the ticket, the retailer owns the ticket and may redeem a winning ticket. However, the lottery may credit a retailer's account for a ticket that is illegible, mutilated, or otherwise defective as it was printed and that because of its physical condition cannot be sold. A retailer shall comply with guidelines prescribed by the lottery related to the frequency or other criteria for sending claims for credit of defective tickets to the lottery.

The retailer may not send a defective ticket to the lottery until after the draw for the game for which the ticket was issued.

5. A retailer shall sell a ticket only for the standard price of the ticket as set by the MUSL. However, the lottery may authorize a promotion for a period not to exceed ninety days in any six-month period that allows a retailer to offer a ticket for sale through a discount or other promotion provided that the retailer accounts for the standard price of the ticket to the lottery. A retailer is not prohibited from buying a ticket for the standard price of the ticket and offering it, at no charge, to a person.

6. A person who buys or accepts a ticket, attempts to redeem a ticket for a prize, or otherwise participates in a draw agrees to comply with and abide by the lottery law, rules, procedures, policy, game rules, and decision of the lottery.

7. A person who buys or accepts a ticket, attempts to redeem a ticket for a prize, or otherwise participates in a draw agrees to accept the decision of the lottery regarding the validity of the ticket, and any prize payment determinations relating to that ticket, and to release the state, lottery, the MUSL, the MUSL's product groups, and their officers, employees, agents, representatives, and contractors from any liability regarding that ticket or payment of that prize and are not responsible or liable for:

   a. A lost or stolen ticket or incorrectly read play slip; or

   b. Paying a prize related to a damaged, destroyed, erroneous, illegible, or mutilated ticket.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-12, 53-12-18, 53-12-22, 53-12-23, 53-12-24, 53-12-25, 57-39.2-04

10-16-03-06. Ownership of a ticket.

1. Until a person places a signature in the designated area on the back of a ticket, the person who is the ticket holder is the owner of the ticket. When a signature is placed in the designated area on the back of a ticket, the person whose signature is shown is the owner of the ticket and entitled to a prize, subject to validation, regardless of who redeems or attempts to redeem the ticket.

2. The lottery is not liable for nor has a responsibility to resolve a conflict between competing claimants or joint owners of a ticket or prize. The lottery may, at its discretion, address or resolve a conflict on a ticket.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-18, 53-12-26

10-16-03-07. Validation of a ticket.

1. A retailer shall validate a ticket before the retailer may pay a prize on the ticket. A retailer that pays a player a prize without first validating the ticket assumes the financial risk that the ticket is not an actual winning ticket or the ticket was previously redeemed. The lottery may not reimburse a retailer for a prize paid in error by the retailer. A ticket that does not pass validation is invalid and ineligible for a prize. A ticket is the only proof of a game play and submitting a winning ticket to the retailer or lottery is the only method of claiming a prize. A play slip has no monetary or prize value and is not evidence of a ticket bought or of numbers selected for a draw. A ticket must have been bought from a North Dakota retailer and meet all of these validation requirements:

   a. A retailer must have issued the ticket in an authorized manner;

   b. The play, including the combination of numbers selected by a player or quick picked, evidenced by the ticket, must reach and be accepted and recorded by the lottery's on-line gaming system before the cutoff time for a draw. The draw for a game is held each Wednesday and Saturday or other days as determined by the MUSL or lottery. Even if a player intends for a retailer to enter the player's play before the cutoff time for the present draw, the play is only eligible for the draw that is printed on the ticket;

   c. The ticket must not have been previously paid or voided by the lottery;

   d. The ticket must not have been stolen, or be counterfeit, altered, mutilated, reconstructed, unreadable, illegible, irregular, partly blank, incomplete, defective, or an exact duplicate of another winning ticket. The product group, the MUSL, and lottery are not responsible for a ticket that is altered in any manner;

   e. A ticket is void unless the ticket is printed on a paper stock roll that was validly issued to and used by the retailer that sold the ticket;

   f. The ticket validation number must be legible, intact, presented in its entirety, and correspond, based on the lottery's computer validation file, exactly to the date and selected numbers printed on the apparent winning ticket that was sold at a specific site;

g. The ticket may not be marked in any way, except by a player to place a signature on the back side of the ticket to claim a prize or by a retailer to deface or void the ticket after it was redeemed, with the intent to commit fraud;

h. If the prize on a winning ticket is six hundred dollars or more, the ticket must pass a confidential security check by the lottery;

i. Upon request by the lottery, a claimant of an apparent winning ticket shall disclose to the lottery the name of the retailer from whom the claimant bought the ticket, date of purchase, and approximate time; and

j. A validation requirement adopted by the MUSL product group or board.

2. After a retailer validates a winning ticket, the retailer shall pay the player the prize value and deface or tear up the ticket and discard it. After a retailer validates a nonwinning ticket, the retailer shall return the nonwinning ticket to the player. The player may discard a nonwinning ticket.

3. The lottery shall credit a retailer's account for a prize actually paid by the retailer on a validated redeemed winning ticket.

4. The lottery's determination on a contested validation is final.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-18, 53-12-20, 53-12-22, 53-12-23, 53-12-26

10-16-03-08. Claim of a prize. A prize for a validated winning ticket must be claimed as follows:

1. No prize may be awarded nor is the lottery liable for a ticket not submitted for validation or for an announcement or dissemination by the lottery or any other person of an incorrect number drawn.

2. A ticket bought or used to claim a prize in violation of federal or state law, or bought in violation of the lottery law or rules, is void and may not be used to claim a prize.

3. A ticket must be redeemed for a prize within one hundred eighty days after the date of a draw for the game for which the ticket was issued. If the final day of the claim period is a Saturday, Sunday, or state holiday, the claim period is extended to the next business day. Except for the grand prize of a game, an unclaimed prize is forfeited and retained by

the lottery. If the grand prize is unclaimed, the MUSL shall administer the prize money.

4. A person who owns or redeems a winning ticket:

   a. Agrees to be bound by the lottery law, rules, procedure, policy, validation requirements, dispute resolution, and game rules related to the game for which the ticket was issued; and

   b. Agrees that the state, lottery, other state lottery that may share resources with or provide services to the lottery, the MUSL, its product groups, and their officers, employees, agents, representatives, and contractor are discharged from any liability upon payment of a prize on a ticket.

5. The owner of a winning ticket may win only one prize per ticket for the winning numbers drawn and is entitled only to the prize won by those numbers in the highest matching prize category.

6. A retailer may redeem a ticket only at the business address listed on the license. The retailer may pay a prize in cash or by business check, certified or cashier's check, money order, or combination of methods.

7. A person may redeem a winning ticket for a prize only during the normal business hours of a retailer provided that the lottery's on-line computer system is operating and a ticket may be validated. If the retailer is normally open for business before or after the hours when the lottery's on-line computer system operates, the retailer shall post the hours at the site when a person may redeem a ticket.

8. To claim a prize for an apparent winning ticket of less than six hundred dollars, a player may:

   a. Present the ticket to a retailer, regardless of which retailer sold the ticket; or

   b. Complete the back side of the ticket by entering the person's full name and address and signing the ticket, and present or mail the ticket to the lottery's office.

9. If a ticket has a prize value of less than six hundred dollars, is owned by one person, and is presented to a retailer, the retailer may pay the prize to the person who physically possesses an unsigned ticket or to the person whose signature is shown on the ticket. If a person desires to redeem a winning ticket that is signed, the retailer shall request evidential proof of identity from the player before the retailer may validate or pay the prize. If the player does not provide proof of identity, the retailer may not validate the ticket or pay the player a prize and shall return the ticket to the player. For an unsigned ticket or a signed

ticket in which the ticket holder is the identified owner, the retailer shall validate the ticket and, for a winning ticket, pay the prize to the player. If the retailer is unable to validate a ticket, the retailer shall provide the ticket holder with a prize claim form and instruct the ticket holder how to file a claim with the lottery.

10. If an apparent winning ticket has a prize value of six hundred dollars or more and one person signed or claims ownership of the ticket, a retailer shall provide the ticket holder with a prize claim form and instruct the ticket holder how to file a claim with the lottery. The ticket holder shall complete and sign the form and back side of the ticket and present or mail the form and ticket to the lottery. For a validated winning ticket, the lottery shall present or mail a check to the player for the amount of the prize, less withholding of income tax required by federal or state law and any debt setoff according to section 10-16-01-03, unless the payment is delayed according to section 10-16-03-12. The lottery shall pay the prize to the person whose name is on the ticket, notwithstanding the name on the claim form. For a nonwinning ticket, the lottery shall deny the claim, notify the claimant, and retain the ticket.

11. If more than one person signed or claims ownership of an apparent winning ticket, the retailer shall provide the claimant with a prize claim form and instruct the claimant how to file a claim with the lottery, as follows:

    a. Each person who claims part ownership of the ticket must complete and sign the prize claim form and designate the person's percentage of ownership and, if subdivision d applies, the one authorized payee;

    b. At least one of the people who claim ownership must sign the ticket and that signature must be on the prize claim form;

    c. The prize claim form and ticket must be presented or mailed to the lottery;

    d. For a validated ticket, if the amount of the prize allocated to each claimant is six hundred dollars or more, the lottery shall present or mail a separate prize check to each claimant. The lottery shall present or mail a check to each claimant for the amount of each player's prize, less withholding of income tax required by federal or state law and any debt setoff according to section 10-16-01-03, unless the payment is delayed according to section 10-16-03-12. If the prize allocated to each claimant is less than six hundred dollars, the lottery shall issue a single prize check to the person designated and authorized on the prize claim form to receive payment of the prize on behalf of all the claimants; and

e. Notwithstanding subdivision d, if the claimants desire to designate one person in whose name the entire claim may be made and list the persons to whom the winnings are taxable, the claimants may file, along with a claim prize form, internal revenue service form 5754 (statement by person(s) receiving gambling winnings) with the lottery.

12. The lottery shall pay a prize to a player within a reasonable time after the player's winning ticket is validated by the lottery.

13. If two or more tickets win the grand prize, the prize money must be divided equally among the players whose tickets won. Except as provided by rule, for a low-tier prize, each player wins the set amount of a prize regardless of whether two or more players have winning tickets for the prize.

14. The lottery is not liable for a ticket not delivered to the correct address of the lottery or a delay in delivery of a ticket or damage to a ticket while being delivered to the lottery.

15. A player who redeems a winning ticket is solely responsible for any federal or state income tax liability related to the prize.

16. A person's right to a prize is assignable and payment of a prize may be made to a person pursuant to an appropriate judicial order.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-02, 53-12-04, 53-12-18, 53-12-20, 53-12-26

10-16-03-09. Payment of a prize to a person's estate. If a winning player dies during the annuity payment period of a prize that is paid on an annuitized basis, the MUSL product group, in its sole discretion, upon the petition of the estate of the deceased player to the lottery, and subject to federal and state laws, may accelerate the payment of all of the remaining lottery proceeds to the estate. The lottery may rely solely on a certified copy of a court's appointment of a personal representative or other evidence that a certain person is entitled to the payment of the remaining prize. If the product group approves the petition, then securities, cash, or both securities and cash held for the deceased player that represents the present value of that portion of a future lottery payment to be accelerated may be distributed to the estate. The identification of the security to fund the annuitized prize and responsibility for valuing the security and determining the present value of an accelerated lottery payment are at the sole discretion of the product group. Payment to the estate of the prize of the deceased owner releases the MUSL product group, lottery, and state of any additional liability for the prize.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18, 53-12-26

10-16-03-10. Counterfeit or theft of a ticket.

1. A person may not make, alter, pass, counterfeit, or present, with intent to defraud, a ticket to a retailer or lottery.

2. A person may not steal a ticket or knowingly possess, redeem, or attempt to redeem a stolen ticket.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18, 53-12-22

10-16-03-11. Remedy for a defective ticket and dispute resolution.

1. If a claimant and the lottery disagree on whether a ticket is a winning ticket and the lottery determines that the ticket is not valid and does not pay the prize, the lottery may replace the disputed ticket with a ticket for the next draw of the same game or refund the cost of the ticket. If a person buys a ticket that is defective, the only responsibility or liability of a retailer, vendor, or lottery is to replace the defective ticket with a ticket for the next draw of the same game or refund the cost of the ticket. This is the only remedy of the claimant.

2. The lottery shall resolve a dispute regarding the operation of the lottery, validity of a ticket, or payment of a prize, and the lottery's decision and judgment is final and binding on a participant in the lottery.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18, 53-12-20, 53-12-26

10-16-03-12. Delay of paying a prize. The lottery may delay paying a prize to a player to review a change in a circumstance related to the award of a prize, payee, claim, or other item that the lottery has become aware of, including if:

1. A dispute occurs or appears that a dispute may occur related to a prize;

2. The identity of a claimant is questionable;

3. The validity of a ticket presented as a claim is questionable; or

4. A claim for a prize is subject to a debt setoff according to section 10-16-01-03 or North Dakota Century Code section 53-12-30.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18, 53-12-20, 53-12-26, 53-12-29, 53-12-30, 53-12-31, 53-12-33, 53-12-34

CHAPTER 10-16-04
POWERBALL® GAME

10-16-04-01. Game description. To play POWERBALL®, a player selects five different numbers, between one and fifty-three, and one additional number between one and forty-two. The additional number may be the same as one of the first five numbers selected. The price of a ticket is one dollar. A grand prize is paid, at the election of a winning player or by a default election made according to these rules, either on an annuitized parimutuel basis or as a cash lump sum payment of the total cash held for the prize pool on a parimutuel basis. A low-tier prize is paid on a single-payment cash set prize basis.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-04-02. Expected prize payout percentages. A grand prize must be determined on a parimutuel basis. Except as provided by rule, a low-tier prize must be paid as a set prize with these expected prize payout percentages:

Matches Per Play	Prize	Prize Pool Percentage Allocated to Prize
All 5 of first set plus 1 of second set	Grand Prize	65.3378%*
All 5 of first set and none of second set	$100,000	6.8035%
Any 4 of first set plus 1 of second set	$5,000	1.9913%
Any 4 of first set and none of second set	$100	1.6328%
Any 3 of first set plus 1 of second set	$100	1.8718%
Any 3 of first set and none of second set	$7	5.3720%
Any 2 of first set plus 1 of second set	$7	2.0090%
Any 1 of first set plus 1 of second set	$4	6.4577%
None of first set plus 1 of second set	$3	8.5241%

*When the grand prize reaches a new high level, the prize pool percentage allocated to the grand prize must be reduced to the percentage needed to fund the maximum grand prize increase as determined by the MUSL product group, with the remainder funding the match 5 bonus prize category. The match 5 bonus prize does not include the original amount declared for the match 5 bonus prize.

1. The prize money allocated to the grand prize category must be divided equally by the number of tickets that win the grand prize.

2. The prize pool percentage allocated to the set prizes, cash prizes of one hundred thousand dollars or less, must be carried forward to a subsequent draw if all or a portion of it is not needed to pay the set prizes awarded in the current draw. If the total of the set prizes awarded in a draw exceeds the percentage of the prize pool allocated to the set prizes, then the amount needed to fund the set prizes awarded must be drawn from these sources, in this order:

   a. The amount allocated to the set prizes and carried forward from previous draws, if any.

   b. An amount from the product group's set prize reserve account, if available, not to exceed twenty-five million dollars per draw.

   If, after these sources are depleted, there are not sufficient funds to pay the set prizes awarded, the highest set prize must become a parimutuel prize. If the amount of the highest set prize, when paid on a parimutuel basis, drops to or below the next highest set prize and there are still not sufficient funds to pay the remaining set prizes awarded, the next highest set prize must become a parimutuel prize. This procedure must continue down through all set prize levels, if necessary, until all set prize levels become parimutuel prize levels. In that instance, the money available from the funding sources listed by this rule must be divided among the winning plays in proportion to their respective prize percentages.

3. The prize money allocated to the match 5 bonus prize must be divided equally by the number of tickets that win the match 5 prize when a ticket wins the new high jackpot amount.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-04-03. Probability of winning. The following table reflects the probability of winning, rounded to whole numbers, and probable distribution of winning tickets in and among each prize category, based on the total number of possible combinations:

	Probability Distribution		Probable/Set
Matches Per Ticket	Winners	Probability	Prize Amount
All 5 of first set plus 1 of second set	1	1:120,526,770	$78,749,793
All 5 of first set and none of second set	41	1:2,939,677	$100,000
Any 4 of first set plus 1 of second set	240	1:502,195	$5,000

Any 4 of first set and none of second set	9,840	1:12,249	$100
Any 3 of first set plus 1 of second set	11,280	1:10,685	$100
Any 3 of first set and none of second set	462,480	1:261	$7
Any 2 of first set plus 1 of second set	172,960	1:697	$7
Any 1 of first set plus 1 of second set	972,900	1:124	$4
None of first set plus 1 of second set	1,712,304	1:70	$3
Overall probability of winning a prize	3,342,046	1:36	

The grand prize amount is estimated using a thirty-payment (thirty payments over twenty-nine years) deferred payment factor of 2.0. The amount does not include the prize reserve account deduction or any other deductions, if any.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-04-04. Prize pool.

1. The prize pool for all prize categories must consist of fifty percent of each draw period's sales after the prize reserve account is funded to the amount set by the product group. Any amount remaining in the prize pool at the end of a game must be carried forward to a replacement game or expended in a manner as directed by the product group according to the lottery law.

2. Up to two percent of the lottery's sales must be deducted from the lottery's grand prize pool and placed in trust in a prize reserve account until the lottery's share of the prize reserve account reaches the amounts designated by the product group. When the lottery's share of the prize reserve account exceeds the designated amounts, the excess shall become part of the grand prize pool. The product group, with approval of the MUSL finance and audit committee, may establish a maximum balance for the prize reserve account. The product group may expend all or a portion of the funds in the account to pay prizes or special prizes in the game. The shares of the lottery may be adjusted with a refund to the lottery from the prize reserve account as may be needed to maintain the approved minimum balance and shares of the lottery. Any amount remaining in a prize reserve account at the end of the game must be carried forward to a replacement prize reserve account or expended in a manner as directed by the product group according to the lottery law.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-04-05. Prize payment.

1. A grand prize must be paid, at the election of the winning player made within sixty days after the winning player becomes entitled to the prize, with either a per winning player annuity or cash payment. If the payment election is not made when there is a purchase and is not made by the winning player within sixty days after the winning player becomes entitled to the prize, then the prize must be paid as an annuity prize. An election for an annuity payment made by a winning player before a ticket is bought or by system default or design may be changed to a cash payment at the election of the winning player until the expiration of sixty days after the winning player becomes entitled to the prize. The election to take the cash payment may be made when there is a prize claim or within sixty days after the winning player becomes entitled to the prize. An election made after the winning player becomes entitled to the prize is final and cannot be revoked, withdrawn, or otherwise changed. Shares of the grand prize must be determined by dividing the cash available in the grand prize pool equally among all winning players of the grand prize. A winning player who elects a cash payment must be paid the share in a single cash payment. The annuitized option prize must be determined by multiplying a winning player's share of the grand prize pool by the MUSL annuity factor. Neither the MUSL nor the lottery is responsible or liable for changes in the advertised or estimated annuity prize amount and the actual amount purchased after the prize payment method is actually known to the MUSL. In certain instances announced by the product group, the grand prize must be a guaranteed amount and must be determined pursuant to subsection 5. If individual shares of the cash held to fund an annuity are less than two hundred fifty thousand dollars, the product group, in its sole discretion, may elect to pay the winning player the share of the cash held in the grand prize pool. An annuitized prize must be paid annually in thirty equal payments with the initial payment being made in cash, to be followed by twenty-nine payments funded by the annuity. Annual payments after the initial payment must be made by the lottery on the anniversary date or if this date falls on a nonbusiness day, then the first business day following the anniversary date of the selection of the jackpot winning numbers. Funds for the initial payment of an annuitized prize or the lump sum cash prize must be made available by the MUSL for payment by the lottery no earlier than the fifteenth calendar day, or the next banking day if the fifteenth day is a holiday, following the draw. If necessary, when the due date for the payment of a prize occurs before the receipt of funds in the prize pool trust sufficient to pay the prize, the transfer of funds for the payment of the full lump sum cash amount may be delayed pending receipt of funds from the party lotteries. The lottery may make the initial payment from its own funds after validation, with notice to the MUSL.

2. The lottery shall pay a low-tier cash prize for a draw after it receives authorization from the MUSL.

3. An annuitized payment of the grand prize or a share of the grand prize may be rounded to facilitate the purchase of an appropriate funding mechanism. Breakage on an annuitized grand prize win must be added to the first cash payment to the winning player. A low-tier prize that under these rules may become a single-payment parimutuel prize may be rounded down so that the prize can be paid in multiples of whole dollars. Breakage that results from rounding the prize must be carried forward to the prize pool for the next draw.

4. If the grand prize is not won in a draw, subject to any restrictions by the product group, the prize money allocated for the grand prize must roll over and be added to the grand prize pool for the next draw. For POWERBALL®, if a new high grand prize is not won in a draw, the prize money allocated for the match 5 bonus prizes must roll over and be added to the match 5 bonus prize pool for the next draw.

5. The product group may offer a guaranteed minimum grand prize amount or minimum increase in the grand prize amount between draws or make other changes in the allocation of prize money when the product group determines that it would be in the best interest of the game. If the product group offers a minimum grand prize amount or a minimum increase in the grand prize amount between draws, the grand prize shares must be determined as follows. If there are multiple grand prize winning players during a single drawing, each selecting the annuitized option prize, then a winning player's share of the guaranteed annuitized grand prize must be determined by dividing the guaranteed annuitized grand prize by the number of winning players.

6. When the grand prize reaches a new high annuitized amount, through a procedure determined by the product group, the maximum amount to be allocated to the grand prize pool from the grand prize percentage must be the previous high annuitized amount plus twenty-five million dollars (annuitized) or an amount otherwise set by the group. Any amount of the grand prize percentage that exceeds the twenty-five million dollar (annuitized) increase must be added to the match 5 bonus prize pool. The match 5 bonus prize pool is created, and must accumulate until the grand prize is won, at which time the match 5 bonus prize pool must be divided equally by the number of tickets that win the match 5 prize. If there is no match 5 winning ticket on the draw when the new high grand prize is won, the match 5 bonus prize pool must be divided equally by the number of tickets that win the match 4+1 prize.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-04-06. POWERBALL® power play promotion.

1. The POWERBALL® power play promotion is a limited extension of the POWERBALL® game and is conducted according to the POWERBALL® game rules and other applicable rules. The promotion will be conducted at the discretion of the lottery. The promotion offers to the owner of a qualifying play a chance to multiply the amount of any of the eight lump sum set prizes. The lump sum prize normally pays three dollars to one hundred thousand dollars won in a draw. The grand prize is not a set prize and cannot be multiplied. A match 5 bonus prize is awarded independent of the power play option and is not multiplied by the power play multiplier.

2. A qualifying play is a single POWERBALL® play for which the player pays an extra one dollar for the power play option play and which is recorded at the lottery's on-line central computer as a qualifying play.

3. A qualifying play which wins one of the eight lump sum set prizes will be multiplied by the number selected, two through five, in a separate random power play drawing announced during the official POWERBALL® draw show.

4. The MUSL shall conduct a separate random "power play" drawing and announce results during each regular POWERBALL® draw held during the promotion. During a POWERBALL® draw, a single number from a series of fifteen numbers is selected. The numbers available for selection are "2", "2", "2", "3", "3", "3", "4", "4", "4", "5", "5", "5", "5", "5", and "5".

5. Except as provided by rule, a prize awarded must be paid as a lump sum set prize. Instead of the POWERBALL® set prize amount, qualifying power play plays will pay the amounts shown below when matched with the power play number drawn:

		POWERBALL® Pays Instead			
	Prize Amount	5X	4X	3X	2X
Match 5+0	$100,000	$500,000	$400,000	$300,000	$200,000
Match 4+1	$5,000	$25,000	$20,000	$15,000	$10,000
Match 4+0	$100	$500	$400	$300	$200
Match 3+1	$100	$500	$400	$300	$200
Match 3+0	$7	$35	$28	$21	$14
Match 2+1	$7	$35	$28	$21	$14
Match 1+1	$4	$20	$16	$12	$8
Match 0+1	$3	$15	$12	$9	$6

Rarely, a POWERBALL® set prize amount may be less than the amount shown. In that case, a power play prize will be a multiple of the new POWERBALL® prize amount. For example, if the match 5 POWERBALL® set prize amount of one hundred thousand dollars becomes twenty-five thousand fifty dollars under rules of the POWERBALL® game, then a power play player winning that prize amount when a "5" has been drawn would win one hundred twenty-five thousand two hundred fifty dollars ($25,050 x 5).

6. The following table reflects the probability of various power play numbers being drawn during a POWERBALL® drawing:

Power Play	Probability of Prize Increase
5X - Prize won times 5	1 in 2.5
4X - Prize won times 4	1 in 5
3X - Prize won times 3	1 in 5
2X - Prize won times 2	1 in 5

Power play does not apply to the POWERBALL® grand prize or a match 5 bonus prize.

7. The lottery shall pay a power play prize in one lump sum. The lottery may not pay a power play prize until it receives authorization from the MUSL.

8. A prize that, under these rules, may become a parimutuel prize may be rounded down so that a prize can be paid in multiples of whole dollars. Breakage that results from rounding the prize must be carried forward to the prize pool for the next draw.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

CHAPTER 10-16-05
HOT LOTTO® GAME

10-16-05-01. Game description. To play HOT LOTTO®, a player selects five different numbers, between one and thirty-nine, and one additional number between one and nineteen. The additional number may be the same as one of the first five numbers selected. The price of a ticket is one dollar. A grand prize is paid, at the election of a winning player or by a default election made according to these rules, either on an annuitized parimutuel basis or as a cash lump sum payment of the total cash held for the prize pool on a parimutuel basis. Except as provided by rule, a low-tier prize is paid on a single-payment cash set prize basis.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-05-02. Expected prize payout percentages. A grand prize must be determined on a parimutuel basis. Except as provided by rule, a low-tier prize must be paid as a set prize with these expected prize payout percentages:

Matches Per Play	Prize	Prize Pool Percentage Allocated to Prize
All 5 of first set plus 1 of second set	Grand Prize	52.5763%
All 5 of first set and none of second set	$10,000	3.2909%
Any 4 of first set plus 1 of second set	$500	1.5540%
Any 4 of first set and none of second set	$50	2.7972%
Any 3 of first set plus 1 of second set	$50	5.1283%
Any 3 of first set and none of second set	$4	7.3847%
Any 2 of first set plus 1 of second set	$4	4.3761%
Any 1 of first set plus 1 of second set	$3	12.7181%
None of first set plus 1 of second set	$2	10.1745%

1. The prize money allocated to the grand prize pool must be divided equally by the number of tickets that win the grand prize.

2. The prize pool percentage allocated to a set prize, cash prizes of ten thousand dollars or less, must be carried forward to a subsequent draw if all or a portion of it is not needed to pay the set prizes awarded in the

current draw. If the total of the set prizes awarded in a draw exceeds the percentage of the prize pool allocated to the set prizes, then the amount needed to fund the set prizes awarded must be drawn from these sources, in this order:

a. The amount allocated to the set prizes and carried forward from previous draws, if any.

b. An amount from the product group's set prize reserve account, if available, not to exceed the balance of that account.

If, after these sources are depleted, there are not sufficient funds to pay the set prizes awarded, the highest set prize must become a parimutuel prize. If the amount of the highest set prize, when paid on a parimutuel basis, drops to or below the next highest set prize and there are still not sufficient funds to pay the remaining set prizes awarded, the next highest set prize must become a parimutuel prize. This procedure must continue down through all set prize levels, if necessary, until all set prize levels become parimutuel prize levels. In that instance, the money available from the funding sources listed by this rule must be divided among the winning plays in proportion to their respective prize percentages.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-05-03. Probability of winning. The following table reflects the probability of winning, rounded to whole numbers, and probable distribution of winning tickets in and among each prize category, based on the total number of possible combinations:

Matches Per Play	Probability Distribution	Probable/Set Prize Amount
All 5 of first set plus 1 of second set	1:10,939,383	$5,176,367*
All 5 of first set and none of second set	1:607,744	$10,000
Any 4 of first set plus 1 of second set	1:64,349	$500
Any 4 of first set and none of second set	1:3,575	$50
Any 3 of first set plus 1 of second set	1:1,950	$50
Any 3 of first set and none of second set	1:108	$4
Any 2 of first set plus 1 of second set	1:183	$4
Any 1 of first set plus 1 of second set	1:47	$3
None of first set plus 1 of second set	1:39	$2
Overall probability of winning a prize	1:16	

*The grand prize amount is estimated using a twenty-five year deferred payment factor of 1.8. This factor is a variable dependent upon market conditions as determined by the MUSL. The amount does not include the prize reserve account deduction or any other deductions, if any.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-05-04. Prize pool.

1. The prize pool for all prize categories must consist of fifty percent of each draw period's sales after the prize reserve account is funded to the amount set by the product group. Any amount remaining in the prize pool at the end of the game must be carried forward to a replacement game or expended in a manner as directed by the product group according to the lottery law.

2. Up to one percent of sales must be deducted from the lottery's grand prize pool and placed in trust in a prize reserve account when the annuitized grand prize exceeds two million dollars. An additional two percent of the lottery's sales must be deducted from the lottery's grand prize pool and placed in trust in a prize reserve account when the annuitized grand prize exceeds five million dollars, until the lottery's share of the prize reserve account reaches the amounts designated by the product group. When the lottery's share of the prize reserve account exceeds the designated amounts, the excess must become part of the grand prize pool. The product group, with approval of the MUSL finance and audit committee, may establish a maximum balance for the prize reserve account. The shares of the lottery may be adjusted with a refund to the lottery from the prize reserve account as may be needed to maintain the approved maximum balance and shares of the lottery. Any amount remaining in a prize reserve account at the end of the game must be carried forward to a replacement prize reserve account or expended in a manner as directed by the product group according to the lottery law.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-05-05. Prize payment. The payment of a grand prize must be made according to section 10-16-04-05 with respect to HOT LOTTO®. However, an annuitized prize must be paid annually in twenty-five equal payments with the initial

payment being made in cash, to be followed by twenty-four payments funded by the annuity.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

CHAPTER 10-16-06
WILD CARD 2® GAME

10-16-06-01. Game description. To play WILD CARD 2®, a player selects five different numbers, between one and thirty-one, and one out of sixteen card symbols selected from the jack, queen, king, or ace of any suit. The player selects two plays for a minimum price of one dollar. A grand prize is paid on a single-payment cash parimutuel basis and a low-tier prize is paid on a single-payment cash set prize basis.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-06-02. Expected prize payout percentages. A grand prize must be determined on a parimutuel basis. Except as provided by rule, a low-tier prize must be paid as a set prize with these expected prize payout percentages:

Matches Per Play	Prize	Prize Pool Percentage Allocated to Prize
All 5 of first set plus wild card	Grand Prize	36.2485%
All 5 of first set and no wild card	$5,000	10.4105%
Any 4 of first set plus wild card	$500	9.0224%
Any 4 of first set and no wild card	$20	5.4134%
Any 3 of first set plus wild card	$5	2.2557%
Any 3 of first set and no wild card	$2	13.5338%
Any 2 of first set plus wild card	$1	3.6091%
Any 1 of first set plus wild card	$1	10.3758%
None of first set plus wild card	$1	9.1308%

1. The prize money allocated to the grand prize pool must be divided equally by the number of tickets that win the grand prize.

2. The prize pool percentage allocated to a set prize, cash prize of five thousand dollars or less, must be carried forward to a subsequent draw if all or a portion of it is not needed to pay the set prizes awarded in the current draw. If the total of the set prizes awarded in a draw exceeds the percentage of the prize pool allocated to the set prizes, then the

amount needed to fund the set prizes awarded must be drawn from these sources, in this order:

a. The amount allocated to the set prizes and carried forward from previous draws, if any.

b. An amount from the product group's set prize reserve account, if available, not to exceed the balance of that account.

If, after these sources are depleted, there are not sufficient funds to pay the set prizes awarded, the highest set prize must become a parimutuel prize. If the amount of the highest set prize, when paid on a parimutuel basis, drops to or below the next highest set prize and there are still not sufficient funds to pay the remaining set prizes awarded, the next highest set prize must become a parimutuel prize. This procedure must continue down through all set prize levels, if necessary, until all set prize levels become parimutuel prize levels. In that instance, the money available from the funding sources listed by this rule must be divided among the winning plays in proportion to their respective prize percentages. A cash prize level must have a minimum prize payout of one dollar.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-06-03. Probability of winning. The following table reflects the probability of winning, rounded to whole numbers, and probable distribution of winning tickets in and among each prize category, based on the total number of possible combinations:

			And Match the Wild Card	
Matches Per Play	Prize	Probability	Prize	Probability
Match 5	$5,000	1:90,619	Grand Prize	1:1,359,288
Match 4	$20	1:697	$500	1:10,456
Match 3	$2	1:28	$5	1:418
Match 0, 1, 2	-	-	$1	1:8
Overall probability of winning a prize				1:6

The grand prize amount excludes the prize reserve account deduction or other deductions, if any.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-06-04. Prize pool.

1. The prize pool for all prize categories must consist of fifty percent of each draw period's sales after the prize reserve account is funded to the amount set by the product group. Any amount remaining in the prize pool at the end of the game must be carried forward to a replacement game or expended in a manner as directed by the product group according to the lottery law.

2. Two percent of sales must be deducted from the prize pool and placed in trust in a prize reserve account until the account reaches the amount designated by the product group. When the account exceeds the designated amount, the excess must become part of the prize pool. Any amount remaining in the account must be expended in a manner as directed by the product group according to the lottery law.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

10-16-06-05. Prize payment.

1. A grand prize must be paid in cash in a single payment. The lottery may not pay the grand prize until the first working day after the fourteenth calendar day following a draw.

2. A prize that according to these rules may become a single-payment parimutuel prize may be rounded down so that the prize can be paid in a multiple of whole dollars. Breakage that results from rounding the prize must be carried forward to the prize pool for the next draw.

3. The product group may offer a guaranteed minimum grand prize amount or a minimum increase in the grand prize amount between draws or make other changes in the allocation of prize money when it is in the best interest of the game. A change in the allocation of prize money must be designed to retain approximately the same prize allocation percentages, over one year's time, set out in the rules. A minimum guaranteed prize or increase may be waived if the alternate funding mechanism prescribed by subsection 2 of section 10-16-06-02 is necessary.

History: Effective February 1, 2004.
General Authority: NDCC 53-12-18
Law Implemented: NDCC 53-12-18

TITLE 33

STATE DEPARTMENT OF HEALTH

DECEMBER 2003

CHAPTER 33-17-01

33-17-01-06. Maximum contaminant levels, action levels, and treatment technique requirements, and maximum residual disinfectant levels.

1. **Inorganic chemicals.** The maximum contaminant levels, action levels, and treatment technique requirements for inorganic chemical contaminants excluding disinfection byproducts are as follows:

CONTAMINANT	MAXIMUM CONTAMINANT LEVEL MILLIGRAM(S) PER LITER	ACTION LEVEL MILLIGRAM(S) PER LITER	TREATMENT TECHNIQUES REQUIREMENTS
Antimony	0.006		
Arsenic	0.05		
Asbestos	7 million fibers per liter (longer than ten micrometers)		
Barium	2		
Beryllium	0.004		
Cadmium	0.005		
Chromium	0.1		
Copper		The 90th percentile level must be less than or equal to 1.3	Source water and corrosion control treatment
Cyanide (as free cyanide)	0.2		
Fluoride	4.0		
Lead		The 90th percentile level must be less than or equal to 0.015	Source water and corrosion control treatment, public education, and lead service line replacement
Mercury	0.002		
Nickel	0.1		
Nitrate (as N)	10		
Nitrite (as N)	1		
Selenium	0.05		

Thallium	0.002
Total Nitrate and Nitrite (as N)	10

At the discretion of the department, nitrate levels not to exceed twenty milligrams per liter may be allowed in a noncommunity water system if the supplier of water demonstrates to the satisfaction of the department that:

a. Such water will not be available to children under six months of age;

b. There will be continuous posting of the fact that nitrate levels exceed ten milligrams per liter and the potential health effect of exposure;

c. Local and state public health authorities will be notified annually of nitrate levels that exceed ten milligrams per liter; and

d. No adverse health effects shall result.

2. **Organic chemicals.** The maximum contaminant levels and treatment technique requirements for organic chemical contaminants excluding disinfection byproducts and disinfection byproduct precursors are as follows:

CONTAMINANT	MAXIMUM CONTAMINANT LEVEL MILLIGRAM(S) PER LITER	ACTION LEVEL MILLIGRAM(S) PER LITER	TREATMENT TECHNIQUE REQUIREMENTS
Nonvolatile Synthetic Organic Chemicals:			
Acrylamide			The combination (or product) of dose and monomer level may not exceed 0.05 percent dosed at 1 part per million (or equivalent)
Alachlor	0.002		
Atrazine	0.003		
Benzo (a) pyrene	0.0002		
Carbofuran	0.04		
Chlordane	0.002		
Dalapon	0.2		
Dibromochloropropane (DBCP)	0.0002		
Di (2-ethylhexyl) adipate	0.4		
Di (2-ethylhexyl) phthalate	0.006		
Dinoseb	0.007		
Diquat	0.02		
Endothall	0.1		
Endrin	0.002		

Epichlorohydrin		The combination (or product) of dose and monomer level may not exceed 0.01 percent dosed at 20 parts per million (or equivalent)
Ethylene dibromide (EDB)	0.00005	
Glyphosate	0.7	
Heptachlor	0.0004	
Heptachlor epoxide	0.0002	
Hexachlorobenzene	0.001	
Hexachlorocyclopentadiene	0.05	
Lindane	0.0002	
Methoxychlor	0.04	
Oxamyl (Vydate)	0.2	
Polychlorinated biphenyls (PCBs)	0.0005	
Pentachlorophenol	0.001	
Picloram	0.5	
Simazine	0.004	
Toxaphene	0.003	
2,3,7,8-TCDD (Dioxin)	0.00000003	
2,4-D	0.07	
2,4,5-TP Silvex	0.05	
Volatile Synthetic Organic Chemicals:		
Benzene	0.005	
Carbon tetrachloride	0.005	
p-Dichlorobenzene	0.075	
o-Dichlorobenzene	0.6	
1,2-Dichloroethane	0.005	
1,1-Dichloroethylene	0.007	
cis-1,2-Dichloroethylene	0.07	
trans-1,2-Dichloroethylene	0.1	
Dichloromethane	0.005	
1,2-Dichloropropane	0.005	
Ethylbenzene	0.7	
Monochlorobenzene	0.1	
Styrene	0.1	
Tetrachloroethylene	0.005	
Toluene	1	
1,2,4-Trichlorobenzene	0.07	
1,1,1-Trichloroethane	0.2	
1,1,2-Trichloroethane	0.005	
Trichloroethylene	0.005	

Vinyl chloride	0.002
Xylenes (total)	10

3. **Filtration and disinfection treatment.**

   a. General requirements. All subpart H systems that utilize surface water sources shall provide filtration and disinfection treatment. All subpart H systems that utilize ground water sources deemed by the department to be under the direct influence of surface water shall provide disinfection treatment and shall either comply with filtration avoidance criteria or provide filtration treatment.

   b. Treatment technique requirements. The department hereby identifies filtration and disinfection as treatment techniques to protect against the potential adverse health effects of exposure to giardia lamblia, cryptosporidium, legionella, viruses, heterotrophic plate count bacteria, and turbidity. The treatment techniques apply only to subpart H systems. Subpart H systems that serve ten thousand or more persons shall be deemed to be in compliance with the treatment techniques if the requirements set forth under title 40, Code of Federal Regulations, part 141, subparts H and P, are met. Subpart H systems that serve fewer than ten thousand persons shall be deemed to be in compliance with the treatment techniques if the requirements set forth under title 40, Code of Federal Regulations, part 141, subpart H, are met.

4. **Radioactivity.** The maximum contaminant levels for radioactivity are as follows:

CONTAMINANT	~~LEVEL PICOCURIES PER LITER~~ MAXIMUM CONTAMINANT LEVEL (MCL)
Combined radium-226 and radium-228	5 picocuries per liter (pCi/L)
Gross alpha particle activity~~,~~ (including radium-226, but excluding radon and uranium)	15 picocuries per liter (pCi/L)
Uranium	30 micrograms per liter (ug/L)

5. **Microbiological.** The maximum contaminant levels for coliform bacteria are as follows:

   a. Monthly maximum contaminant level violations.

      (1) No more than one sample per month may be total coliform-positive for systems collecting less than forty samples per month.

(2) No more than five point zero percent of the monthly samples may be total coliform-positive for systems collecting forty or more samples per month.

All routine and repeat total coliform samples must be used to determine compliance. Special purpose samples, such as those taken to determine whether disinfection practices following pipe placement, replacement, or repair are sufficient, and samples invalidated by the department, may not be used to determine compliance.

b. Acute maximum contaminant level violations.

(1) No repeat sample may be fecal coliform or E. coli-positive.

(2) No repeat sample may be total coliform-positive following a fecal coliform or E. coli-positive routine sample.

c. Compliance must be determined each month that a system is required to monitor. The department hereby identifies the following as the best technology, treatment techniques, or other means generally available for achieving compliance with the maximum contaminant levels for total coliform bacteria: protection of wells from contamination by appropriate placement and construction; maintenance of a disinfection residual throughout the distribution system; proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, cross-connection control programs, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of a positive water pressure in all parts of the distribution system; filtration and disinfection or disinfection of surface water and disinfection of ground water using strong oxidants such as chlorine, chlorine dioxide, or ozone; and the development and implementation of a department-approved wellhead protection program.

6. **Disinfectants.** The maximum residual disinfectant levels for disinfectants are as follows:

DISINFECTANT	MAXIMUM RESIDUAL DISINFECTANT LEVEL IN MILLIGRAMS PER LITER
Chlorine	4.0 as free chlorine
Chloramines	4.0 as combined chlorine
Chlorine dioxide	0.8 as chlorine dioxide

The department identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels: control

of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

7. **Disinfection byproducts.**

   a. Interim maximum contaminant level for total trihalomethanes. The interim maximum contaminant level for total trihalomethanes is zero point one zero milligrams per liter.

   b. Final maximum contaminant level for total trihalomethanes and maximum contaminant levels for other disinfection byproducts. The final maximum contaminant level for total trihalomethanes and the maximum contaminant levels for haloacetic acids five, bromate, and chlorite are as follows:

DISINFECTION BYPRODUCT	MAXIMUM CONTAMINANT LEVEL IN MILLIGRAMS PER LITER
Total trihalomethanes	0.080
Haloacetic acids five	0.060
Bromate	0.010
Chlorite	1.0

   Systems installing granular activated carbon or membrane technology for compliance purposes may apply to the department for an extension of up to twenty-four months, but not beyond January 1, 2004. In granting an extension, the department shall establish a compliance schedule and may require that the system take interim treatment measures. Failure to meet a schedule or interim treatment requirements established by the department constitutes a violation as set forth under title 40, Code of Federal Regulations, part 141, subpart G.

   The department identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the final maximum contaminant level for total trihalomethanes and the maximum contaminant levels for haloacetic acids five, bromate, and chlorite: for total trihalomethanes and haloacetic acids five, enhanced coagulation, enhanced softening, or granular activated carbon ten with chlorine as the primary and residual disinfectant; for bromate, control of the ozone treatment process to reduce production of bromate; and for chlorite, control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

8. **Disinfection byproduct precursors.** The department hereby identifies enhanced coagulation and enhanced softening as treatment

techniques to control the level of disinfection byproduct precursors in drinking water treatment and distribution systems. The treatment techniques apply only to subpart H community and nontransient noncommunity water systems that use conventional treatment. Such systems shall be deemed to be in compliance with the treatment techniques if the requirements set forth under title 40, Code of Federal Regulations, part 141, subpart L, are met.

9. **Confirmation sampling.** The department may require confirmation samples and average confirmation sample results with initial sample results to determine compliance. At the discretion of the department, sample results due to obvious monitoring errors may be deleted prior to determining compliance.

History: Amended effective December 1, 1982; July 1, 1988; December 1, 1990; February 1, 1993; August 1, 1994; August 1, 2000; December 1, 2003.
General Authority: NDCC 61-28.1-03
Law Implemented: NDCC 61-28.1-03

33-17-01-09. Filtration and disinfection treatment sampling and monitoring requirements.

1. Coverage. All subpart H systems shall conduct monitoring to determine compliance with the treatment technique requirements for filtration and disinfection.

2. Systems utilizing surface water sources. All subpart H systems that utilize surface water sources shall comply with the turbidity and residual disinfectant concentration sampling and monitoring requirements set forth under title 40, Code of Federal Regulations, part 141, subpart H. Those systems serving ten thousand or more persons shall also comply with the disinfection profiling and benchmarking requirements set forth under title 40, Code of Federal Regulations, part 141, subpart P. Beginning January 1, 2002, those systems that serve ten thousand or more persons and provide conventional filtration treatment or direct filtration shall also comply with the individual filter sampling and monitoring requirements set forth under title 40, Code of Federal Regulations, part 141, subpart P.

3. Systems utilizing ground water sources under the direct influence of surface water. The following sampling and monitoring requirements apply to subpart H systems that utilize ground water sources deemed by the department to be under the direct influence of surface water:

   a. All systems that provide filtration treatment shall comply with the turbidity and residual disinfectant concentration sampling and monitoring requirements set forth under title 40, Code of Federal Regulations, part 141, subpart H. Those systems serving ten thousand or more persons shall also comply with the disinfection

profiling and benchmarking requirements set forth under title 40, Code of Federal Regulations, part 141, subpart P. Beginning January 1, 2002, those systems that serve ten thousand or more persons and provide conventional filtration treatment or direct filtration shall also comply with the individual filter sampling and monitoring requirements set forth under title 40, Code of Federal Regulations, part 141, subpart P.

b. All systems that do not provide filtration treatment shall comply with the filtration avoidance criteria and applicable disinfection sampling and monitoring requirements set forth under title 40, Code of Federal Regulations, part 141, subpart H. Those systems serving ten thousand or more persons shall also comply with the disinfection profiling and benchmarking requirements and, beginning January 1, 2002, the filtration avoidance criteria set forth under title 40, Code of Federal Regulations, part 141, subpart P.

4. Recycle provisions. All subpart H systems that utilize conventional filtration or direct filtration treatment and that recycle spent filter backwash water, thickener supernatant, or liquids from dewatering processes must meet the requirements as prescribed by the department and set forth under title 40, Code of Federal Regulations, part 141.76, subpart H.

History: Amended effective December 1, 1982; July 1, 1988; February 1, 1993; August 1, 2000; December 1, 2003.
General Authority: NDCC 61-28.1-03
Law Implemented: NDCC 61-28.1-03

33-17-01-10. Radioactivity ~~sampling and~~ monitoring ~~requirements~~ and compliance. Community water systems shall sample for gross alpha particle activity, radium-226, radium-228, and uranium. Monitoring frequency and compliance shall be as prescribed by the department and set forth under title 40, Code of Federal Regulations, parts 141.26 and 141.66.

~~1. **Sampling frequency.** Community water systems shall sample for gross alpha particle activity, radium-226 and radium-228. Sampling and analysis shall be repeated at four-year intervals.~~

~~More frequent sampling shall be conducted when ordered by the department in the event of possible contamination or when changes in the water supply distribution system or treatment process occurs which may increase the concentration of radioactivity in finished water.~~

~~Compliance shall be based on the analysis of an annual composite of four consecutive quarterly samples or the average of the analyses of four samples obtained at quarterly intervals.~~

~~The department may, when the average annual concentration is less than half the maximum contaminant level, substitute a single sample for the quarterly sampling procedure.~~

~~2. **Sampling frequency for check samples.** A gross alpha particle activity measurement may be substituted for the required radium-226 and radium-228 analysis provided that the measured gross alpha particle activity does not exceed five picocuries per liter. The department may require radium-226 or radium-228, or both, analyses when the gross alpha particle activity exceeds two picocuries per liter.~~

~~When the gross alpha particle activity exceeds five picocuries per liter, the same or an equivalent sample shall be analyzed for radium-226. If the concentration of radium-226 exceeds three picocuries per liter, the same or an equivalent sample shall be analyzed for radium-228.~~

~~A system using two or more water sources having different concentrations of radioactivity shall sample source water, in addition to water from a free-flowing outlet of the ultimate user, when ordered by the department.~~

~~Monitoring for compliance after the initial period need not include radium-228 except when required by the department, provided that the average annual concentration of radium-228 has been analyzed at least once using the quarterly sampling procedure.~~

~~Systems shall conduct annual monitoring when the radium-226 concentration exceeds three picocuries per liter when ordered by the department.~~

~~If the maximum contaminant level for gross alpha particle activity or total radium is exceeded, the system shall notify the department within forty-eight hours and give notice to the public. Monitoring at quarterly intervals shall be continued until the annual average concentration no longer exceeds the maximum contaminant level or until a monitoring schedule as a condition to a variance or enforcement action shall become effective.~~

History: Amended effective July 1, 1988; December 1, 2003.
General Authority: NDCC 61-28.1-03
Law Implemented: NDCC 61-28.1-03

33-17-01-13. Public notification. All public water systems are required to notify the public they serve when they fail to comply with the requirements of the national primary drinking water regulations (NPDWRs), fail to comply with the requirements of any schedule prescribed pursuant to a variance or exemption, or incur other situations posing a risk to public health. Owners and operators must follow the form, manner, frequency, and content of a public notice as prescribed by

the department and set forth under title 40, Code of Federal Regulations, part 141, subpart Q.

~~1. Maximum contaminant level, maximum residual disinfectant level, treatment technique, and variance and exemption schedule violations. A public water system which fails to comply with an applicable maximum contaminant level or an established treatment technique or which fails to comply with the requirements of any schedule prescribed pursuant to a variance or exemption shall notify persons served by the system as follows:~~

~~a. By publication in a daily newspaper of general circulation in the area served by the system as soon as possible, but in no case later than fourteen days after notification of the violation or failure. If the area served by the system is not served by a daily newspaper of general circulation, notice must instead be given by publication in a weekly newspaper of general circulation serving the area;~~

~~b. By mail delivery, or by hand delivery, not later than forty-five days after the violation or failure. The department may waive mail or hand delivery if it determines that the system has corrected the violation or failure within the forty-five-day period; and~~

~~c. A copy of the notice must be furnished to the radio and television stations serving the area served by the system as soon as possible, but in no case later than seventy-two hours after receiving notification of the violation or failure, for violations of the following maximum contaminant levels, maximum residual disinfectant levels of disinfectants, or failures that may pose an acute risk to human health: exceedance of the maximum contaminant level for nitrate or nitrite; exceedance of the maximum contaminant level for coliform bacteria when fecal coliform bacteria or E.coli are present in the water distribution system; occurrence of a waterborne disease outbreak in a system which utilizes surface water sources or ground water sources deemed by the department to be under the direct influence of surface water that does not provide filtration treatment, and violation of the maximum residual disinfectant level for chlorine dioxide within the distribution system as defined and determined under title 40, Code of Federal Regulations, part 141, subparts G and L.~~

~~A public water system must give notice at least once every three months by mail delivery or by hand delivery for as long as the violation or failure exists.~~

~~A community water system in an area that is not served by a daily or weekly newspaper of general circulation or a noncommunity water system must give notice within fourteen days after notification of the violation or failure by hand delivery or by continuous posting in~~

~~conspicuous places within the area served by the system. Posting must continue for as long as the violation or failure exists.~~

2. ~~Other violations, variances, and exemptions. A public water system which fails to perform required monitoring, fails to complete required sanitary surveys, fails to comply with an established testing procedure, is granted a variance, or is granted an exemption shall notify persons served by the system as follows:~~

   a. ~~By publication in a daily newspaper of general circulation in the area served by the system within three months after notification of the violation or grant. If the area served by the system is not served by a daily newspaper of general circulation, notice shall instead be given by publication in a weekly newspaper of general circulation serving the area.~~

   b. ~~A public water system must give notice at least once every three months by mail delivery or by hand delivery for as long as the violation exists or the variance or exemption is in existence.~~

   c. ~~A community water system in an area that is not served by a daily or weekly newspaper of general circulation or a noncommunity water system must give notice within three months after notification of the violation or grant by hand delivery or by continuous posting in conspicuous places within the area served by the system. Posting must continue for as long as the violation exists or the variance or exemption remains in effect.~~

3. ~~Notice to new billing units. A community water system must give a copy of the most recent public notice for any outstanding violation of any maximum contaminant level, maximum residual disinfectant level, or treatment technique requirement, or any variance or exemption schedule to all new billing units or new hookups prior to or at the time service begins.~~

4. ~~General notice content. Each notice must provide a clear and readily understandable explanation of the violation, any potential adverse health effects, the population at risk, the steps that the public water system is taking to correct such violation, the necessity for seeking alternative water supplies, if any, and any preventive measures the consumer should take until the violation is corrected. Each notice must be conspicuous and may not contain unduly technical language, unduly small print, or similar problems that frustrate the purpose of the notice. Each notice must include the telephone number of a designee of the public water system as a source of additional information concerning the notice. Notices shall be multilinqual where appropriate.~~

5. ~~Mandatory health effects language. When providing the information on potential adverse health effects required in notices of violations of~~

~~maximum contaminant levels, maximum residual disinfectant levels, or treatment technique requirements, or notices of the granting or the continued existence of variances or exemptions, or notices of failure to comply with a variance or exemption schedule, public water systems shall include specific language, available from the department, for the contaminants set forth under title 40, Code of Federal Regulations, part 141, subpart D, and part 143.~~

History: Amended effective December 1, 1982; July 1, 1988; December 1, 1990; August 1, 1991; February 1, 1993; August 1, 1994; August 1, 2000; December 1, 2003.
General Authority: NDCC 61-28.1-03
Law Implemented: NDCC 61-28.1-03, 61-28.1-05

33-17-01-14. Reporting and recordkeeping requirements.

1. **Reporting requirements.** Except when a shorter reporting period is specified, the system shall report to the department the result of any test, measurement, or analysis required within the first ten days following the month in which the results are received or the first ten days following the end of the required monitoring period as stipulated by the department, whichever of these is shorter.

   The system shall notify the department within forty-eight hours of the failure to comply with any primary drinking water regulations including failure to comply with monitoring requirements, except that failure to comply with the maximum contaminant levels for total coliform bacteria must be reported to the department no later than the end of the next business day after the system learns of the violation.

   Community water systems required to comply with the interim maximum contaminant level for total trihalomethanes shall report the results of all analyses to the department within thirty days of the system's receipt of the results. Subpart H systems shall comply with the reporting requirements for filtration and disinfection treatment set forth under title 40, Code of Federal Regulations, part 141, subparts H and P. Community and nontransient noncommunity water systems shall comply with the reporting requirements for lead and copper set forth under title 40, Code of Federal Regulations, part 141, subpart I. Community, nontransient noncommunity, and transient noncommunity water systems shall comply with the applicable reporting requirements for disinfectants, disinfection byproducts, and disinfection byproduct precursors set forth under title 40, Code of Federal Regulations, part 141, subpart L.

   The system is not required to report analytical results to the department in cases when the department performed the analysis.

~~Within ten days of completion of each public notification required, the system shall submit to the department a representative copy of each type of notice distributed, published, posted, or made available to the persons served by the system or to the media.~~

Within ten days of completing the public notification requirements set forth under title 40, Code of Federal Regulations, part 141, subpart Q for the initial public notice and any repeat notices, public water systems must submit to the department a certification that the system has fully complied with the public notification regulations. The public water system must include with this certification a representative copy of each type of notice distributed, published, posted, and made available to persons served by the system and to the media.

The system shall submit to the department, within the time stated in the request, copies of any records required to be maintained by the department or copies of any documents then in existence which the department is entitled to inspect under the provisions of state law.

2. **Recordkeeping requirements.** Subpart H systems shall comply with the recordkeeping requirements for filtration and disinfection treatment set forth under title 40, Code of Federal Regulations, part 141, subparts H and P. Community and nontransient noncommunity water systems shall comply with the recordkeeping requirements for lead and copper set forth under title 40, Code of Federal Regulations, part 141, subpart I. Community, nontransient noncommunity, and transient noncommunity water systems shall comply with the applicable recordkeeping requirements for disinfectants, disinfection byproducts, and disinfection byproduct precursors set forth under title 40, Code of Federal Regulations, part 141, subpart L. Community water systems shall retain copies of consumer confidence reports for no less than five years.

   All public water systems shall retain on their premises or at a convenient location near their premises, the following additional records to document compliance with the remaining provisions of this chapter:

   a. Bacteriological and chemical analyses. Records of bacteriological analyses shall be kept for not less than five years. Records of chemical analyses shall be kept for not less than ten years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

      (1) The date, place, and time of sampling and the name of the person who collected the sample;

(2) Identification of the sample as to whether it was a routine distribution system sample, check sample, or raw or other special purpose sample;

(3) Date of analysis;

(4) Laboratory and person responsible for performing analysis;

(5) The analytical technique or method used; and

(6) The result of the analysis.

b. Corrective actions taken. Records of action taken by the system to correct violations shall be kept for a period of not less than three years after the last action taken with respect to the particular violation involved.

c. Reports and communications. Copies of any written reports, summaries, or communications relating to sanitary surveys of the system conducted by the system itself, by a private consultant, or by any local, state, or federal agency, shall be kept for a period not less than ten years after completion of the sanitary survey involved.

d. Variances and exemptions. Records concerning a variance or exemption granted to the system shall be kept for a period ending not less than five years following the expiration of such variance or exemption.

e. Public notices and certifications. Copies of public notices issued pursuant to title 40, Code of Federal Regulations, part 141, subpart Q and certifications made to the department pursuant to title 40, Code of Federal Regulations, part 141.31 must be kept for three years after issuance.

History: Amended effective July 1, 1988; December 1, 1990; February 1, 1993; August 1, 2000; December 1, 2003.
General Authority: NDCC 61-28.1-03
Law Implemented: NDCC 61-28.1-03, 61-28.1-05

33-24-01-04. Definitions. As used in this article the following words have the meaning ascribed to them unless otherwise made inappropriate by use and context.

1. "Aboveground tank" means a device meeting the definition of "tank" in this section and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

2. "Act" means North Dakota Century Code chapter 23-20.3.

3. "Active life" of a facility means the period from the initial receipt of hazardous waste at the facility until the department receives certification of final closure.

4. "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after the effective date of the Act and which is not a closed portion. (See also "closed portion" and "inactive portion".)

5. "Administrator" or "regional administrator" means the administrator or regional administrator of the environmental protection agency, or that officer's designee.

6. "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to storage or treatment tank or tanks, between hazardous waste storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal offsite.

~~6.~~ 7. "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

~~7.~~ 8. "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit (for example, part of a facility), for example, the plant manager, superintendent, or person of equivalent responsibility.

~~8.~~ 9. "Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also

includes an intact, unbroken battery from which the electrolyte has been removed.

~~9.~~ 10. "Boiler" means an enclosed device using controlled flame combustion and:

a. Boilers must have the following characteristics:

(1) The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases;

(2) The unit's combustion chamber and primary energy recovery section or sections must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section or sections (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section or sections are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: Process heaters (units that transfer energy directly to processed steam)~~,~~ and fluidized bed combustion units;

(3) While in operation, the unit must maintain a thermal energy recovery efficiency of at least sixty percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(4) The unit must export and utilize at least seventy-five percent of the recovered energy, calculated on an annual basis. In this calculation, no credit should be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

b. The unit is one which the department has determined, on a case-by-case basis, to be a boiler, after considering the standards of section 33-24-01-11.

~~10.~~ 11. "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

~~11.~~ 12. "Certification" means a statement of professional opinion based on knowledge and belief.

~~12.~~ 13. "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

~~13.~~ 14. "Component" means:

a. Either the tank or ancillary equipment of a tank system; or

b. Any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function (for example, a pump seal, pump, kiln liner, or kiln thermocouple).

~~14.~~ 15. "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

~~15.~~ 16. "Constituent" or "hazardous waste constituent" means a constituent that caused the department to list the hazardous waste in chapter 33-24-02, or a constituent listed in Table 1 of section 33-24-02-14.

~~16.~~ 17. "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

~~17.~~ 18. "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of sections 33-24-05-475 through 33-24-05-479 and subpart DD of 40 CFR 265.

~~18.~~ 19. "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

~~19. "Corrective action management unit" or "CAMU" means an area within a facility that is designated by the department under sections 33-24-05-550 through 33-24-05-559, for the purpose of implementing corrective action requirements under section 33-24-05-58 and Resource Conservation and Recovery Act section 3008(h). A corrective action management unit shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.~~

20. "Corrosion expert" means a person who, by reason of ~~his~~ the person's knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related

practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the national association of corrosion engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

21. "Department" means the North Dakota state department of health.

22. "Designated facility" means a hazardous waste treatment, storage, or disposal facility which:

    a. Has received a permit (or interim status) in accordance with the requirements of chapters 33-24-06 and 33-24-07;

    b. Has received a permit (or interim status) from a state authorized in accordance with 40 CFR part 271; or

    c. Is regulated under subdivision b of subsection 3 of section 33-24-02-06 or sections 33-24-05-230 through 33-24-05-234; and

    d. That has been designated on the manifest by the generator pursuant to section 33-24-01-06. If a waste is destined to a facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving state to accept such waste.

23. "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in subsections 1 and 3 of section 33-24-05-713. A facility at which a particular category of universal waste is only accumulated is not a destination facility for the purposes of managing that category of universal waste.

24. "Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids, or other materials.

25. <u>"Dioxins and furans" means tetra-chlorinated, penta-chlorinated, hexa-chlorinated, hepta-chlorinated, and octa-chlorinated dibenzo dioxins and furans.</u>

<u>26.</u> "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

~~26.~~ 27. "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste into or on any land or water including ground water.

~~27.~~ 28. "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which wastes will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

~~28.~~ 29. "Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of nonearthen materials and designed to convey preservative kickback or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

~~29.~~ 30. "Elementary neutralization unit" means a device which:

a. Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in section 33-24-02-12, or are listed in chapter 33-24-02 only for this reason; and

b. Meets the definition of tank, tank systems, container, transport vehicle, or vessel.

~~30.~~ 31. "Equivalent method" means any testing or analytical method approved by the department under sections 33-24-01-06 and 33-24-01-07.

~~31.~~ 32. "Existing hazardous waste management facility" or "existing facility" means a facility which was in operation, or for which construction commenced on or before July 1, 1981. A facility has commenced construction if:

a. The owner or operator has obtained all necessary federal, state, and local approvals or permits necessary to begin physical construction; and

b. Either of the following:

(1) A continuous onsite, physical construction program has begun; or

(2) The owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

~~32.~~ 33. "Existing portion" means that land surface area of an existing waste management unit, included in part A of the permit application, as originally filed, on which wastes have been placed prior to the issuance of a permit.

~~33.~~ 34. "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either (1) a continuous onsite physical construction or installation program has begun, or (2) the owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

35. "Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance, damaged or deteriorated explosives or munitions, an improvised explosive device, other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the threat.

36. "Explosives or munitions emergency response" means all immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions, or transporting, or any combination, those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at Resource, Conservation and Recovery Act facilities.

37. "Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction

techniques. Explosives or munitions emergency response specialists include department of defense emergency explosive ordnance disposal, technical escort unit, and department of defense-certified civilian or contractor personnel and other federal, state, or local government, or civilian personnel similarly trained in explosives or munitions emergency responses.

~~34.~~ 38. "Facility" means:

a. All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combinations of them).

b. For the purpose of implementing corrective action under section 33-24-05-58, all contiguous property under the control of the owner or operator seeking a permit under North Dakota Century Code chapter 23-20.3. This definition also applies to facilities implementing corrective action under Resource Conservation and Recovery Act section 3008(h).

c. Notwithstanding subdivision b, a remediation waste management site is not a facility that is subject to section 33-24-05-58, but is subject to corrective action requirements if the site is located within such a facility.

~~35.~~ 39. "Facility mailing list" means the mailing list for a facility developed and maintained by the department in accordance to the following:

a. Including those persons who request in writing to be added to the facility mailing list;

b. Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

c. Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as regional and ~~state funded~~ state-funded newsletters, environmental bulletins, or state law journals. (The department may update the mailing list from time to time by requesting written indication of continued interest from those listed. The department may delete from the list the name of any person who fails to respond to such a request.)

~~36.~~ 40. "Federal agency" means any department, agency, or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the government printing office.

~~37.~~ 41. "Federal, state, and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, regulations, or ordinances.

~~38.~~ 42. "Final closure" means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under chapter 33-24-05 are no longer conducted at the facility unless subject to the provisions in section 33-24-03-12.

~~39.~~ 43. "Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

~~41.~~ 44. "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

~~40.~~ 45. "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

~~42.~~ 46. "Functionally equivalent component" means a component which performs the same function or measurement and which meets or exceeds the performance specification of another component.

~~43.~~ 47. "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in chapter 33-24-02 or whose act first causes a hazardous waste to become subject to regulation.

~~44.~~ 48. "Ground water" means water below the land surface in a zone of saturation.

~~45.~~ 49. "Hazardous waste" means a hazardous waste as defined in chapter 33-24-02.

~~46.~~ 50. "Hazardous waste constituent". See "constituent".

~~47.~~ 51. "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system, and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

~~48.~~ 52. "Hazardous waste number" means the number assigned to each hazardous waste identified in chapter 33-24-02.

~~49.~~ 53. "Identification number" means the number assigned by the environmental protection agency and the department to each generator, transporter, and treatment, storage, or disposal facility.

~~57.~~ 54. "In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

~~50.~~ 55. "Inactive portion" means that portion of a facility which is not operated after the effective date of this chapter. (See also "active portion" and "closed portion".)

~~51.~~ 56. "Incinerator" means any enclosed device that:

a. Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

b. Meets the definition of infrared incinerator or plasma arc incinerator.

~~52.~~ 57. "Incompatible waste" means a hazardous waste which is unsuitable for:

a. Placement in a particular device or facility because it may cause corrosion or decay of containment materials (for example, container inner liners or tank walls); or

b. Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dust, mists, fumes, or gases, or flammable fumes or gases.

~~54.~~ 58. "Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste, but is considered a single or individual generation site if the site or property is contiguous.

~~53.~~ 59. "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of material for energy:

a. Cement kilns~~.~~;

b. Lime kilns~~.~~;

c. Aggregate kilns~~.~~;

d. Phosphate kilns;

e. Coke ovens;

f. Blast furnaces;

g. Smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces);

h. Titanium dioxide chloride process oxidation reactors;

i. Methane reforming furnaces;

j. Pulping liquor recovery furnaces;

k. Combustion devices used in the recovery of sulfur values from spent sulfuric acid;

l. Halogen acid furnaces for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least three percent; the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of twenty percent as generated; or

m. Such other devices as the department may, after notice and comment, add to this list on the basis of one or more of the following factors:

(1) The design and use of the device primarily to accomplish recovery of material products;

(2) The use of the device to burn or reduce raw materials to make a material product;

(3) The use of a device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feed stock;

(4) The use of a device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

(5) The use of a device in common industrial practice to produce a material product; and

(6) Other factors, as appropriate.

~~55.~~ 60. "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

~~56.~~ 61. "Inground tank" means a device meeting the definition of a "tank" in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

~~58.~~ 62. "Injection well" means a well into which fluids are injected. (See also the definition of "underground injection" in this section.)

~~59.~~ 63. "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

~~60.~~ 64. "Installation inspector" means a person who, by reason of ~~his~~ knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

~~61.~~ 65. "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

66. "Lamp", also referred to as "universal waste lamp", is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste lamps include fluorescent, high-intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

~~64.~~ 67. "Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

~~62.~~ 68. "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

~~63.~~ 69. "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

~~65.~~ 70. "Leachate" means any liquid, including any suspended components in the liquid, that have percolated through or drained from hazardous waste.

~~66.~~ 71. "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (for example, daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

~~67.~~ 72. "Liner" means a continuous layer of natural or manmade materials beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

~~68.~~ 73. "Major facility" means any facility classified as such by the environmental protection agency in conjunction with the department.

~~69.~~ 74. "Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

~~70.~~ 75. "Manifest" means the shipping document uniform hazardous manifest environmental protection agency form 8700-22 and, if necessary, environmental protection agency form 8700-22a, originated and signed by the generator in accordance with instructions included in the appendix to chapter 33-24-03.

~~71.~~ 76. "Manifest document number" means the state environmental protection agency twelve-digit identification number assigned to the generator, plus a unique five-digit document number assigned to the uniform hazardous waste manifest by the generator for recording and reporting purposes.

~~72.~~ 77. "Mercury-containing device" means any electronic control, medical instrument, thermometer, thermostat, switch, bulb, tube, or other similar device that contains metallic mercury in an ampule or other similar container where the metallic mercury acts as a conductor of temperature, pressure, or electricity.

78. "Military munitions" means all ammunition products and components produced or used by or for the United States department of defense or the United States armed services for national defense and security.

including military munitions under the control of the department of defense, the United States coast guard, the United States department of energy, and national guard personnel. The term military munitions includes confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by department of defense components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include nonnuclear components of nuclear devices, managed under department of energy's nuclear weapons program after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

~~73.~~ 79. "Mining overburden returned to the minesite" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

~~74.~~ 80. "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR part 146, containment building, corrective action management unit, ~~or~~ unit eligible for research, development, and demonstration permit under section 33-24-06-20, or staging pile.

~~75.~~ 81. "Movement" means that hazardous waste transported to a facility in an individual vehicle.

~~76.~~ 82. "Municipality" means a city, county, district, association, or other public body created by or pursuant to state law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes.

~~77.~~ 83. "New hazardous waste management facility" or "new facility" means a facility which began operation, or for which construction commenced, after July 1, 1981. (See also "existing hazardous waste management facility".)

~~78.~~ 84. "New tank system" or "new tank components" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986; except, however, for purposes of subdivision b of subsection 7 of

section 33-24-05-106, a new tank system is one for which construction commences after July 14, 1986. (See also "existing tank system".)

~~79.~ 85. "Onground tank" means a device meeting the definition of "tank" in this section and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

~~80.~ 86. "Onsite" means the same or geographically contiguous property which may be divided by public or private right of way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along, the right of way. Noncontiguous property owned by the same person, but connected by a right of way which that person controls and to which the public does not have access is also considered onsite property.

~~81.~ 87. "Open burning" means the combustion of any material without the following characteristics:

a. Control of combustion air to maintain adequate temperature for efficient combustion;

b. Containment of the combustion reactions in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

c. Control of emission of the gaseous combustion products. (See also "incineration" and "thermal treatment".)

~~82.~ 88. "Operator" means the person responsible for the overall operation of a facility.

~~83.~ 89. "Owner" means the person who owns a facility or part of a facility.

~~84.~ 90. "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of chapter 33-24-05 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

~~85.~ 91. "Person" means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.

~~86.~~ 92. "Personnel" or "facility personnel" means all persons who work at, or oversee the operation of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of chapter 33-24-05 or 40 CFR part 265, if applicable.

~~87.~~ 93. "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

a. Is a new animal drug under federal Food, Drug, and Cosmetic Act section 201(w)~~, or~~;

b. Is an animal drug that has been determined by regulation of the secretary of health and human services not to be a new animal drug~~,~~; or

c. Is an animal feed under federal Food, Drug, and Cosmetic Act section 201(x) that bears or contains any substances described by subdivision a or b.

~~88.~~ 94. "Pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

~~89.~~ 95. "Plasma arc incinerator" means any enclosed device using a ~~high intensity~~ high-intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

~~90.~~ 96. "Point source" means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

~~91.~~ 97. "Publicly owned treatment works" means any device or system used in the treatment (including recycling or reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by this state or a municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a publicly owned treatment works providing treatment.

~~92.~~ 98. "Qualified ground water scientist" means a scientist or engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering, and has sufficient training and experience in ground water hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of

accredited university courses that enable that individual to make sound professional judgments regarding ground water monitoring and contaminant fate and transport.

~~93.~~ 99. "Remediation waste" means all solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris~~, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic,~~ that are managed for ~~the purpose of~~ implementing ~~corrective action requirements under section 33-24-05-58 and Resource Conservation and Recovery Act section 3008(h). For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing Resource Conservation and Recovery Act sections 3004(v) or 3008(h) for releases beyond the facility boundary~~ cleanup.

100. "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing, or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under section 33-24-05-58, but is subject to corrective action requirements if the site is located in such a facility.

~~94.~~ 101. "Replacement unit" means a landfill, surface impoundment, or waste pile unit from which all or substantially all of the waste is removed, and which is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or department-approved corrective action.

~~95.~~ 102. "Representative sample" means a sample of a universe or whole (for example, waste pile, lagoon, or ground water), which can be expected to exhibit the average properties of the universe or whole.

~~96.~~ 103. "Runoff" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

~~97.~~ 104. "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

~~98.~~ 105. "Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

~~99.~~ 106. "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

~~100.~~ 107. "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of two thousand five hundred British thermal unit per pound of sludge treated on a wet-weight basis.

~~101.~~ 108. "Small quantity generator" means a generator who generates less than one thousand kilograms of hazardous waste in a calendar month.

~~102.~~ 109. "Solid waste" means a solid waste as defined in section 33-24-02-02.

~~103.~~ 110. "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both. Sorb means to either adsorb or absorb, or both.

111. "Staging pile" means an accumulation of solid, nonflowing remediation waste that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles must be designated by the department according to the requirements of section 33-24-05-554.

~~104.~~ 112. "State" means this state.

~~105.~~ 113. "Storage" means the holding of hazardous waste at a site for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

~~106.~~ 114. "Sump" means any pit or reservoir that meets the definition of tank and those troughs or trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

~~107.~~ 115. "Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

~~108.~~ 116. "Tank" means a stationary device, designed to contain an accumulation of hazardous waste, which is constructed primarily of nonearthen materials (for example, wood, concrete, steel, or plastic), which provide structural support.

~~109.~~ 117. "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

~~110.~~ 118. "Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. (See also "incinerator" and "open burning".)

~~111.~~ 119. "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

120. "Toxicity equivalence" means the international method of relating the toxicity of various dioxin, or furan, or both congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

~~112.~~ 121. "Transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas, or other similar areas where shipments of hazardous waste are held during the normal course of transportation.

~~114.~~ 122. "Transport vehicle" means a motor vehicle or railcar used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

~~113.~~ 123. "Transportation" means the movement of hazardous wastes by air, rail, highway, or water.

~~115.~~ 124. "Transporter" means a person engaged in the offsite transportation of hazardous waste by air, rail, highway, or water.

~~116.~~ 125. "Treatability study" means a study in which a hazardous waste is subjected to a treatment process to determine:

a. Whether the waste is amenable to the treatment process;

b. What pretreatment (if any) is required;

c. The optimal process conditions needed to achieve the desired treatment;

d. The efficiency of a treatment process for a specific waste or wastes; or

e. The characteristics and volumes of residuals from a particular treatment process.

Also included in this definition for the purpose of subsections 5 and 6 of section 33-24-02-04 exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effect studies. A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

~~117.~~ 126. "Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

~~118.~~ 127. "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

~~119.~~ 128. "Underground injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also the definition of "injection well" in this section.)

~~120.~~ 129. "Underground tank" means a device meeting the definition of "tank" in this section whose entire surface area is totally below the surface of and covered by the ground.

~~121.~~ 130. "Unfit for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

~~122.~~ 131. "United States" means the fifty states, the District of Columbia, the commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the commonwealth of the northern Mariana Islands.

~~123.~~ 132. "Universal waste" means any of the following hazardous wastes that are managed under the universal waste requirements of sections 33-24-05-701 through 33-24-05-765:

a. Batteries as described in section 33-24-05-702;

b. Pesticides as described in section 33-24-05-703; ~~and~~

c. Mercury-containing devices as described in section 33-24-05-704; and

d. Lamps as described in section 33-24-05-705.

~~124.~~ 133. "Universal waste handler":

a. Means:

(1) A generator (as defined in this section) of universal waste; or

(2) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

b. Does not mean:

(1) A person who treats, except under the provisions of subsection 1 or 3 of section 33-24-05-713~~;~~, disposes of~~;~~ or recycles universal waste; or

(2) A person engaged in the offsite transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

~~125.~~ 134. "Universal waste transporter" means a person engaged in the offsite transportation of universal waste by air, rail, highway, or water.

~~126.~~ 135. "Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

~~127.~~ 136. "Uppermost aquifer" means the natural geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

~~128.~~ 137. "Used oil" means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities.

~~129.~~ 138. "Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

~~130.~~ 139. "Wastewater treatment unit" means a device which:

a. Is part of a wastewater treatment facility which is subject to regulation under either section 402 or 307(b) of the Clean Water Act;

b. Receives and treats or stores an influent wastewater which is a hazardous waste as identified in section 33-24-02-03, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in section 33-24-02-03, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in section 33-24-02-03; and

c. Meets the definition of tank or tank system.

~~131.~~ 140. "Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

~~132.~~ 141. "Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form and often walled with bricks or tubing to prevent the earth from caving in.

~~133.~~ 142. "Well injection". (See "underground injection".)

~~134.~~ 143. "Zone of engineering control" means an area under the control of the ~~owner/operator~~ owner or operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to ground water or surface water.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-01-05. References.

1. When used in this article, the following publications are incorporated by reference:

   a. "ASTM Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester", ASTM Standard D-3278-78, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

   b. "ASTM Standard Test Methods for Flash Point by Pensky-Martens Closed Tester", ASTM Standard D-93-79 or D-93-80. D-93-80 is available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

   c. "ASTM Standard Test Method for Analysis of Reformed Gas by Gas Chromatography", ASTM Standard D 1946-82, available from

the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

d. "ASTM Standard Test Method for Heat of Combustion by Hydrocarbon Fuels by Bomb Calorimeter (~~High-precision~~ high-precision method)", ASTM Standard D 2382-83, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

e. "ASTM Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis", ASTM Standard E 169-87, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

f. "ASTM Standard Practices for General Techniques of Infrared Quantitative Analysis", ASTM Standard E 168-88, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

g. "ASTM Standard Practice for Packed Column Gas Chromatography", ASTM Standard E 260-85, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

h. "ASTM Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography", ASTM Standard D 2267-88, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

i. ~~"ASTM Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteriscope", ASTM Standard D 2879-86, available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103~~ "APTI Course 415: Control of Gaseous Emissions", environmental protection agency publication EPA-450/2-81-005, December 1981, available from National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

j. ~~"ASTM Standard Test Method for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals", American standard test method standard E926-88t test method C-bomb, acid digestion method, available from American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103~~ "Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210.

k. ~~"APTI Course 415: Control of Gaseous Emissions", environmental protection agency publication EPA-450 2-81-005, December 1981, available from National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161~~ "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846 [third edition (November 1986), as amended by updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996) and IIIA (April 1998)]. The third edition of environmental protection agency publication SW-846 and updates I, II, IIA, IIB, and III (document number 955-001-00000-1) are available from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, (202) 512-1800. Update IIIA is available through the environmental protection agency's methods information communication exchange (MICE) service. Methods information communication exchange can be contacted by telephone at (703) 821-4690. Update IIIA can also be obtained by contacting the environmental protection agency, Office of Solid Waste (5307W), OSW Methods Team, 1200 Pennsylvania Avenue NW, Washington, D.C. 20460. Copies of the third edition and all its updates are also available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, (703) 605-6000 or (800) 553-6847. Copies may be inspected at the Library, United States environmental protection agency, 1200 Pennsylvania Avenue, Washington, D.C. 20460; or at the office of the Federal Register, 800 North Capitol Street, Northwest, Suite 700, Washington, D.C.

l. ~~"Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210~~ "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised" October 1992, environmental protection agency publication number EPA 450/R-92-019, available from the environmental protection agency, Research Triangle Park, North Carolina 27711.

m. ~~"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846 [third edition (November 1986), as amended by updates I (July 1992), II (September 1994), IIA (August 1993)], and IIB (January 1995). The third edition of SW-846 and updates I, II, IIA, and IIb (document number 955-001-00000-1) are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 512-1800. Copies may be inspected at the Library, United States environmental protection agency, 401 M Street, SW, Washington, D.C. 20460~~ "ASTM Standard Test Method for Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals", American standard test method standard E926-88t test

method C-bomb, acid digestion method, available from American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

n. ~~"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised" October 1992, United States environmental protection agency publication number EPA 450R-92-019, available from the environmental protection agency, Rearach Triangle Park, North Carolina 27711~~ API Publication 2517, third edition, February 1989, "Evaporative Loss From External Floating-Roof Tanks", available from the American Petroleum Institute, 1220 L Street, Northwest, Washington, D.C. 20005.

o. ~~The following forty-seven analytical testing methods are contained in the third edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA publication SW-846 (November 1986) and its revision I (December 1987), which are available from the Government Printing Office, Superintendent of Documents, Washington, D.C. 20402, (202) 783-3238 (document number 955-001-00000-1):[1]~~ "ASTM Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope", ASTM Standard D 2879-92, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

~~FOOTNOTE: [1]The agency notes that, for guidance purposes, the third edition and its revision I supersede the second edition and its updates I and II. However, for regulatory purposes, the second edition and updates I and II remain in effect together with the forty-seven methods of the third edition and its revision I cited above. See 54 FR 40260-40269, September 29, 1989.~~

~~0010 Modified Method 5 Sampling Train~~
~~0020 Source Assessment Sampling System (SASS)~~
~~0030 Volatile Organic Sampling Train~~
~~1320 Multiple Extraction Procedure~~
~~1330 Extraction Procedure for Oily Wastes~~
~~3611 Alumina Column Cleanup and Separation of Petroleum Wastes~~
~~5040 Protocol for Analysis of Sorbent Cartridges from Volatile Organic Sampling Train~~
~~6010 Inductively Coupled Plasma Atomic Emission Spectroscopy~~
~~7090 Beryllium (AA, Direct Aspiration)~~
~~7091 Beryllium (AA, Furnace Technique)~~
~~7198 Chromium, Hexavalent (Differential Pulse Polarography)~~
~~7210 Copper (AA, Direct Aspiration)~~
~~7211 Copper (AA, Furnace Technique)~~
~~7380 Iron (AA, Direct Aspiration)~~
~~7381 Iron (AA, Furnace Technique)~~
~~7460 Manganese (AA, Direct Aspiration)~~
~~7461 Manganese (AA, Furnace Technique)~~
~~7550 Osmium (AA, Direct Aspiration)~~
~~7770 Sodium (AA, Direct Aspiration~~
~~7840 Thallium (AA, Direct Aspiration)~~

~~7841 Thallium (AA, Furnace Technique)~~
~~7910 Vanadium (AA, Direct Aspiration)~~
~~7911 Vanadium (AA, Furnace Technique)~~
~~7950 Zinc (AA, Direct Aspiration)~~
~~7951 Zinc (AA, Furnace Technique)~~
~~9022 Total Organic Halides (TOX) by Neutron Activation Analysis~~
~~9035 Sulfate (Colorimetric, Automated, Chloranilate)~~
~~9036 Sulfate (Colorimetric, Automated, Methylthymol Blue, AA II)~~
~~9038 Sulfate (Turbidimetric)~~
~~9060 Total Organic Carbon~~
~~9065 Phenolics (Spectrophotometric, Manual 4-AAP with Distillation)~~
~~9066*Phenolics (Colorimetric, Automated 4-AAP with Distillation)~~
~~9067 Phenolics (Spectrophotometric, MBTH with Distillation)~~
~~9070 Total Recoverable Oil and Grease (Gravimetric, Separatory Funnel Extraction)~~
~~9071 Oil and Grease Extraction Method for Sludge Samples~~
~~9080 Cation-Exchange Capacity of Soils (Ammonium Acetate)~~
~~9081 Cation-Exchange Capacity of Soils (Sodium Acetate)~~
~~9100 Saturated Hydraulic Conductivity, Saturated Leachate Conductivity, and Intrinsic Permeability~~
~~9131 Total Coliform: Multiple Tube Fermentation Technique~~
~~9132 Total Coliform: Membrane Filter Technique~~
~~9200 Nitrate~~
~~9250 Chloride (Colorimetric, Automated Ferricyanide AAI)~~
~~9251 Chloride (Colorimetric, Automated Ferricyanide AAII)~~
~~9252 Chloride (Tetrimetric, Mercuric Nitrate)~~
~~9310 Gross Alpha and Gross Beta~~
~~9315 Alpha-Emitting Radium Isotopes~~
~~9320 Radium-228~~

~~FOOTNOTE: *When Method 9066 is used it must be preceded by the manual distillation specified in procedure 7.1 of Method 9065. Just prior to distillation in Method 9065, adjust the sulfuric acid-preserved sample to pH 4 with 1 + 9 NaOH. After the manual distillation is completed, the autoanalyzer manifold is simplified by connecting the resample line directly to the sampler.~~

p. ~~API Publication 2517, third edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks", available from the American Petroleum Institute, 1220 L Street, Northwest, Washington, D.C. 20005~~ Method 1664, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Nonpolar Material) by extraction and gravimetry. Available at National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, (703) 605-6000 or (800) 553-6847.

~~q.~~ ~~"ASTM Standard Test Method for Vapor Pressure - Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope", ASTM Standard D 2879-92, available from American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania, 19103.~~

2. The references listed in subsection 1 are also available for inspection at the Office of the Federal Register, 800 North Capitol Street Northwest,

Suite 700, Washington, D.C. 20408. These incorporations by reference were approved by the director of the federal register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the federal register.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-01-06. General rulemaking petitions.

1. Any person may petition the department to modify or revoke any provisions in chapters 33-24-01 through 33-24-05. This section sets forth general requirements which apply to all such petitions. Section 33-24-01-07 sets forth additional requirements for petitions to add a testing or analytical method to chapter 33-24-02 or ~~33-24-05~~ sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, 33-24-05-550 through 33-24-05-559, and 33-24-05-800 through 33-24-05-819 or subsection 5 of section 33-24-06-16. Section 33-24-01-08 sets forth additional requirements for petitions to exclude a waste or waste-derived material at a particular facility from section 33-24-02-03 or the lists of hazardous wastes in ~~chapter 33-24-02 and~~ sections 33-24-02-15 through 33-24-02-19. Section 33-24-01-08 sets forth additional requirements for petitions to amend ~~chapter 33-24-05~~ sections 33-24-05-701 through 33-24-05-799 to include additional hazardous wastes or categories of hazardous waste as universal waste.

2. Each petition must be submitted to the department by certified mail and must include:

   a. The petitioner's name and address;

   b. A statement of the petitioner's interest in the proposed action;

   c. A description of the proposed action, including (where appropriate) suggested regulatory language; and

   d. A statement of the need and justification for the proposed action, including any supporting tests, studies, or other information.

3. The department will make a tentative decision to grant or deny a petition and will publish notice of such tentative decision.

4. Upon the written request of any interested person, the department may, at its discretion, hold an informal public hearing to consider oral comments on the tentative decision. A person requesting a hearing

must state the issues to be raised and explain why written comments would not suffice to communicate the person's views. The department may, in any case, decide on its own motion to hold an informal public hearing.

5. After evaluating all public comments, the department will make a final decision.

History: Effective January 1, 1984; amended effective December 1, 1988; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-01-08. Petitions to amend chapter 33-24-02 to exclude a waste produced at a particular facility and amend chapter 33-24-05 to include additional hazardous waste or wastes as universal waste.

1. Any person seeking to exclude a waste at a particular generating facility from the lists in sections 33-24-02-15 through 33-24-02-18 may petition for a regulatory amendment under this section and section 33-24-01-06. To be successful:

   a. The petitioner must demonstrate to the satisfaction of the department that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or an acutely hazardous waste; and

   b. Based on a complete application, the department must determine, where it has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of sections 33-24-02-10 through 33-24-02-14.

2. The procedures in this section and section 33-24-01-06 may also be used to petition the department for a regulatory amendment to exclude waste from paragraph 2 of subdivision b of subsection 1 of section 33-24-02-03 or subsection 3 of section 33-24-02-03, a waste which is described in these sections and is either a waste listed in sections 33-24-02-15 through 33-24-02-18, or is derived from a waste listed in sections 33-24-02-15 through 33-24-02-18. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner must make the same demonstration as required by subsection 1. Where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, this demonstration must be made with respect to the waste mixture as a whole; analysis must be conducted for not only those constituents for which the listed waste contained in the mixture

was listed as hazardous, but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste. A waste which is so excluded may still be a hazardous waste by operation of sections 33-24-02-10 through 33-24-02-14.

3. If the waste is listed with codes "I", "C", "R", or "E" in sections 33-24-02-15 through 33-24-02-18:

   a. The petitioner must show that the waste does not exhibit the relevant characteristics for which the waste was listed as defined in sections 33-24-02-11, 33-24-02-12, 33-24-02-13, or 33-24-02-14 using any applicable methods prescribed therein. The petitioner also must show that the waste does not exhibit any of the other characteristics defined in sections 33-24-02-11, 33-24-02-12, 33-24-02-13, or 33-24-02-14 using any applicable methods prescribed therein.

   b. Based on a complete application, the department must determine, where it has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of sections 33-24-02-10 through 33-24-02-14.

4. If the waste is listed with code "T" in sections 33-24-02-15 through 33-24-02-18:

   a. The petitioner must demonstrate that the waste:

      (1) Does not contain the constituent or constituents (as defined in appendix IV of chapter 33-24-02) that caused the department to list the waste, using the appropriate test methods prescribed in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05; or

      (2) Containing one or more of the hazardous constituents (as defined in appendix IV of chapter 33-24-02) that caused the department to list the waste, does not meet the criterion of subdivision c of subsection 1 of section 33-24-02-09 when considering the factors used by the department in paragraphs 1 through 11 of subdivision c of subsection 1 of section 33-24-02-09 under which the waste was listed as hazardous; and

   b. Based on a complete application, the department must determine where they have a reasonable basis to believe that factors

(including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

c. The petitioner must demonstrate that the waste does not exhibit any characteristics defined in sections 33-24-02-11, 33-24-02-12, 33-24-02-13, and 33-24-02-14.

d. A waste which is so excluded, however, still may be a hazardous waste by operation of sections 33-24-02-10 through 33-24-02-14.

5. If the waste is listed with the code "H" in sections 33-24-02-15 through 33-24-02-18:

   a. The petitioner must demonstrate that the waste does not meet the criterion of subdivision d of subsection 1 of section 33-24-02-09; ~~and~~

   b. Based on a complete application, the department must determine where it has a reasonable basis to believe that additional factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

   c. The petitioner must demonstrate that the waste does not exhibit any of the characteristics defined in sections 33-24-02-11, 33-24-02-12, 33-24-02-13, and 33-24-02-14 using any applicable methods prescribed therein.

   d. A waste which is so excluded, however, still may be a hazardous waste by operation of sections 33-24-02-10 through 33-24-02-14.

6. Reserved for listing radioactive wastes.

7. Reserved for listing infectious wastes.

8. Demonstration samples must consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

9. Each petition must include, in addition to the information required by subsection 2 of section 33-24-01-06:

   a. The name and address of the laboratory facility performing the sampling or tests of the wastes;

b. The names and qualifications of the persons sampling and testing the wastes;

c. The dates of sampling and testing;

d. The location of the generating facility;

e. A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

f. A description of the waste and an estimate of average and maximum monthly and annual quantities of waste covered by the demonstration;

g. Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste where the demonstration is based on the factors in subdivision c of subsection 1 of section 33-24-02-09;

h. A description of the methodologies and equipment used to obtain the representative sample;

i. A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, and preservation of the sample;

j. A description of the tests performed (including results);

k. The names and model numbers of the instruments used in performing the tests; and

l. The following statement signed by the generator of the waste or the generator's authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

10. After receiving a petition for an exclusion, the department may request any additional information which it may reasonably require to evaluate the petition.

11. An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to wastes from any other facility.

12. The department may exclude only part of the waste for which the demonstration is submitted ~~where~~ if it has reason to believe that variability of the waste justifies a partial exclusion.

13. Any person seeking to add a hazardous waste or category of hazardous waste to the universal waste regulations of ~~chapter 33-24-05~~ sections 33-24-05-701 through 33-24-05-799 may petition for a regulatory amendment under this subsection and sections 33-24-05-06, 33-24-05-760, and 33-24-05-761.

14. To be successful, the petitioner must demonstrate to the satisfaction of the department that regulation under the universal waste regulations of ~~chapter 33-24-05:~~ sections 33-24-05-701 through 33-24-05-799 is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition must include the information required by subsection 2 of section 33-24-01-06. The petition should include as many of the factors listed in section 33-24-05-761 as are appropriate for the waste or category of waste addressed in the petition.

15. The department will grant or deny a petition using the factors listed in section 33-24-05-761. The decision will be based on the weight of evidence showing that regulation under ~~chapter 33-24-05~~ sections 33-24-05-701 through 33-24-05-799 is appropriate for the waste or category of waste, will improve management for the waste or category of waste, and will improve implementation of the hazardous waste program.

16. The department may request additional information needed to evaluate the merits of the petition.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-01-16. Availability of information. All records related to this article not specifically protected by state or federal law must be made available to the public in accordance with the following provisions:

1. **Definitions.** For the purposes of this article:

   a. "Record" means any document, writing, photograph, sound or magnetic recording, drawing, or other similar thing by which

information has been preserved, from which the information can be retrieved and copied, and which is, was, or is alleged to be possessed by the department. The term includes informal writings (such as drafts and the like) and also includes information preserved in a form which must be translated or deciphered by machine in order to be intelligible to humans. The term includes documents and the like which were created or acquired by the department, its predecessors, its officers, and its employees by use of state funds or in the course of transacting official business. However, the term does not include materials which are legally owned by a department officer or employee in ~~his or her~~ that person's purely personal capacity. Nor does the term include materials published by nonstate organizations which are readily available to the public, such as books, journals, and periodicals available through reference libraries, even if such materials are in the department's possession.

b. "Request" means a request to inspect or obtain a copy of one or more records.

c. "Requester" means any person who has submitted a request to the department.

2. **Requests to which this section applies.**

a. This section applies to any written request received by the department whether or not it cites this availability of information section.

b. Any written request to the department for existing records prepared by the department for routine public distribution, for example, pamphlets, copies of speeches, press releases, and educational materials must be honored. No individual determination is necessary in such cases, since preparation of the records for routine public distribution itself constitutes a determination that the records are available to the public.

3. **Requests which do not reasonably describe records sought.** The department will make every reasonable effort to assist in the identification and description of records sought and to assist the requester in formulating ~~his~~ a request. If a request is described in general terms (for example, all records having to do with a certain area), the department may communicate with the requester (by telephone when practicable) with a view toward reducing the administrative burden of processing a broad request and minimizing the fees payable by the requester. Such attempts will not be used as a means to discourage requests, but rather as a means to help identify more specificity the records actually sought.

4. **Time allowed for issuance of initial determination.**

a. Except as otherwise provided in this section, not later than the tenth working day after the date of receipt of a request for records, the department shall issue a written determination to the requester stating which of the requested records will, and which will not, be released and the reason for any denial of a request. If the records are not known to exist or are not in the department's possession, the department shall so inform the requester. To the extent requested records which are in the department's possession are published by the department, the response may inform the requester that the records are available for inspection and where copies can be obtained.

b. The period of ten working days must be measured from the date the request is first received and logged into the department.

c. There must be excluded from the period of ten working days (or any extension thereof) any time which elapses between the date that a requester is notified by the department that ~~his~~ the person's request does not reasonably identify the records sought, and the date that the requester furnishes a reasonable identification.

d. There must be excluded from the period of ten working days (or any extension thereof) any time which elapses between the date that a requester is notified by the department that prepayment or assurance of payment of fees is required, and the date the requester pays (or makes suitable arrangements to pay) such charges.

e. The department may extend the basic ten-day period established under subdivision a by a period not to exceed ten additional working days, by furnishing written notice to the requester within the basic ten-day period, stating the reasons for such extension and a date by which the office expects to be able to issue a determination. The period may be so extended only when absolutely necessary, only for the period required, and only when one or more of the following unusual circumstances require the extension:

(1) There is a need to search and collect the requested records from field facilities or other establishments that are separate from the office processing the request;

(2) There is a need to search for, collect, and appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(3) There is a need for consultation, which must be conducted with all practicable speed, with another division having a substantial interest in the determination of the request.

f. Failure of the department to issue a determination within the ten-day period or any authorized extension constitutes final department action which authorizes the requester to commence an action in an appropriate state district court to obtain the records.

5. **Initial denials of requests.**

a. An initial denial of a request may be issued only for the following reasons:

(1) The records requested are specifically protected by state or federal law; or

(2) The records are deemed enforcement-sensitive.

b. Each initial determination which denies, in whole or in part, a request for one or more existing located records must state that the requester may appeal the initial denial by sending a written appeal to the department within thirty days of receipt of the determination.

6. **Appeals from initial denials - Manner of making.**

a. Any person whose request for one or more existing, located department records has been denied, in whole or in part, by an initial determination may appeal that denial by addressing a written appeal to the department.

b. An appeal should be mailed no later than thirty calendar days after the date the requester received the initial determination on the request. An untimely appeal may be treated either as a timely appeal or as a new request.

c. The appeal letter must contain a reference to the ~~regard~~ subject line, the date of initial determination, and the name and address of the person who issued the initial denial. The appeal letter must also indicate which of the records to which access was denied are the subjects of the appeal.

7. **Appeal determination - By whom made.** The department's legal counsel shall make one of the following legal determinations in connection with an appeal from the initial denial of a request for an existing, located record:

a. The record must be disclosed;

b. The record must not be disclosed because a statute or a provision of this section so requires; or

c. The record is exempt from mandatory disclosure but legally may be disclosed as a matter of department discretion.

8. **Contents of determination denying appeal.** A determination denying an appeal from an initial denial must be in writing, must state which of the exemptions apply to each requested existing record, and must state the reasons for denial of the appeal. A denial determination must also state the name and position of the department employee who directed that the appeal be denied. Such a determination must further state that the person whose request was denied may obtain de novo judicial review of the denial by complaint filed with the district court of the United States in the district in which the complainant resides, or in which the department's records are located. However, no determination denying an appeal may reveal the existence or nonexistence of records if identifying the mere fact of the existence or nonexistence of those records would reveal confidential business information, confidential personal information, or a confidential investigation. Instead of identifying the existence or nonexistence of the records, the determination must state that the appeal is denied because either the records do not exist or they are exempt from mandatory disclosure.

9. **Time allowed for issuance of appeal determination.**

a. Except as otherwise provided in this section, not later than the twentieth working day after the date of receipt of the informational request of an appeal from an initial denial of a request for records, the department's legal counsel shall issue a written determination stating which of the requested records (as to which an appeal was made) shall be disclosed and which shall not be disclosed.

b. The period of twenty working days must be measured from the date an appeal is first received by the department.

c. The department's legal counsel may extend the basic twenty-day period established under subdivision a by a period not to exceed ten additional working days, by furnishing written notice to the requester within the basic twenty-day period stating the reason for such extension and the date by which the office expects to be able to issue a determination. The period may be so extended only when absolutely necessary, only for the period required, and only when one or more of the following unusual circumstances require the extension:

(1) There is a need to search for and collect the records from field facilities or other establishments that are separate from the office processing the appeal;

(2) There is need to search for, collect, and appropriately examine a voluminous amount of separate and distinct records which are demanded in a single request; or

(3) There is a need for consultation, which must be conducted with all practicable speed, with another division having a substantial interest in the determination of the request.

d. No extension of the twenty-day period shall be issued under subdivision c which would cause the total of all such extensions to exceed ten working days.

10. **Failure to decide on appeal by deadline.** Failure to decide if an appealed record must be disclosed by the deadline imposed in this section constitutes final agency action and the requester's right to judicial review.

11. **Fees - Payments - Waiver.**

a. Fees will be charged requesters for searching for and producing requested records in accordance with department policy.

b. Reduction or waiver of fee. The fee chargeable under department policy must be reduced or waived by the department if the department determines that a waiver or reduction of the fee is in the public interest because furnishing the information can be considered as primarily benefiting the general public. Reduction or waiver of fees must be considered (need not necessarily be granted) in connection with each request from a representative of the press or other communications medium or from a public interest group.

History: Effective December 1, 1991; amended effective July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

CHAPTER 33-24-02

33-24-02-01. Purpose and scope.

1. This chapter identifies those solid wastes which are subject to regulation as hazardous wastes and which are subject to the notification requirements. In this chapter:

   a. Sections 33-24-02-01 through 33-24-02-07 define the terms "solid waste" and "hazardous waste", identify those wastes which were excluded from regulation under chapters 33-24-03 through 33-24-07, and establish special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.

   b. Sections 33-24-02-08 and 33-24-02-09 set forth the criteria used to identify characteristics of hazardous waste and to list particular hazardous waste.

   c. Sections 33-24-02-10 through 33-24-02-14 identify characteristics of hazardous waste.

   d. Sections 33-24-02-15 through 33-24-02-18 list particular hazardous wastes.

2. The definition of solid waste contained in this chapter:

   a. Applies only to wastes that also are hazardous for purposes of the rules implementing North Dakota Century Code chapter 23-20.3. For example, it does not apply to materials (such as nonhazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recyclable.

   b. This chapter identifies only some of the materials which are solid wastes and hazardous wastes under North Dakota Century Code chapter 23-20.3. A material which is not defined as a solid waste in this chapter or is not a hazardous waste identified or listed in this chapter, is still a solid waste and a hazardous waste for purposes of these sections if:

      (1) In the case of North Dakota Century Code section 23-20.3-06, the department has reason to believe that the material may be a hazardous waste within the meaning of subsection 5 of North Dakota Century Code section 23-20.3-02; or

      (2) In the case of North Dakota Century Code section 23-20.3-08, the statutory elements are established.

3. For the purpose of sections 33-24-02-02 and 33-24-02-06:

a. A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

b. "Sludge" has the same meaning used in section 33-24-01-04.

c. A "byproduct" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residue, such as slags or distillation column bottoms. The term does not include a coproduct that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

d. A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

e. A material is "used or reused" if it is either:

(1) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal containing secondary materials); or

(2) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner or in wastewater treatment).

f. "Scrap metal" is bits and pieces of metal parts (for example, bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (for example, radiators, scrap automobiles, railroad boxcars), which when worn or superfluous can be recycled.

g. A material is "recycled" if it is used, reused, or reclaimed.

h. A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that during the calendar year (commencing on January first) the amount of material that is recycled, or transferred to a different site for recycling, equals at least seventy-five percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of

turnover, the seventy-five percent requirement is to be applied to each material of the same type (for example, slags from a single smelting process) that is recycled in the same way (for example, from which the same material is recovered or that is used in the same way). Material accumulating in units that would be exempt from regulation under subsection 3 of section 33-24-02-04 are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

i. "Excluded scrap metal" is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

j. "Home scrap metal" is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

k. "Processed scrap metal" is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type (for example, sorted), and fines, drosses, and related materials which have been agglomerated. (Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled (subdivision n of subsection 1 of section 33-24-02-04)).

l. "Prompt scrap metal" is scrap metal as generated by the metal working and fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap metal is also known as industrial or new scrap metal.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-02. Definition of solid waste.

1. A solid waste is:

   a. Any discarded material that is not excluded by subsection 1 of section 33-24-02-04 or that is not excluded by variance granted under sections 33-24-01-09 and 33-24-01-10.

   b. A discarded material is any material which is:

(1) Abandoned, as explained in subsection 2;

(2) Recycled, as explained in subsection 3; ~~or~~

(3) Considered inherently wastelike, as explained in subsection 4~~.~~; or

(4) A military munition identified as a solid waste in section 33-24-05-822.

2. Materials are solid wastes if they are abandoned by being:

a. Disposed of;

b. Burned or incinerated; or

c. Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

3. Materials are solid wastes if they are recycled or accumulated, stored, or treated before recycling as specified in subdivisions a through d ~~of subsection 3~~.

a. Used in a manner constituting disposal.

(1) Materials noted with ~~an "asterisk"~~ a "*" in column 1 of table 1 are solid wastes when they are:

(a) Applied to or placed on the land in a manner that constitutes disposal; or

(b) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which case the product itself remains a solid waste).

(2) However, commercial chemical products listed in section 33-24-02-18 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

b. Burning for energy recovery.

(1) Materials noted with ~~an "asterisk"~~ a "*" in column 2 of table 1 are solid wastes when they are:

(a) Burned to recover energy; or

(b) Used to produce a fuel or are otherwise contained in fuels (in which case the fuel itself remains a solid waste).

(2) However, commercial chemical products listed in section 33-24-02-18 are not solid wastes if they are themselves fuels.

c. Reclaimed. Materials noted with ~~an "asterisk"~~ a "*" in column 3 of table 1 are solid wastes when reclaimed (except as provided by subdivision q of subsection 1 of section 33-24-02-04). Materials noted with a "-" in column 3 of chart 1 are not solid wastes when reclaimed.

d. Accumulated speculatively. Materials noted with ~~an "asterisk"~~ a "*" in column 4 of table 1 are solid wastes when accumulated speculatively.

4. Inherently wastelike materials. The following materials are solid wastes when they are recycled in any manner:

a. Hazardous waste numbers F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

b. Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in sections 33-24-02-10 through 33-24-02-19, except for brominated material that meets the following criteria:

(1) The material must contain a bromine concentration of at least forty-five percent;

(2) The material must contain less than a total of one percent of toxic organic compounds listed in appendix V of chapter 33-24-02; and

(3) The material is processed continually onsite in the halogen acid furnace via direct conveyance (hard piping).

c. The department will use the following criteria to add wastes to that list:

(1) The materials:

(a) Are ordinarily disposed of, burned, or incinerated; or

(b) Contain toxic constituents listed in appendix V of chapter 33-24-02 and these constituents are not

ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(2) The material may pose a substantial hazard to human health and the environment when recycled.

5. Materials that are not solid waste when recycled:

a. Materials are not solid waste when they can be shown to be recycled by being:

(1) Used or reused as ingredients in an industrial process to make a product provided the materials are not being reclaimed;

(2) Used or reused as effective substitutes for commercial products; or

(3) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned if a substitute for feedstock materials. ~~In cases where~~ When the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. When the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at subdivision q of subsection 1 of section 33-24-02-04 apply rather than this paragraph.

b. The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs 1 through 3 of subdivision a ~~of subsection 5~~):

(1) Materials used in a manner constituting disposal, or used to produce products that are applied to the land;

(2) Materials burned for energy recovery, used to produce a fuel, or contained in fuels;

(3) Materials accumulated speculatively; or

(4) Materials listed in subdivisions a and b of subsection 4.

6. Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations implementing North Dakota Century Code chapter 23-20.3 who raise a claim that a certain material is not a solid waste,

or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from the regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

CHART 1

	Use Constituting Disposal Subdivision a of Subsection 3 of Section 33-24-02-02 (1)	Energy Recovery/Fuel Subdivision b of Subsection 3 of Section 33-24-02-02 (2)	Reclamation Subdivision c of Subsection 3 of Section 33-24-02-02[1] (3)	Speculative Accumulation Subdivision d of Subsection 3 of Section 33-24-02-02 (4)
Spent materials	(*)	(*)	(*)	(*)
Sludges (listed in Section 33-24-02-16 or Section 33-24-02-17 of Chapter 33-24-02)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
Byproducts (listed in Section 33-24-02-16 or Section 33-24-02-17 of Chapter 33-24-02)	(*)	(*)	(*)	(*)
Byproducts exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
Commercial chemical products (listed in Section 33-24-02-18 of Chapter 33-24-02	(*)	(*)	-	-
Scrap metal other than excluded scrap metal (see Subdivision i of Subsection 3 of Section 33-24-02-01)	(*)	(*)	(*)	(*)

[1]Except as provided by Subdivision q of Subsection 1 of Section 33-24-02-04 for mineral processing secondary materials.
Note - The terms "spent materials", "sludges", "byproducts" ~~and~~, "scrap metal", and "processed scrap metal" are defined in Section 33-24-02-01.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-04

33-24-02-03. Definition of hazardous waste.

1. A solid waste, as defined in section 33-24-02-02, is a hazardous waste if:

   a. It is not excluded from regulation as a hazardous waste under subsection 2 of section 33-24-02-04; and

   b. It meets any of the following criteria:

      (1) It exhibits any of the characteristics of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14 ~~except that.~~ However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under subdivision g of subsection 2 of section 33-24-02-04 and any other solid waste exhibiting a characteristic of hazardous waste under sections 33-24-02-10 through 33-24-02-14 is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred or if it continues to exhibit any of the characteristics exhibited by the nonexcluded wastes prior to mixture. Further, for the purposes of applying the toxicity characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table 1 to section 33-24-02-14 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to the mixture.

      (2) It is listed in this chapter and has not been excluded from the lists in this chapter under sections 33-24-01-06 and 33-24-01-08.

      (3) ~~It is a mixture of a solid waste and a hazardous waste that is listed in sections 33-24-02-15 through 33-24-02-19 solely because it exhibits one or more of the characteristics of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14, or unless the solid waste is excluded from regulation under subdivision g of subsection 2 of section 33-24-02-04 and the resultant mixture no longer exhibits any characteristic of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14 for which the hazardous waste listed in sections 33-24-02-15 through 33-24-02-19 was listed. (However, nonwastewater mixtures are still subject to the requirements of sections 33-24-05-250 through 33-24-05-299, even if they no longer exhibit a characteristic at the point of land disposal.)~~ [Reserved]

(4) It is a mixture of solid waste and one or more hazardous wastes listed in ~~this chapter~~ sections 33-24-02-15 through 33-24-05-22 and has not been excluded from this ~~paragraph~~ subdivision under sections 33-24-01-06 and 33-24-01-08, or subsection 7 or 8; however, the following mixtures of solid wastes and hazardous wastes listed in ~~this chapter~~ sections 33-24-02-15 through 33-24-02-22 are not hazardous wastes (except by application of paragraph 1 or 2 of subdivision b ~~of subsection 1~~) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under subsections 18 and 19, or subsection 25 of North Dakota Century Code section 61-28-04 (including wastewater at the facilities which have eliminated the discharge of wastewater) and:

(a) One or more of the following spent solvents listed in section 33-24-02-16 - carbon tetrachloride, tetrachloroethylene, trichloroethylene - provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed one part per million;

(b) One or more of the following spent solvents listed in section 33-24-02-16 - methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents - provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed twenty-five parts per million;

(c) One of the following wastes listed in section 33-24-02-17, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation - heat exchanger bundle cleaning sludge from the petroleum refining industry (~~environmental protection agency~~ hazardous waste number K050), crude oil storage tank sediment from petroleum refining operations (hazardous waste number K169), clarified slurry oil tank sediment or in-line filter/separation solids, or both, from petroleum

refining operations (hazardous waste number K170), spent hydrotreating catalyst (hazardous waste number K171), and spent hydrorefining catalyst (hazardous waste number K172);

(d) A discarded chemical commercial product, or chemical intermediate listed in section 33-24-02-18, arising from de minimus losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, "de minimus" losses include those from normal material handling operations, e.g., spills from the unloading or transfer of materials from bins or other containers and leaks from pipes, valves, or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing;

(e) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in ~~this chapter~~ sections 33-24-02-15 through 33-24-02-19, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system, or provided the wastes combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; ~~or~~

(f) One or more of the following wastes listed in section 33-24-02-17 - wastewaters from the production of carbamates and carbamoyl oximes (~~environmental protection agency~~ hazardous waste number K157) - provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, ~~for example~~ that is, what is discharged or volatilized) divided by the

average weekly flow of process wastewater prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of five parts per million by weight; or

(g) Wastewaters derived from the treatment of one or more of the following wastes listed in section 33-24-02-17 - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (~~environmental protection agency~~ hazardous waste number K156) - provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of five milligrams per liter.

(5) Rebuttable presumption for used oil. Used oil containing more than one thousand parts per million total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in sections 33-24-02-15 through 33-24-02-19. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from environmental protection agency publication SW-846, as referenced in section 33-24-01-05, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix V of chapter 33-24-02).

(a) The rebuttable presumption does not apply to metalworking oils or fluids, or both, containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils or fluids, or both. The presumption does apply to metalworking oils or fluids, or both, if such oils or fluids, or both, are recycled in any other manner, or disposed.

(b) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons removed from refrigeration units where the chlorofluorocarbons are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with chlorofluorocarbons that have been mixed with used oil from sources other than refrigeration units.

2. A solid waste which is not excluded from regulation under subdivision a of subsection 1 becomes a hazardous waste when any of the following events occur:

   a. In the case of a waste listed in this chapter, when the waste first meets the listing description set forth in this chapter.

   b. In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in this chapter is first added to the solid waste.

   c. In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in this chapter.

3. Unless and until it meets the criteria of subsection 4:

   a. A hazardous waste will remain a hazardous waste.

   b. Except as otherwise provided in paragraph 2:

      (1) ~~Any~~ Except as otherwise provided in paragraph 2, or subsection 7 or 8, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation runoff) is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

      (2) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

         (a) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (~~SIC~~ standard industrial codes 331 and 332).

         (b) Wastes from burning any of the materials exempted from regulation by paragraphs ~~5 through 6~~ 3 and 4 of subdivision c of subsection 1 of section 33-24-02-06.

         (c) Nonwastewater residue.

            [1] Nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR)

processing of K061, K062, or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces (as defined in the definition for "industrial furnace" in section 33-24-01-04), that are disposed in solid waste management units, provided that these residues meet the generic exclusion levels identified in the tables in this paragraph for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly ~~and~~ or when the process or operation generating the waste changes or both. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Constituent	Maximum for Any Single Composite Sample - Toxicity Characteristic Leaching Procedure (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater high temperature metals recovery residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater high temperature metals recovery residues	
Antimony	0.10

Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

[2] A one-time notification and certification must be placed in the facility's files and sent to the department for K061, K062, or F006 high temperatures metal recovery residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to solid waste management units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes or if the solid waste management unit receiving the waste changes. However, the generator or treater need only notify the department on an annual basis if such changes occur. Such notification and certification should be sent to the department by the end of the calendar year, but no later than December thirty-first. The notification must include the following information: the name and address of the solid waste management unit receiving the waste shipments; the hazardous waste numbers and treatability groups at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties

for submitting a false certification, including the possibility of fine and imprisonment."

(d) Biological treatment sludge from the treatment of one of the following wastes listed in section 33-24-02-17 - organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (~~environmental protection agency~~ hazardous waste number K156), and wastewaters from the production of carbamates and carbamoyl oximes (~~environmental protection agency~~ hazardous waste number K157).

(e) Catalyst inert support media separated from one of the following wastes listed in section 33-24-02-17, spent hydrotreating catalyst, hazardous waste number K171, and spent hydrorefining catalyst, hazardous waste number K172.

4. Any solid waste described in subsection 3 is not a hazardous waste if it meets the following criteria:

   a. In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of sections 33-24-05-250 through 33-24-05-299, even if they no longer exhibit a characteristic at the point of land disposal.); or

   b. In the case of a waste which is a listed waste under this chapter, contains a waste listed in this chapter or is derived from a waste listed in this chapter, it also has been excluded from subsection 3 under sections 33-24-01-06 and 33-24-01-08.

5. Notwithstanding subsections 1 through 4 and provided the debris as defined in sections 33-24-05-250 through 33-24-05-299 does not exhibit a characteristic identified at sections 33-24-05-210 through 33-24-05-214, the following materials are not subject to regulation under chapter 33-24-01, 33-24-02, 33-24-03, 33-24-04, 33-24-05, or 33-24-06:

   a. Hazardous debris as defined in sections 33-24-05-250 through 33-24-05-299 that has been treated using one of the required extraction or destruction technologies specified in table 1 of section 33-24-05-285; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

b. Debris as defined in sections 33-24-05-250 through 33-24-05-299 that the department, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

6. [Reserved]

7. A hazardous waste that is listed in sections 33-24-02-15 through 33-24-02-22 solely because it exhibits one or more characteristics of ignitability as defined under section 33-24-02-11, corrosivity as defined under section 33-24-02-12, or reactivity as defined under section 33-24-02-13 is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14.

   a. The exclusion described in this subsection also pertains to:

      (1) Any mixture of a solid waste and a hazardous waste listed in sections 33-24-02-15 through 33-24-02-22 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph 4 of subdivision b of subsection 1; and

      (2) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in sections 33-24-02-15 through 33-24-02-22 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph 1 of subdivision b of subsection 3.

   b. Wastes excluded under this subsection are subject to the land disposal restrictions in sections 33-24-05-250 through 33-24-05-299, as applicable, even if the wastes no longer exhibit a characteristic at the point of land disposal.

   c. Any mixture of a solid waste excluded from regulation under subdivision g of subsection 2 of section 33-24-02-04 and a hazardous waste listed in sections 33-24-02-15 through 33-24-02-19 solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under paragraph 4 of subdivision b of subsection 1 is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14 for which the hazardous waste listed in sections 33-24-02-15 through 33-24-02-19 was listed.

8. Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of sections 33-24-05-850 through 33-24-05-949 "eligible radioactive mixed waste".

   a. The exemption described in this subsection also pertains to:

(1) Any mixture of a solid waste and an eligible radioactive mixed waste; and

(2) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.

b. Waste exempted under this subsection must meet the eligibility criteria and specified conditions in sections 33-24-05-856 and 33-24-05-857, for storage and treatment, and in sections 33-24-05-890 and 33-24-05-895, for transportation and disposal. Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-04. Exclusions.

1. **Materials that are not solid wastes.** The following materials are not solid wastes for the purpose of this chapter:

   a. Domestic sewage and any mixture of domestic sewage and other wastes that ~~passes~~ pass through a sewer system to a publicly owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

   b. Industrial wastewater discharges that are point source discharges subject to regulation under subsections 18 and 19 of North Dakota Century Code section 61-28-04. (Comment: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored, or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.)

   c. Irrigation return flows.

   d. Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended [42 U.S.C. 2011 et seq.].

   e. Materials subjected to in situ mining techniques which are not removed from the ground as part of the extraction process.

   f. Pulping liquors (for example, black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in subsection 3 of section 33-24-02-01.

g. Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in subsection 3 of section 33-24-02-01.

h. Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(1) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(2) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(3) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(4) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

i. Wood preserving:

(1) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and

(2) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(3) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in paragraphs 1 and 2, so long as they meet all of the following conditions:

(a) The wood preserving wastewaters and spent wood preserving solutions are reused onsite at waterborne plants in the production process for their original intended purpose;

(b) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or ground water or both;

(c) Any unit used to manage wastewaters and spent wood preserving solutions, or both, prior to reuse can be visually or otherwise determined to prevent such releases;

(d) Any drip pad used to manage the wastewaters and spent wood preserving solutions, or both, prior to reuse complies with the applicable standards in subsection 5 of section 33-24-06-16, regardless of whether the plant generates a total of less than one hundred kilograms per month of hazardous waste; and

(e) Prior to operating pursuant to this exclusion, the plant owner or operator submits to the department a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language:

"I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation."

The plant must maintain a copy of that document in its onsite records for a period of no less than three years from the date specified in the notice. The exclusion applies only so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the department for reinstatement. The department may reinstate the exclusion upon finding that the plant has returned to compliance with all conditions and that violations are not likely to recur.

j. Hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke ~~by-products~~ byproducts processes that are hazardous only because they exhibit the toxicity characteristic specified in section 33-24-02-14 when, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

k. Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.

l. ~~Recovered oil from petroleum refining, exploration and production, and from transportation incident thereto, which is to be inserted into the petroleum refining process (standard industrial classification code 2911) at or before a point, other than direct insertion into a coker, where contaminants are removed. This exclusion applies to recovered oil stored or transported prior to insertion, except that the oil must not be stored in a manner involving placement on the land, and must not be accumulated speculatively, before being so recycled. Recovered oil is oil that has been reclaimed from secondary materials, such as wastewater, generated from normal petroleum refining, exploration and production, and transportation practices. Recovered oil includes oil that is recovered from refinery wastewater collection and treatment systems, oil recovered from oil and gas drilling operations, and oil recovered from wastes removed from crude oil storage tanks. Recovered oil does not include oil-bearing hazardous wastes listed in sections 33-24-02-14 through 33-24-02-18 (for example, K048 through K052, F0937, F038). However, oil recovered from such wastes may be considered recovered oil. Recovered oil also does not include used oil as defined in section 33-24-05-600.~~ Materials considered:

(1) Oil-bearing hazardous secondary materials (for example, sludges, byproducts, or spent materials) that are generated at a petroleum refinery (standard industrial code 2911) and are inserted into the petroleum refining process (standard industrial code 2911 - including, but not limited to, distillation, catalytic cracking, fractionation, or thermal cracking units (for example, cokers)) unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under this paragraph, provided that the core product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery, and still be excluded under this provision. Except as provided in paragraph 2, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (for example, from sources other than petroleum refineries) are not excluded under this paragraph. Residuals generated from processing or recycling materials excluded under paragraph 1, where such materials as generated would have otherwise met a listing under sections 33-24-02-15 through 33-24-02-22, are designated as F037 listed wastes when disposed or intended for disposal.

(2) Recovered oil that is recycled in the same manner and with the same conditions as described in paragraph 1.

Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (standard industrial codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in sections 33-24-02-15 through 33-24-02-22; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in section 33-24-05-600.

m. Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

n. Shredded circuit boards being recycled provided that they are:

(1) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(2) Free of mercury switches, mercury relays, and nickel-cadmium batteries and lithium batteries.

o. Condensates derived from the overhead gases from kraft mill stream strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

p. Comparable fuels or comparable syngas fuels (for example, comparable/syngas fuels) that meet the requirements of section 33-24-02-22.

q. Spent materials (as defined in section 33-24-02-01) (other than hazardous wastes listed in sections 33-24-02-15 through 33-24-02-22) generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing, or by beneficiation, provided that:

(1) The spent material is legitimately recycled to recover minerals, acids, cyanide, water, or other values;

(2) The spent material is not accumulated speculatively;

(3) Except as provided in paragraph 4, the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building must be an engineered structure with a floor, walls, and a roof all of which are made of nonearthen materials providing

structural support (except smelter buildings may have partially earthen floors provided the secondary material is stored on the nonearthen portion), and have a roof suitable for diverting rainwater away from the foundation; a tank must be freestanding, not be a surface impoundment (as defined in section 33-24-01-04), and be manufactured of a material suitable for containment of its contents; a container must be freestanding and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner or operator must operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings must be designed, constructed, and operated to prevent significant releases to the environment of these materials.

(4) The department may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads, rather than in tanks, containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The decisionmaker must affirm that pads are designed, constructed, and operated to prevent significant releases of the secondary material into the environment. Pads must provide the same degree of containment afforded by the non-Resource Conservation and Recovery Act tanks, containers, and buildings eligible for exclusion.

(a) The decisionmaker must also consider if storage on pads poses the potential for significant releases via ground water, surface water, and air exposure pathways. Factors to be considered for assessing the ground water, surface water, and air exposure pathways are the volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway; and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(b) Pads must meet the following minimum standards: be designed of nonearthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal; have run-on or runoff controls, or both; be operated in a manner which controls fugitive dust; and have integrity assurance through inspections and maintenance programs.

(c) Before making a determination under this paragraph, the department must provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers or broadcasting notice over local radio stations.

(5) The owner or operator provides a notice to the department, identifying the following information: the types of materials to be recycled, the type and location of the storage units and recycling processes, and the annual quantities expected to be placed in nonland-based units. This notification must be updated when there is a change in the type of materials recycled or the location of the recycling process.

(6) For purposes of subdivision g of subsection 2, mineral processing spent materials must be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by nonmineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

r. Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (standard industrial code 2911) along with normal petroleum refinery process streams, provided:

(1) The oil is hazardous only because it exhibits the characteristic of ignitability (as defined in section 33-24-02-11) or toxicity for benzene (as defined in section 33-24-02-14, hazardous waste code D018), or both; and

(2) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary standard industrial code is 2869, but where operations may also include standard industrial codes 2821, 2822, and 2865; and is physically colocated with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials (for example, sludges, byproducts, or spent materials, including wastewater) from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

s. Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in subsection 3 of section 33-24-02-01.

t. Hazardous secondary materials used to make zinc fertilizers, provided that the following conditions specified are satisfied:

(1) Hazardous secondary materials used to make zinc micronutrient fertilizers must not be accumulated speculatively, as defined in subdivision h of subsection 3 of section 33-24-02-01.

(2) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers must:

(a) Submit a one-time notice to the department, which contains the name, address, and identification number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in this subdivision.

(b) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose must be an engineered structure made of nonearthen materials that provide structural support, and must have a floor, walls, and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose must be structurally sound and, if outdoors, must have roofs or covers that prevent contact with wind and rain. Containers used for this purpose must be kept closed except when it is necessary to add or remove material, and must be in sound condition. Containers that are stored outdoors must be managed within storage areas that:

[1] Have containment structures or systems sufficiently impervious to contain leaks, spills, and accumulated precipitation;

[2] Provide for effective drainage and removal of leaks, spills, and accumulated precipitation; and

[3] Prevent run-on into the containment system.

(c) With each offsite shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of this subdivision.

(d) Maintain at the generator's or intermediate handler's facility for no less than three years records of all shipments of excluded hazardous secondary materials. For each shipment these records must at a minimum contain the following information:

[1] Name of the transporter and date of the shipment;

[2] Name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and

[3] Type and quantity of excluded secondary material in each shipment.

(3) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials must:

(a) Store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in subparagraph b of paragraph 2 of subdivision t.

(b) Submit a one-time notification to the department that, at a minimum, specifies the name, address, and identification number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in this subdivision.

(c) Maintain for a minimum of three years records of all shipments of excluded hazardous secondary materials received by the manufacturer, which must at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.

(d) Submit to the department an annual report that identifies the total quantities of all excluded hazardous

secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process or processes from which they were generated. The annual report shall be submitted by March first of every year.

(4) Nothing in this section preempts, overrides, or otherwise negates the provision in section 33-24-03-02, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(5) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in subparagraph a of paragraph 2 of subdivision t, and that afterward will be used only to store hazardous secondary materials excluded under this paragraph, are not subject to the closure requirements of sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, 33-24-05-550 through 33-24-05-559, and 33-24-05-800 through 33-24-05-891 and the applicable requirements of subsection 5 of section 33-24-06-16.

u. Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under subdivision t, provided that:

(1) The fertilizers meet the following contaminant limits:

(a) For metal contaminants:

Constituent	Maximum Allowable Total Concentration in Fertilizer, Per Unit (1 Percent) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

(b) For dioxin contaminants the fertilizer must contain no more than eight parts per trillion of dioxin, measured as toxic equivalent (TEQ).

(2) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the

contaminant limits for metals no less than every six months, and for dioxins no less than every twelve months. Testing must also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product or products introduced into commerce.

(3) The manufacturer maintains for no less than three years records of all sampling and analyses performed for purposes of determining compliance with the requirements of paragraph 2 of subdivision u. Such records must at a minimum include:

(a) The dates and times product samples were taken and the dates the samples were analyzed;

(b) The names and qualifications of the person taking the samples;

(c) A description of the methods and equipment used to take the samples;

(d) The name and address of the laboratory facility at which analyses of the samples were performed;

(e) A description of the analytical methods used, including any cleanup and sample preparation methods; and

(f) All laboratory analytical results used to determine compliance with the contaminant limits specified in subdivision u.

2. **Solid wastes that are not hazardous wastes.** The following solid wastes are not hazardous wastes:

a. Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered, for example, refuse-derived fuel, or reused. "Household waste" means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels, and motels), bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). A resource recovery facility managing

municipal solid waste may not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purpose of regulation under this article, if such facility:

(1) Receives and burns only:

(a) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources); and

(b) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

(2) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

b. Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(1) The growing and harvesting of agricultural crops.

(2) The raising of animals, including animal manures.

c. Mining overburden returned to the minesite.

d. Fly ash waste, bottom ash waste, slag waste, and flue gas emission control ~~wastes~~ waste generated primarily from the combustion of coal or other fossil fuels, except as provided by section 33-24-05-537 for facilities that burn or process hazardous waste ~~not subject to section 33-24-05-526~~.

e. Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.

f. The following chromium-containing wastes:

(1) Wastes that fail the test for the toxicity characteristic because chromium is present or are listed in this chapter due to the presence of chromium, which do not fail the test for toxicity characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(a) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium;

(b) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(c) The waste is typically and frequently managed in nonoxidizing environments.

(2) Specific wastes which meet the standard of paragraph 1 (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not ~~fail the test for~~ exhibit any other ~~characteristics~~ characteristic) are:

(a) Chrome (blue) trimmings, chrome (blue) shavings, sewer screenings, and wastewater treatment sludges, generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(b) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; and through-the-blue.

(c) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(d) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(e) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

~~(f) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.~~

g. Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and

overburden from the mining of uranium ore), except as provided by section 33-24-05-537 for facilities that burn or process hazardous waste ~~not subject to section 33-24-05-526. For purposes of this subdivision, beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water or carbon dioxide, or both; roasting, autoclaving, or chlorination, or a combination thereof, in preparation for leaching (except where the roasting, autoclaving, or chlorination, or a combination thereof, leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing), gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching. For the purposes of this subdivision, solid waste from the processing of ores and minerals includes only the following wastes:~~.

(1) For purposes of this subdivision, beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water or carbon dioxide, or both; roasting, autoclaving, or chlorination, or a combination thereof, in preparation for leaching (except when the roasting, autoclaving, or chlorination or a combination thereof, and leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

(2) For the purposes of this subdivision, solid waste from the processing of ores and minerals includes only the following wastes as generated:

~~(1)~~ (a) Slag from primary copper processing;

~~(2)~~ (b) Slag from primary lead processing;

~~(3)~~ (c) Red and brown muds from bauxite refining;

~~(4)~~ (d) Phosphogypsum from phosphoric acid production;

~~(5)~~ (e) Slag from elemental phosphorous production;

~~(6)~~ (f) Gasifier ash from coal gasification;

~~(7)~~ (g) Process wastewater from coal gasification;

~~(8)~~ (h) Calcium sulfate wastewater treatment plant sludge from primary copper processing;

~~(9)~~ (i) Slag tailings from primary copper processing;

~~(10)~~ (j) Fluorogypsum from hydrofluoric acid production;

~~(11)~~ (k) Process wastewater from hydrofluoric acid production;

~~(12)~~ (l) Air pollution control dust or sludge from iron blast furnaces;

~~(13)~~ (m) Iron blast furnace slag;

~~(14)~~ (n) Treated residue from roasting or leaching of chrome ore;

~~(15)~~ (o) Process wastewater from primary magnesium processing by the anhydrous process;

~~(16)~~ (p) Process wastewater from phosphoric acid production;

~~(17)~~ (q) Basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production;

~~(18)~~ (r) Basic oxygen furnace and open hearth furnace slag from carbon steel production;

~~(19)~~ (s) Chloride process waste solids from titanium tetrachloride production; and

~~(20)~~ (t) Slag from primary zinc processing.

(3) A residue derived from coprocessing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under this subsection if the owner or operator:

(a) Processes at least fifty percent by weight normal beneficiation raw materials or with normal mineral processing raw materials; and

(b) Legitimately reclaims the secondary mineral processing materials.

h. Cement kiln dust waste, except as provided by section 33-24-05-537 for facilities that burn or process hazardous waste ~~not subject to section 33-24-05-526~~.

i. Solid waste that consists of discarded arsenical-treated wood or wood products which fails the test for the toxicity characteristic for hazardous waste codes D004 through D017 and which is not a hazardous waste for any other reason, if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials intended end use.

j. Petroleum-contaminated media and debris that fail the test for the toxicity characteristic of section 33-24-02-14 (hazardous waste codes D018 through D043 only) and are subject to the corrective action regulations under chapter 33-24-08.

k. Injected ground water that is hazardous only because it exhibits the toxicity characteristic (hazardous waste codes ~~D108~~ D018 through D043 only) in section 33-24-02-14 that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. For ground water returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if:

(1) Operations are performed pursuant to a written state agreement that includes a provision to assess the ground water and the need for further remediation once the free phase recovery is completed; and

(2) A copy of the written agreement has been submitted to: Characteristics Section (OS-333), United States Environmental Protection Agency, 401 M Street SW, Washington, D.C. 20460.

l. Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air-conditioning systems, mobile refrigeration, and commercial and industrial air-conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

m. Nonterne plated used oil filters that are not mixed with waste listed in sections 33-24-02-15 through 33-24-02-19 if these oil filters have been gravity hot-drained using one of the following methods:

(1) Puncturing the filter antidrain back valve or the filter dome end and hot-draining;

(2) Hot-draining and crushing;

(3) Dismantling and hot-draining; or

(4) Any other equivalent hot-draining method that will remove used oil.

n. Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

o. Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

(1) The solid wastes disposed would meet one or more of the listing descriptions for hazardous wastes codes K169, K170, K171, K172, K174, K175, K176, K177, and K178, if these wastes had been generated after the effective date of the listing;

(2) The solid wastes described in paragraph 1 were disposed prior to the effective date of the listing;

(3) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(4) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a publicly owned treatment works by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act; and

(5) As of February 13, 2001, leachate or gas condensate derived from K169 through K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (for example, shutdown of wastewater treatment

system), provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of this subdivision after the emergency ends.

3. **Hazardous wastes that are exempted from certain regulations.** A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit is not subject to regulation under chapters 33-24-03 through 33-24-07 or to the notification requirements until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than ninety days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

4. **Samples.**

   a. Except as provided in subdivision b, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this chapter or chapters 33-24-03 through 33-24-07 or to the notification requirements when:

      (1) The sample is being transported to a laboratory for the purpose of testing;

      (2) The sample is being transported back to the sample collector after testing;

      (3) The sample is being stored by the sample collector before transport to a laboratory for testing;

      (4) The sample is being stored in a laboratory before testing;

      (5) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

      (6) The sample is being stored temporarily in the laboratory after testing for a specific purpose, e.g., until conclusion of a court case or enforcement action ~~where~~ if further testing of the sample may be necessary.

   b. In order to qualify for the exemption in paragraphs 1 and 2 of subdivision a, a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

(1) Comply with the United States department of transportation, the United States postal service, or any other applicable shipping requirement; or

(2) Comply with the following requirements if the sample collector determines that the United States department of transportation, the United States postal service, or other shipping requirements do not apply to the shipment of the sample:

(a) Assure that the following information accompanies the sample:

[1] The sample collector's name, mailing address, and telephone number;

[2] The laboratory's name, mailing address, and telephone number;

[3] The quantity of the sample;

[4] The date of shipment; and

[5] A description of the sample.

(b) Package the sample so that it does not leak, spill, or vaporize from its packaging.

c. This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in subdivision a.

5. **Treatability study samples.**

a. Except as provided in subdivision b, persons who generate or collect samples for the purpose of conducting treatability studies as defined in section 33-24-01-04~~,~~ are not subject to any requirement of chapters 33-24-02 through 33-24-04 or to the notification requirements, nor are such samples included in the quantity determination of section 33-24-02-05 and subsection 4 of section 33-24-03-12 when:

(1) The sample is being collected and prepared for transportation by the generator or sample collectors;

(2) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(3) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

b. The exemption in subdivision a is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

(1) The generator or sample collector uses, in "treatability studies", no more than ten thousand kilograms of media contaminated with nonacute hazardous waste, one thousand kilograms of nonacute hazardous waste other than contaminated media, one kilogram of acute hazardous waste, twenty-five hundred kilograms of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream~~; and~~.

(2) The mass of each sample shipment does not exceed ten thousand kilograms; the ten thousand kilogram quantity may be all media contaminated with nonacute hazardous waste, or may include twenty-five hundred kilograms of media contaminated with acute hazardous waste, one thousand kilograms of hazardous waste, and one kilogram of acute hazardous waste~~; and~~.

(3) The sample must be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of subparagraph a or b are met.

(a) The transportation of each sample shipment complies with United States department of transportation, United States postal service, or any other applicable shipping requirements; or

(b) If the United States department of transportation, United States postal service, or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample:

[1] The name, mailing address, and telephone number of the originator of the samples;

[2] The name, address, and telephone number of the facility that will perform the treatability study;

[3] The quantity of the sample;

[4] The date of shipment; and

[5] A description of the sample, including its hazardous waste number.

(4) The sample is shipped to a laboratory or testing facility which is exempt under subsection 6 of section 33-23-02-04 or has an appropriate hazardous waste permit or interim status.

(5) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:

(a) Copies of the shipping document;

(b) A copy of the contract with the facility conducting the treatability study;

(c) Documentation showing:

[1] The amount of waste shipped under this exemption;

[2] The name, address, and identification number of the laboratory or testing facility that received the waste;

[3] The date the shipment was made; and

[4] Whether unused samples and residues were returned to the generator.

(6) The generator reports the information required under subparagraph c of paragraph 5 in its biennial report.

c. The department may grant requests, on a case-by-case basis, for up to an additional two years for treatability studies involving bioremediation. The department may grant requests on a case-by-case basis for quantity limits in excess of those specified in paragraphs 1 and 2 of subdivision b of subsection 5 and subdivision d of subsection 6, for up to an additional five thousand kilograms of media contaminated with nonacute hazardous waste, five hundred kilograms of nonacute hazardous waste, twenty-five hundred kilograms of media contaminated with acute hazardous waste, and one kilogram of acute hazardous waste:

(1) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include the nature of the technology, the type of process, for example, batch

versus continuous, size of the unit undergoing testing, particularly in relation to scale-up considerations, the time and quantity of material required to reach steady state operating conditions, or test design considerations such as mass balance calculations.

(2) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when there has been an equipment or mechanical failure during the conduct of the treatability study; there is a need to verify the results of a previous study; there is a need to study and analyze alternative techniques within a previously evaluated process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(3) The additional quantities and timeframes allowed in paragraphs 1 and 2 are subject to all the provisions in subdivision a and paragraphs 3 through ~~5~~ 6 of subdivision b. The generator or sample collector must apply to the ~~authorized regulatory agency in the state where the sample is collected~~ department and provide in writing the following information:

(a) The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;

(b) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies, including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;

(c) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(d) If such further study is being required due to equipment of mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or

equipment improvements have been made to protect against further breakdowns; and

(e) Such other information that the department considers necessary.

6. **Samples undergoing treatability studies at laboratories and testing facilities.** Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies, to the extent such facilities are not otherwise subject to hazardous waste requirements, are not subject to any requirements of this article, or to the notification requirements provided that the conditions of subdivisions a through k are met. A mobile treatment unit may qualify as a testing facility subject to subdivisions a through k. Where a group of mobile treatment units are located at the same site, the limitations specified in subdivisions a through k apply to the entire group of mobile treatment units collectively as if the group were one mobile treatment unit.

a. No less than forty-five days before conducting treatability studies, the facility notifies the department in writing that it intends to conduct treatability studies under this subsection.

b. The laboratory or testing facility conducting the treatability study has an identification number.

c. No more than a total of ten thousand kilograms of "as received" media contaminated with nonacute hazardous waste, twenty-five hundred kilograms of media contaminated with acute hazardous waste, or two hundred fifty kilograms of other "as received" hazardous waste is subject to initiation of treatment in all treatability studies in any single day. "As received" wastes refers to the waste as received in the shipment from the generator or sample collector.

d. The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed ten thousand kilograms, the total of which can include ten thousand kilograms of media contaminated with nonacute hazardous waste, twenty-five hundred kilograms of media contaminated with acute hazardous waste, one thousand kilograms of nonacute hazardous waste other than contaminated media, and one kilogram of acute hazardous waste. This quantity limitation does not include treatment materials, including nonhazardous solid waste, added to "as received" hazardous waste.

e. No more than ninety days have elapsed since the treatability study for the sample was completed, or no more than one year, two years for treatability studies involving bioremediation, have

elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date occurs first. Up to five hundred kilograms of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

f. The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

g. The facility maintains records for three years following completion of each study that shows compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

(1) The name, address, and identification number of the generator or sample collector of each waste sampled;

(2) The date the shipment was received;

(3) The quantity of waste accepted;

(4) The quantity of "as received" waste in storage each day;

(5) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(6) The date the treatability study was concluded; and

(7) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the identification number.

h. The facility keeps, onsite, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.

i. The facility prepares and submits a report to the department by March fifteenth of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

(1) The name, address, and identification number of the facility conducting the treatability study;

(2) The types, by process, of treatability studies conducted;

(3) The names and addresses of persons for whom studies have been conducted, including their identification numbers;

(4) The total quantity of waste in storage each day;

(5) The quantity and type of waste subjected to treatability studies;

(6) When each treatability study was conducted; and

(7) The final disposition of residues and unused samples from each treatability study.

j. The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under section 33-24-02-03 and, if so, are subject to chapters 33-24-02 through 33-24-06, unless the residues and unused samples are returned to the sample originator under the subsection 5 of section 33-24-02-04 exemption.

k. The facility notifies the department by letter when the facility is no longer planning to conduct any treatability studies at the site.

7. **Polychlorinated biphenyl wastes regulated under Toxic Substance Control Act.** The disposal of polychlorinated biphenyl-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under 40 CFR 761 and that are hazardous only because they fail the test for the toxicity characteristic (hazardous waste codes D018 through D043 only) are exempt from regulation under this article, and the notification requirements.

8. **Dredged material that is not a hazardous waste.** Dredged material that is subject to the requirements of a permit that has been issued under section 404 of the Federal Water Pollution Control Act [33 U.S.C.1344] or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 [33 U.S.C. 1413] is not a hazardous waste. For this subsection, the following definitions apply:

a. The term dredged material has the same meaning as defined in 40 CFR 232.2.

b. The term permit means:

(1) A permit issued by the United States army corps of engineers (corps) or an approved state under section 404 of the Federal Water Pollution Control Act [33 U.S.C. 1344];

(2) A permit issued by the corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 [33 U.S.C. 1413]; or

(3) In the case of corps civil work projects, the administrative equivalent of the permits referred to in paragraphs 1 and 2, as provided for in corps regulations (for example, see 33 CFR 336.1, 336.2, and 337.6).

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04, 23-20.3-10

33-24-02-05. Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

1. A generator is a conditionally exempt small quantity generator in a calendar month if the generator generates no more than one hundred kilograms of hazardous waste in that month.

2. Except for those wastes identified in subsections 5, 6, 7, and 10, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under chapters 33-24-03 through 33-24-07, and the notification requirements, provided the generator complies with the requirements of subsections 6, 7, and 10.

3. ~~Hazardous waste that is not subject to regulation or that is subject only to sections 33-24-03-02 and 33-24-03-03, subsection 3 of section 33-24-03-13, and section 33-24-03-14 is not included in the quantity determinations of this chapter and chapters 33-24-03 through 33-24-07 and is not subject to any of the requirements of those chapters. Hazardous waste that is subject to the requirements of subsections 2 and 3 of section 33-24-02-06 and sections 33-24-05-201 through 33-24-05-209 and sections 33-24-05-230 through 33-24-05-234 is included in the quantity determination of this chapter and is subject to the requirements of chapters 33-24-03 through 33-24-07.~~

~~4.~~ When making the quantity determinations, the generator must include all hazardous waste that it generates, except hazardous waste that:

a. Is exempt from regulation under subsections 3 through ~~6~~ 7 of section 33-24-02-04, subdivision c of subsection 1 of section 33-24-02-06, ~~subdivision a of~~ or subsection 1 of section 33-24-02-07~~, or section 33-24-02-08~~;

b. Is managed immediately upon generation only in onsite elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in section 33-24-01-04;

c. Is recycled, without prior storage or accumulation, only in an onsite process subject to regulation under subdivision b of subsection 3 of section 33-24-02-06;

d. Is used oil managed under the requirements of subdivision d of ~~section~~ subsection 1 of section 33-24-02-06 and sections 33-24-05-600 through 33-24-05-689;

e. Is spent lead-acid batteries managed under sections 33-24-05-235 through 33-24-05-249; or

f. Is universal waste managed under subsection 5 of section 33-24-02-06 and sections 33-24-05-701 through 33-24-05-765.

4. In determining the quantity of hazardous waste generated, a generator need not include:

a. Hazardous waste when it is removed from onsite storage;

b. Hazardous waste produced by onsite treatment, including reclamation, of their hazardous waste, so long as the hazardous waste that is treated was counted once; or

c. Spent materials that are generated, reclaimed, and subsequently reused onsite, so long as such spent materials have been counted once.

5. If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under chapters 33-24-03 through 33-24-07, and the notification requirements.

a. A total of one kilogram of acute hazardous waste listed in section 33-24-02-16, 33-24-02-17, or subsection 5 of section 33-24-02-18.

b. A total of one hundred kilograms of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in sections 33-24-02-16, 33-24-02-17, or subsection 5 of section 33-24-02-18. [Comment: "Full regulation" means those regulations applicable to generators of greater than one thousand kilograms of nonacutely hazardous waste in a calendar month.]

6. In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than set forth in subdivision a or b of subsection 5 to be excluded from full regulation under this section, the generator shall comply with the following requirements:

   a. Section 33-24-03-02;

   b. The generator may accumulate acute hazardous waste onsite. If the generator accumulates at any time acute hazardous waste in quantities greater than those set forth in subdivision a or b of subsection 5, all of those accumulated wastes are subject to regulation under section 33-24-03-07 and the applicable notification requirements. The time period of subsection 1 of section 33-24-03-12, for accumulation of wastes onsite, begins when the accumulated wastes exceed the applicable exclusion limit;

   c. A conditionally exempt small quantity generator may either treat or dispose of the generator's acute hazardous waste in an onsite facility or ensure delivery to an offsite storage, treatment, or disposal facility, either of which, if located in the United States, is:

      (1) Permitted under chapter 33-24-06;

      (2) In interim status under subsection 2 of section 33-20.3-05 of North Dakota Century Code chapter 33-20.3;

      (3) Authorized to manage hazardous waste by ~~the~~ a state;

      (4) Permitted, licensed, or registered by ~~the~~ a state to manage municipal ~~or industrial~~ solid waste~~;~~, and if managed in a municipal solid waste ~~or industrial waste~~ landfill subject to article 33-20 or other regulation equivalent to 40 CFR part 258;

      (5) Permitted, licensed, or registered by a state to manage nonmunicipal nonhazardous waste and, if managed in a nonmunicipal nonhazardous waste landfill after January 1, 1998, is subject to article 33-20 or other regulation equivalent to sections 5 through 30 of 40 CFR part 257;

      (6) A facility which:

         (a) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

         (b) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

~~(6)~~ (7) For universal waste managed under sections 33-24-05-700 through ~~33-24-05-765~~ 33-24-05-799, a universal waste handler or destination facility subject to the requirements of sections 33-24-05-700 through ~~33-24-05-765~~ 33-24-05-799.

[NOTE: Although provisions of this subsection exclude certain generators from full regulation under this section, all applicable provisions of article 33-20, North Dakota solid waste management rules apply.]

7. In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than one hundred kilograms of hazardous waste during a calendar month to be excluded from full regulation under this section, the generator shall comply with the following requirements:

   a. Section 33-24-03-02.

   b. The conditionally exempt small quantity generator may accumulate hazardous waste onsite. If the generator accumulates at any time more than a total of one thousand kilograms of the generator's hazardous waste, all of those accumulated wastes are subject to regulation under special provisions of chapter 33-24-03 applicable to generators of between one hundred kilograms and one thousand kilograms of hazardous waste in a calendar month as well as the requirements of chapters 33-24-04 through 33-24-06 ~~of this article~~ and the applicable notification requirements. The time period of subsection 4 of section 33-24-03-12 for accumulation of wastes onsite begins for a conditionally exempt small quantity generator when the accumulated wastes exceed one thousand kilograms;

   c. A conditionally exempt small quantity generator may either treat or dispose of the generator's hazardous waste in an onsite facility, or ensure delivery to an offsite storage, treatment, or disposal facility, either of which, if located in the United States, is:

      (1) Permitted under chapter 33-24-06;

      (2) In interim status under subsection 2 of section 23-20.3-05 of North Dakota Century Code chapter 23-20.3;

      (3) Authorized to manage hazardous waste by ~~the~~ a state;

      (4) Permitted, licensed, or registered by ~~the~~ a state to manage municipal ~~or industrial~~ solid waste~~;~~ and, if managed in a municipal solid waste ~~or industrial waste~~ landfill subject to article 33-20 or other regulation equivalent to 40 CFR part 258;

(5) Permitted, licensed, or registered by a state to manage nonmunicipal nonhazardous waste and, if managed in a nonmunicipal nonhazardous waste disposal unit after January 1, 1998, is subject to article 33-20 or other regulation equivalent to sections 5 through 30 of 40 CFR part 257; or

(6) A facility which:

(a) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(b) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

~~(6)~~ (7) For universal waste managed under sections 33-24-05-700 through ~~33-24-05-765~~ 33-24-05-799, a universal waste handler or destination facility subject to the requirements of sections 33-24-05-700 through ~~33-24-05-765~~ 33-24-05-799.

[NOTE: Although provisions of this subsection exclude certain generators from full regulation under this section, all applicable provisions of article 33-20, North Dakota solid waste management rules apply.]

8. Hazardous waste subject to the reduced requirements of this section may be mixed with nonhazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in sections 33-24-02-10 through 33-24-02-14.

9. If any person mixes a solid waste with a hazardous waste that exceeds the quantity exclusion level of this section, the mixture is subject to full regulation.

10. If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to sections 33-24-05-600 through 33-24-05-689 ~~if it is destined to be burned for energy recovery~~. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated ~~if it is destined to be burned for energy recovery~~.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-06. Requirements for recyclable materials and universal waste.

1. The following requirements for recyclable materials are:

   a. Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsections 2 and 3, except for the materials listed in subdivisions b and c of subsection 1. Hazardous wastes that are recycled will be known as "recyclable materials".

   b. The following recyclable materials are not subject to the requirements of this section but are regulated under sections 33-24-05-201 through 33-24-05-209, 33-24-05-230 through 33-24-05-249, 33-24-05-525 through 33-24-05-549, 33-24-05-600 through 33-24-05-689 and all applicable provisions in chapters 33-24-06 and 33-24-07:

      (1) Recyclable materials used in a manner constituting disposal (sections 33-24-05-201 through 33-24-05-204).

      (2) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under sections 33-24-05-144 through ~~33-24-05-150~~ 33-24-05-151 (sections 33-24-05-525 through 33-24-05-537).

      (3) Recyclable materials from which precious metals are reclaimed (section 33-24-05-230).

      (4) Spent lead-acid batteries that are being reclaimed (section 33-24-05-235).

   c. The following recyclable materials are not subject to regulation under chapters 33-24-03 through 33-24-07 and are not subject to notification requirements:

      (1) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in section 33-24-03-25:

         (a) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in section 33-24-03-20, subdivisions a through d and f of subsection 1 and subsection 2 of section 33-24-03-23, and section 33-24-03-24, export such materials only upon consent of the receiving country and in conformance with the

environmental protection agency acknowledgment of consent as defined in sections 33-24-03-50 through 33-24-03-59, and provide a copy of the environmental protection agency acknowledgment of consent to the shipment to the transporter transporting the shipment for export.

(b) Transporters transporting a shipment for export may not accept a shipment if the transporter knows the shipment does not conform to the environmental protection agency acknowledgment of consent, shall ensure that a copy of the environmental protection agency acknowledgment of consent accompanies the shipment, and shall ensure that it is delivered to the facility designated by the person initiating the shipment.

(2) ~~Used oil that exhibits one or more of the characteristics of hazardous waste, but is recycled in some other manner than being burned for energy recovery.~~

~~(3)~~ Scrap metal that is not excluded under subdivision m of subsection 1 of section 33-24-02-04.

~~(4)~~ (3) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility, if such wastes result from normal petroleum refining, production, and transportation practices (this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, ~~where~~ when such recovered oil is already excluded under subdivision l of subsection 1 of section 33-24-02-04).

~~(5)~~ (4) Subdivision c also applies to the following:

(a) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, ~~where~~ when such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under section 33-24-05-611 and so long as no other hazardous wastes are used to produce the hazardous waste fuel~~.~~;

(b) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining, production, and transportation practices, ~~where~~ when such hazardous wastes are reintroduced into a refining

process after a point in which contaminates are removed, so long as the fuel meets the used oil fuel specification under section 33-24-05-611; and

(c) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under section 33-24-05-611.

~~(6) Petroleum coke produced from petroleum refinery hazardous wastes containing oil by the same person who generated the waste, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in sections 33-24-02-10 through 33-24-02-14.~~

d. Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of chapters 33-24-01 through 33-24-04, and sections 33-24-05-01 through 33-24-05-190, sections 33-24-05-250 through ~~33-24-05-299~~ 33-24-05-524, and sections 33-24-05-550 through 33-24-05-559, but is regulated under sections 33-24-05-600 through 33-24-05-689. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose (including the purpose for which the oil was originally used). Such term includes oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

2. Generators and transporters of recyclable materials are subject to the applicable requirements of chapters 33-24-03 and 33-24-04 and the notification requirements, except as provided in subsection 1.

3. Owners or operators of facilities that:

a. Store recyclable materials before they are recycled are regulated under all applicable provisions of sections 33-24-05-01 through 33-24-05-143, sections 33-24-05-400 through ~~33-24-05-449~~ 33-24-05-474, sections 33-24-05-191 through ~~33-24-05-399~~ 33-24-05-299, and ~~chapter~~ chapters 33-24-06 and 33-24-07 and the notification requirements, under section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection 1. The recycling process itself is exempt from regulation except as provided in subsection 4 of section 33-24-02-06.

b. Recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in subsection 1:

(1) Notification requirements; ~~and~~

(2) Sections 33-24-05-38 and 33-24-05-39 (dealing with the use of the manifest and manifest discrepancies)~~.~~; and

(3) Subsection 4 of section 33-24-02-06.

4. Owners or operators of facilities subject to the hazardous waste permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of sections 33-24-05-400 through 33-24-05-449.

5. The wastes listed in this subsection are exempt from regulation under chapters 33-24-03 through 33-24-06 except as specified in sections 33-24-05-701 through ~~33-24-05-765~~ 33-24-05-799 and, therefore are not fully regulated as hazardous waste. The wastes listed in this subsection are subject to regulation under sections 33-24-05-701 through ~~33-24-05-765~~ 33-24-05-799:

a. Batteries as described in section 33-24-05-702;

b. Pesticides as described in section 33-24-05-703; ~~and~~

c. Mercury-containing devices as described in section 33-24-05-704~~.~~; and

d. Lamps as described in 33-24-05-705.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-07. Residues of hazardous wastes in empty containers.

1. Unless empty as defined in subsection 2, 3, or 4, any hazardous waste in either a container or an inner liner removed from a container is subject to regulation under chapters 33-24-02 through 33-24-07 and to the notification requirements.

2. A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in section 33-24-02-16, section 33-24-02-17, or subsection 5 of section 33-24-02-18, is empty if:

a. All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, for example, pouring, pumping, and aspirating; and

b. One of the following:

(1) No more than two and one-half centimeters [1 inch] of residue remain on the bottom of the container or inner liner;

(2) No more than three percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to one hundred ten gallons [416.40 liters] in size; or

(3) No more than three-tenths of one percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than one hundred ten gallons [416.40 liters] in size.

3. A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric levels.

4. A container or an inner liner removed from a container that has held a hazardous waste listed in section 33-24-02-16, section 33-24-02-17, or subsection 5 of section 33-24-02-18 is empty if:

a. The container or inner liner has been triple-rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

b. The container or inner liner has been cleaned by another method that has been shown in the scientific literature or by tests conducted by the generator, to achieve equivalent removal; or

c. In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container has been removed.

History: Effective January 1, 1984; amended effective October 1, 1986; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-11. Characteristic of ignitability.

1. A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

a. It is a liquid, other than an aqueous solution containing less than twenty-four percent alcohol by volume, and has a flashpoint less than sixty degrees Celsius [140 degrees Fahrenheit], as determined by a Penske-Martins closed cup tester, using the test method specified in American Society for Testing and Material Standard D-93-79 or D-93-80, or a setaflash closed cup tester, using the test method specified in American Society for Testing and Material Standard D-3278-78, or a miniflash continuously closed cup tester, using the test method specified in American Society for Testing and Material D-6450-99 (incorporated by reference in section 33-24-01-05), or as determined by an equivalent test method approved by the department under procedures set forth in sections 33-24-01-06 and 33-24-01-07.

b. It is not a liquid and is capable, under standard temperature and pressure of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously that it creates a hazard.

c. It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the department.

d. It is an oxidizer as defined in 49 CFR 173.151.

2. A solid waste that exhibits the characteristic of ignitability has the hazardous waste number of D001.

History: Effective January 1, 1984; amended effective December 1, 1991; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-14. Toxicity characteristic.

1. A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the toxicity characteristic leaching procedure, test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table. ~~Where~~ If the waste contains less than one-half of one percent filterable solids, the waste itself, after filtering using the methodology outlined in method 1311, is considered to be the extract for the purposes of this section.

2. A solid waste that exhibits the characteristic of toxicity has the hazardous waste number specified in table 1 which corresponds to the toxic contaminant causing it to be hazardous.

Table 1. Maximum Concentration of Contaminants for the Toxicity Characteristic

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/l)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	[4]200.0
D024	m-Cresol	108-39-4	[4]200.0
D025	p-Cresol	106-44-5	[4]200.0
D026	Cresol	.....	[4]200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	[3]0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	[3]0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0

D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	[3]5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

[1]Hazardous waste number.

[2]Chemical abstracts service number.

[3]Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

[4]If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-16. Hazardous waste from nonspecific sources.

1. The following solid wastes are listed hazardous wastes from nonspecific sources unless they are excluded under sections 33-24-01-06 and 33-24-01-08 and listed in appendix VI.

Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		

F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above nonhalogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)*
F004	The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of the above nonhalogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)

F005	The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010	Quenching bath residue from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) or tri- or tetrachlorophenal, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)

F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in section 33-24-02-16 or 33-24-02-17.	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)

F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component).	(H)
F028	Resides resulting from the incineration or thermal treatment of soil contaminated with environmental protection agency hazardous waste numbers F020, F021, F022, F023, F026, and F027.	(T)
*F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with section 33-24-02-19 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes, for example, F034 or F035, and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
*F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
*F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)

F037	Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and ~~oily~~ oil cooling wastewaters from petroleum refineries. Such sludges include those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in subdivision b of subsection 2 of section 33-24-02-16 (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under paragraph 1 or subdivision 1 of subsection 1 of section 33-02-04, if those residuals are to be disposed of.	(T)
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge - Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in dissolved air flotation (DAF) units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in subdivision b of subsection 2 (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.	(T)
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under sections 33-24-02-15 through 33-24-02-19. (Leachate resulting from the disposal of one or more of the following hazardous wastes and no other hazardous wastes retains its hazardous waste numbers: F020, F021, F022, F026, F027, and/or F028.)	(T)

FOOTNOTE: *(I,T) should be used to specify mixtures containing ignitable and toxic constituents.

2. Listing specific definitions:

a. For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil, water, or solids or any combination of them.

b. Aggressive biological treatment units are:

(1) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity; and

(a) The unit employs a minimum of six horsepower per million gallons of treatment volume; and either

(b) The hydraulic retention time of the unit is no longer than five days; or

(c) The hydraulic retention time is no longer than thirty days and the unit does not generate a sludge that is a hazardous waste by the toxicity characteristic.

(2) Generators and treatment, storage, and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage, and disposal facilities must maintain, in their operating or other onsite records, documents, and data sufficient to prove that:

(a) The unit is an aggressive biological treatment unit as defined in this subsection; and

(b) The sludges sought to be exempted from the definitions of F037 or F038, or both, were actually generated in the aggressive biological treatment unit.

c. Sludges are:

(1) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where

deposition is defined as at least a temporary cessation of lateral particle movement.

(2) For the purposes of the F038 listing:

(a) Sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement; and

(b) Floats are considered to be generated at the moment they are formed in the top of the unit.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-17. Hazardous waste from specific sources. The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under sections 33-24-01-06 and 33-24-01-08 and listed in appendix VI.

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
Wood Preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic Pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic Chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction byproduct water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (this waste does not include still bottoms from the distillation of benzyl chloride).	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159	Organics from the treatment of thiocarbamate wastes.	(T)
~~K160~~	~~Solids (including filter wastes, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes.~~	~~(T)~~
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R, T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (1) the wastes are disposed of in a hazardous waste or nonhazardous waste landfill licensed or permitted by the state or federal government; (2) the wastes are not otherwise placed on the land prior to final disposal; and (3) the generator maintains documentation demonstrating that the waste was either disposed of in an onsite landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an offsite landfill. Respondents in any action brought to enforce the requirements of article 33-24 must, upon a showing by the department that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that the respondent meet the terms of the exclusion set forth above. In doing so, the respondents must provide appropriate documentation (for example, contracts between the generator and the landfill owner or operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met.	(T)
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	(T)
Inorganic Chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (for example, antimony metal or crude antimony oxide).	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (for example, antimony metal or crude antimony oxide).	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferricchloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	(T)
Pesticides:		
K031	Byproduct salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production 2,4-D.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C, T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
Petroleum Refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
K169	Crude oil storage tank sediment from petroleum refining operations.	(T)
K170	Clarified slurry oil tank sediment or in-line filter/separation solids, or both, from petroleum refining operations.	(T)
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I, T)
K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I, T)
Iron and Steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C, T)
~~**Primary Copper:**~~		
~~K064~~	~~Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.~~	~~(T)~~
~~**Primary Lead:**~~		

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
~~K065~~	~~Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.~~	~~(T)~~
~~Primary Zinc:~~		
~~K066~~	~~Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.~~	~~(T)~~
Primary Aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
~~Ferroalloys:~~		
~~K090~~	~~Emission control dust or sludge from ferrochromiumsilicon production.~~	~~(T)~~
~~K091~~	~~Emission control dust or sludge from ferrochromium production.~~	~~(T)~~
Secondary Lead:		
K069	Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register).	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary Pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink Formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke byproducts produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke byproducts produced from coal.	(T)

Industry and Hazardous Waste No.	Hazardous Waste	Hazard Code
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke byproducts produced from coal.	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke byproducts produced from coal.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke byproducts produced from coal.	(T)
K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-18. Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof. The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in paragraph 1 of subdivision b of subsection 1 of section 33-24-02-02, when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

1. Any commercial chemical product, manufacturing chemical intermediate, or any mixture of the chemicals having the generic name listed in subsection 5 or 6.

2. Any off-specification commercial chemical product, manufacturing chemical intermediate, or any mixture of the chemicals which, if it met specifications, would have the generic name listed in subsection 5 or 6.

3. Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product, manufacturing chemical intermediate, or any mixture of the chemicals having the generic name listed in subsection 5 or 6, unless the container is empty as defined in subsection 2 of section 33-24-02-07.

   (NOTE: Unless the residue is being beneficially used or legitimately recycled or reclaimed; or being accumulated, stored, transported,

or treated prior to such use, reuse, recycling, or reclamation, the department considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate reuse of the residue would be ~~where~~ when the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be ~~where~~ when the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.)

4. Any residue or contaminated soil, water, or other debris, resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product, manufacturing chemical intermediate, or mixture of the chemicals having the generic name listed in subsection 5 or 6, or any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into or on any land or water of any off-specification chemical product, manufacturing chemical intermediate, or mixture of the chemicals, which, if it met specifications would have the generic name listed in subsection 5 or 6. (Comment: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . ." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use, which consists of the commercially pure grade of the chemical, any technical grades of the chemical, that are produced or marketed, and all formulations containing one or more of the chemicals having the generic name listed in subsection 5 or 6 as active ingredients. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in subsection 5 or 6. Where a manufacturing process is deemed to be a hazardous waste because it contains a substance listed in subsection 5 or 6, such wastes will be listed in either section 33-24-02-16 or 33-24-02-17 or will be identified as a hazardous waste by the characteristic set forth in this chapter.)

5. The commercial chemical products, manufacturing chemical intermediates, off-specification commercial chemical products or manufacturing chemical intermediates, or mixtures of the chemicals referred to in subsections 1 through 4, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in subsection 5 of section 33-24-02-05. These wastes and their corresponding hazardous waste numbers are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea

Hazardous Waste No.	Chemical Abstracts No.	Substance
P003	107-02-8	Acrolein
P203	1646-88-4	Aldicarb sulfone
P070	116-06-3	Aldicarb
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R, T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-,(R)-
P046	122-09-8	Benzeneethanamine, alpha, alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol -5-yl methylcarbamate ester (1:1)
P001	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-,O-[methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide

Hazardous Waste No.	Chemical Abstracts No.	Substance
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-,2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P191	644-64-4	Carbamic acid, dimethyl-,1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P127	1563-66-2	Carbofuran
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate
P030	.....	Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8, 8a-hexahydro-,(1alpha,4alpha,4abeta, 5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8, 8a-hexahydro-,(1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-,(1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta,7aalpha)-
P051	[1]72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro,(1aalpha,2beta,2abeta, 3alpha,6alpha,6abeta,7beta,7aalpha)-, & metabolites

Hazardous Waste No.	Chemical Abstracts No.	Substance
P044	60-51-5	Dimethoate
P046	122-09-8	alpha, alpha-Dimethylphenthylamine
P191	644-64-4	Dimetilan
P047	[1]534-52-1	4,6-Dinitro-o-cresol and salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-,methylester
P194	23135-22-0	~~P194~~23135-22-0 Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy] -2-oxo-,methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride
P197	17702-57-7	Formparanate
P065	628-86-4	Fulminic acid, mercury(2+)salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin

Hazardous Waste No.	Chemical Abstracts No.	Substance
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
P050	115-29-7	6,9-Methano-2,4,3-benxodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P128	315-18-4	Mexacarbamate
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cynaide $Ni(CN)_2$
P075	[1]54-11-5	Nicotine and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2

Hazardous Waste No.	Chemical Abstracts No.	Substance
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4,(T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-,methylcarbamate(ester)
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P048	51-28-5	Phenol, 2,4-dinitro-
P047	[1]534-52-1	Phenol, 2-methyl-4,6-dintro-, and salts
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl]ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethylester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl)ester
P204	57-47-6	Physostigmine
P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide

Hazardous Waste No.	Chemical Abstracts No.	Substance
P201	2631-37-0	Promecarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-,O-[(methylamino)carbonyl]oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-,O-[(methylamino)carbonyl] oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	Pyridianamine
P075	[1]54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S), & salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol,1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-methylcarbamate (ester), (3aS-cis)-~~P11412039-52-0Selenious acid, dithallium(1+) salt~~
P114	12039-52-0	Selenious acid, dithallium(+1) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	[1]57-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1]57-24-9	Strychnine and salts
P115	7446-18-6	Sulfuric acid, dithallium(1+)salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester

Hazardous Waste No.	Chemical Abstracts No.	Substance
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate
P123	80201-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	[1]81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram.

[1]CAS number given for parent compound only.

6. The commercial chemical products, manufacturing chemical intermediates, off-specification commercial chemical products, or mixtures of the chemicals referred to in subsections 1 through 4, are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in subsections 1 and 7 of section 33-24-02-05.

   (Comment: For the convenience of the regulated community, the primary hazardous properties of thse materials have been indicated by the letters T (toxicity), R (reactivity), I (ignitability), and C (corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.)

   These wastes and their corresponding hazardous waste numbers are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
U394	30558-43-1	A2213
U001	75-07-0	Acetaldehyde (I)

Hazardous Waste No.	Chemical Abstracts No.	Substance
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl
U240	[1]94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium (1+) salt
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
~~U365~~	~~2212-67-1~~	~~1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester~~
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-[1aS-(1aalpha, 8beta, 8aalpha, 8balpha)]-
U280	101-27-9	Barban
U278	22781-23-3	Bendiocarb
U364	22961-82-6	Bendiocarb phenol
U271	17804-35-2	Benomyl
U157	56-49-5	Benz[j[aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-,ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	[1]81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	[1]81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
~~U401~~	~~97-74-5~~	~~Bis(dimethylthiocarbamoyl) sulfide~~
~~U400~~	~~120-54-7~~	~~Bis(pentamethylene)thiuram tetrasulfide~~
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethy)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a -tetrahydro-1H-pyrrolizin-1-yl ester,[1S-[1alpha(Z),7(2S*,3R*), 7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
~~U392~~	~~2008-41-5~~	~~Butylate~~
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate

Hazardous Waste No.	Chemical Abstracts No.	Substance
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-,methyl ester ~~U375~~
~~U375~~	~~55406-53-6~~	~~Carbamic acid, butyl-, 3-iodo-2-propynyl ester~~
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-,dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
~~U379~~	~~136-30-1~~	~~Carbamodithioic acid, dibutyl, sodium salt~~
~~U277~~	~~95-06-7~~	~~Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester~~
~~U381~~	~~148-18-5~~	~~Carbamodithioic acid, diethyl-, sodium salt~~
~~U383~~	~~128-03-0~~	~~Carbamodithioic acid, dimethyl, potassium salt~~
~~U382~~	~~128-04-1~~	~~Carbamodithioic acid, dimethyl-, sodium salt~~
~~U376~~	~~144-34-3~~	~~Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid~~
U114	[1]111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters
~~U378~~	~~51026-28-9~~	~~Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt~~
~~U384~~	~~137-42-8~~	~~Carbamodithioic acid, methyl-, monosodium salt~~
~~U377~~	~~137-41-7~~	~~Carbamodithioic acid, methyl-, monopotassium salt~~
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
~~U392~~	~~2008-41-5~~	~~Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester~~
~~U391~~	~~1114-71-2~~	~~Carbamothioic acid, butylethyl-, S-propyl ester~~
~~U386~~	~~1134-23-2~~	~~Carbamothioic acid, cyclohexylethyl-, S-ethyl ester~~
~~U390~~	~~759-94-4~~	~~Carbamothioic acid, dipropyl-, S-ethyl ester~~
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
~~U385~~	~~1929-77-7~~	~~Carbamothioic acid, dipropyl-, S-propyl ester~~
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbon difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride

Hazardous Waste No.	Chemical Abstracts No.	Substance
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazine
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	4-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U050	218-01-9	Chrysene
~~U393~~	~~137-29-1~~	~~Copper, bis(dimethylcarbamodithioato-S,S')-,~~
~~U393~~	~~137-29-1~~	~~Copper dimethyldithiocarbamate~~
U051	.....	Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
~~U386~~	~~1134-23-2~~	~~Cycloate~~
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-,(1alpha,2alpha,3beta,4alpha,5alpha,6beta)
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	[1]94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
~~U366~~	~~533-74-4~~	~~Dazomet~~
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane

Hazardous Waste No.	Chemical Abstracts No.	Substance
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U395	5952-26-1	Diethylene glycol, dicarbamate
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-DiethylS-methyl-dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzlhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene

Hazardous Waste No.	Chemical Abstracts No.	Substance
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
~~U403~~	~~97-77-8~~	~~Disulfiram~~
U041	106-89-8	Epichlorohydrin
~~U390~~	~~759-94-4~~	~~EPTC~~
U001	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U404	121-44-8	Ethanamine, N,N-diethyl-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis- (I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	[1]111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
~~U407~~	~~14324-55-1~~	~~Ethyl Ziram~~
~~U396~~	~~14484-64-1~~	~~Ferbam~~
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
~~U375~~	~~55406-53-6~~	~~3-Iodo-2-propynyl-n-butylcarbamate~~
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
~~U396~~	~~14484-64-1~~	~~Iron, tris(dimethylcarbamodithioato-S,S')-,~~
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
~~U384~~	~~137-42-8~~	~~Metam Sodium~~
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-3	Methane, bromo-
U045	74-87-3	Methane, chloro- (I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachloroctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
~~U365~~	~~2212-67-1~~	~~Molinate~~
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione

Hazardous Waste No.	Chemical Abstracts No.	Substance
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate
U166	130-15-4	1,4-Naphthoquinone
U167	134-2-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-,2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
~~U391~~	~~1114-71-2~~	~~Pebulate~~
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-,(E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, 0,0-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
~~U400~~	~~120-54-7~~	~~Piperidine, 1,1'-(tetrathiodicarbonothioyl)-bis-~~
~~U383~~	~~128-03-0~~	~~Potassium dimethyldithiocarbamate~~
~~U378~~	~~51026-28-9~~	~~Potassium n-hydroxymethyl- n-methyldi-thiocarbamate~~
~~U377~~	~~137-41-7~~	~~Potassium n-methyldithiocarbamate~~
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-

Hazardous Waste No.	Chemical Abstracts No.	Substance
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham
U411	114-26-1	Propoxur
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U387	52888-80-9	Prosulfocarb
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56-04-2	4-(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	[1]81-07-2	Saccharin, and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
~~U376~~	~~144-34-3~~	~~Selenium, tetrakis(dimethyldithiocarbamate)~~
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
~~U379~~	~~136-30-1~~	~~Sodium dibutyldithiocarbamate~~
~~U381~~	~~148-18-5~~	~~Sodium diethyldithiocarbamate~~
~~U382~~	~~128-04-1~~	~~Sodium dimethyldithiocarbamate~~
U206	18883-66-4	Streptozotocin
~~U277~~	~~95-06-7~~	~~Sulfallate~~
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
~~U402~~	~~1634-02-2~~	~~Tetrabutylthiuram disulfide~~

Hazardous Waste No.	Chemical Abstracts No.	Substance
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
~~U401~~	~~97-74-5~~	~~Tetramethylthiuram monosulfide~~
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
~~U366~~	~~533-74-4~~	~~2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl-~~
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb
U153	74-93-1	Thiomethanol (I,T)
~~U402~~	~~1634-02-2~~	~~Thioperoxydicarbonic diamide, tetrabutyl~~
~~U403~~	~~97-77-8~~	~~Thioperoxydicarbonic diamide, tetraethyl~~
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U409	23564-05-8	Thiophanate-methyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U408	118-79-6	2,4,6-Tribromophenol
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)

Hazardous Waste No.	Chemical Abstracts No.	Substance
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris (2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
~~U385~~	~~1929-77-7~~	~~Vernolate~~
U043	75-01-4	Vinyl chloride
U248	[1]81-81-2	Warfarin, and salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-,methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
~~U407~~	~~14324-55-1~~	~~Zinc, bis(diethylcarbamodithioato-S,S')-~~
U249	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

[1]CAS number given for parent compound only.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-02-19. Deletion of certain hazardous waste codes following equipment cleaning and replacement.

1. Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all the requirements of subsections 2 and 3. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

2. Generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, forklifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

   a. Generators shall do one of the following:

(1) Prepare and follow an equipment cleaning plan and clean equipment in accordance with this section;

(2) Prepare and follow an equipment replacement plan and replace equipment in accordance with this section; or

(3) Document cleaning and replacement in accordance with this section, carried out after termination of use of chlorophenolic preservatives.

b. Cleaning requirements.

(1) Prepare and sign a written equipment cleaning plan that describes:

(a) The equipment to be cleaned;

(b) How the equipment will be cleaned;

(c) The solvent to be used in cleaning;

(d) How solvent rinses will be tested; and

(e) How cleaning residues will be disposed.

(2) Equipment must be cleaned as follows:

(a) Remove all visible residues from process equipment;

(b) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(3) Analytical requirements.

(a) Rinses must be tested in accordance with environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05, method 8290.

(b) "Not detected" means at or below the lower method calibration limit (MCL) in method 8290, table 1.

(4) The generator must manage all residues from the cleaning process as F032 waste.

c. Replacement requirements.

(1) Prepare and sign a written equipment replacement plan that describes:

(a) The equipment to be replaced;

(b) How the equipment will be replaced; and

(c) How the equipment will be disposed.

(2) The generator must manage the discarded equipment as F032 waste.

d. Documentation requirements. ~~(I) Document that previous equipment cleaning or replacement, or both, was performed in accordance with this section and occurred after cessation of use of chlorophenolic preservatives.~~

(1) Document that previous equipment cleaning or replacement, or both, was performed in accordance with this section and occurred after cessation of use of chlorophenolic preservatives.

(2) [Reserved]

3. The generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

a. The name and address of the facility;

b. Formulations previously used and the date on which their use ceased in each process at the plant;

c. Formulations currently used in each process at the plant;

d. The equipment cleaning or replacement plan;

e. The name and address of any persons who conducted the cleaning and replacement;

f. The dates on which cleaning and replacement were accomplished;

g. The dates of sampling and testing;

h. A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;

i. A description of the tests performed, the date the tests were performed, and the results of the tests;

j. The name and model numbers of the instruments used in performing the tests;

k. QA/QC documentation; and

l. The following statement signed by the generator or ~~his~~ the generator's authorized representative: I certify under penalty of law that all process equipment required to be cleaned or replaced under section 33-24-02-19 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

History: Effective January 1, 1994; amended effective December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.4-04

33-24-02-20. [Reserved]

33-24-02-21. [Reserved]

33-24-02-22. Comparable/syngas fuel exclusion. Wastes that meet the following comparable/syngas fuel requirements are not solid wastes:

1. **Comparable fuel specifications.**

   a. Physical specifications.

      (1) Heating value. The heating value must exceed five thousand British thermal units per pound (eleven thousand five hundred Joules per gram).

      (2) Viscosity. The viscosity must not exceed fifty centistokes, as fired.

   b. Constituent specifications. For compounds listed in table 1, the specification levels and, when nondetect is the specification, minimum required detection limits are shown in table 1.

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Total Nitrogen as N	NA	9,000	18,400	4,900	.....
Total Halogens as Cl	NA	1,000	18,400	540	.....
Total Organic Halogens as Cl	NA	.....	.....	(1)	.....
Polychlorinated biphenyls, total [Aroclors, total]	1336-36-3	ND	.....	ND	1.4
Cyanide, total	57-12-5	ND	.....	ND	1.0
Metals:					
Antimony, total	7440-36-0	ND	.....	12	.....
Arsenic, total	7440-38-2	ND	.....	0.23	.....
Barium, total	7440-39-3	ND	.....	23	.....
Beryllium, total	7440-41-7	ND	.....	1.2	.....
Cadmium, total	7440-43-9	.....	ND	.....	1.2
Chromium, total	7440-47-3	ND	.....	2.3	.....
Cobalt	7440-48-4	ND	.....	4.6	.....
Lead, total	7439-92-1	57	18,100	31	.....
Manganese	7439-96-5	ND	.....	1.2	.....
Mercury, total	7439-97-6	ND	.....	0.25	.....
Nickel, total	7440-02-0	106	18,400	58	.....
Selenium, total	7782-49-2	ND	.....	0.23	.....
Silver, total	7440-22-4	ND	.....	2.3	.....
Thallium, total	7440-28-0	ND	.....	23	.....
Hydrocarbons:					
Benzo[a]anthracene	56-55-3	ND	.....	2,400	.....
Benzene	71-43-2	8,000	19,600	4,100	.....
Benzo[b]fluoranthene	205-99-2	ND	.....	2,400	.....
Benzo[k]fluoranthene	207-08-9	ND	.....	2,400	.....
Benzo[a]pyrene	50-32-8	ND	.....	2,400	.....
Chrysene	218-01-9	ND	.....	2,400	.....
Dibenzo[a,h]anthracene	53-70-3	ND	.....	2,400	.....
7,12-Dimethylbenz[a] anthracene	57-97-6	ND	.....	2,400	.....
Fluoanthene	206-44-0	ND	.....	2,400	.....
Indeno (1,2,3-cd)pyrene	193-39-5	ND	.....	2,400	.....
3-Methylcholanthrene	56-49-5	ND	.....	2,400	.....
Naphthalene	91-20-3	6,200	19,400	3,200	.....
Toluene	108-88-3	69,000	19,400	36,000	.....
Oxygenates:					
Acetophenone	98-86-2	ND	.....	2,400	.....
Acrolein	107-02-8	ND	.....	39	.....

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Allyl alcohol	107-18-6	ND	.....	30	.....
Bis(2-ethylhexyl)phthalate [Di-2-ethylhexylphthalate]	117-81-7	ND	.....	2,400	.....
Butyl benzyl phthalate	85-68-7	ND	.....	2,400	.....
o-Cresol [2-Methyl phenol]	95-48-7	ND	.....	2,400	.....
m-Cresol [3-Methyl phenol]	108-39-4	ND	.....	2,400	.....
p-Cresol [4-Methyl phenol]	106-44-5	ND	.....	2,400	.....
Di-n-butyl phthalate	84-74-2	ND	.....	2,400	.....
Diethyl phthalate	84-66-2	ND	.....	2,400	.....
2,4-Dimethylphenol	105-67-9	ND	.....	2,400	.....
Dimethyl phthalate	131-11-3	ND	.....	2,400	.....
Di-n-octyl phthalate	117-84-0	ND	.....	2,400	.....
Endothall	145-73-3	ND	.....	100	.....
Ethyl methacrylate	97-63-2	ND	.....	39	.....
2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	ND	.....	100	.....
Isobutyl alcohol	78-83-1	ND	.....	39	.....
Isofarole	120-58-1	ND	.....	2,400	.....
Methyl ethyl ketone [2-Butanone]	78-93-3	ND	.....	39	.....
Methyl methacrylate	80-62-6	ND	.....	39	.....
1,4-Naphthoquinone	130-15-4	ND	.....	2,400	.....
Phenol	108-95-2	ND	.....	2,400	.....
Propargyl alcohol [2-Propyn-1-ol]	107-19-7	ND	.....	30	.....
Safrole	94-59-7	ND	.....	2,400	.....
Sulfonated Organics:					
Carbon disulfide	75-15-0	ND	.....	ND	39
Disulfoton	298-04-4	ND	.....	ND	2,400
Ethyl methanesulfonate	62-50-0	ND	.....	ND	2,400
Methyl methanesulfonate	66-27-3	ND	.....	ND	2,400
Phorate	298-02-2	ND	.....	ND	2,400
1,3-Propane sultone	1120-71-4	ND	.....	ND	100
Tetraethyldithiopyro phosphate [Sulfotepp]	3689-24-5	ND	.....	ND	2,400
Thiophenol [Benzenethiol]	108-98-5	ND	.....	ND	30
O,O,O-Triethyl phosphorthioate	126-68-1	ND	.....	ND	2,400
Nitrogenated Organics:					
Acetonitrile [Methyl cyanide]	75-05-8	ND	.....	ND	39

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
2-Acetylaminofluorene [2-AAF]	53-96-3	ND	.....	ND	2,400
Acrylonitrile	107-13-1	ND	.....	ND	39
4-Aminobiphenyl	92-67-1	ND	.....	ND	2,400
4-Aminopyridine	504-24-5	ND	.....	ND	100
Aniline	62-53-3	ND	.....	ND	2,400
Benzidine	92-87-5	ND	.....	ND	2,400
Dibenz[a,j]acridine	224-42-0	ND	.....	ND	2,400
O,O-Diethyl O-pyrazinyl phosphorothioate[Thionazin]	297-97-2	ND	.....	ND	2,400
Dimethoate	60-51-5	ND	.....	ND	2,400
P-(Dimethylamino) azobenzene [4-Dimethylaminoazo benzene]	60-11-7	ND	.....	ND	2,400
3,3'-Dimethylbenzidine	119-93-7	ND	.....	ND	2,400
a,a-Dimethylphenethylamine	122-09-8	ND	.....	ND	2,400
3,3'-Dimenthoxybenzidine	119-90-4	ND	.....	ND	100
1,3-Dinitrobenzene [m-Dinitrobenzene]	99-65-0	ND	.....	ND	2,400
4,6-Dinitro-o-cresol	534-52-1	ND	.....	ND	2,400
2,4-Dintirophenol	51-28-5	ND	.....	ND	2,400
2,4-Dinitrotoluene	121-14-2	ND	.....	ND	2,400
2,6-Dinitrotoluene	606-20-2	ND	.....	ND	2,400
Dinoseb [2-sec-Butyl-4,6-dinitro phenol]	88-85-7	ND	.....	ND	2,400
Diphenylamine	122-39-4	ND	.....	ND	2,400
Ethyl carbamate [Urethane]	51-79-6	ND	.....	ND	100
Ethylenethiourea [2-Imidazolidinethione]	96-45-7	ND	.....	ND	110
Famphur	52-85-7	ND	.....	ND	2,400
Methacrylonitrile	126-98-7	ND	.....	ND	39
Methapyrilene	91-80-5	ND	.....	ND	2,400
Methomyl	16752-77-5	ND	.....	ND	57
2-Methylactonitrile, [Acetone, cyanohydrin]	75-86-5	ND	.....	ND	100
Methyl parathion	298-00-0	ND	.....	ND	2,400
MNNG [N-Methyl-N-nitroso-N'-nitroguanidine]	70-25-7	ND	.....	ND	110
1-Naphthylamine, [a-Naphthylamine]	134-32-7	ND	.....	ND	2,400

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
2-Naphthylamine [b-Naphthylamine]	91-59-8	ND	.....	ND	2,400
Nicotine	54-11-5	ND	.....	ND	100
4-Nitroaniline, [p-Nitroaniline]	100-01-6	ND	.....	ND	2,400
Nitrobenzene	98-95-3	ND	.....	ND	2,400
p-Nitrophenol, [p-Nitrophenol]	100-02-7	ND	.....	ND	2,400
5-nitro-o-toluidine	99-55-8	ND	.....	ND	2,400
N-Nitrosodi-n-butylamine	924-16-3	ND	.....	ND	2,400
N-Nitrosodiethylamine	55-18-5	ND	.....	ND	2,400
N-Nitrosodiphenylamine, [Diphenylnitrosamine]	86-30-6	ND	.....	ND	2,400
N-Nitroso-N-methyl ethylamine	10595-95-6	ND	.....	ND	2,400
N-Nitrososmorpholine	59-89-2	ND	.....	ND	2,400
N-Nitrosopiperidine	100-75-4	ND	.....	ND	2,400
N-Nitrosopyrrolidine	930-55-2	ND	.....	ND	2,400
2-Nitropropane	79-46-9	ND	.....	ND	30
Parathion	56-38-2	ND	.....	ND	2,400
Phenacetin	62-44-2	ND	.....	ND	2,400
1,4-Phenylene diamine, [p-Phenylenediamine]	106-50-3	ND	.....	ND	2,400
N-Phenylthiourea	103-85-5	ND	.....	ND	57
2-Picoline [alpha-Picoline]	109-06-8	ND	.....	ND	2,400
Propylthiouracil, [6-Propyl-2-thiouracil]	51-52-5	ND	.....	ND	100
Pyradine	110-86-1	ND	.....	ND	2,400
Strychnine	57-24-9	ND	.....	ND	100
Thioacetamide	62-55-5	ND	.....	ND	57
Thiofanox	39196-18-4	ND	.....	ND	100
Thiourea	62-56-6	ND	.....	ND	57
Toluene-2,4-diamine [2,4-Diaminotoluene]	95-80-7	ND	.....	ND	57
Toluene-2,6-diamine [2,6-Diaminotoluene]	823-40-5	ND	.....	ND	57
o-Toluidine	95-53-4	ND	.....	ND	2,400
p-Toluidine	106-49-0	ND	.....	ND	100
1,3,5-Trinitrobenzene, [sym-Trinitrobenzene]	99-35-4	ND	.....	ND	2,400
Halogenated Organics:					
Allyl chloride	107-05-1	ND	.....	ND	39

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Aramite	140-57-8	ND	.....	ND	2,400
Benzal chloride [Dichloromethyl benzene]	98-87-3	ND	.....	ND	100
Benzyl chloride	100-44-7	ND	.....	ND	100
bis(2-Chloroethyl)ether [Dichloroethyl ether]	111-44-4	ND	.....	ND	2,400
Bromoform [Tribromomethane]	75-25-2	ND	.....	ND	39
Bromomethane [Methyl bromide]	74-83-9	ND	.....	ND	39
4-Bromophenyl phenyl ether [p-Bromo diphenyl ether]	101-55-3	ND	.....	ND	2,400
Carbon tetrachloride	56-23-5	ND	.....	ND	39
Chlordane	57-74-9	ND	.....	ND	14
p-Chloroaniline	106-47-8	ND	.....	ND	2,400
Chlorobenzene	108-90-7	ND	.....	ND	39
Chlorobenzilate	510-15-6	ND	.....	ND	2,400
p-Chloro-m-cresol	59-50-7	ND	.....	ND	2,400
2-Chloroethyl vinyl ether	110-75-8	ND	.....	ND	39
Chloroform	67-66-3	ND	.....	ND	39
Chloromethane [Methyl chloride]	74-87-3	ND	.....	ND	39
2-Chloronaphthalene [beta-Chloronaphthalene]	91-58-7	ND	.....	ND	2,400
2-Chlorophenol [o-Chlorophenol]	95-57-8	ND	.....	ND	2,400
Chloroprene [2-Chloro-1,3-butadiene]	1126-99-8	ND	.....	ND	39
2,4-D [2,4-Dichlorophenoxy acetic acid]	94-75-7	ND	.....	ND	7.0
Diallate	2303-16-4	ND	.....	ND	2,400
1-2-Dibromo-3-chloropropane	96-12-8	ND	.....	ND	39
1,2-Dichlorobenzene [o-Dichlorobenzene]	95-50-1	ND	.....	ND	2,400
1,3-Dichlorobenzene [m-Dichlorobenzene]	541-73-1	ND	.....	ND	2,400
1,4-Dichlorobenzene [p-Dichlorobenzene]	106-46-7	ND	.....	ND	2,400
3,3'-Dichlorobenzidine	91-94-1	ND	.....	ND	2,400
Dichlorodifluoromethane [CFC-12]	75-71-8	ND	.....	ND	39
1,2-Dichloroethane [Ethylene dichloride]	107-06-2			ND	39

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
1,1-Dichloroethylene [Vinylidene chloride]	75-35-4	ND	.....	ND	39
Dichloromethoxy ethane [Bis(2-chloroethoxy)methane]	111-91-1	ND	.....	ND	2,400
2,4-Dicholorphenol	120-83-2	ND	.....	ND	2,400
2,6-Dichlorophenol	87-65-0	ND	.....	ND	2,400
1,2-Dichloropropane [Propylene dichloride]	78-87-5	ND	.....	ND	39
cis-1,3-Dichloropropylene	10061-01-5	ND	.....	ND	39
trans-1,3-Dichloropropylene	10061-02-6	ND	.....	ND	39
1,3-Dichloro-2-propanol	96-23-1	ND	.....	ND	30
Endosulfan I	959-98-8	ND	.....	ND	1.4
Endosulfan II	33213-65-9	ND	.....	ND	1.4
Endrin	72-20-8	ND	.....	ND	1.4
Endrin aldehyde	7421-93-4	ND	.....	ND	1.4
Endrin ketone	53494-70-5	ND	.....	ND	1.4
Epichlorohydrin [1-Chloro-2,3-epoxy propane]	106-89-8	ND	.....	ND	30
Ethylidene dichloride [1,1-Dichloroethane]	75-34-3	ND	.....	ND	39
2-Fluoroacetamide	640-19-7	ND	.....	ND	100
Heptachlor	76-44-8	ND	.....	ND	1.4
Heptachlor epoxide	1024-57-3	ND	.....	ND	2.8
Hexachlorobenzene	118-74-1	ND	.....	ND	2,400
Hexachloro-1,3-butadiene [Hexachlorobutadiene]	87-68-3	ND	.....	ND	2,400
Hexachlorocyclopentadiene	77-47-4	ND	.....	ND	2,400
Hexachloroethane	67-72-1	ND	.....	ND	2,400
Hexachloroprophene	70-30-4	ND	.....	ND	59,000
Hexachloropropene [Hexachloropropylene]	1888-71-7	ND	.....	ND	2,400
Isodrin	465-73-6	ND	.....	ND	2,400
Kepone [Chlordecane]	143-50-0	ND	.....	ND	4,700
Lindane [gamma-BHC][gamma-Hexachlorocyclohexane]	58-89-9	ND	.....	ND	1.4
Methylene chloride [Dichloromethane]	75-09-2	ND	.....	ND	39
4,4'-Methylene-bis(2-chloro aniline)	101-14-4	ND	.....	ND	100
Methyl iodide [Iodomethane]	74-88-4	ND	.....	ND	39
Pentachlorobenzene	608-93-5	ND	.....	ND	2,400

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification					
Chemical Name	CAS No.	Composite Value (mg/kg)	Heating Value (BTU/lb)	Concentration Limit (mg/kg at 10,000 BTU/lb)	Minimum Required Detection Limit (mg/kg)
Pentachloroethane	76-01-7	ND	.....	ND	39
Pentachloronitrobenzene [PCNB][Quintobenzene] [Quintozene]	82-68-8	ND	.....	ND	2,400
Pentachlorophenol	87-86-5	ND	.....	ND	2,400
Pronamide	23950-58-5	ND	.....	ND	2,400
Silvex [2,4,5-Trichlorophenoxy propionic acid]	93-72-1	ND	.....	ND	7.0
2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]	1746-01-6	ND	.....	ND	30
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	.....	ND	2,400
1,1,2,2-Tetrachloroethane	79-34-5	ND	.....	ND	39
Tetrachloroethylene [Perchloroethylene]	127-18-4	ND	.....	ND	39
2,3,4,6-Tetrachlorophenol	58-90-2	ND	.....	ND	2,400
1,2,4-Trichlorobenzene	120-82-1	ND	.....	ND	2,400
1,1,1-Trichloroethane [Methyl chloroform]	71-55-6	ND	.....	ND	39
1,1,2-Trichloroethane [Vinyl trichloride]	79-00-5	ND	.....	ND	39
Trichloroethylene	79-01-6	ND	.....	ND	39
Trichlorofluoromethane [Trichloromonofluoromethane]	75-69-4	ND	.....	ND	39
2,4,5-Trichlorophenol	95-95-4	ND	.....	ND	2,400
2,4,6-Trichlorophenol	88-06-2	ND	.....	ND	2400
1,2,3-Trichloropropane	96-18-4	ND	.....	ND	39
Vinyl chloride	75-01-4	ND	.....	ND	39

Notes:

NA - Not applicable.

ND - Nondetect.

[1] - 25 or individual halogenated organics listed below.

2. **Synthesis gas fuel specification.** Synthesis gas fuel (for example, syngas fuel) that is generated from hazardous waste must:

   a. Have a minimum British thermal unit value of one hundred British thermal units/standard cubic foot;

b. Contain less than one part per million volume of total halogen;

c. Contain less than three hundred parts per million volume of total nitrogen other than diatomic nitrogen (N_2);

d. Contain less than two hundred parts per million volume of hydrogen sulfide; and

e. Contain less than one part per million volume of each hazardous constituent in the target list of chapter 33-24-02, appendix V constituents.

3. **Implementation.** Waste that meets the comparable or syngas fuel specifications provided by subsections 1 and 2 (these constituent levels must be achieved by the comparable fuel when generated, or as a result of treatment or blending, as provided in subdivision c or d) is excluded from the definition of solid waste provided that the following requirements are met:

a. Notices. For purposes of section 33-24-02-22, the person claiming and qualifying for the exclusion is called the comparable/syngas fuel generator and the person burning the comparable/syngas fuel is called the comparable/syngas burner. The person who generates the comparable fuel or syngas fuel must claim and certify to the exclusion.

(1) Regulatory notice.

(a) The generator must submit a one-time notice to the department, in whose jurisdiction the exclusion is being claimed and where the comparable/syngas fuel will be burned, certifying compliance with the conditions of the exclusion and providing documentation as required by subparagraph c;

(b) If the generator is a company that generates comparable/syngas fuel at more than one facility, the generator shall specify at which sites the comparable/syngas fuel will be generated; and

(c) A comparable/syngas fuel generator's notification to the department must contain the following items:

[1] The name, address, and identification number of the person or facility claiming the exclusion;

[2] The applicable hazardous waste codes for the hazardous waste;

[3] Name and address of the units, meeting the requirements of subdivision b, that will burn the comparable/syngas fuel; and

[4] The following statement is signed and submitted by the person claiming the exclusion or that person's authorized representative:

Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of section 33-24-02-22 have been met for all waste identified in this notification. Copies of the records and information required at subdivision j of subsection 3 of section 33-24-02-22 are available at the comparable/syngas fuel generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(2) Public notice. Prior to burning an excluded comparable/syngas fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled "Notification of Burning a Comparable/Syngas Fuel Excluded Under the Resource Conservation and Recovery Act" containing the following information:

(a) Name, address, and identification number of the generating facility;

(b) Name and address of the unit or units that will burn the comparable/syngas fuel;

(c) A brief, general description of the manufacturing, treatment, or other process generating the comparable/syngas fuel;

(d) An estimate of the average and maximum monthly and annual quantity of the waste claimed to be excluded; and

(e) Name and mailing address of the department to which the claim was submitted.

b. Burning. The comparable/syngas fuel exclusion for fuels meeting the requirements of subsection 1 or 2 and subdivision a applies only if the fuel is burned in the following units that also shall be subject to any combination of federal, state, and local air emission requirements, including all applicable Clean Air Act maximum achievable control technology requirements:

(1) Industrial furnaces as defined in section 33-24-01-04.

(2) Boilers, as defined in section 33-24-01-04, that are further defined as follows:

(a) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(b) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

(3) Hazardous waste incinerators subject to regulation under sections 33-24-05-144 through 33-24-05-159 or applicable Clean Air Act maximum achievable control technology standards.

(4) Gas turbines used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

c. Blending to meet the viscosity specification. A hazardous waste blended to meet the viscosity specification shall:

(1) As generated and prior to any blending, manipulation, or processing meet the constituent and heating value specifications of paragraph 1 of subdivision a of subsection 1 and subdivision b of subsection 1;

(2) Be blended at a facility that is subject to the applicable requirements of sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, and 33-24-05-800 through 33-24-05-819, and the applicable requirements of subsection 5 of section 33-24-06-16, or section 33-24-03-12; and

(3) Not violate the dilution prohibition of subdivision f.

d. Treatment to meet the comparable fuel exclusion specifications.

(1) A hazardous waste may be treated to meet the exclusion specifications of subdivisions a and b of subsection 1 provided the treatment:

(a) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;

(b) Is performed at a facility that is subject to the applicable requirements of sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, and 33-24-05-800 through 33-24-05-819, and the applicable requirements of subsection 5 of section 33-24-06-16, or section 33-24-03-12; and

(c) Does not violate the dilution prohibition of subdivision f.

(2) Residuals resulting from the treatment of a hazardous waste listed in sections 33-24-02-15 through 33-24-02-19 to generate a comparable fuel remain a hazardous waste.

e. Generation of a syngas fuel.

(1) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of subsection 2 provided the processing:

(a) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

(b) Is performed at a facility that is subject to the applicable requirements of sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, and 33-24-05-800 through 33-24-05-819, and the applicable requirements of subsection 5 of section 33-24-06-16; or section 33-24-03-12, or is an exempt recycling unit pursuant to subsection 3 of section 33-24-02-06; and

(c) Does not violate the dilution prohibition of subdivision f.

(2) Residuals resulting from the treatment of a hazardous waste listed in sections 33-24-02-15 through 33-24-02-19 to generate a syngas fuel remain a hazardous waste.

f. Dilution prohibition for comparable and syngas fuels. No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the exclusion specifications of paragraph 1 of subdivision a of subsection 1 or subdivision b of subsection 1 or subsection 2.

g. Waste analysis plans. The generator of a comparable/syngas fuel shall develop and follow a written waste analysis plan which describes the procedures for sampling and analysis of the hazardous waste to be excluded. The waste analysis plan shall be developed in accordance with the applicable sections of the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW 846). The plan shall be followed and retained at the facility excluding the waste.

(1) At a minimum, the plan must specify:

(a) The parameters for which each hazardous waste will be analyzed and the rationale for the selection of those parameters;

(b) The test methods which will be used to test for these parameters;

(c) The sampling method which will be used to obtain a representative sample of the waste to be analyzed;

(d) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(e) If process knowledge is used in the waste determination, any information prepared by the generator in making such determination.

(2) The waste analysis plan shall also contain records of the following:

(a) The dates and times waste samples were obtained, and the dates the samples were analyzed;

(b) The names and qualifications of the person or persons who obtained the samples;

(c) A description of the temporal and spatial locations of the samples;

(d) The name and address of the laboratory facility at which analyses of the samples were performed;

(e) A description of the analytical methods used, including any cleanup and sample preparation methods;

(f) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(g) All laboratory results demonstrating that the exclusion specifications have been met for the waste; and

(h) All laboratory documentation that supports the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subdivision k and also provides for the availability of the documentation to the claimant upon request.

(3) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of a syngas fuel as an excluded waste, a waste analysis plan containing the elements of paragraph 1 to the appropriate regulatory authority. The approval of waste analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the waste analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

h. Comparable fuel sampling and analysis.

(1) General. For each waste for which an exclusion is claimed, the generator of the hazardous waste must test for all the constituents on chapter 33-24-02, appendix V, except those that the generator determines, based on testing or knowledge, should not be present in the waste. The generator is required to document the basis of each determination that a constituent should not be present. The generator may not determine that any of the following categories of constituents should not be present:

(a) A constituent that triggered the toxicity characteristic for the waste constituents that were the basis of the listing of the waste stream or constituents for which

there is a treatment standard for the waste code in section 33-24-05-280;

(b) A constituent detected in previous analysis of the waste;

(c) Constituents introduced into the process that generates the waste; or

(d) Constituents that are byproducts or side reactions to the process that generates the waste.

Note to subdivision h: Any claim under this section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the waste above the exclusion specifications.

(2) For each waste for which the exclusion is claimed when the generator of the comparable/syngas fuel is not the original generator of the hazardous waste, the generator of the comparable/syngas fuel may not use process knowledge pursuant to paragraph 1 and must test to determine that all of the constituent specifications of subdivision b of subsection 1 and subsection 2 have been met.

(3) The comparable/syngas fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the waste. For the waste to be eligible for exclusion, a generator must demonstrate that:

(a) Each constituent of concern is not present in the waste above the specification level at the ninety-five percent upper confidence limit around the mean; and

(b) The analysis could have detected the presence of the constituent at or below the specification level at the ninety-five percent upper confidence limit around the mean.

(4) Nothing in this subdivision preempts, overrides, or otherwise negates the provision in section 33-24-03-02, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(5) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

(6) The generator must conduct sampling and analysis in accordance with its waste analysis plan developed under subdivision g.

(7) Syngas fuel and comparable fuel that has not been blended in order to meet the kinematic viscosity specifications shall be analyzed as generated.

(8) If a comparable fuel is blended in order to meet the kinematic viscosity specifications, the generator shall:

(a) Analyze the fuel as generated to ensure that it meets the constituent and heating value specifications; and

(b) After blending, analyze the fuel again to ensure that the blended fuel continues to meet all comparable/syngas fuel specifications.

(9) Excluded comparable/syngas fuel must be retested, at a minimum, annually and must be retested after a process change that could change the chemical or physical properties of the waste.

i. Speculative accumulation. Any persons handling a comparable/syngas fuel are subject to the speculative accumulation test under subdivision d of subsection 3 of section 33-24-02-02.

j. Records. The generator must maintain records of the following information onsite:

(1) All information required to be submitted to the implementing authority as part of the notification of the claim:

(a) The owner/operator name, address, and facility identification number of the person claiming the exclusion;

(b) The applicable hazardous waste codes for each hazardous waste excluded as a fuel; and

(c) The certification signed by the person claiming the exclusion or that person's authorized representative.

(2) A brief description of the process that generated the hazardous waste and process that generated the excluded fuel, if not the same;

(3) An estimate of the average and maximum monthly and annual quantities of each waste claimed to be excluded;

(4) Documentation for any claim that a constituent is not present in the hazardous waste as required under paragraph 1;

(5) The results of all analyses and all detection limits achieved as required under subdivision h;

(6) If the excluded waste was generated through treatment or blending, documentation as required under subdivision c or d;

(7) If the waste is to be shipped offsite, a certification from the burner as required under subdivision l;

(8) A waste analysis plan and the results of the sampling and analysis that includes the following:

(a) The dates and times waste samples were obtained and the dates the samples were analyzed;

(b) The names and qualifications of the person or persons who obtained the samples;

(c) A description of the temporal and spatial locations of the samples;

(d) The name and address of the laboratory facility at which analyses of the samples were performed;

(e) A description of the analytical methods used, including any cleanup and sample preparation methods;

(f) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(g) All laboratory analytical results demonstrating that the exclusion specifications have been met for the waste; and

(h) All laboratory documentation that supports the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subdivision k and also provides for the availability of the documentation to the claimant upon request; and

(9) If the generator ships comparable/syngas fuel offsite for burning, the generator must retain for each shipment the following information onsite:

(a) The name and address of the facility receiving the comparable/syngas fuel for burning;

(b) The quantity of comparable/syngas fuel shipped and delivered;

(c) The date of shipment or delivery;

(d) A cross-reference to the record of comparable/syngas fuel analysis or other information used to make the determination that the comparable/syngas fuel meets the specifications as required under subdivision h; and

(e) A one-time certification by the burner as required under subdivision l.

k. Records retention. Records must be maintained for the period of three years. A generator must maintain a current waste analysis plan during that three-year period.

l. Burner certification. Prior to submitting a notification to the department, a comparable/syngas fuel generator who intends to ship its fuel offsite for burning must obtain a one-time written, signed statement from the burner:

(1) Certifying that the comparable/syngas fuel will only be burned in an industrial furnace or boiler, utility boiler, or hazardous waste incinerator, as required under subdivision b;

(2) Identifying the name and address of the units that will burn the comparable/syngas fuel; and

(3) Certifying that the state in which the burner is located is authorized to exclude wastes as comparable/syngas fuel under the provisions of this section.

m. Ineligible waste codes. Wastes that are listed because of presence of dioxins or furans, as set out in chapter 33-24-02, appendix IV, are not eligible for this exclusion, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full hazardous waste management requirements.

History: Effective December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

APPENDIX II

Method 1311 - Toxicity Characteristic Leaching Procedure (TCLP)

Note: The toxicity characteristic leaching procedure, method 1311, is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05.

~~1.0 Scope and Application~~

~~1.1 The Toxicity Characteristic Leaching Procedure is designed to determine the mobility of both organic and inorganic analytes present in liquid, solid, and multiphasic wastes.~~

~~1.2 If a total analysis of the waste demonstrates that individual analytes are not present in the waste, or that they are present but at such low concentrations that the appropriate regulatory levels could not possibly be exceeded, the Toxicity Characteristic Leaching Procedure need not be run.~~

~~1.3 If an analysis of any one of the liquid fractions of the Toxicity Characteristic Leaching Procedure extract indicates that a regulated compound is present at such high concentrations that, even after accounting for dilution from the other fractions of the extract, the concentration would be equal to or above the regulatory level for that compound, then the waste is hazardous and it is not necessary to analyze the remaining fractions of the extract.~~

~~1.4 If an analysis of extract obtained using a bottle extractor shows that the concentration of any regulated volatile analyte equals or exceeds the regulatory level for that compound, then the waste is hazardous and extraction using the Zero Headspace Extractor (ZHE) is not necessary. However, extract from a bottle extractor cannot be used to demonstrate that the concentration of volatile compounds is below the regulatory level.~~

~~2.0 Summary of Method~~

~~2.1 For liquid wastes (for example, those containing less than one-half percent dry solid material), the waste, after filtration through a six-tenths to eight-tenths micrometer glass fiber filter, is defined as the Toxicity Characteristic Leaching Procedure extract.~~

~~2.2 For wastes containing greater than or equal to one-half percent solids, the liquid, if any, is separated from the solid phase and stored for later analysis; the particle size of the solid phase is reduced, if necessary. The solid phase is extracted with an amount of extraction fluid equal to twenty times the weight of the solid phase. The extraction fluid employed is a function of the alkalinity of the solid phase of the waste. A special extractor vessel is used when testing for volatile analytes (see Table 1 for a list of volatile compounds). Following extraction, the liquid extract is separated from the solid phase by filtration through a six-tenths to eight-tenths micrometers glass fiber filter.~~

~~Table 1. Volatile Analytes[1,2]~~

~~Compound~~	~~CAS No.~~
~~Acetone~~	~~67-64-1~~
~~Benzene~~	~~71-43-2~~
~~n-Butyl alcohol~~	~~71-36-3~~
~~Carbon disulfide~~	~~75-15-0~~
~~Carbon tetrachloride~~	~~56-23-5~~
~~Chlorobenzene~~	~~108-90-7~~
~~Chloroform~~	~~67-66-3~~
~~1,2-Dichloroethane~~	~~107-06-2~~
~~1,1-Dichloroethylene~~	~~75-35-4~~
~~Ethyl acetate~~	~~141-78-6~~
~~Ethyl benzene~~	~~100-41-4~~
~~Ethyl ether~~	~~60-29-7~~
~~Isobutanol~~	~~78-83-1~~
~~Methanol~~	~~67-56-1~~
~~Methylene chloride~~	~~75-09-2~~
~~Methyl ethyl ketone~~	~~78-93-3~~
~~Methyl isobutyl ketone~~	~~108-10-1~~
~~Tetrachloroethylene~~	~~127-18-4~~
~~Toluene~~	~~108-88-3~~
~~1,1,1-Trichloroethane~~	~~71-55-6~~
~~Trichloroethylene~~	~~79-01-6~~
~~Trichlorofluoromethane~~	~~75-69-4~~
~~1,1,2-Trichloro-1,2,2-trifluoroethane~~	~~76-13-1~~
~~Vinyl chloride~~	~~75-01-4~~
~~Xylene~~	~~1330-20-7~~

~~[1]When testing for any or all of these analytes, the Zero Headspace Extractor vessel shall be used instead of the bottle extractor.~~

~~[2]Benzene, carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichloroethane, 1,1-dichloroethylene, methyl ethyl ketone, tetrachloroethylene, trichloroethylene, and vinyl chloride are toxicity characteristic constituents.~~

~~2.3 If compatible (for example, multiple phases will not form on combination), the initial liquid phase of the waste is added to the liquid extract, and these are analyzed together. If incompatible, the liquids are analyzed separately and the results are mathematically combined to yield a volume-weighted average concentration.~~

~~3.0 Interferences~~

~~3.1 Potential interferences that may be encountered during analysis are discussed in the individual analytical methods.~~

~~4.0 Apparatus and Materials~~

4.1 Agitation apparatus: The agitation apparatus must be capable of rotating the extraction vessel in an end-over-end fashion (see Figure 1) at thirty plus or minus two revolutions per minute. Suitable devices known to the department are identified in Table 2.

Figure 1. Rotary Agitation Apparatus

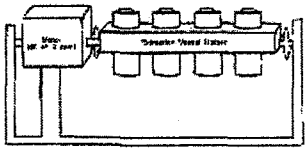


Table 2. Suitable Rotary Agitation Apparatus*

Company	Location	Model No.
Analytical Testing and Consulting Services, Inc.	Warrington, PA (215) 343-4490	4-vessel (DC20S) 8-vessel (DC20) 12-vessle (DC20B)
Associated Design and Manufacturing Company	Alexandria, VA (703) 549-5999	2-vessel (3740-2) 4-vessel (3740-4) 6-vessel (3740-6) 8-vessel (3740-8) 12-vessel (3740-12) 24-vessel (3740-24)
Environmental Machine and Design, Inc.	Lynchburg, VA (804) 845-6424	8-vessel (98-00-00) 4-vessel (94-00-00)
IRA Machine Shop and Laboratory	Santurce, PR (809) 752-4004	8-vessel (811001)
Lars Lande Manufacturing	Whitmore Lake, MI (313) 449-4116	10-vessel (01VRE) 5-vessel (5VRE)
Millipore Corp.	Bedford, MA (800) 225-3384	4-ZHE or 4 1-liter bottle extractor (YT300RAHW)

*Any device that rotates the extraction vessel in an end-over-end fashion at 30 ±2 rpm is acceptable.

4.2 Extraction Vessels:

4.2.1 Zero-Headspace Extraction Vessel (ZHE). This device is for use only when the waste is being tested for the mobility of volatile analytes (for example, those listed in Table 1). The Zero-Headspace Extractor (depicted in Figure 2) allows for liquid/solid separation within the device, and effectively precludes headspace. This type of vessel allows for initial liquid/solid separation, extraction, and final extract filtration without opening the vessel

(see section 4.3.1). The vessels shall have an internal volume of five hundred to six hundred milliliters and be equipped to accommodate a ninety to a one hundred ten millimeters filter. The devices contain VITON (registered trademark of DuPont) O-rings which should be replaced frequently. Suitable Zero-Headspace Extractor devices known to the department are identified in Table 3.

Table 3. Suitable Zero-Headspace Extractor Vessels[1]

Company	Location	Model No.
Analytical Testing & Consulting Services, Inc.	Warrington, PA (215) 343-4490	G102, Mechanical Pressure Device
Associated Design and Manufacturing Company	Alexandria, VA (703) 549-5999	8745 ZHE, Gas Pressure Device
Lars Lande Manufacturing[2]	Whitmore Lake, MI (313) 449-4116	ZHE-11, Gas Pressure Device
Millipore Corporation	Bedford, MA (800) 225-6884	YT809901W, Gas Pressure Device
Environmental Machine and Design, Inc.	Lynchburg, VA (804) 845-6424	VOLA-TOX1, Gas Pressure Device

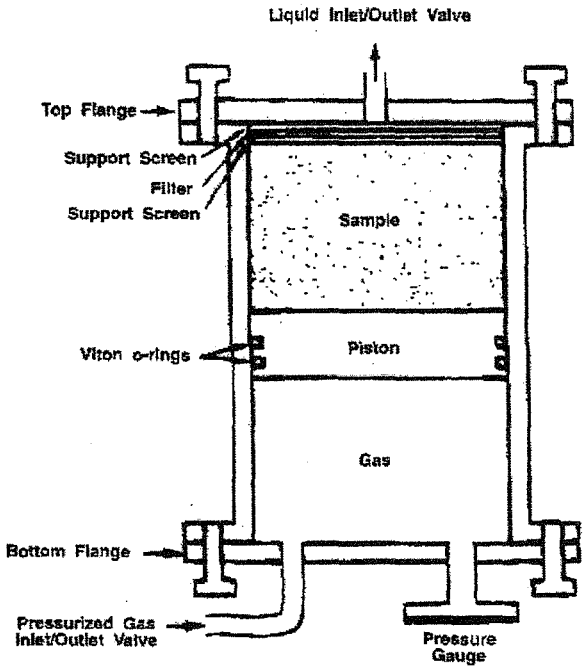
[1]Any device that meets the specifications listed in section 4.2.1 of the method is acceptable.
[2]This device uses a 110 mm filter.

For the Zero-Headspace Extractor to be acceptable for use, the piston within the Zero-Headspace Extractor should be able to be moved with approximately fifteen pounds per square inch (psi) or less. If it takes more pressure to move the piston, the O-rings in the device should be replaced. If this does not solve the problem, the Zero-Headspace Extractor is unacceptable for Toxicity Characteristic Leaching Procedure analyses and the manufacturer should be contacted.

The Zero-Headspace Extractor should be checked for leaks after every extraction. If the device contains a built-in pressure gauge, pressurize the device to fifty pounds per square inch, allow it to stand unattended for one hour, and recheck the pressure. If the device does not have a built-in pressure gauge, pressurize the device to fifty pounds per square inch, submerge it in water, and check for the presence of air bubbles escaping from any of the fittings. If pressure is lost, check all fittings and inspect and replace O-rings, if necessary. Retest the device. If leakage problems cannot be solved, the manufacturer should be contacted.

Some Zero-Headspace Extractors use gas pressure to actuate the Zero-Headspace Extractor piston, while others use mechanical

Figure 2. Zero-Headspace Extractor (ZHE)



~~pressure (see Table 3). Whereas the volatiles procedure (see section 7.3) refers to pounds per square inch (psi), for the mechanically actuated piston, the pressure applied is measured in torque-inch-pounds. Refer to the manufacturer's instructions as to the proper conversion.~~

~~4.2.2 Bottle Extraction Vessel. When the waste is being evaluated using the nonvolatile extraction, a jar with sufficient capacity to hold the sample and the extraction fluid is needed. Headspace is allowed in this vessel.~~

~~The extraction bottles may be constructed from various materials, depending on the analytes to be analyzed and the nature of the waste (see section 4.3.3). It is recommended that borosilicate glass bottles be used instead of other types of glass, especially when inorganics are of concern. Plastic bottles, other than polytetrafluoroethylene, shall not be used if organics are to be investigated. Bottles are available from a number of laboratory suppliers. When this type of extraction vessel is used, the filtration device discussed in section 4.3.2 is used for initial liquid/solid separation and final extract filtration.~~

~~4.3 Filtration Devices: It is recommended that all filtrations be performed in a hood.~~

~~4.3.1 Zero Headspace Extractor Vessel (ZHE): When the waste is evaluated for volatiles, the Zero Headspace Extraction vessel described in section 4.2.1 is used for filtration. The device shall be capable of supporting and keeping in place the glass fiber filter and be able to withstand the pressure needed to accomplish separation (fifty pounds per square inch).~~

~~Note: When it is suspected that the glass fiber filter has been ruptured, an in-line glass fiber filter may be used to filter the material within the Zero Headspace Extractor.~~

~~4.3.2 Filter Holder: When the waste is evaluated for other than volatile analytes, any filter holder capable of supporting a glass fiber filter and able to withstand the pressure needed to accomplish separation may be used. Suitable filter holders range from simple vacuum units to relatively complex systems capable of exerting pressures of up to fifty pounds per square inch or more. The type of filter holder used depends on the properties of the material to be filtered (see section 4.3.3). These devices shall have a minimum internal volume of three hundred milliliters and be equipped to accommodate a minimum filter size of forty-seven millimeters (filter holders having an internal capacity of one and one-half liters or greater and equipped to accommodate a one hundred forty-two millimeters diameter filter are recommended). Vacuum filtration can only be used for wastes with low solids content (less than ten percent) and for highly granular liquid-containing wastes. All other types of wastes should be filtered using positive pressure filtration. Suitable filter holders known to the department are shown in Table 4.~~

Table 4. Suitable Filter Holders[†]

Company	Location	Model/Catalog No.	Size (mm)
Nuclepore Corporation	Pleasanton, CA (800) 882-7711	425910 401400	142 mm 47 mm
Micro Filtration Systems	Dublin, CA (800) 334-7132 (415) 828-6010	302400 311400	142 mm 47 mm
Millipore Corporation	Bedford, MA (800) 225-3384	YT30142HW XX1004700	142 mm 47 mm

[†]Any device capable of separating the liquid from the solid phase of the waste is suitable, providing that it is chemically compatible with the waste and the constituents to be analyzed. Plastic devices (not listed above) may be used when only inorganic analytes are of concern. The 142 mm size filter holder is recommended.

4.3.3 Materials of Construction: Extraction vessels and filtration devices shall be made of inert materials which will not leach or absorb waste components. Glass, polytetrafluoroethylene (PTFE), or type 316 stainless steel equipment may be used when evaluating the mobility of both organic and inorganic components. Devices made of high-density polyethylene (HDPE), polypropylene (PP), or polyvinyl chloride (PVC) may be used only when evaluating the mobility of metals. Borosilicate glass bottles are recommended for use over other types of glass bottles, especially when inorganics are constituents of concern.

4.4 Filters: Filters shall be made of borosilicate glass fiber, shall contain no binder materials, and shall have an effective pore size of six-tenths to eight-tenths micrometer or equivalent. Filters known to the department which meet these specifications are identified in Table 5. Prefilters must not be used. When evaluating the mobility of metals, filters shall be acid-washed prior to use by rinsing with 1N nitric acid followed by three consecutive rinses with deionized distilled water (a minimum of one liter per rinse is recommended). Glass fiber filters are fragile and should be handled with care.

Table 5. Suitable Filter Media[†]

Company	Location	Model	Pore Size
Millipore Corporation	Bedford, MA (800) 225-3384	AP40	0.7
Nuclepore Corporation	Pleasanton, CA (415) 463-2530	211625	0.7
Whatman Laboratory Products, Inc.	Clifton, NJ (201) 773-5800	GFF	0.7
Micro Filtration Systems	Dublin, CA (800) 334-7132 (415) 828-6010	GF75	0.7

[†]Any filter that meets the specifications in section 4.4 of the method is suitable.

4.5 pH Meters: The meter should be accurate to plus or minus five-hundredths units at twenty-five degrees Celsius.

4.6 Zero-Headspace Extractor Extract Collection Devices: TEDLAR (registered trademark of DuPont) bags or glass, stainless steel or PTFE gastight syringes are used to collect the initial liquid phase and the final extract of the waste when using the Zero-Headspace Extractor device. The devices listed are recommended for use under the following conditions:

4.6.1 If a waste contains an aqueous liquid phase or if a waste does not contain a significant amount of nonaqueous liquid (for example, less than one percent of total waste), the TEDLAR (registered trademark of DuPont) bag or a six hundred milliliters syringe should be used to collect and combine the initial liquid and solid extract.

4.6.2 If a waste contains a significant amount of nonaqueous liquid in the initial liquid phase (for example, greater than one percent of total waste), the syringe or the TEDLAR (registered trademark of DuPont) bag may be used for both the initial solid/liquid separation and the final extract filtration. However, analysts should use one or the other, not both.

4.6.3 If the waste contains no initial liquid phase (is one hundred percent solid) or has no significant solid phase (is one hundred percent liquid), either the TEDLAR (registered trademark of DuPont) bag or the syringe may be used. If the syringe is used, discard the first five milliliters of liquid expressed from the device. The remaining aliquots are used for analysis.

4.7 Zero-Headspace Extractor Extraction Fluid Transfer Devices: Any device capable of transferring the extraction fluid into the Zero-Headspace Extractor without changing the nature of the extraction fluid is acceptable (for example, a positive displacement or peristaltic pump, a gas-tight syringe, pressure filtration unit (see section 4.3.2), or other Zero-Headspace Extractor device).

4.8 Laboratory Balance: Any laboratory balance accurate to within plus or minus one-hundredth grams may be used (all weight measurements are to be within plus or minus one-tenth grams).

4.9 Beaker or Erlenmeyer flask, glass, five hundred milliliters.

4.10 Watchglass, appropriate diameter to cover beaker or Erlenmeyer flask.

4.11 Magnetic stirrer.

5.0 Reagents

5.1 Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without lessening the accuracy of the determination.

5.2 Reagent water. Reagent water is defined as water in which an interferant is not observed at or above the methods detection limit of the analytes of interest. For nonvolatile extractions, ASTM Type II water or equivalent meets the definition of reagent water. For volatile extractions, it is recommended that reagent water be generated by any of the following methods. Reagent water should be monitored periodically for impurities.

5.2.1 Reagent water for volatile extractions may be generated by passing tap water through a carbon filter bed containing about five hundred grams of activated carbon (Calgon Corp., Filtrasorb-300 or equivalent).

5.2.2 A water purification system (Millipore Super-Q or equivalent) may also be used to generate reagent water for volatile extractions.

5.2.3 Reagent water for volatile extractions may also be prepared by boiling water for fifteen minutes. Subsequently, while maintaining the water temperature at ninety plus five degrees Celsius, bubble a contaminant-free inert gas (for example, nitrogen) through the water for one hour. While still hot, transfer the water to a narrow mouth screw-cap bottle under zero-headspace and seal with a Teflon-lined septum and cap.

5.3 Hydrochloric acid (1N), HCl, made from ACS reagent grade.

5.4 Nitric acid (1N), HNO_3, made from ACS reagent grade.

5.5 Sodium hydroxide (1N), NaOH, made from ACS reagent grade.

5.6 Glacial acetic acid, CH_3CH_2OOH, ACS reagent grade.

5.7 Extraction fluid.

5.7.1 Extraction fluid #1: Add five and seven-tenths milliliters glacial CH_3CH_2OOH to five hundred milliliters of reagent water (see section 5.2), add sixty-four and three-tenths milliliters of 1N NaOH, and dilute to a volume of one liter. When correctly prepared, the pH of this fluid will be four and ninety-three hundredths *plus or minus five hundredths*.

5.7.2 Extraction fluid #2: Dilute five and seven-tenths milliliters glacial CH_3CH_2OOH with reagent water (see section 5.2) to a volume of one liter. When correctly prepared, the pH of this fluid will be two and eighty-eight hundredths plus or minus five hundredths.

Note: These extraction fluids should be monitored frequently for impurities. The pH should be checked prior to use to ensure that these fluids are made up accurately. If impurities are found or the pH is not within the above specifications, the fluid shall be discarded and fresh extraction fluid prepared.

5.8 Analytical standards prepared according to the appropriate analytical method.

6.0 Sample Collection, Preservation, and Handling

6.1 All samples shall be collected using an appropriate sampling plan.

6.2 The Toxicity Characteristic Leaching Procedure may place requirements on the minimal size of the field sample, depending upon the physical state or states of the waste and the analytes of concern. An aliquot is needed for preliminary evaluation of which extraction fluid is to be used for the nonvolatile analyte extraction procedure. Another aliquot may be needed to actually conduct the nonvolatile extraction (see section 1.4 concerning the use of this extract for volatile organics). If volatile organics are of concern, another aliquot may be needed. Quality control measures may require additional aliquots. Further, it is always wise to collect more samples just in case something goes wrong with the initial attempt to conduct the test.

6.3 Preservatives shall not be added to samples before extraction.

6.4 Samples may be refrigerated unless refrigeration results in irreversible physical change to the waste. If precipitation occurs, the entire sample (including precipitate) should be extracted.

6.5 When the waste is to be evaluated for volatile analytes, care shall be taken to minimize the loss of volatiles. Samples shall be collected and stored in a manner intended to prevent the loss of volatile analytes (for example, samples should be collected in Teflon-lined septum capped vials and stored at four degrees Celsius. Samples should be opened only immediately prior to extraction).

6.6 Toxicity Characteristic Leaching Procedure extracts should be prepared for analysis and analyzed as soon as possible following extraction. Extracts or portions of extracts for metallic analyte determinations must be acidified with nitric acid to a pH less than two, unless precipitation occurs (see section 7.2.14 if precipitation occurs). Extracts should be preserved for other analytes according to the guidance given in the individual analysis methods. Extracts or portions of extracts for organic analyte determinations shall not be allowed to come into contact with the atmosphere (for example, no headspace) to prevent losses. See section 8.0 (quality assurance requirements) for acceptable sample and extract holding times.

7.0 Procedure

7.1 Preliminary Evaluations. Perform preliminary Toxicity Characteristic Leaching Procedure evaluations on a minimum one hundred gram aliquot of waste. This aliquot may not actually undergo Toxicity Characteristic Leaching Procedure extraction. These preliminary evaluations include: (1) determination of the percent solids (section 7.1.1); (2) determination of whether the waste contains insignificant solids and is, therefore, its own extract after filtration (section 7.1.2); (3) determination of whether the solid portion of the waste requires particle size reduction (section 7.1.3); and (4) determination of which of the two extraction fluids are to be used for the nonvolatile Toxicity Characteristic Leaching Procedure extraction of the waste (section 7.1.4).

7.1.1 Preliminary determination of percent solids: percent solids is defined as that fraction of a waste sample (as a percentage of the total sample) from which no liquid may be forced out by an applied pressure, as described below.

~~7.1.1.1 If the waste will obviously yield no free liquid when subjected to pressure filtration (for example, is one hundred percent solids) proceed to section 7.1.3.~~

~~7.1.1.2 If the sample is liquid or multiphasic, liquid/solid separation to make a preliminary determination of percent solids is required. This involves the filtration device described in section 4.3.2 and is outlined in sections 7.1.1.3 through 7.1.1.9.~~

~~7.1.1.3 Preweigh the filter and the container that will receive the filtrate.~~

~~7.1.1.4 Assemble the filter holder and filter following the manufacturer's instructions. Place the filter on the support screen and secure.~~

~~7.1.1.5 Weigh out a subsample of the waste (one hundred gram minimum) and record the weight.~~

~~7.1.1.6 Allow slurries to stand to permit the solid phase to settle. Wastes that settle slowly may be centrifuged prior to filtration. Centrifugation is to be used only as an aid to filtration. If used, the liquid should be decanted and filtered followed by filtration of the solid portion of the waste through the same filtration system.~~

~~7.1.1.7 Quantitatively transfer the waste sample to the filter holder (liquid and solid phases). Spread the waste sample evenly over the surface of the filter. If filtration of the waste at four degrees Celsius reduces the amount of expressed liquid over what would be expressed at room temperature, then allow the sample to warm up to room temperature in the device before filtering.~~

~~Note: If waste material (greater than one percent of original sample weight) has obviously adhered to the container used to transfer the sample to the filtration apparatus, determine the weight of this residue and subtract it from the sample weight determined in section 7.1.1.5 to determine the weight of the waste sample that will be filtered.~~

~~Gradually apply vacuum or gentle pressure of one to ten pounds per square inch, until air or pressurizing gas moves through the filter. If this point is not reached under ten pounds per square inch, and if no additional liquid has passed through the filter in any two-minute interval, slowly increase the pressure in ten pounds per square inch increments to a maximum of fifty pounds per square inch. After each incremental increase of ten pounds per square inch, if the pressurizing gas has not moved through the filter, and if no additional liquid has passed through the filter in any two-minute interval, proceed to the next ten pounds per square~~

~~inch increment. When the pressurizing gas begins to move through the filter, or when liquid flow has ceased at fifty pounds per square inch (for example filtration does not result in any additional filtrate within any two-minute period), stop the filtration.~~

~~Note: Instantaneous application of high pressure can degrade the glass fiber filter and may cause premature plugging.~~

~~7.1.1.8 The material in the filter holder is defined as the solid phase of the waste, and the filtrate is defined as the liquid phase.~~

~~Note: Some wastes, such as oily wastes and some paint wastes, will obviously contain some material that appears to be a liquid. Even after applying vacuum or pressure filtration, as outlined in section 7.1.1.7, this material may not filter. 7Do not replace the original filter with a fresh filter under any circumstances. Use only one filter.~~

~~7.1.1.9 Determine the weight of the liquid phase by subtracting the weight of the filtrate container (see section 7.1.1.3) from the total weight of the filtrate-filled container. Determine the weight of the solid phase of the waste sample by subtracting the weight of the liquid phase from the weight of the total waste sample, as determined in section 7.1.1.5 or 7.1.1.7.~~

~~Record the weight of the liquid and solid phases. Calculate the percent solids as follows:~~

$$\% \text{ solids} = \frac{\text{Weight of solid (section 7.1.1.9)}}{\text{Total weight of waste (section 7.1.1.5 or 7.1.1.7)}} \times 100$$

~~7.1.2 If the percent solids determined in section 7.1.1.9 is equal to or greater than one-half percent, then proceed either to section 7.1.3 to determine whether the solid material requires particle size reduction or to section 7.1.2.1 if it is noticed that a small amount of the filtrate is entrained in wetting of the filter. If the percent solids determined in section 7.1.1.9 is less than one-half percent, then proceed to section 7.2.9 if the nonvolatile Toxicity Characteristic Leaching Procedure is to be performed and to section 7.3 with a fresh portion of the waste if the volatile Toxicity Characteristic Leaching Procedure is to be performed.~~

~~7.1.2.1 Remove the solid phase and filter from the filtration apparatus.~~

~~7.1.2.2 Dry the filter and solid phase at one hundred plus or minus twenty degrees Celsius until two successive weighings yield the same value within plus or minus one percent. Record the final weight.~~

~~Note:~~ ~~Caution should be taken to ensure that the subject solid will not flash upon heating. It is recommended that the drying oven be vented to a hood or other appropriate device.~~

~~7.1.2.3~~ ~~Calculate the percent dry solids as follows:~~

$$\% \text{ dry solids} = \frac{(\text{Weight of dry waste + filter}) - \text{tared weight of filter}}{\text{Initial weight of waste (section 7.1.1.5 or 7.1.1.7)}} \times 100$$

~~7.1.2.4~~ ~~If the percent dry solids is less than one-half percent, then proceed to section 7.2.9 if the nonvolatile Toxicity Characteristic Leaching Procedure is to be performed, and to section 7.3 if the volatile Toxicity Characteristic Leaching Procedure is to be performed. If the percent dry solids is greater than or equal to one-half percent, and if the nonvolatile Toxicity Characteristic Leaching Procedure is to be performed, return to the beginning of this section (7.1) and, with a fresh portion of waste, determine whether particle size reduction is necessary (section 7.1.3) and determine the appropriate extraction fluid (section 7.1.4). If only the volatile Toxicity Characteristic Leaching Procedure is to be performed, see the note in section 7.1.4.~~

~~7.1.3~~ ~~Determination of whether the waste requires particle size reduction (particle size is reduced during this step): using the solid portion of the waste, evaluate the solid for particle size. Particle size reduction is required, unless the solid has a surface area per gram of material equal to or greater than three and one-tenth square centimeters, or is smaller than one centimeter in its narrowest dimension (for example, is capable of passing through a nine and one-half millimeter (three hundred seventy-five thousandths of an inch) standard sieve). If the surface area is smaller or the particle size larger than described above, prepare the solid portion of the waste for extraction by crushing, cutting, or grinding the waste to a surface area or particle size as described above. If the solids are prepared for organic volatiles extraction, special precautions must be taken (see section 7.3.6).~~

~~Note:~~ ~~Surface area criteria are meant for filamentous (for example, paper, cloth) and similar waste materials. Actual measurement of surface area is not required, nor is it recommended. For materials that do not obviously meet the criteria, sample specific methods would need to be developed and employed to measure the surface area. Such methodology is currently not available.~~

~~7.1.4 Determination of appropriate extraction fluid: If the solid content of the waste is greater than or equal to one half percent and if the sample will be extracted for nonvolatile constituents (section 7.2), determine of the appropriate fluid (section 5.7) for the nonvolatiles extraction as follows:~~

~~Note: Toxicity Characteristic Leaching Procedure extraction for volatile constituents uses only extraction fluid #1 (section 5.7.1). Therefore, if Toxicity Characteristic Leaching Procedure extraction for nonvolatiles is not required, proceed to section 7.3.~~

~~7.1.4.1 Weigh out a small subsample of the solid phase of the waste, reduce the solid (if necessary) to a particle size of approximately one millimeter in diameter or less, and transfer five grams of the solid phase of the waste to a five hundred milliliters beaker or Erlenmeyer flask.~~

~~7.1.4.2 Add ninety-six and one-half milliliters of reagent water to the beaker, cover with a watchglass, and stir vigorously for five minutes using a magnetic stirrer. Measure and record the pH. If the pH is less than five, use extraction fluid #1. Proceed to section 7.2.~~

~~7.1.4.3 If the pH from section 7.1.4.2 is greater than five, add three and one-half milliliters 1N HCl, slurry briefly, cover with a watchglass, heat to fifty degrees Celsius, and hold at fifty degrees Celsius for ten minutes.~~

~~7.1.4.4 Let the solution cool to room temperature and record the pH. If the pH is less than five, use extraction fluid #1. If the pH is greater than five, use extraction fluid #2. Proceed to section 7.2.~~

~~7.1.5 If the aliquot of the waste used for the preliminary evaluation (sections 7.1.1-7.1.4) was determined to be one hundred percent solid at section 7.1.1.1, then it can be used for the section 7.2 extraction (assuming at least one hundred grams remain), and the section 7.3 extraction (assuming at least twenty-five grams remain). If the aliquot was subjected to the procedure in section 7.1.1.7, then another aliquot shall be used for the volatile extraction procedure in section 7.3. The aliquot of the waste subjected to the procedure in section 7.1.1.7 might be appropriate for use for the section 7.2 extraction if an adequate amount of solid (as determined by section 7.1.1.9) was obtained. The amount of solid necessary is dependent upon whether a sufficient amount of extract will be produced to support the analyses. If an adequate amount of solid remains, proceed to section 7.2.10 of the nonvolatile Toxicity Characteristic Leaching Procedure extraction.~~

~~7.2 Procedure When Volatiles Are Not Involved. A minimum sample size of one hundred grams (solid and liquid phases) is recommended. In some cases, a larger sample size may be appropriate, depending on the solids content of the waste sample (percent solids, see section 7.1.1), whether the initial liquid phase of the waste will be miscible with the aqueous extract of the solid, and whether inorganics, semivolatile organics, pesticides, and herbicides are all analytes of concern. Enough solids should be generated for extraction such that the volume of Toxicity Characteristic Leaching Procedure extract will be sufficient to support all of the analyses required. If the amount of extract generated by a single Toxicity Characteristic Leaching Procedure extraction will not be sufficient to perform all of the analyses, more than one extraction may be performed and the extracts from each combined and aliquoted for analysis.~~

~~7.2.1 If the waste will obviously yield no liquid when subjected to pressure filtration (for example, is one hundred percent solid, see section 7.1.1), weigh out a subsample of the waste (one hundred gram minimum) and proceed to section 7.2.9.~~

~~7.2.2 If the sample is liquid or multiphasic, liquid/solid separation is required. This involves the filtration device described in section 4.3.2 and is outlined in sections 7.2.3 to 7.2.8.~~

~~7.2.3 Preweigh the container that will receive the filtrate.~~

~~7.2.4 Assemble the filter holder and filter following the manufacturer's instructions. Place the filter on the support screen and secure. Acid wash the filter if evaluating the mobility of metals (see section 4.4).~~

~~Note: Acid-washed filters may be used for all nonvolatile extractions even when metals are not of concern.~~

~~7.2.5 Weigh out a subsample of the waste (one hundred gram minimum) and record the weight. If the waste contains less than one-half percent dry solids (section 7.1.2), the liquid portion of the waste, after filtration, is defined as the Toxicity Characteristic Leaching Procedure extract. Therefore, enough of the sample should be filtered so that the amount of filtered liquid will support all of the analyses required of the Toxicity Characteristic Leaching Procedure extract. For wastes containing greater than one-half percent dry solids (section 7.1.1 or 7.1.2), use the percent solids information obtained in section 7.1.1 to determine the optimum sample size (one hundred gram minimum) for filtration. Enough solids should be generated by filtration to support the analyses to be performed on the Toxicity Characteristic Leaching Procedure extract.~~

~~7.2.6 Allow slurries to stand to permit the solid phase to settle. Wastes that settle slowly may be centrifuged prior to filtration. Use centrifugation only as an aid to filtration. If the waste is centrifuged, the liquid should be decanted and filtered followed by filtration of the solid portion of the waste through the same filtration system.~~

~~7.2.7 Quantitatively transfer the waste sample (liquid and solid phases) to the filter holder (see section 4.5.2). Spread the waste sample evenly over the surface of the filter. If filtration of the waste at four degrees Celsius reduces the amount of expressed liquid over what would be expressed at room temperature, then allow the sample to warm up to room temperature in the device before filtering.~~

~~Note: If the waste material (greater than one percent of the original sample weight) has obviously adhered to the container used to transfer the sample to the filtration apparatus, determine the weight of this residue and subtract it from the sample weight determined in section 7.2.5 to determine the weight of the waste sample that will be filtered.~~

~~Gradually apply vacuum or gentle pressure of one to ten pounds per square inch, until air or pressurizing gas moves through the filter. If this point is not~~

~~reached under ten pounds per square inch, and if no additional liquid has passed through the filter in any two-minute interval, slowly increase the pressure in ten pounds per square inch increments to a maximum of fifty pounds per square inch. After each incremental increase of ten pounds per square inch, if the pressurizing gas has not moved through the filter, and if no additional liquid has passed through the filter in any two-minute interval, proceed to the next ten pounds per square inch increment. When the pressurizing gas begins to move through the filter, or when the liquid flow has ceased at fifty pounds per square inch (for example, filtration does not result in any additional filtrate within a two-minute period), stop the filtration.~~

~~Note: Instantaneous application of high pressure can degrade the glass fiber filter and may cause premature plugging.~~

~~7.2.8 The material in the filter holder is defined as the solid phase of the waste, and the filtrate is defined as the liquid phase. Weigh the filtrate. The liquid phase may now be either analyzed (see section 7.2.12) or stored at four degrees Celsius until time of analysis.~~

~~Note: Some wastes, such as oily wastes and some paint wastes, will obviously contain some material that appears to be a liquid. Even after applying vacuum or pressure filtration, as outlined in section 7.2.7, this material may not filter. If this is the case, the material within the filtration device is defined as a solid and is carried through the extraction as a solid. Do not replace the original filter with a fresh filter under any circumstances. Use only one filter.~~

~~7.2.9 If the waste contains less than one-half percent dry solids (see section 7.1.2), proceed to section 7.2.13. If the waste contains greater than one-half percent dry solids (see section 7.1.1 or 7.1.2), and if particle size reduction of the solid was needed in section 7.1.3, proceed to section 7.2.10. If the waste as received passes a nine and one-half millimeters sieve, quantitatively transfer the solid material into the extractor bottle along with the filter used to separate the initial liquid from the solid phase, and proceed to section 7.2.11.~~

~~7.2.10 Prepare the solid portion of the waste for extraction by crushing, cutting, or grinding the waste to a surface area or particle size as described in section 7.1.3. When the surface area or particle size has been appropriately altered, quantitatively transfer the solid material into an extractor bottle. Include the filter used to separate the initial liquid from the solid phase.~~

~~Note: Sieving of the waste is not normally required. Surface area requirements are meant for filamentous (for example, paper, cloth) and similar waste materials. Actual measurement of surface area is not recommended. If sieving is necessary, a Teflon-coated sieve should be used to avoid contamination of the sample.~~

~~7.2.11 Determine the amount of extraction fluid to add to the extractor vessel as follows:~~

~~Weight of extraction fluid = $\frac{20 \times \%\text{ solids (see 7.1.4)} \times \text{weight of waste filtered (see 7.2.6 or 7.2.7)}}{100}$~~

~~Slowly add this amount of appropriate extraction fluid (see section 7.1.4) to the extractor vessel. Close the extractor bottle tightly (it is recommended that Teflon tape be used to ensure a tight seal), secure in rotary agitation device, and rotate at thirty plus or minus two revolutions per minute for eighteen plus or minus two hours. Ambient temperature (for example, temperature of room in which extraction takes place) shall be maintained at twenty-three plus or minus two degrees Celsius during the extraction period.~~

~~Note: As agitation continues, pressure may build up within the extractor bottle for some types of wastes (for example, limed or calcium carbonate containing waste may evolve gases such as carbon dioxide). To relieve excess pressure, the extractor bottle may be periodically opened (for example, after fifteen minutes, thirty minutes, and one hour) and vented into a hood.~~

~~7.2.12 Following the eighteen plus or minus two hour extraction, separate the material in the extractor vessel into its component liquid and solid phases by filtering through a new glass fiber filter, as outlined in section 7.2.7. For final filtration of the Toxicity Characteristic Leaching Procedure extract, the glass fiber filter may be changed, if necessary, to facilitate filtration. Filters shall be acid-washed (see section 4.4) if evaluating the mobility of metals.~~

~~7.2.13 Prepare the Toxicity Characteristic Leaching Procedure extract as follows:~~

~~7.2.13.1 If the waste contained no initial liquid phase, the filtered liquid material obtained from section 7.2.12 is defined as the Toxicity Characteristic Leaching Procedure extract. Proceed to section 7.2.14.~~

~~7.2.13.2 If compatible (for example, multiple phases will not result on combination), combine the filtered liquid resulting from section 7.2.12 with the initial liquid phase of the waste obtained in section 7.2.7. This combined liquid is defined as the Toxicity Characteristic Leaching Procedure extract. Proceed to section 7.2.14.~~

~~7.2.13.3 If the initial liquid phase of the waste, as obtained from section 7.2.7, is not or may not be compatible with the filtered liquid resulting from section 7.2.12, do not combine these liquids. Analyze these liquids, collectively defined as the Toxicity Characteristic Leaching Procedure extract, and combine the results mathematically, as described in section 7.2.14.~~

~~7.2.14 Following collection of the Toxicity Characteristic Leaching Procedure extract, the pH of the extract should be recorded. Immediately aliquot and preserve the extract for analysis. Metals aliquots must be acidified with nitric acid to pH less than two. If precipitation is observed upon addition of~~

~~nitric acid to a small aliquot of the extract, then the remaining portion of the extract for metals analyses shall not be acidified and the extract shall be analyzed as soon as possible. All other aliquots must be stored under refrigeration (four degrees Celsius) until analyzed. The Toxicity Characteristic Leaching Procedure extract shall be prepared and analyzed according to appropriate analytical methods. Toxicity Characteristic Leaching Procedure extracts to be analyzed for metals shall be acid digested except in those instances where digestion causes loss of metallic analytes. If an analysis of the undigested extract shows that the concentration of any regulated metallic analyte exceeds the regulatory level, then the waste is hazardous and digestion of the extract is not necessary. However, data on undigested extracts alone cannot be used to demonstrate that the waste is not hazardous. If the individual phases are to be analyzed separately, determine the volume of the individual phases (to plus or minus one-half percent), conduct the appropriate analyses, and combine the results mathematically by using a simple volume weighted average:~~

~~$$\text{Final analyte concentration} = \frac{(V_1)(C_1) + (V_2)(C_2)}{V_1 + V_2}$$~~

~~where:~~

~~V_1 = The volume of the first phase (l).~~

~~C_1 = The concentration of the analyte of concern in the first phase (mg/l).~~

~~V_2 = The volume of the second phase (l).~~

~~C_2 = The concentration of the analyte of concern in the second phase (mg/l).~~

~~7.2.15 Compare the analyte concentrations in the Toxicity Characteristic Leaching Procedure extract with the levels identified in the appropriate regulations. Refer to section 8.0 for quality assurance requirements.~~

~~7.3 Procedure When Volatiles Are Involved. Use the Zero-Headspace Extractor device to obtain Toxicity Characteristic Leaching Procedure extract for analysis of volatile compounds only. Extract resulting from the use of the Zero-Headspace Extractor shall not be used to evaluate the mobility of nonvolatile analytes (for example, metals, pesticides, et cetera).~~

~~The Zero-Headspace Extractor device has approximately a five hundred milliliters internal capacity. The Zero-Headspace Extractor can thus accommodate a maximum of twenty-five grams of solid (defined as that fraction of a sample from which no additional liquid may be forced out by an applied pressure of fifty pounds per square inch), due to the need to add an amount of extraction fluid equal to twenty times the weight of the solid phase.~~

~~Charge the Zero-Headspace Extractor with sample only once and do not open the device until the final extract (of the solid) has been collected. Repeated filling of the Zero-Headspace Extractor to obtain twenty-five grams of solid is not permitted.~~

~~Do not allow the waste, the initial liquid phase, or the extract to be exposed to the atmosphere for any more time than is absolutely necessary. Any manipulation of~~

~~these materials should be done when cold (four degrees Celsius) to minimize loss of volatiles.~~

~~7.3.1 Preweigh the (evacuated) filtrate collection container (see section 4.6) and set aside. If using a TEDLAR (registered trademark of DuPont) bag, express all liquid from the Zero-Headspace Extractor device into the bag, whether for the initial or final liquid/solid separation, and take an aliquot from the liquid in the bag for analysis. The containers listed in section 4.6 are recommended for use under the conditions stated in 4.6.1-4.6.3.~~

~~7.3.2 Place the Zero-Headspace Extractor piston within the body of the Zero-Headspace Extractor (it may be helpful first to moisten the piston O-rings slightly with extraction fluid). Adjust the piston within the Zero-Headspace Extractor body to a height that will minimize the distance the piston will have to move once the Zero-Headspace Extractor is charged with sample (based upon sample size requirements determined from section 7.3, section 7.1.1 or section 7.1.2, or both). Secure the gas inlet/outlet flange (bottom flange) onto the Zero-Headspace Extractor body in accordance with the manufacturer's instructions. Secure the glass fiber filter between the support screens and set aside. Set liquid inlet/outlet flange (top flange) aside.~~

~~7.3.3 If the waste is one hundred percent solid (see section 7.1.1), weigh out a subsample (twenty-five gram maximum) of the waste, record weight, and proceed to section 7.3.5.~~

~~7.3.4 If the waste contains less than one-half percent dry solids (section 7.1.2), the liquid portion of waste, after filtration, is defined as the Toxicity Characteristic Leaching Procedure extract. Filter enough of the sample so that the amount of filtered liquid will support all of the volatile analyses required. For wastes containing greater than one-half percent dry solids (sections 7.1.1 or section 7.1.2, or both), use the percent solids information obtained in section 7.1.1 to determine the optimum sample size to charge into the Zero-Headspace Extractor. The recommended sample size is as follows:~~

~~7.3.4.1 For wastes containing less than five percent solids (see section 7.1.1), weigh out a five hundred gram subsample of waste and record the weight.~~

~~7.3.4.2 For wastes containing greater than five percent solids (see section 7.1.1), determine the amount of waste to charge into the Zero-Headspace Extractor as follows:~~

$$\text{Weight of waste to charge ZHE} = \frac{25}{\text{Percent solids (section 7.1)}} \times 100$$

~~Weigh out a subsample of the waste of the appropriate size and record the weight.~~

~~7.3.5 If particle size reduction of the solid portion of the waste was required in section 7.1.3, proceed to section 7.3.6. If particle size reduction was not required in section 7.1.3, proceed to section 7.3.7.~~

~~7.3.6 Prepare the waste for extraction by crushing, cutting, or grinding the solid portion of the waste to a surface area or particle size as described in section 7.1.3.1. Wastes and appropriate reduction equipment should be refrigerated, if possible, to four degrees Celsius prior to particle size reduction. The means used to effect particle size reduction must not generate heat in and of itself. If reduction of the solid phase of the waste is necessary, exposure of the waste to the atmosphere should be avoided to the extent possible.~~

~~Note: Sieving of the waste is not recommended due to the possibility that volatiles may be lost. The use of an appropriately graduated ruler is recommended as an acceptable alternative. Surface area requirements are meant for filamentous (for example, paper, cloth) and similar waste materials. Actual measurement of surface area is not recommended.~~

~~When the surface area or particle size has been appropriately altered, proceed to section 7.3.7.~~

~~7.3.7 Waste slurries need not be allowed to stand to permit the solid phase to settle. Do not centrifuge wastes prior to filtration.~~

~~7.3.8 Quantitatively transfer the entire sample (liquid and solid phases) quickly to the Zero-Headspace Extractor. Secure the filter and support screens onto the top flange of the device and secure the top flange to the Zero-Headspace Extractor body in accordance with the manufacturer's instructions. Tighten all Zero-Headspace Extractor fittings and place the device in the vertical position (gas inlet/outlet flange on the bottom). Do not attach the extract collection device to the top plate.~~

~~Note: If waste material (greater than one percent of original sample weight) has obviously adhered to the container used to transfer the sample to the Zero-Headspace Extractor, determine the weight of this residue and subtract it from the sample weight determined in section 7.3.4 to determine the weight of the waste sample that will be filtered.~~

~~Attach a gas line to the gas inlet/outlet valve (bottom flange) and, with the liquid inlet/outlet valve (top flange) open, begin applying gentle pressure of one to ten pounds per square inch (or more if necessary) to force all headspace slowly out of the Zero-Headspace Extractor device into a hood. At the first appearance of liquid from the liquid inlet/outlet valve, quickly close the valve and discontinue pressure. If filtration of the waste at four degrees Celsius reduces the amount of expressed liquid over what would be expressed at room temperature, then allow the sample to warm up to room temperature in the device before filtering. If the waste is one hundred percent solid (see section 7.1.1), slowly increase the pressure to a maximum of fifty pounds per square inch to force most of the headspace out of the device and proceed to section 7.3.12.~~

7.3.9 Attach the evacuated pre-weighed filtrate collection container to the liquid inlet/outlet valve and open the valve. Begin applying gentle pressure of one to ten pounds per square inch to force the liquid phase of the sample into the filtrate collection container. If no additional liquid has passed through the filter in any two-minute interval, slowly increase the pressure in ten pounds per square inch increments to a maximum of fifty pounds per square inch. After each incremental increase of ten pounds per square inch, if no additional liquid has passed through the filter in any two-minute interval, proceed to the next ten pounds per square inch increment. When liquid flow has ceased such that continued pressure filtration at fifty pounds per square inch does not result in any additional filtrate within a two-minute period, stop the filtration. Close the liquid inlet/outlet valve, discontinue pressure to the piston, and disconnect and weigh the filtrate collection container.

Note: Instantaneous application of high pressure can degrade the glass fiber filter and may cause premature plugging.

7.3.10 The material in the Zero-Headspace Extractor is defined as the solid phase of the waste and the filtrate is defined as the liquid phase.

Note: Some wastes, such as oily wastes and some paint wastes, will obviously contain some material that appears to be a liquid. Even after applying pressure filtration, this material will not filter. If this is the case, the material within the filtration device is defined as a solid and is carried through the Toxicity Characteristic Leaching Procedure extraction as a solid.

If the original waste contained less than one-half percent dry solids (see section 7.1.2), this filtrate is defined as the Toxicity Characteristic Leaching Procedure extract and is analyzed directly. Proceed to section 7.3.15.

7.3.11 The liquid phase may now be either analyzed immediately (see sections 7.3.13 through 7.3.15) or stored at four degrees Celsius under minimal headspace conditions until time of analysis.

Determine the weight of extraction fluid #1 to add to the Zero-Headspace Extractor as follows:

$$\text{Weight of extraction fluid} = \frac{20 \times \%\ \text{solids (sec 7.1.1)} \times \text{weight of waste filtered (sec 7.3.4 or 7.3.9)}}{100}$$

7.3.12 The following sections detail how to add the appropriate amount of extraction fluid to the solid material within the Zero-Headspace Extractor and agitation of the Zero-Headspace Extractor vessel. Extraction fluid #1 is used in all cases (see section 5.7).

7.3.12.1 With the Zero-Headspace Extractor in the vertical position, attach a line from the extraction fluid reservoir to the liquid inlet/outlet valve. The line used shall contain fresh extraction fluid and should be preflushed with fluid to eliminate any air

~~pockets in the line. Release gas pressure on the Zero-Headspace Extractor piston (from the gas inlet/outlet valve), open the liquid inlet/outlet valve, and begin transferring extraction fluid (by pumping or similar means) into the Zero-Headspace Extractor. Continue pumping extraction fluid into the Zero-Headspace Extractor until the appropriate amount of fluid has been introduced into the device.~~

~~7.3.12.2 After the extraction fluid has been added, immediately close the liquid inlet/outlet valve and disconnect the extraction fluid line. Check the Zero-Headspace Extractor to ensure that all valves are in their closed positions. Manually rotate the device in an end-over-end fashion two or three times. Reposition the Zero-Headspace Extractor in the vertical position with the liquid inlet/outlet valve on top. Pressurize the Zero-Headspace Extractor to five to ten pounds per square inch (if necessary) and slowly open the liquid inlet/outlet valve to bleed out any headspace (into a hood) that may have been introduced due to the addition of extraction fluid. This bleeding shall be done quickly and shall be stopped at the first appearance of liquid from the valve. Re-pressurize the Zero-Headspace Extractor with five to ten pounds per square inch and check all Zero-Headspace Extractor fittings to ensure that they are closed.~~

~~7.3.12.3 Place the Zero-Headspace Extractor in the rotary agitation apparatus (if it is not already there) and rotate at thirty plus or minus two revolutions per minute for eighteen plus or minus two hours. Ambient temperature (for example, temperature of room in which extraction occurs) shall be maintained at twenty-two plus or minus three degrees Celsius during agitation.~~

~~7.3.13 Following the eighteen plus or minus two hour agitation period, check the pressure behind the Zero-Headspace Extractor piston by quickly opening and closing the gas inlet/outlet valve and noting the escape of gas. If the pressure has not been maintained (for example, no gas release observed), the device is leaking. Check the Zero-Headspace Extractor for leaking as specified in section 4.2.1, and perform the extraction again with a new sample of waste. If the pressure within the device has been maintained, the material in the extractor vessel is once again separated into its component liquid and solid phases. If the waste contained an initial liquid phase, the liquid may be filtered directly into the same filtrate collection container (for example, TEDLAR registered trademark of DuPont) bag holding the initial liquid phase of the waste. A separate filtrate collection container must be used if combining would create multiple phases, or there is not enough volume left within the filtrate collection container. Filter through the glass fiber filter, using the Zero-Headspace Extractor device as discussed in section 7.3.9. All extract shall be filtered and collected if the TEDLAR (registered trademark of DuPont) bag is used, if the extract is multiphasic, or if the waste contained an initial liquid phase (see sections 4.6 and 7.3.1).~~

~~**Note:** An in-line glass fiber filter may be used to filter the material within the Zero-Headspace Extractor if it is suspected that the glass fiber filter has been ruptured.~~

~~7.3.14 If the original waste contained no initial liquid phase, the filtered liquid material obtained from section 7.3.13 is defined as the Toxicity Characteristic Leaching Procedure extract. If the waste contained an initial liquid phase, the filtered liquid material obtained from section 7.3.13 and the initial liquid phase (section 7.3.9) are collectively defined as the Toxicity Characteristic Leaching Procedure extract.~~

~~7.3.15 Following collection of the Toxicity Characteristic Leaching Procedure extract, immediately prepare the extract for analysis and store with minimal headspace at four degrees Celsius until analyzed. Analyze the Toxicity Characteristic Leaching Procedure extract according to the appropriate analytical methods. If the individual phases are to be analyzed separately (for example, are not miscible), determine the volume of the individual phases (to one-half percent), conduct the appropriate analyses, and combine the results mathematically by using a simple volume-weighted average:~~

$$\text{Final analyte concentration} = \frac{(V_1)(C_1) + (V_2)(C_2)}{V_1 + V_2}$$

~~where:~~

~~V_1=The volume of the first phases (L).~~

~~C_1=The concentration of the analyte of concern in the first phase (mg/L).~~

~~V_2=The volume of the second phase (L).~~

~~C_2=The concentration of the analyte of concern in the second phase (mg/L).~~

~~7.3.16 Compare the analyte concentrations in the Toxicity Characteristic Leaching Procedure extract with the levels identified in the appropriate regulations. Refer to section 8.0 for quality assurance requirements.~~

~~8.0 Quality Assurance Requirements~~

~~8.1 A minimum of one blank (using the same extraction fluid as used for the samples) must be analyzed for every twenty extractions that have been conducted in an extraction vessel.~~

~~8.2 A matrix spike shall be performed for each waste type (for example, wastewater treatment sludge, contaminated soil, et cetera) unless the result exceeds the regulatory level and the data are being used solely to demonstrate that the waste properly exceeds the regulatory level. A minimum of one matrix spike must be analyzed for each analytical batch. As a minimum, follow the matrix spike addition guidance provided in each analytical method.~~

8.2.1 Matrix spikes are to be added after filtration of the Toxicity Characteristic Leaching Procedure extract and before preservation. Matrix spikes should not be added prior to Toxicity Characteristic Leaching Procedure extraction of the sample.

8.2.2 In most cases, matrix spike levels should be added at a concentration equivalent to the corresponding regulatory level. If the analyte concentration is less than one-half the regulatory level, the spike concentration may be as low as one-half of the analyte concentration but may not be less than five times the method detection limit. In order to avoid differences in matrix effects, the matrix spikes must be added to the same nominal volume of Toxicity Characteristic Leaching Procedure extract as that which was analyzed for the unspiked sample.

8.2.3 The purpose of the matrix spike is to monitor the performance of the analytical methods used, and to determine whether matrix interferences exist. Use of other internal calibration methods, modification of the analytical methods, or use of alternate analytical methods may be needed to accurately measure the analyte concentration in the Toxicity Characteristic Leaching Procedure extract when the recovery of the matrix spike is below the expected analytical method performance.

8.2.4 Matrix spike recoveries are calculated by the following formula:

$$\%R \text{ (Percent recovery)} = 100(X_s - X_u)/K$$

where:
X_s = measured value for the spiked sample,
X_u = measured value for the unspiked sample, and
K = known value of the spike in the sample.

8.3 All quality control measures described in the appropriate analytical methods shall be followed.

8.4 The use of internal calibration quantitation methods shall be employed for a metallic contaminant if recovery of the contaminant from the Toxicity Characteristic Leaching Procedure extract is not at least fifty percent and the concentration does not exceed the regulatory level, and the concentration of the contaminant measured in the extract is within twenty percent of the appropriate regulatory level.

8.4.1 The method of standard additions must be employed as the internal calibration quantitation method for each metallic contaminant.

8.4.2 The method of standard additions requires preparing calibration standards in the sample matrix rather than reagent water or blank solution. It requires taking four identical aliquots of the solution and adding known amounts of standard to three of these aliquots. The fourth aliquot is the unknown. Preferably, the first addition should be prepared so that the resulting concentration is approximately fifty percent of the expected concentration of the sample. The second and third additions should be prepared so that the concentrations are approximately one hundred percent and one hundred fifty percent of the expected concentration of the

~~sample. All four aliquots are maintained at the same final volume by adding reagent water or a blank solution, and may need dilution adjustment to maintain the signals in the linear range of the instrumental technique. All four aliquots are analyzed.~~

~~8.4.3 Prepare a plot, or subject data to linear regression, of instrumental signals or external calibration-derived concentrations as the dependent variable (y-axis) versus concentrations of the additions of standard as the independent variable (x-axis). Solve for the intercept of the abscissa (the independent variable, x-axis) which is the concentration in the unknown.~~

~~8.4.4 Alternately, subtract the instrumental signal or external calibration-derived concentration of the unknown (unspiked) sample from the instrumental signals or external calibration-derived concentrations of the standard additions. Plot or subject data to linear regression of the corrected instrumental signals or external calibration-derived concentrations as the dependent variable versus the independent variable. Derive concentrations for unknowns using the internal calibration curve as if it were an external calibration curve.~~

~~8.5 Samples must undergo Toxicity Characterisic Leaching Procedure extraction within the following time periods:~~

~~**Sample Maximum Holding Times (Days)**~~

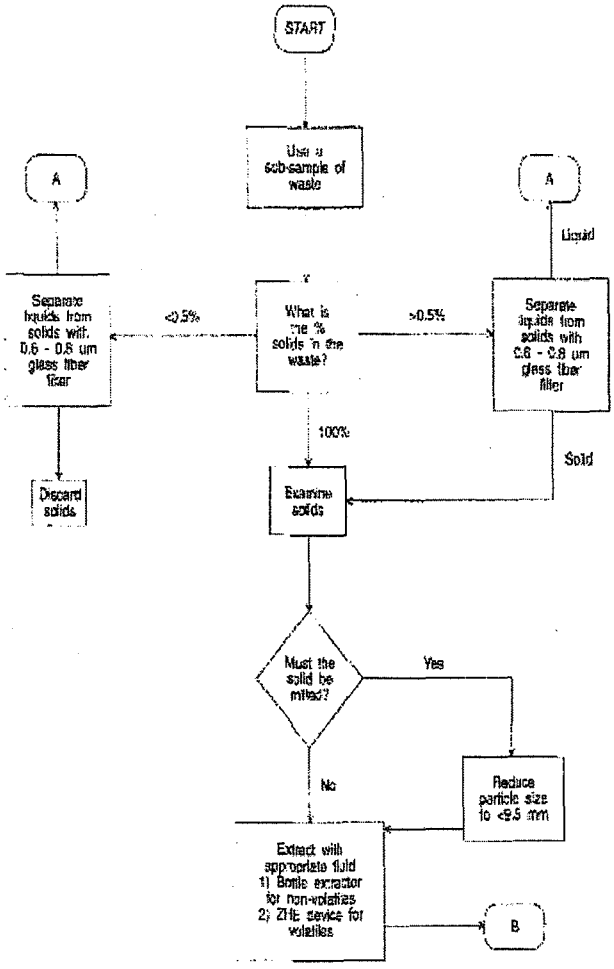
	From: Field Collection to TCLP Extraction	From: TCLP Extraction To: Preparative Extraction	From: Preparative Extraction to: Determinative Analysis	Total Elapsed Time
Volatiles	14	NA	14	28
Semi-volatiles	14	7	40	61
Mercury	28	NA	28	56
Metals, except mercury	180	NA	180	360

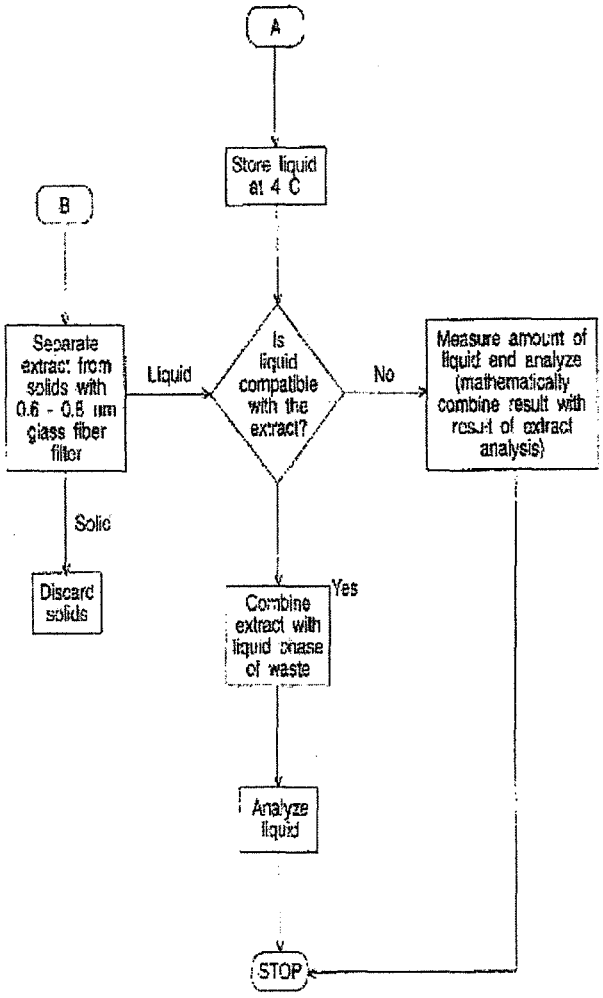
~~NA – Not applicable.~~

~~If sample holding times are exceeded, the values obtained will be considered minimal concentrations. Exceeding the holding time is not acceptable in establishing that a waste does not exceed the regulatory level. Exceeding the holding time will not invalidate characterization if the waste exceeds the regulatory level.~~

~~METHOD 1311~~

~~Toxicity Characteristic Leachate Procedure~~




A
Store liquid at 4 C
B
Separate extract from solids with 0.6 - 0.8 µm glass fiber filter
Liquid
Is liquid compatible with the extract?
No
Measure amount of liquid and analyze (mathematically combine result with result of extract analysis)
Solid
Discard solids
Yes
Combine extract with liquid phase of waste
Analyze liquid
STOP

APPENDIX III

Chemical Analysis Test Methods

Note: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in chapter two, "Choosing the Correct Procedure" found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", environmental protection agency publication SW-846, as incorporated by reference in section 33-24-01-05. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in environmental protection agency publication SW-846, for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

~~Tables 1, 2, and 3 specify the appropriate analytical procedures described in "Test Methods for Evaluating Solid Waste, Physical Chemical Methods" incorporated by reference, (see section 33-24-01-05), which shall be used to determine whether a sample contains a given appendix IV or V toxic constituent.~~

~~Table 1 identifies each appendix IV or V organic constituent along with the approved measurement method. Table 2 identifies the corresponding methods for the inorganic species. Table 3 summarizes the contents of SW-846 and supplies specific section and method numbers for sampling and analysis methods.~~

~~Prior to final sampling and analysis method selection, and for additional guidance on which of the approved methods should be employed for a specific sample analysis situation, the analyst should consult the specific section or method described in SW-846.~~

~~**Table 1. Analysis Methods for Organic Chemicals Contained in SW-846**~~

~~Compound~~	~~Method Numbers~~
~~Acetonitrile~~	~~8030, 8240~~
~~Acrolein~~	~~8030, 8240~~
~~Acrylamide~~	~~8015, 8240~~
~~Acrylonitrile~~	~~8030, 8240~~
~~2-Amino-1-methylbenzene(o-Toluidine)~~	~~8250~~
~~4-Amino-1-methylbenzene(p-Toluidine)~~	~~8250~~
~~Aniline~~	~~8250~~
~~Benzene~~	~~8020, 8024~~
~~Benz(a)anthracene~~	~~8100, 8250, 8310~~
~~Benzo(a)pyrene~~	~~8100, 8250, 8310~~
~~Benzotrichloride~~	~~8120, 8250~~
~~Benzyl chloride~~	~~8120, 8250~~
~~Benzo(b)fluoranthene~~	~~8100, 8250, 8310~~
~~Benzo(k)fluoranthene~~	~~8100,8250, 8270, 8310~~
~~BCIME(bis(2-chloroethoxymethane)~~	~~8010, 8240~~
~~Bis(2-chloroethyl)ether~~	~~8010, 8240~~
~~Bis(2-chloro isopropyl)ether~~	~~8010, 8240~~
~~Carbon disulfide~~	~~8015, 8240~~
~~Carbon tetrachloride~~	~~8010, 8240~~
~~Chlordane~~	~~8080, 8250~~
~~Chlorinated dibenzo-p-dioxins~~	~~8280~~
~~Chlorinated dibenzofurans~~	~~8280~~
~~Chlorinated biphenyls~~	~~8080, 8250~~
~~Chloroacetaldehyde~~	~~8010, 8240~~
~~Chlorobenzene~~	~~8020, 8240~~
~~Chloroform~~	~~8010, 8240~~
~~Chloromethane~~	~~8010, 8240~~
~~2-Chlorophenol~~	~~8040, 8250~~
~~Chrysene~~	~~8100, 8250, 8310~~
~~Creosote'~~	~~8100, 8250~~
~~Cresol(s)~~	~~8040, 8250~~
~~Cresylic Acid(s)~~	~~8040, 8250~~
~~Dichlorobenzene(s)~~	~~8010, 8120, 8250~~

~~Table 1. Analysis Methods for Organic Chemicals Contained in SW-846 (continued)~~

~~Compound~~	~~Method Numbers~~
~~Dichloroethane(s)~~	~~8010, 8240~~
~~Dichloromethane~~	~~8010, 8040~~
~~Dichlorophenoxyacetic acid~~	~~8150, 8250~~
~~Dichloropropanol~~	~~8120, 8250~~
~~2,4 Dimethylphenol~~	~~8040, 8250~~
~~1,1-Dimethylhydrazine (UDMH)~~	~~8250~~
~~Dimethyl sulfate~~	~~8250, 8270~~
~~Dinitrobenzene~~	~~8090, 8250~~
~~4,6-Dinitro-o-cresol~~	~~8040, 8250~~
~~2,4 Dinitrotoluene~~	~~8090, 8250~~
~~2,6-Dinitrotoluene~~	~~8090, 8250~~
~~Endrin~~	~~8080, 8250~~
~~2 Ethoxyethanol~~	~~8030, 8040~~
~~Ethyl ether~~	~~8015, 8240~~
~~Ethylene dibromide~~	~~8010, 8240~~
~~Ethylene thiourea~~	~~8250, 8300~~
~~Formaldehyde~~	~~8015, 8040~~
~~Formic acid~~	~~8250~~
~~Heptachlor~~	~~8080, 8250~~
~~Hexachlorobenzene~~	~~8120, 8250~~
~~Hexachlorobutadiene~~	~~8120, 8250~~
~~Hexachloroethane~~	~~8010, 8240~~
~~Hexachlorocyclopentadiene~~	~~8120, 8250~~
~~Lindane~~	~~8080, 8250~~
~~Maleic anhydride~~	~~8250~~
~~Methanol~~	~~8010, 8240~~
~~Methomyl~~	~~8250~~
~~Methyl bromide~~	~~8010, 8240, 8260~~
~~Methyl ethyl ketone~~	~~8015, 8240~~
~~Methyl isobutyl ketone~~	~~8015, 8240~~
~~Naphthalene~~	~~8100, 8250~~
~~Naphthoquinone~~	~~8030, 8250~~
~~Nitrobenzen~~	~~8090, 8250~~
~~4 Nitrophenol~~	~~8040, 8240~~
~~2-Nitropropane~~	~~8090, 8210~~
~~Paraldehyde (trimer of acetaldehyde)~~	~~8015, 8240~~
~~Pentachlorophenol~~	~~8040, 8250~~
~~Phenol~~	~~8040, 8250~~
~~Phorate~~	~~8140~~
~~Phosphorodithioic acid esters~~	~~8140~~
~~Phthalic anhydride~~	~~8090, 8250~~
~~2-Picoline~~	~~8090, 8250~~
~~Pyridine~~	~~8090, 8250~~
~~Tetrachlorobenzene(s)~~	~~8120, 8250~~
~~Tetrachloroethane(s)~~	~~8010, 8240~~
~~Tetrachloroethane~~	~~8010, 8240~~
~~Tetrachlorophenol~~	~~8040, 8250~~
~~Toluene~~	~~8020, 8021~~
~~Toluene diisocyanate(s)~~	~~8250~~
~~Toluenediamine~~	~~8250~~
~~2,4-Toluenediamine~~	~~8250~~
~~2,6-Toluenediamine~~	~~8250~~
~~3,4-Toluenediamine~~	~~8250~~
~~Toxaphene~~	~~8080, 8250~~
~~Trichloroethane~~	~~8010, 8240~~
~~Trichloroethane(s)~~	~~8010, 8240~~
~~Trichlorofluoromethane~~	~~8010, 8240~~
~~Trichlorophenol(s)~~	~~8040, 8250~~
~~2,4,5-Trichlorophenoxy propionic acid~~	~~8150, 8250~~
~~Trichloropropane~~	~~8010, 8240~~
~~Vinyl chloride~~	~~8010, 8240~~
~~Vinylidene chloride~~	~~8010, 8240~~
~~Xylene~~	~~8020, 8240~~

~~"Analyze for phenanthrene and carbazole, if these are present in a ratio between 1.4:1 and 5:1, cresols should be considered present.~~

~~Table 2. Analysis Methods for Inorganic Chemicals and Miscellaneous Groups of Analytes Contained in SW-846~~

~~Compound~~	~~Third Edition Method(a)~~	~~Second Edition Method(a)~~
~~Aluminum~~	~~6010~~	
~~Antimony~~	~~6010~~	~~7040, 7041~~
~~Arsenic~~	~~6010~~	~~7060, 7061~~
~~Barium~~	~~6010~~	~~7080, 7081~~
~~Beryllium~~	~~6010, 7090, 7091~~	
~~Boron~~	~~6010~~	
~~Cadmium~~	~~6010~~	~~7130, 7131~~
~~Calcium~~	~~6010~~	
~~Chromium~~	~~6010~~	~~7190, 7191~~
~~Chromium: Hexavalent~~	~~7196~~	~~7195, 7196, 7197~~
~~Cobalt~~	~~6010~~	
~~Copper~~	~~6010, 7210, 7211~~	
~~Iron~~	~~6010, 7380, 7381~~	
~~Lead~~	~~6010~~	~~7420, 7421~~
~~Magnesium~~	~~6010~~	
~~Manganese~~	~~6010, 7460, 7461~~	
~~Mercury~~		~~7470, 7471~~
~~Molybdenum~~	~~6010~~	
~~Nickel~~	~~6010~~	~~7520, 7521~~
~~Osmium~~	~~7550~~	
~~Potassium~~	~~6010~~	
~~Selenium~~	~~6010~~	~~7740, 7741~~
~~Silicon~~	~~6010~~	
~~Silver~~	~~6010~~	~~7760, 7761~~
~~Sodium~~	~~6010, 7770~~	
~~Thallium~~	~~6010, 7840, 7841~~	
~~Vanadium~~	~~6010, 7910, 7911~~	
~~Zinc~~	~~6010, 7950, 7951~~	
~~Cyanides~~		~~9010~~
~~Total Organic Halides~~	~~9022~~	~~9020~~
~~Sulfides~~		~~9030~~
~~Sulfates~~	~~9035, 9036, 9038~~	
~~Total Organic Carbon~~	~~9060~~	
~~Phenolics~~		~~9065, 9066[b], 9067~~
~~Oil and Grease~~	~~9070, 9071~~	
~~Total Coliform~~	~~9131, 9132~~	
~~Nitrate~~	~~9200~~	
~~Chlorides~~	~~9250, 9251, 9252~~	
~~Gross Alpha and Gross Beta~~	~~9310~~	
~~Alpha-Emitting Radium Isotopes~~	~~9315~~	
~~Radium-228~~	~~9320~~	

~~The third edition of SW-846 and its revision I are available from the Government Printing Office, Superintendent of Documents, Washington, D.C. 20402, 202-738-3238, document number 955-001-00000-1.~~

~~[b]When method 9066 is used, it must be preceded by the manual distillation specified in procedure 7.1 of method 9065. Just prior to distillation in method 9065, adjust the sulfuric acid-preserved sample to pH 4 with 1+9 NaOH. After the manual distillation is completed, the autoanalyzer manifold is simplified by connecting the resample line directly to the sampler.~~

~~Table 3. Sampling and Analysis Methods Contained in SW-846~~

~~Compound~~	~~Third Edition~~ ~~Section No.~~	~~Method No.~~	~~Second Edition~~ ~~Section No.~~	~~Method No.~~
~~Quality Control~~	~~1.0~~		~~10.0~~	
~~Introduction~~	~~1.1~~		~~10.1~~	
~~Quality Control~~	~~1.2~~			
~~Method Detection Limit~~	~~1.3~~			
~~Data Reporting~~	~~1.4~~			
~~Quality Control Documentation~~	~~1.5~~			
~~References~~	~~1.6~~			
~~Choosing the Correct Procedure~~	~~2.0~~			
~~Purpose~~	~~2.1~~			
~~Required Information~~	~~2.2~~			
~~Implementing the Guidance~~	~~2.3~~			
~~Characteristics~~	~~2.4~~			
~~Ground Water~~	~~2.5~~			
~~References~~	~~2.6~~			
~~Metallic Analytes~~	~~3.0~~			
~~Sampling Considerations~~	~~3.1~~			
~~Sampling Preparation Methods~~	~~3.2~~			
~~Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by Flame AAS or ICP~~	~~3.2~~	~~3005~~		
~~Acid Digestion of Aqueous Samples and Extracts for Total Metals by Flame AAS or ICP~~	~~3.2~~	~~3010~~	~~4.1~~	~~3010~~
~~Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by Furnace AAS~~	~~3.2~~	~~3020~~	~~4.1~~	~~3020~~
~~Dissolution Procedure for Oils, Greases, or Waxes~~	~~3.2~~	~~3040~~	~~4.1~~	~~3040~~
~~Acid Digestion of Sediments, Sludges, and Soils~~	~~3.2~~	~~3050~~	~~4.1~~	~~3050~~
~~Methods for the Determination of Metals~~	~~3.3~~			
~~Inductively Coupled Plasma Atomic Emission Spectroscopy~~	~~3.3~~	~~*6010~~		
~~Atomic Absorption Methods~~	~~3.3~~	~~7000~~		
~~Aluminum, Flame AAS~~	~~3.3~~	~~7020~~		
~~Antimony, Flame AAS~~	~~3.3~~	~~7040~~	~~7.0~~	~~7040~~
~~Antimony, Furnace AAS~~	~~3.3~~	~~7041~~	~~7.0~~	~~7041~~
~~Arsenic, Furnace AAS~~	~~3.3~~	~~7060~~	~~7.0~~	~~7060~~
~~Arsenic, Gaseous Hydride AAS~~	~~3.3~~	~~7061~~	~~7.0~~	~~7061~~
~~Barium, Flame AAS~~	~~3.3~~	~~7080~~	~~7.0~~	~~7080~~
~~Barium, Furnace AAS~~	~~3.3~~	~~7081~~	~~7.0~~	~~7081~~
~~Beryllium, Flame AAS~~	~~3.3~~	~~*7090~~		
~~Beryllium, Furnace AAS~~	~~3.3~~	~~*7091~~		
~~Cadmium, Flame AAS~~	~~3.3~~	~~7130~~	~~7.0~~	~~7130~~
~~Cadmium, Furnace AAS~~	~~3.3~~	~~7131~~	~~7.0~~	~~7131~~
~~Calcium, Flame AAS~~	~~3.3~~	~~7140~~		
~~Chromium, Flame AAS~~	~~3.3~~	~~7190~~	~~7.0~~	~~7190~~
~~Chromium, Furnace AAS~~	~~3.3~~	~~7191~~	~~7.0~~	~~7191~~
~~Chromium, Hexavalent, Coprecipitation~~	~~3.3~~	~~7195~~	~~7.0~~	~~7195~~
~~Chromium, Hexavalent, Colorimetric~~	~~3.3~~	~~7196~~	~~7.0~~	~~7196~~
~~Chromium, Hexavalent, Chelation/Extraction~~	~~3.3~~	~~7197~~	~~7.0~~	~~7197~~
~~Chromium, Hexavalent, Differential Pulse Polarography~~	~~3.3~~	~~*7198~~		
~~Cobalt, Flame AAS~~	~~3.3~~	~~7200~~		
~~Cobalt, Furnace AAS~~	~~3.3~~	~~7201~~		
~~Copper, Flame AAS~~	~~3.3~~	~~*7210~~		
~~Copper, Furnace AAS~~	~~3.3~~	~~*7211~~		
~~Iron, Flame AAS~~	~~3.3~~	~~*7380~~		
~~Iron, Furnace AAS~~	~~3.3~~	~~*7381~~		
~~Lead, Flame AAS~~	~~3.3~~	~~7420~~	~~7.0~~	~~7420~~
~~Lead, Furnace AAS~~	~~3.3~~	~~7421~~	~~5.0~~	~~7421~~
~~Magnesium, Flame AAS~~	~~3.3~~	~~7450~~		
~~Manganese, Flame AAS~~	~~3.3~~	~~*7460~~		
~~Manganese, Furnace AAS~~	~~3.3~~	~~*7461~~		

Table 3. Sampling and Analysis Methods Contained in SW-846 (continued)

Compound	Third Edition Section No.	Third Edition Method No.	Second Edition Section No.	Second Edition Method No.
Mercury in Liquid Waste, Manual Cold Vapor Technique	3.3	7470	7.0	7470
Mercury in Solid or Semisolid Waste, Manual Cold Vapor Technique	3.3	7471	7.0	7471
Molybdenum, Flame AAS	3.3	7480		
Molybdenum, Furnace AAS	3.3	7481		
Nickel, Flame AAS	3.3	7520	7.0	7520
Osmium, Flame AAS	3.3	*7550		
Potassium, Flame AAS	3.3	7610		
Selenium, Furnace AAS	3.3	7740	7.0	7740
Selenium, Gaseous Hydride AAS	3.3	7741	7.0	7741
Silver, Flame AAS	3.3	7760	7.0	7760
Silver, Furnace AAS	3.3	7761	7.0	7761
Sodium, Flame AAS	3.3	*7770		
Thallium, Flame AAS	3.3	*7840		
Thallium, Furnace AAS	3.3	*7841		
Tin, Flame AAS	3.3	7870		
Vanadium, Flame AAS	3.3	*7910		
Vanadium, Furnace AAS	3.3	7911		
Zinc, Flame AAS	3.3	*7950		
Zinc, Furnace AAS	3.3	*7951		
Organic Analytes	4.0		8.0	
Sampling Considerations	4.1			
Sample Preparation Methods	4.2			
Extractions and Preparation	4.2.1			
Organic Extraction and Sample Preparation	4.2.1	3500		
Separatory Funnel Liquid-Liquid Extraction	4.2.1	3510	4.2	3510
Continuous Liquid-Liquid Extraction	4.2.1	3520	4.2	3520
Soxhlet Extraction	4.2.1	3540	4.2	3540
Ultrasonic Extraction	4.2.1	3550	4.2	3550
Waste Dilution	4.2.1	3580		
Purge-and-Trap	4.2.1	5030	5.0	5030
Protocol for Analysis of Sorbent Cartridges from VOST	4.2.1	*5040		
Cleanup	4.2.2			
Cleanup	4.2.2	3600		
Alumina Column Cleanup	4.2.2	3610		
Alumina Column Cleanup and Separation of Petroleum Wastes	4.2.2	*3611		
Florisil Column Cleanup	4.2.2	3620		
Silica Gel Cleanup	4.2.2	3630		
Gel-Permeation Cleanup	4.2.2	3640		
Acid-Base Partition Cleanup	4.2.2	3650	4.2	3530
Sulfur Cleanup	4.2.2	3660		
Determination of Organic Analytes	4.3			
Gas Chromatographic Methods	4.3.1		8.1	
Gas Chromatography	4.3.1	8000		
Halogenated Volatile Organics	4.3.1	8010	8.1	8010
EDB and DBCP	4.3.1	8011		
Nonhalogenated Volatile Organics	4.3.1	8015	8.1	8015
Aromatic Volatile Organics	4.3.1	8020	8.1	8020
Volatile Organic Compounds in Water by Purge-and-Trap Capillary Column GC with PID and Electrolytic Conductivity Detector in Series	4.3.1	8021		
Acrolein, Acrylonitrile, Acetonitrile	4.3.1	8030	8.1	8030
Phenols	4.3.1	8040	8.1	8040
Phthalate Esters	4.3.1	8060	8.1	8060
Nitrosamines	4.3.1	8070		
Organochlorine Pesticides and PCBs as Aroclors	4.3.1	8080	8.1	8080

Table 3. Sampling and Analysis Methods Contained in SW-846 (continued)

Compound	Third Edition Section No.	Third Edition Method No.	Second Edition Section No.	Second Edition Method No.
Nitroaromatics and Cyclic Ketones	4.3.1	8090	8.1	8090
Polynuclear Aromatic Hydrocarbons	4.3.1	8100	8.1	8100
Haloethers	4.3.1	8110		
Chlorinated Hydrocarbons	4.3.1	8120	8.1	8120
Organophosphorus Pesticides	4.3.1	8140	8.1	8140
Organophosphorus Pesticides: Capillary Column	4.3.1	8141		
Chlorinated Herbicides	4.3.1	8150	8.1	8150
Gas Chromatographic/Mass Spectroscopic Methods	4.3.2		8.2	
GC/MS Volatiles	4.3.2	8240	8.2	8240
GC/MS Semivolatiles: Packed Column	4.3.2	8250	8.2	8250
GC/MS for Volatiles Capillary Column	4.3.2	8260		
GC/MS Semivolatiles, Capillary Column	4.3.2	8270	8.2	8270
Analysis of Chlorinated Dioxins and Dibenzofurans	4.3.2	8280		
High Performance Liquid Chromatographic Methods (HPLC)	4.3.3		8.3	
Polynuclear Aromatic Hydrocarbons	4.3.3	8310	8.3	8310
Miscellaneous Screening Methods	4.4			
Headspace	4.4	3810	5.0	5020
Hexadecane Extraction as Screening of Purgeable Organics	4.4	3820		
Miscellaneous Test Methods	5.0		9.0	
Total and Amenable Cyanide (Colorimetric, Manual)	5.0	9010	9.0	9010
Total and Amenable Cyanide (Colorimetric, Automated)	5.0	9012		
Total Organic Halides (TOX)	5.0	9020	9.0	9020
Purgeable Organic Halides (POX)	5.0	9021		
Total Organic Halides (TOX) by Neutron Activation Analysis	5.0	*9022		
Acid-Soluble and Acid-Insoluble Sulfides	5.0	9030	9.0	9030
Extractable Sulfides	5.0	9031		
Sulfate, (Colorimetric, Automated, Chloranilate)	5.0	*9035		
Sulfate, (Colorimetric, Automated, Methylthymol Blue, AA, II)	5.0	*9036		
Sulfate, (Turbidimetric)	5.0	*9038		
Total Organic Carbon	5.0	*9060		
Phenolics, (Spectrophotometric, Manual 4-AAP)	5.0	*9065		
Phenolics, (Colorimetric, Automated 4-AAP)	5.0	*+9066		
Phenolics, (Spectrophotometric, MBTH)	5.0	*9067		
Total Recoverable Oil and Grease (Gravimetric, Separatory Funnel Extraction)	5.0	*9070		
Oil and Grease Extraction Method for Sludge Samples	5.0	*9071		
Total Coliform: Multiple Tube Fermentation	5.0	*9131		
Total Coliform: Membrane Filter	5.0	*9132		
Nitrate	5.0	*9200		
Chloride (Colorimetric, Automated Ferricyanide AAI)	5.0	*9250		
Chloride (Colorimetric, Automated Ferricyanide AAI)	5.0	*9251		
Chloride (Titrimetric, Mercuric Nitrate)	5.0	*9252		
Properties	6.0			
Multiple Extraction Procedure	6.0	*1320		
Extraction Procedure for Oily Wastes	6.0	*1330		
pH Electrometric Measurement	6.0	9040	9.0	9040
pH Paper Method	6.0	9041		
Soil pH	6.0	9045		
Specific Conductance	6.0	9050		
Cation Exchange Capacity of Soils (Ammonium Acetate)	6.0	*9080		
Cation Exchange Capacity of Soils (Sodium Acetate)	6.0	*9081		
Compatibility Test for Wastes and Membrane Liners	6.0	9090		
Paint Filter Liquids Test	6.0	9095	9.0	9095
Saturated Hydraulic Conductivity, Saturated Leachate Conductivity, and Intrinsic Permeability	6.0	*9100		
Gross Alpha and Gross Beta	6.0	*9310		

~~Table 3. Sampling and Analysis Methods Contained in SW-846 (continued)~~

~~Compound~~	~~Third Edition~~ ~~Section No.~~	~~Method No.~~	~~Second Edition~~ ~~Section No.~~	~~Method No.~~
~~Alpha-Emitting Radium Isotopes~~	~~6.0~~	~~*9315~~		
~~Radium-226~~	~~6.0~~	~~*9320~~		
~~Introduction and Regulatory Definitions~~	~~7.0~~		~~2.0~~	
~~Ignitability~~	~~7.1~~		~~2.1.1~~	
~~Corrosivity~~	~~7.2~~		~~2.1.2~~	
~~Reactivity~~	~~7.3~~		~~2.1.3~~	
~~Test Method to Determine Hydrogen Cyanide Released from Wastes~~	~~7.3~~			
~~Test Method to Determine Hydrogen Sulfide Released from wastes~~	~~7.3~~			
~~Extraction Procedure Toxicity~~	~~7.4~~		~~2.1.4~~	
~~Methods for Determining Characteristics~~	~~8.0~~		~~2.0~~	
~~Ignitability~~	~~8.1~~		~~2.1.1~~	
~~Pensky-Martens Closed-Cup Method~~	~~8.1~~	~~1010~~	~~2.1.1~~	~~1010~~
~~Setaflash Closed-Cup~~	~~8.1~~	~~1020~~	~~2.1.1~~	~~1020~~
~~Corrosivity~~	~~8.2~~		~~2.1.2~~	
~~Corrosivity Toward Steel~~	~~8.2~~	~~1110~~	~~2.1.2~~	~~1110~~
~~Reactivity~~	~~8.3~~		~~2.1.3~~	
~~Toxicity~~	~~8.4~~		~~2.1.4~~	
~~Extraction Procedure (EP) Toxicity Test~~	~~8.4~~	~~1310~~	~~2.1.4~~	~~1310~~
~~Method and Structural Integrity Test~~				
~~Sampling Plan~~	~~9.0~~		~~1.0~~	
~~Design and Development~~	~~9.1~~		~~1.0,1.1~~	
~~Implementation~~	~~9.2~~		~~1.2,1.3,1.4~~	
~~Sampling Methods~~	~~10.0~~			
~~Modified Method 5 Sampling Train, Appendix A and B~~	~~10.0~~	~~*0010~~		
~~Source Assessment Sampling System (SASS)~~	~~10.0~~	~~*0020~~		
~~Volatile Organic Sampling Train~~	~~10.0~~	~~*0030~~		
~~Ground Water Monitoring~~	~~11.0~~			
~~Background and Objectives~~	~~11.1~~			
~~Relationship to the Regulations and to Other Documents~~	~~11.2~~			
~~Revisions and Additions~~	~~11.3~~			
~~Acceptable Designs and Practices~~	~~11.4~~			
~~Unacceptable Designs and Practices~~	~~11.5~~			
~~Land Treatment Monitoring~~	~~12.0~~			
~~Background~~	~~12.1~~			
~~Treatment Zone~~	~~12.2~~			
~~Regulatory Definition~~	~~12.3~~			
~~Monitoring and Sampling Strategy~~	~~12.4~~			
~~Analysis~~	~~12.5~~			
~~References and Bibliography~~	~~12.6~~			
~~Incineration~~	~~13.0~~			
~~Introduction~~	~~13.1~~			
~~Regulatory Definition~~	~~13.2~~			
~~Waste Characterization Strategy~~	~~13.3~~			
~~Stack-Gas Effluent Characterization Strategy~~	~~13.4~~			
~~Additional Effluent Characterization Strategy~~	~~13.5~~			
~~Selection of Specific Sampling and Analysis Methods~~	~~13.6~~			
~~References~~	~~13.7~~			

~~The third edition of SW-846 and its revision I are available from the Government Printing Office, Superintendent of Documents, Washington, D.C. 20402, 202-783-3238, document number 955-001-00000-1.~~

~~*This method may be used in conjunction with or in addition to the methods found in the second edition of SW-846 as amended by updates I and II.~~

~~†When method 9065 is used it must be preceded by the manual distillation specified in procedure 7.1 of method 9065. Just prior to distillation in method 9065, adjust the sulfuric acid-preserved sample to pH 4 with 1+9 NaOH. After~~

~~Table 3. Sampling and Analysis Methods Contained in SW-846 (continued)~~

~~Compound~~	~~Third Edition~~		~~Second Edition~~	
	~~Section No.~~	~~Method No.~~	~~Section No.~~	~~Method No.~~

~~the manual distillation is completed, the autoanalyzer manifold is simplified by connecting the re-sample line directly to the sampler.~~

APPENDIX IV
Basis for Listing Hazardous Waste

EPA Hazardous Waste No.	Hazardous Waste Constituents for Which Listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodi-benzofurans; tri- and tetrachloro-phenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra, and pentachlorodibenzo-p-dioxins; tetra-, and pentachlorodibenzofurans; tri- and tetra-chlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
F025	Chloromethane; dichloromethane; 1,2,4-trichloromethane; carbon tetrachloride; chloroethylene; 1,1-dichloroethane; 1,2-dichloroethane; trans-1,2-dichloroethylene; 1,1-dichloroethylene; 1,1,1-trichloroethane; 1,1,2-trichloroethane; trichloroethylene; 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; tetrachloroethylene; pentachloroethane; hexachloroethane; allyl chloride (3-chloropropene); dichloropropane; dichloropropene; 2-chloro-1,3-butadiene; hexachloro-1,3-butadiene; hexachlorocyclopentadiene; benzene; chlorobenzene; dichlorobenzene; 1,2,4-trichlorobenzene; tetrachlorobenzene; pentachlorobenzene; hexachlorobenzene; toluene; naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

EPA Hazardous Waste No.	Hazardous Waste Constituents for Which Listed
F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene,indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multisource leachate (wastewaters and nonwastewaters) under subsection 1 of section 33-24-05-283, Table CCW.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead.
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis (2-chloroethyl) ethers], trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes, (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2,4-diamine.

EPA Hazardous Waste No.	Hazardous Waste Constituents for Which Listed
K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benzo(a)anthracene dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, naphthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
~~K064~~	~~Lead, cadmium.~~
~~K065~~	~~Do.~~
~~K066~~	~~Do.~~
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorbenzenes, tetrachloroenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.

EPA Hazardous Waste No.	Hazardous Waste Constituents for Which Listed
K087	Phenol, naphthalene.
K088	Cyanide (complexes).
~~K090~~	~~Chromium.~~
~~K091~~	~~Do.~~
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K107	1,1-Dimethylhydrazine (UDMH).
K108	1,1-Dimethylhydrazine (UDMH).
K109	1,1-Dimethylhydrazine (UDMH).
K110	1,1-Dimethylhydrazine (UDMH).
K111	2,4-dinitrotoluene.
K112	2,4-toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-toluenediamine, o-toluidine, p-toluidine.
K115	2,4-toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.
K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.
K132	Methyl bromide.
K136	Ethylene dibromide.
K141	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.

EPA Hazardous Waste No.	Hazardous Waste Constituents for Which Listed
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143	Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159	Benzene, butylate, eptc, molinate, pebulate, vernolate.
~~K160~~	~~Benzene, butylate, eptc, molinate, pebulate, vernolate.~~
K161	Antimony, arsenic, metam-sodium, ziram.
K169	Benzene.
K170	Benzo(a)pyrene, dibenz(a,h)anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7, 12-dimethylbenz(a)anthracene.
K171	Benzene, arsenic.
K172	Benzene, arsenic.
K174	1,2,3,4,6,7,8-Heptachlorodibenzo- p-dioxin (1,2,3,4,6,7,8-HpCDD), 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF), 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF), HxCDDs (All Hexachlorodibenzo-p- dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo- p-dioxins), OCDD (1,2,3,4,6,7,8,9- Octachlorodibenzo-p-dioxin), OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All Tetrachlorodibenzo- p-dioxins), TCDFs (All Tetrachlorodibenzofurans).
K175	Mercury.
K176	Arsenic, lead.
K177	Antimony.
K178	Thallium.

N.A. - Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

APPENDIX V
Hazardous Constituents

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
A2213	Ethanimidothioic acid, 2- (dimethylamino) -N-hydroxy-2-oxo-, methyl ester	30558-43-1	U394
Acetonitrile	Same	75-05-8	U003
Acetophenone	Ethanone, 1-phenyl-	98-86-2	U004
2-Acetylaminefluarone	Acetamide, N-9H-fluoren-2-yl-	53-96-3	U005
Acetyl chloride	Same	75-36-5	U006
1-Acetyl-2-thiourea	Acetamide, N-(aminothioxomethyl)-	591-08-2	P002
Acrolein	2-Propenal	107-02-08	P003
Acrylamide	2-Propenamide	79-06-1	U007
Acrylonitrile	2-Propenenitrile	107-13-1	U009
Aflatoxins	Same	1402-68-2	
Aldicarb	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116-06-3	P070
Aldicarb sulfone	Propanal, 2-methyl-2- (methylsulfonyl) -, O-[(methylamino) carbonyl] oxime	1646-88-4	P203
Aldrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5alpha, 8alpha,8abeta)-	309-00-2	P004
Allyl alcohol	2-Propen-1-ol	107-18-6	P005
Allyl chloride	1-Propane, 3-chloro	107-18-6	
Aluminum phosphide	Same	20859-73-8	P006
4-Aminobiphenyl	[1,1'-Biphenyl]-4-amine	92-67-1	
5-(Aminomethyl)-3-isoxazolol	3(2H)-Isoxazolone, 5-(aminomethyl)-	2763-96-4	P007
4-Aminopyridine	4-Pyridinamine	504-24-5	P008
Amitrole	1H-1,2,4-Triazol-3-amine	61-82-5	U011
Ammonium vanadate	Vanadic acid, ammonium salt	7803-55-6	P119
Aniline	Benzenamine	62-53-3	U012
Antimony	Same	7440-36-0	
Antimony compounds, N.O.S.[1]			
Aramite	Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	
Arsenic	Same	7440-38-2	
Arsenic compounds, N.O.S.[1]			
Arsenic acid	Arsenic acid H_3AsO_4	7778-39-4	P010
Arsenic pentoxide	Arsenic oxide As_2O_5	1303-28-2	P011
Arsenic trioxide	Arsenic oxide As_2O_3	1327-53-3	P012
Auramine	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl	492-80-8	U014
Azaserine	L-Serine, diazoacetate (ester)	115-02-6	U015

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Barban	Carbamic acid, (3-chlorophenyl) -, 4-chloro-2-butynyl ester	101-27-9	U280
Barium	Same	7440-39-3	
Barium compounds, N.O.S.[1]			
Barium cyanide	Same	542-62-1	P013
Bendiocarb	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	22781-23-3	U278
Bendiocarb pheonol	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	22961-82-6	U364
Benomyl	Carbamic acid, [1- [(butylamino) carbonyl]-1H-benzimidazol-2-yl] -, methyl ester	17804-35-2	U271
Benz[c]acridine	Same	225-51-4	U016
Benz[a]anthracene	Same	56-55-3	U018
Benzal chloride	Benzene, (dichloromethyl)-	98-87-3	U017
Benzene	Same	71-43-2	U019
Benzenearsonic acid	Arsonic acid, phenyl-	98-05-5	
Benzidine	[1,1'-Biphenyl]-4,4'-diamine	92-87-5	U021
Benzo[b]fluoranthene	Benz[e]acephenanthrylene	205-99-2	
Benzo[j]fluoranthene	Same	205-82-3	
Benzo[k]fluoranthene	Same	207-08-9	
Benzo[a]pyrene	Same	50-32-8	U022
p-Benzoquinone	2,5-Cyclohexadiene-1,4-dione	106-51-4	U197
Benzotrichloride	Benzene, (trichloromethyl)-	98-07-7	U023
Benzyl chloride	Benzene, (chloromethyl)-	100-44-7	P028
Beryllium powder	Same	7440-41-7	P015
Beryllium compounds, N.O.S.[1]			
Bis (pentamethylene)-thiuram tetrasulfide	Piperidine, 1,1'-(tetrathiodicarbonothioyl)-bis-	120-54-7	~~U400~~
Bromoacetone	2-Propanone, 1-bromo-	598-31-2	P017
Bromoform	Methane, tribromo-	75-25-2	U225
4-Bromophenyl phenyl ether	Benzene, 1-bromo-4-phenoxy-	101-55-3	U030
Brucine	Strychnidin-10-one, 2,3-dimethoxy-	357-57-3	P018
Butyl benzyl phthalate	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester	85-68-7	
Butylate	Carbamothioic acid, bis (2-methylpropyl)-,S-ethyl ester	2008-41-5	~~U392~~
Cacodylic acid	Arsinic acid, dimethyl-	75-60-5	U136
Cadmium	Same	7440-43-9	
Cadmium compounds, N.O.S.[1]			
Calcium chromate	Chromic acid H_2CrO_4, calcium salt	13765-19-0	U032
Calcium cyanide	Calcium cyanide $Ca(CN)_2$	592-01-8	P021
Carbaryl	~~1-Napthalenol~~ 1-Naphthalenol, methylcarbamate	63-25-2	U279

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Carbendazim	~~Carbamicacid~~ Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605-21-7	U372
Carbofuran	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-,methylcarbamate	1563-66-2	P127
Carbofuran phenol	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	1563-38-8	U367
Carbon disulfide	Same	75-15-0	P022
Carbon oxyfluoride	Carbonic difluoride	353-50-4	U033
Carbon tetrachloride	Methane, tetrachloro-	56-23-5	U211
Carbosulfan	Carbamic acid, [(dibutylamino) thio] methyl-, 2,3-dihydro-2,2-dimethyl-7- ~~benzofuranyl~~ benzofuranyl ester	55285-14-8	P189
Chloral	Acetaldehyde, trichloro-	75-87-6	U034
Chlorambucil	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	305-03-3	U035
Chlordane	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7, 7a-hexahydro-	57-74-9	U036
Chlordane (alpha and gamma isomers)			U036
Chlorinated benzenes, N.O.S.[1]			
Chlorinated ethane, N.O.S.[1]			
Chlorinated fluorocarbons, N.O.S.[1]			
Chlorinated naphthalene, N.O.S.[1]			
Chlorinated phenol, N.O.S.[1]			
Chlornaphazin	Naphthalenamine, N,N'-bis(2-chloroethyl)-	494-03-1	U026
Chloroacetaldehyde	Acetaldehyde, chloro-	107-20-0	P023
Chloroalkyl ethers, N.O.S.[1]			
p-Chloroaniline	Benzenamine, 4-chloro-	106-47-8	P024
Chlorobenzene	Benzene, chloro-	108-90-7	U037
Chlorobenzilate	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	510-15-6	U038
p-Chloro-m-cresol	Phenol, 4-chloro-3-methyl-	59-50-7	U039
2-Chloroethyl vinyl ether	Ethene, (2-chloroethoxy)-	110-75-8	U042
Chloroform	Methane, trichloro-	67-66-3	U044
Chloromethyl methyl ether	Methane, chloromethoxy-	107-30-2	U046
beta-Chloronaphthalene	Naphthalene, 2-chloro-	91-58-7	U047
o-Chlorophenol	Phenol, 2-chloro-	95-57-8	U048
1-(0-Chlorophenyl)thiourea	Thiourea, (2-chlorophenyl)-	5344-82-1	P026
Chloroprene	1,3-Butadiene, 2-chloro-	126-99-8	
3-Chloropropionitrile	Propanenitrile, 3-chloro-	542-76-7	P027
Chromium	Same	7440-47-3	
Chromium compounds, N.O.S.[1]			
Chrysene	Same	218-01-9	U050

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Citrus red No. 2	2-Naphthalenol, 1-[(2,5-dimethoxyphenyl)azo]-	6358-53-8	
Coal tar creosote	Same	8007-45-2	
Copper cyanide	Copper cyanide CuCN	544-92-3	P029
Copper dimethyldithiocarbamate	Copper, bis(dimethylcarbamodithioato-S,S')-,	137-29-1	~~U393~~
Cresote	Same		U051
Cresol (Cresylic acid)	Phenol, methyl-	1319-77-3	U052
Crotonaldehyde	2-Butenal	4170-30-3	U053
m-Cumenyl methylcarbamate	Phenol, 3-(methylethyl)-, methyl carbamate	64-00-6	P202
Cyanides (soluble salts and complexes) N.O.S.[1]			P030
Cyanogen	Ethanedinitrile	460-19-5	P031
Cyanogen bromide	Cyanogen bromide (CN)Br	506-68-3	U246
Cyanogen chloride	Cyanogen chloride (CN)Cl	506-77-4	P033
Cycasin	beta-D-Glucopyranoside, (methyl-ONN-azoxy)methyl	14901-08-7	
Cycloate	Carbamothioic acid, cyclophexylethyl-, S-ethyl ester	1134-23-2	~~U386~~
2-Cyclohexyl-4,6-dinitrophenol	Phenol, 2-cyclohexyl-4,6-dinitro-	131-89-5	P034
Cyclophosphamide	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide	50-18-0	U058
2,4-D	Acetic acid, (2,4-dichlorophenoxy)-	94-75-7	U240
2,4-D, salts, esters			U240
Daunomycin	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8, 11-trihydroxy-1-methoxy-, (8S-cis)-	20830-81-3	U059
DDD	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72-54-8	U060
DDE	Benzene, 1,1'-dichloroethenylidene)bis[4-chloro-	72-55-9	
DDT	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	50-29-3	U061
Dazomet	2H-1,3,5-thiadiazine-2-thione, tetrahydro-3,5-dimethyl	533-74-4	~~U366~~
Diallate	Carbamothioic acid, bis(1-methylethyl)-, S(2,3-dichloro-2-propenyl) ester	2303-16-4	U062
Dibenz[a,h]acridine	Same	226-36-8	
Dibenz[a,j]acridine	Same	224-42-0	
Dibenz[a,h]anthracene	Same	53-70-3	U063
7H-Dibenzo[c,g]carbazole	Same	194-59-2	
Dibenzo[a,e]pyrene	Naphtho[1,2,3,4-def]chrysene	192-65-4	
Dibenzo[a,h]pyrene	Dibenzo[b,def]chrysene	189-64-0	
Dibenzo[a,i]pyrene	Benzo[rst]pentaphene	189-55-9	U064
1,2-Dibromo-3-chloropropane	Propane, 1,2-dibromo-3-chloro-	96-12-8	U066
Dibutyl phthalate	1,2-Benzenedicarboxylic acid, dibutyl ester	84-74-2	U069
o-Dichlorobenzene	Benzene, 1,2-dichloro-	95-50-1	U070

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
m-Dichlorobenzene	Benzene, 1,3-dichloro-	541-73-1	U071
p-Dichlorobenzene	Benzene, 1,4-dichloro-	106-46-7	U072
Dichlorobenzene, N.O.S.[1]	Benzene, dichloro-	25321-22-6	
3,3'-Dichlorobenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	91-94-1	U073
1,4-Dichloro-2-butene	2-Butene, 1,4-dichloro-	764-41-0	U074
Dichlorodifluoromethane	Methane, dichlorodifluoro-	75-71-8	U075
Dichloroethylene, N.O.S.[1]	Dichloroethylene	25323-30-2	
1,1-Dichloroethylene	Ethene, 1,1-dichloro-	75-35-4	U078
1,2-Dichloroethylene	Ethene, 1,2-dichloro-, (E)-	156-60-5	U079
Dichloroethyl ether	Ethane, 1,1'oxybis[2-chloro-	111-44-4	U025
Dichloroisopropyl ether	Propane, 2,2'-oxybis[2-chloro-	108-60-1	U027
Dichloromethoxy ethane	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	111-91-1	U024
Dichloromethyl ether	Methane, oxybis[chloro-	542-88-1	P016
2,4-Dichlorophenol	Phenol, 2,4-dichloro-	120-83-2	U081
2,6-Dichlorophenol	Phenol, 2,6-dichloro-	87-65-0	U082
Dichlorophenylarsine	Arsonous dichloride, phenyl-	696-28-6	P036
Dichloropropane, N.O.S.[1]	Propane, dichloro-	26638-19-7	
Dichloropropanol, N.O.S.[1]	Propanol, dichloro-	26545-73-3	
Dichloropropene, N.O.S.[1]	1-Propene, dichloro-	26952-23-8	
1,3-Dichloropropene	1-Propene, 1,3-dichloro-	542-75-6	U084
Dieldrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a, 7,7aoctahydro-,(1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta,7aalpha)-	60-57-1	P037
1,2:3,4-Diepoxybutane	2,2'-Bioxirane	1464-53-5	U085
Diethylarsine	Arsine, diethyl-	692-42-2	P038
Diethylene glycol, dicarbamate	Ethanol, 2,2'-oxybis-, dicarbamate	5952-26-1	U395
1,4-Diethyleneoxide	1,4-Dioxane	123-91-1	U108
Diethylhexyl phthalate	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	117-81-7	U028
N,N'-Diethylhydrazine	Hydrazine, 1,2-diethyl-	1615-80-1	U086
O,O-Diethyl S-methyl dithiophosphate	Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288-58-2	U087
Diethyl-p-nitrophenyl phosphate	Phosphoric acid, diethyl 4-nitrophenyl ester	311-45-5	P041
Diethyl phthalate	1,2-Benzenedicarboxylic acid, diethyl ester	84-66-2	U088
O,O-Diethyl O-pyrazinyl phosphorothioate	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	297-97-2	P040
Diethylstilbesterol	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-	56-53-1	U089
Dihydrosafrole	1,3-Benzodioxole, 5-propyl-	94-58-6	U090
Diisopropylfluorophosphate (DFP)	Phosphorofluoridic acid, bis(1-methylethyl) ester	55-91-4	P043
Dimethoate	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	60-51-5	P044
3,3'-Dimethoxybenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	119-90-4	U091

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
p-Dimethylaminoazobenzene	Benzenamine, N,N-dimethyl-4-(phenylazo)-	60-11-7	U093
7,12-Dimethylbenz[a]anthracene	Benz[a]anthracene, 7,12-dimethyl-	57-97-6	U094
3,3'-Dimethylbenzidine	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	119-93-7	U095
Dimethylcarbamoyl chloride	Carbamic chloride, dimethyl-	79-44-7	U097
1,1-Dimethylhydrazine	Hydrazine, 1,1-dimethyl-	57-14-7	U098
1,2-Dimethylhydrazine	Hydrazine, 1,2-dimethyl-	540-73-8	U099
alpha,alpha-Dimethylphene thylamine	Benzeneethanamine, alpha,alpha-dimethyl-	122-09-8	P046
2,4-Dimethylphenol	Phenol, 2,4-dimethyl-	105-67-9	U101
Dimethyl phthalate	1,2-Benzenedicarboxylic acid, dimethyl ester	131-11-3	U102
Dimethyl sulfate	Sulfuric acid, dimethyl ester	77-78-1	U103
Dimetilan	Carbamic acid, dimethyl-, 1-[(dimethylamino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester	644-64-4	P191
Dinitrobenzene, N.O.S.[1]	Benzene, dinitro-	25154-54-5	
4,6-Dinitro-o-cresol	Phenol, 2-methyl-4,6-dinitro-	534-52-1	P047
4,6-Dintro-o-cresol salts			P047
2,4-Dinitrophenol	Phenol, 2,4-dinitro-	51-28-5	P048
2,4-Dinitrotoluene	Benzene, 1-methyl-2,4-dinitro-	121-14-2	U105
2,6-Dinitrotoluene	Benzene, 2-methyl-1,3-dinitro-	606-20-2	U106
Dinoseb	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	88-85-7	P020
Di-n-octyl phthalate	1,2-Benzenedicarboxylic acid, dioctyl ester	117-84-0	U017
Diphenylamine	Benzenamine, N-phenyl-	122-39-4	
1,2-Diphenylhydrazine	Hydrazine, 1,2-diphenyl-	122-66-7	U109
Di-n-propylnitrosamine	1-Propanamine, N-nitroso-N-propyl-	621-64-7	U111
Disulfiram	Thioperoxydicarbonic diamide, tetraethyl	97-77-8	~~U403~~
Disulfoton	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	298-04-4	P039
Dithiobiuret	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$	541-53-7	P049
EPTC	Carbamothioic acid, dipropyl-, S-ethyl ester	759-94-4	~~U390~~
Endosulfan	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9, 9a-hexahydro-, 3-oxide	115-29-7	P050
Endothall	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145-73-3	P088
Endrin	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7, 7a-octahydro-,(1aalpha,2beta,2abeta,3alpha, 6alpha,6abeta,7beta,7aalpha)-	72-20-8	P051
Endrin metabolites			P051
Epichlorohydrin	Oxirane, (chloromethyl)-	106-89-8	U041
Epinephrine	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-	51-43-4	P042
Ethyl carbamate (urethane)	Carbamic acid, ethyl ester	51-79-6	U238
Ethyl cyanide	Propanenitrile	107-12-0	P101

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Ethyl Ziram	Zinc, bis(diethylcarbamodithioato-S,S')-	14324-55-1	~~U407~~
Ethylenebisdithiocarbamic acid	Carbamodithioic acid, 1,2-ethanediylbis-	111-54-6	U114
Ethylenebisdithiocarbamic acid, salts and esters			U114
Ethylene dibromide	Ethane, 1,2-dibromo-	106-93-4	U067
Ethylene dichloride	Ethane, 1,2-dichloro-	107-06-2	U077
Ethylene glycol monoethyl ether	Ethanol, 2-ethoxy-	110-80-5	U359
Ethyleneimine	Aziridine	151-56-4	P054
Ethylene oxide	Oxirane	75-21-8	U115
Ethylenethiourea	2-Imidazolidinethione	96-45-7	U116
Ethylidene dichloride	Ethane, 1,1-dichloro-	75-34-3	U076
Ethyl methacrylate	2-Propenoic acid, 2-methyl-, ethyl ester	97-63-2	U118
Ethyl methanesulfonate	Methanesulfonic acid, ethyl ester	62-50-0	U119
Famphur	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester	52-85-7	P097
Ferbam	Iron, ~~tris(dimethylcarbamodithioat-S,S')-~~, tris(dimethylcarbamodithioato-S,S')-,	14484-64-1	~~U396~~
Fluoranthene	Same	206-44-0	U120
Fluorine	Same	7782-41-4	P056
Fluoroacetamide	Acetamide, 2-fluoro-	640-19-7	P057
Fluoroacetic acid, sodium salt	Acetic acid, fluoro-, sodium salt	62-74-8	P058
Formaldehyde	Same	50-00-0	U122
Formetanate hydrochloride	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)carbonyl] oxy]phenyl]-, monohydrochloride	23422-53-9	P198
Formic acid	Same	64-18-6	U123
Formparante	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino) carbonyl]oxy]phenyl]-.	17702-57-7	p197
Glycidylaldehyde	Oxiranecarboxyaldehyde	765-34-4	U126
Halomethanes, N.O.S.[1]			
Heptachlor	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76-44-8	P059
Heptachlor epoxide	2,5-Methano-2H-indeno[1,2-b]oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6, 6a-hexa-hydro-, (1aalpha,1bbeta,2alpha,5alpha, 5abeta,6beta,6aalpha)-	1024-57-3	
Heptachlor epoxide (alpha, beta, and gamma isomers)			
Heptachlorodibenzofurans.			
Heptachlorodibenzo-p-dioxins			
Hexachlorobenzene	Benzene, hexachloro-	118-74-1	U127
Hexachlorobutadiene	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87-68-3	U128
Hexachlorocyclopentadiene	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77-47-4	U130
Hexachlorodibenzo-p-dioxins			

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Hexachlorodibenzofurans			
Hexachloroethane	Ethane, hexachloro-	67-72-1	U131
Hexachlorophene	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	70-30-4	U132
Hexachloropropene	1-Propene, 1,1,2,3,3,3-hexachloro-	1888-71-7	U243
Hexaethyl tetraphosphate	Tetraphosphoric acid, hexaethyl ester	757-58-4	P062
Hydrazine	Same	302-01-2	U133
Hydrogen cyanide	Hydrocyanic acid	74-90-8	P063
Hydrogen fluoride	Hydrofluoric acid	7664-39-3	U134
Hydrogen sulfide	Hydrogen sulfide H_2S	7783-06-4	U135
Indeno[1,2,3-cd]pyrene	Same	193-39-5	U137
3-Iodo-2-propynyl n-butylcarbamate	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	55406-53-6	~~U375~~
Isobutyl alcohol	1-Propanol, 2-methyl-	78-83-1	U140
Isodrin	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8, 8a-hexahydro,(1alpha,4alpha,4abeta,5beta, 8beta,-8abeta) -	465-73-6	P060
Isolan	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	119-38-0	P192
Isosafrole	1,3-Benzodioxole, 5-(1-propenyl)-	120-58-1	U141
Kepone	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-	143-50-0	U142
Lasiocarpine	2-Butenoic acid, 2-methyl-,7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1 -oxobutoxy]menthyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	303-34-1	4143
Lead	Same	7439-92-1	
Lead compounds, N.O.S.[1]			
Lead acetate	Acetic acid, lead(2+) salt	301-04-2	U144
Lead phosphate	Phosphoric acid, lead(2+) salt (2:3)	7446-27-7	U145
Lead subacetate	Lead, bis(acetato-O)tetrahydroxytri-	1335-32-6	U146
Lindane	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	58-89-9	U129
Maleic anhydride	2,5-Furandione	108-31-6	U147
Maleic hydrazide	3,6-Pyridazinedione, 1,2-dihydro-	123-33-1	U148
Malononitrile	Propanedinitrile	109-77-3	U149
Manganese dimethyldithiocarbamate	Manganese, bis(dimethylcarbamodithioato-S,S')-,	15339-36-3	P196
Melphalan	L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]-	148-82-3	U150
Mercury	Same	7439-97-6	U151
Mercury compounds, N.O.S.[1]			
Mercury fulminate	Fulminic acid, mercury(2+) salt	628-86-4	P065
Metam Sodium	Carbamodithioic acid, methyl-, ~~monosodium~~ <u>monosodium</u> salt	137-42-8	
Methacrylonitrile	2-Propenenitrile, 2-methyl-	126-98-7	U152

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Methapyrilene	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	91-80-5	U155
Methiocarb	Phenol, (3,5-dimethyl-4-(methylthio)-,methylcarbamate	2032-65-7	P199
Methomyl	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester	16752-77-5	P066
Methoxychlor	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	72-43-5	U247
Methyl bromide	Methane, bromo-	74-83-9	U029
Methyl chloride	Methane, chloro-	74-87-3	U045
Methyl chlorocarbonate	Carbonochloridic acid, methyl ester	79-22-1	U156
Methyl chloroform	Ethane, 1,1,1-trichloro-	71-55-6	U226
3-Methylcholanthrene	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	56-49-5	U157
4,4'-Methylenebis (2-chloroaniline)	Benzenamine, 4,4'-methylenebis[2-chloro-	101-14-4	U158
Methylene bromide	Methane, dibromo-	74-95-3	U068
Methylene chloride	Methane, dichloro-	75-09-2	U080
Methyl ethyl ketone (MEK)	2-Butanone	78-93-3	U159
Methyl ethyl ketone peroxide	2-Butanone, peroxide	1338-23-4	U160
Methyl hydrazine	Hydrazine, methyl-	60-34-4	P068
Methyl iodide	Methane, iodo-	74-88-4	U138
Methyl isocyanate	Methane, isocyanato-	624-83-9	P064
2-Methyllactonitrile	Propanenitrile, 2-hydroxy-2-methyl-	75-86-5	P069
Methyl methacrylate	2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	U162
Methyl methanesulfonate	Methanesulfonic acid, methyl ester	66-27-3	
Methyl parathion	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298-00-0	P071
Methylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	56-04-2	U164
Metolcarb	Carbamic acid, methyl-, 3-methylphenyl ester	1129-41-5	P190
Mexacarbate	Phenol, 4-(dimethylamino)-3,5-dimethyl-,methylcarbamate (ester)	315-18-4	P128
Mitomycin C	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha,8beta,8aalpha,8balpha)]-.	50-07-7	U010
MNNG	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	U163
Molinate	1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212-67-1	~~U365~~
Mustard gas	Ethane, 1,1'-thiobis[2-chloro-	505-60-2	
Naphthalene	Same	91-20-3	U165
1,4-Naphthoquinone	1,4-Naphthalenedione	130-15-4	U166
alpha-Naphthylamine	1-Naphthalenamine	134-32-7	U167
beta-Naphthylamine	2-Naphthalenamine	91-59-8	U168
alpha-Naphthylthiourea	Thiourea, 1-naphthalenyl-	86-88-4	P072

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Nickel	Same	7440-02-0	
Nickel compounds, N.O.S.[1]			
Nickel carbonyl	Nickel carbonyl $Ni(CO)_4$, (T-4)-	13463-39-3	P073
Nickel cyanide	Nickel cyanide $Ni(CN)_2$	557-19-7	P074
Nicotine	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	P075
Nicotine salts			P075
Nitric oxide	Nitrogen oxide NO	10102-43-9	P076
p-Nitroaniline	Benzenamine, 4-nitro-	100-01-6	P077
Nitrobenzene	Benzene, nitro-	98-95-3	U169
Nitrogen dioxide	Nitrogen oxide NO_2	10102-44-0	P078
Nitrogen mustard	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-	51-75-2	
Nitrogen mustard, hydrochloride salt			
Nitrogen mustard N-oxide	Ethanamine, 2-chloro-N-(2-chloroethyl)-N-methyl-, N-oxide	126-85-2	
Nitrogen mustard, N-oxide, hydrochloride salt			
Nitroglycerin	1,2,3-Propanetriol, trinitrate	55-63-0	P081
p-Nitrophenol	Phenol, 4-nitro-	100-02-7	U170
2-Nitropropane	Propane, 2-nitro-	79-46-9	U171
Nitrosamines, N.O.S.[1]		35576-91-1D	
N-Nitrosodi-n-butylamine	1-Butanamine, N-butyl-N-nitroso-	924-16-3	U172
N-Nitrosodiethanolamine	Ethanol, 2,2'-(nitrosoimino)bis-	1116-54-7	U173
N-Nitrosodiethylamine	Ethanamine, N-ethyl-N-nitroso-	55-18-5	U174
N-Nitrosodimethylamine	Methanamine, N-methyl-N-nitroso-	62-75-9	PO82
N-Nitroso-N-ethylurea	Urea, N-ethyl-N-nitroso-	759-73-9	U176
N-Nitrosomethylethylamine	Ethanamine, N-methyl-N-nitroso-	10595-95-6	
N-Nitroso-N-methylurea	Urea, N-methyl-N-nitroso-	684-93-5	U177
N-Nitroso-N-methylurethane	Carbamic acid, methylnitroso-, ethyl ester	615-53-2	U178
N-Nitrosomethylvinylamine	Vinylamine, N-methyl-N-nitroso-	4549-40-0	P084
N-Nitrosomorpholine	Morpholine, 4-nitroso-	59-89-2	
N-Nitrosonornicotine	Pyridine, 3-(1-nitroso-2-pyrrolidinyl)-, (S)-	16543-55-8	
N-Nitrosopiperidine	Piperidine, 1-nitroso-	100-75-4	U179
N-Nitrosopyrrolidine	Pyrrolidine, 1-nitroso-	93055-2	U180
N-Nitrososarcosine	Glycine, N-methyl-N-nitroso-	13256-22-9	
5-Nitro-o-toluidine	Benzenamine, 2-methyl-5-nitro-	99-55-8	U181
Octachlorodibenzo-p-dioxin (OCDD)	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	
Octachlorodibenzofuran (OCDF)	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	
Octamethylpyrophosphoramide	Diphosphoramide, octamethyl-	152-16-9	P085
Osmium tetroxide	Osmium oxide OsO_4, (T-4)-	20816-12-0	P087

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Oxamyl	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester	23135-22-0	P194
Paraldehyde	1,3,5-Trioxane, 2,4,6-trimethyl-	123-63-7	U182
Parathion	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	56-38-2	P089
Pebulate	Carbamothioic acid, butylethyl-, S-propyl ester	1114-71-2	~~U391~~
Pentachlorobenzene	Benzene, pentachloro-	608-93-5	U183
Pentachlorodibenzo-p-dioxins			
Pentachlorodibenzofurans			
Pentachloroethane	Ethane, pentachloro-	76-01-7	U184
Pentachloronitrobenzene (PCNB)	Benzene, pentachloronitro-	82-68-8	U185
Pentachlorophenol	Phenol, pentachloro-	87-86-5	See F027
Phenacetin	Acetamide, N-(4-ethoxyphenyl)-	62-44-2	U187
Phenol	Same	108-95-2	U188
Phenylenediamine	Benzenediamine	25265-76-3	
Phenylmercury acetate	Mercury, (acetato-O)phenyl-	62-38-4	P092
Phenylthiourea	Thiourea, phenyl-	103-85-5	P093
Phosgene	Carbonic dichloride	75-44-5	P095
Phosphine	Same	7803-51-2	P096
Phorate	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	298-02-2	P094
Phthalic acid esters, N.O.S.[1]			
Phthalic anhydride	1,3-Isobenzofurandione	85-44-9	U190
Physostigmine	Pyrrolo[2,3-b]indol-5-01, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	57-47-6	P204
Physostigmine salicylate	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a, 8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1).	57-64-7	P188
2-Picoline	Pyridine, 2-methyl-	109-06-8	U191
Polychlorinated biphenyls, N.O.S.[1]			
Potassium cyanide	Potassium cyanide K(CN)	151-50-8	P098
Potassium dimethyl-dithiocarbamate ~~arbamate~~	~~Carbamodithioc~~ Carbamodithioic acid, dimethyl, potassium salt	128-03-0	~~U383~~
Potassium n-hydroxymethyl-n-methyl-dithiocarbamate	~~Carbamodithioc~~ Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt	51026-28-9	~~U378~~
Potassium n-methyldithiocarbamate	~~Carbamodithioc~~ Carbamodithioic acid, methyl-monopotassium salt	137-41-7	U377
Potassium pentachlorophenate	Pentachlorophenol, potassium salt	7778-73-6	
Potassium silver cyanide	Argentate(1-), bis(cyano-C)-, potassium	506-61-6	P099
Promecarb	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	2631-37-0	P201

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Pronamide	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	23950-58-5	U192
1,3-Propane sultone	1,2-Oxathiolane, 2,2-dioxide	1120-71-4	U193
Propham	Carbamic acid, phenyl-,1-methylethyl ester	122-42-9	U373
n-Propylamine	1-Propanamine	107-10-8	U194
Propargyl alcohol	2-Propyn-1-ol	107-19-7	P102
Propylene dichloride	Propane, 1,2-dichloro-	78-87-5	U083
1,2-Propylenimine	Aziridine, 2-methyl-	75-55-8	P067
Propylthiouracil	4(1H)-Pyrimidinone, 2,3-dihydro-6-propyl-2-thioxo-	51-52-5	
Propoxur	Phenol, 2-(1-methylethoxy)-,methylcarbamate	114-26-1	U411
Prosulfocarb	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888-80-9	U387
Pyridine	Same	110-86-1	U196
Reserpine	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl) oxy]-smethyl ester, (3beta,16beta,17alpha, 18beta,20alpha)-	50-55-5	U200
Resorcinol	1,3-Benzenediol	108-46-3	U201
Saccharin	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide	81-07-2	U202
Saccharin salts			U202
Safrole	1,3-Benzodioxole, 5-(2-propenyl)-	94-59-7	U203
Selenium	Same	7782-49-2	
Selenium compounds, N.O.S.[1]			
Selenium dioxide	Selenious acid	7783-00-8	U204
Selenium sulfide	Selenium sulfide SeS_2	7488-56-4	U205
Selenium, tetrakis (dimethyl-dithiocarbamate)	Carbamodithioic acid, dimethyl-, tetraanhydro-sulfide with orthothioselenious acid	144-34-3	~~U376~~
Selenourea	Same	630-10-4	P103
Silver	Same	7440-22-4	
Silver compounds, N.O.S.[1]			
Silver cyanide	Silver cyanide Ag(CN)	506-64-9	P104
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	See F027
Sodium cyanide	Sodium cyanide Na(CN)	143-33-9	P106
Sodium dibutyldithiocarbamate	Carbamodithioic acid, dibutyl, sodium salt	136-30-1	~~U379~~
Sodium diethyldithiocarbamate	Carbamodithioic acid, diethyl-, sodium salt	148-18-5	~~U381~~
Sodium dimethyldithiocarbamate	Carbamodithioic acid, dimethyl-, sodium salt	128-04-1	~~U382~~
Sodium pentachlorophenate	Pentachlorophenol, sodium salt	131-52-2	
Streptozotocin	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)carbonyl]amino]-	18883-66-4	U206
Strychnine	Strychnidin-10-one	57-24-9	P108
Strychnine salts			P108
Sulfallate	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95-06-7	~~U277~~

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6	
Tetrabutylthiuram disulfide	Thioperoxydicarbonic diamide, tetrabutyl	1634-02-2	~~U402~~
~~Tetrabutylthiuram~~ Tetramethylthiuram monosulfide	Bis (dimethylthiocarbamoyl) sulfide	97-74-5	~~U401~~
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro-	95-94-3	U207
Tetrachlorodibenzo-p-dioxins			
Tetrachlorodibenzofurans			
Tetrachloroethane, N.O.S.[1]	Ethane, tetrachloro-, N.O.S.	25322-20-7	
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro-	630-20-6	U208
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro-	79-34-5	U209
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	See F027
2,3,4,6-Tetrachlorophenol, potassium salt	Same	53535-27-6	
2,3,4,6-Tetrachlorophenol, sodium salt	Same	25567-55-9	
Tetraethyldithiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	P109
Tetraethyl lead	Plumbane, tetraethyl-	78-00-2	P110
Tetraethyl pyrophosphate	Diphosphoric acid, tetraethyl ester	107-49-3	P111
Tetranitromethane	Methane, tetranitro-	509-14-8	P112
Thallium	Same	7440-28-0	
Thallium compounds, N.O.S.[1]			
Thallic oxide	Thallium oxide Tl_2O_3	1314-32-5	P113
Thallium(I) acetate	Acetic acid, thallium(1+) salt	563-68-8	U214
Thallium(I) carbonate	Carbonic acid, dithallium(1+) salt	6533-73-9	U215
Thallium(I) chloride	Thallium chloride TICl	7791-12-0	U216
Thallium(I) nitrate	Nitric acid, thallium(1+) salt	10102-45-1	U217
Thallium selenite	Selenious acid, dithallium(1+) salt	12039-52-0	P114
Thallium(I) sulfate	Sulfuric acid, dithallium(1+) salt	7446-18-6	P115
Thioacetamide	Ethanethioamide	62-55-5	U218
Thiodicarb	Ethanimidothioic acid, N,N'-[thiobis[(methylimino) carbonyloxy]] bis-, dimethyl ester	59669-26-0	U410
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, 0-[(methylamino)carbonyl] oxime	39196-18-4	P045
Thiomethanol	Methanethiol	74-93-1	U153
Thiophanate-methyl	Carbamic acid, [1,2-phyenylenebis (iminocarbonothioyl)] bis-, dimethyl ester	23564-05-8	U409
Thiophenol	Benzenethiol	108-98-5	P014
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	P116
Thiourea	Same	62-56-6	U219
Thiram	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$,tetramethyl-	137-26-8	U244
Tirpate	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl] oxime.	26419-73-8	P185

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Toluene	Benzene, methyl-	108-88-3	U220
Toluenediamine	Benzenediamine, ar-methyl-	25376-45-8	U221
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl-	95-80-7	
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl-	823-40-5	
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl-	496-72-0	
Toluene diisocyanate	Benzene, 1,3-diisocyanatomethyl-	26471-62-5	U223
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222
p-Toluidine	Benzenamine, 4-methyl-	106-49-0	U353
Toxaphene	Same	8001-35-2	P123
Triallate	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	2303-17-5	U389
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro-	120-82-1	
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro-	79-00-5	U227
Trichloroethylene	Ethene, trichloro-	79-01-6	U228
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118
Trichloromonofluoromethane	Methane, trichlorofluoro-	75-69-4	U121
2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See F027
Trichloropropane, N.O.S.[1]		25735-29-9	
1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Triethylamine	Ethanamine, N,N-diethyl-	121-44-8	U404
O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro-	99-35-4	U234
Tris(1-aziridinyl) phosphine sulfide	Aziridine, 1,1',1"-phosphinothioylidynetris-	52-24-4	
Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235
Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'diyl) bis(azo)]- bis[5-amino-4-hydroxy-, tetrasodium salt.	72-57-1	U236
Uracil mustard	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	66-75-1	U237
Vanadium pentoxide	Vanadium oxide V_2O_5	1314-62-1	P120
Vernolate	~~Carbamothioc~~ Carbamothioic acid, dipropyl-, S-propyl ester	1929-77-7	~~U385~~
Vinyl chloride	Ethene, chloro-	75-01-4	U043
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations less than 0.3%	81-81-2	U248
Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3%	81-81-2	P001

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	Hazardous Waste No.
Warfarin salts, when present at concentrations less than 0.3%			U248
Warfarin salts, when present at concentrations greater than 0.3%			P001
Zinc cyanide	Zinc cyanide $Zn(CN)_2$	557-21-1	P121
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10%	1314-84-7	P122
Zinc phosphide	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less	1314-84-7	U249
Ziram	Zinc, bis(dimethylcarbamodithioato -S,S')-, (T-4)-	137-30-4	P205

FOOTNOTE: [1]The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

APPENDIX VI

Excluded Under Sections 33-24-01-06 and 33-24-01-08

Table 1. Wastes Excluded From Nonspecific Sources.

Facility	Address	Waste Description

[Reserved]

Table 2. Wastes Excluded From Specific Sources.

Facility	Address	Waste Description

[Reserved]

Table 3. Wastes Excluded From Commercial Chemical Products, Off-Specification Species, Container Residues, and Soil Residues Thereof.

Facility	Address	Waste Description

[Reserved]

APPENDIX VII

[Reserved]

CHAPTER 33-24-03

33-24-03-01. Scope and applicability. This chapter establishes standards for generators of hazardous waste.

1. Subsections 3 and 4 of section 33-24-02-05 must be used to determine the applicability of provisions of this chapter that are dependent on calculations of the quantity of hazardous waste generated per month.

2. A generator who treats, stores, or disposes of hazardous waste onsite must only comply with the following sections of this chapter with respect to that waste: Section 33-24-03-02 for determining whether or not the generator has a hazardous waste, section 33-24-03-03 for obtaining an identification number, section 33-24-03-12 for accumulation of hazardous waste, subsections 3 and 4 of section 33-24-03-13 for recordkeeping, section 33-24-03-16 for additional reporting and if applicable, section 33-24-03-40 for farmers.

3. Any person who exports or imports hazardous waste into the United States through this state must comply with the standards applicable to generators established in this chapter.

4. A farmer who generates waste pesticides which are hazardous waste and who complies with all the requirements of section 33-24-03-40 is not required to comply with other standards in chapters 33-24-03 through 33-24-06 with respect to such pesticides.

5. A person who generates a hazardous waste as defined in chapter 33-24-02 is subject to the compliance requirements and penalties prescribed in North Dakota Century Code chapter 23-20.3 if the person does not comply with the requirements of this chapter.

6. An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in this chapter.

7. Persons responding to an explosives or munitions emergency in accordance with subparagraph d of paragraph 1 of subdivision g of subsection 6 of section 33-24-05-01 or paragraph 4 of subdivision g of subsection 6 of section 33-24-05-01 or 40 CFR 265.1(c)(11)(i)(D) or (iv) as incorporated by reference at subsection 5 of section 33-24-06-16, and item 4 of subparagraph a and subparagraph c of paragraph 9 of subdivision b of subsection 2 of section 33-24-06-01, are not required to comply with the standards of chapter 33-24-03.

   Note 1: The provisions of section 33-24-03-12 are applicable to the onsite accumulation of hazardous waste by generators. Therefore, the provisions of section 33-24-03-12 only apply to owners or operators who are shipping hazardous waste that they generated at that facility.

Note 2: A generator who treats, stores, or disposes of hazardous waste onsite must comply with the applicable standards and permit requirements set forth in chapters 33-24-05 and 33-24-06.

History: Effective January 1, 1984; amended effective December 1, 1988; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-03-03. Identification number and registration certificate.

1. A generator may not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an identification number and a registration certificate from the department.

2. A generator who has not received an identification number and a registration certificate may obtain one by applying to the department. Upon receiving the request the department will assign an identification number and issue a registration certificate to the generator.

3. A generator may not offer the generator's hazardous waste to transporters that have not received an identification number and a ~~registration certificate~~ transporter permit, or to treatment, storage, or disposal facilities that have not received an identification number and applied for a permit.

4. The department may assess and collect reasonable fees for the issuance of registration certificates.

History: Effective January 1, 1984; amended effective December 1, 2003.
General Authority: NDCC 23-20.3-03, 23-20.3-05.1
Law Implemented: NDCC 23-20.3-03, 23-20.3-04, 23-20.3-05.1

33-24-03-04. General requirements of the manifest.

1. A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a uniform hazardous waste manifest, environmental protection agency form 8700-22, and if necessary, environmental protection agency form 8700-22a, according to instructions included in appendix I to this chapter.

2. A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.

3. A generator may also designate on the manifest one alternate facility which is permitted to handle the generator's waste in the event an emergency prevents delivery of the waste to the primary designated facility.

4. If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste.

5. The requirements of sections 33-24-03-04 through 33-24-03-07 do not apply to hazardous waste produced by generators of greater than one hundred kilograms but less than one thousand kilograms in a calendar month where:

   a. The waste is reclaimed under a contractual agreement pursuant to which:

      (1) The type of waste and frequency of shipments are specified in the agreement; and

      (2) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and

   b. The generator maintains a copy of the reclamation agreement in the generator's files for a period of at least three years after termination or expiration of the agreement.

6. The requirements of sections 33-24-03-04 through 33-24-03-07 and subsection 2 of section 33-24-03-10 do not apply to the transport of hazardous wastes on a public or private right of way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right of way. Notwithstanding subsection 1 of section 33-24-04-01, the generator or transporter must comply with the requirements for transporters set forth in sections 33-24-04-07 and 33-24-04-08 in the event of a discharge of hazardous waste on a public or private right of way.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-03-12. Accumulation time.

1. Except as provided in subsections 4, 5, and 6, a generator may accumulate hazardous waste onsite for ninety days or less without a permit or without having interim status provided that:

   a. The waste is placed:

(1) In containers and the generator complies with sections 33-24-05-89 through 33-24-05-102 and sections 33-24-05-400 through 33-24-05-474; ~~or~~

(2) In tanks and the generator complies with sections 33-24-05-103 through 33-24-05-115 and sections 33-24-05-400 through 33-24-05-474, except subsection 3 of section 33-24-05-110 and section 33-24-05-113; ~~or~~

(3) On drip pads and the generator complies with sections 33-24-05-501 through 33-24-05-524 and maintains the following records at the facility:

(a) A description of procedures that will be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every ninety days; and

(b) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; or

(4) In containment buildings and the generator complies with sections 33-24-05-475 through 33-24-05-500 and has placed its professional engineer certification that the building complies with the design standards specified in section 33-24-05-476 in the facility's operating record no later than sixty days after the date of initial operation of the unit. After February 18, 1993, professional engineer certification will be required prior to operation of the unit. The owner or operator shall maintain the following records at the facility:

(a) A written description of procedures to ensure that each waste volume remains in the unit for no more than ninety days, a written description of the waste generation and management practices for the facility showing that they are consistent with respecting the ninety-day limit, and documentation that the procedures are complied with; or

(b) Documentation that the unit is emptied at least once every ninety days.

In addition, such a generator is exempt ~~form~~ from all the requirements in sections 33-24-05-59 through 33-24-05-88, except for sections 33-24-05-60 and 33-24-05-63~~.~~:

b. The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

c. While being accumulated onsite, each container and tank is properly labeled or marked with the words "Hazardous Waste"; and

d. The generator complies with the requirements for owners or operators in sections 33-24-05-15 through 33-24-05-36, with section 33-24-05-07, and with subdivision ~~d~~ e of subsection 1 of section 33-24-05-256.

2. A generator who accumulates hazardous waste for more than ninety days is an operator of a storage facility and is subject to the requirements of chapter 33-24-05 and the permit requirements of chapter 33-24-06, unless the generator has been granted an extension to the ninety-day period. Such extension may be granted by the department if hazardous wastes must remain onsite for longer than ninety days due to unforeseen, temporary, and uncontrollable circumstances. An extension may be granted at the discretion of the department on a case-by-case basis.

3. A generator may accumulate as much as fifty-five gallons of hazardous waste or one quart of acutely hazardous waste listed in subsection 5 of section 33-24-02-18 in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with subsection 1 provided the operator:

   a. Complies with sections 33-24-05-90, 33-24-05-91, and subsection 1 of section 33-24-05-92; and

   b. Marks the operator's containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

4. A generator who generates greater than one hundred kilograms but less than one thousand kilograms of hazardous waste in a calendar month may accumulate hazardous waste onsite for one hundred eighty days or less without a permit or without having interim status provided that:

   a. The quantity of waste accumulated onsite never exceeds six thousand kilograms;

   b. The generator complies with requirements of sections 33-24-05-89 through 33-24-05-102, except ~~section~~ sections 33-24-05-95 and 33-24-05-98;

c. The generator complies with the requirements of section 33-24-05-114;

d. The generator complies with the requirements of subdivisions b and c of subsection 1, sections 33-24-05-12 through 33-24-05-21, and the requirements of ~~sections 33-24-05-15 through 33-24-05-20~~ subdivision e of subsection 1 of section 33-24-05-256; and

e. The generator complies with the following requirements:

(1) At all times there must be at least one employee either on the premises or on call (for example, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all the emergency response measures specified in paragraph 4 of subdivision e of subsection 4. This employee is the emergency coordinator.

(2) The generator shall post the following information next to the telephone:

(a) The name and telephone number of the emergency coordinator;

(b) Location of fire extinguishers and spill control material and, if present, fire alarm; and

(c) The telephone number of the fire department, unless the facility has a direct alarm.

(3) The generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(4) An emergency coordinator or emergency coordinator's designee shall respond to any emergency that arises. The applicable responses are as follows:

(a) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

(b) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil; and

(c) In the event of a fire, explosion, or other release which could threaten human health outside the facility, or when the generator has knowledge that

a spill has reached surface water, the generator shall immediately notify the national response center using their twenty-four-hour ~~toll-free~~ toll-free number 1-800-424-8802. The report must include the following information:

[1] The name, address, and ~~state/environmental protection agency~~ identification number of the generator;

[2] Date, time, and type of incident (for example, spill or fire);

[3] Quantity and type of hazardous waste involved in the incident;

[4] Extent of injuries, if any; and

[5] Estimated quantity and disposition of recovered materials, if any.

5. A generator who generates greater than one hundred kilograms but less than one thousand kilograms of hazardous waste in a calendar month and who must transport the waste, or offer the waste for transportation, over a distance of two hundred miles or more for offsite treatment, storage, or disposal may accumulate hazardous waste onsite for two hundred seventy days or less without a permit or without having interim status provided the generator complies with the requirements of subsection 4.

6. A generator who generates greater than one hundred kilograms but less than one thousand kilograms of hazardous waste in a calendar month and who accumulates hazardous waste in quantities exceeding six thousand kilograms or accumulates hazardous waste for more than one hundred eighty days (or for more than two hundred seventy days if the generator shall transport the waste or offer the waste for transportation, over a distance of two hundred miles [321.87 kilometers] or more) is an operator of a storage facility and is subject to the requirements of chapter 33-24-05 and the permit requirements of chapter 33-24-06 unless the generator has been granted an extension to one hundred eighty days (or two hundred seventy days if applicable). Such extension may be granted by the department if hazardous waste must remain onsite for longer than one hundred eighty days (or two hundred seventy days if applicable) due to unforeseen, temporary, and uncontrollable circumstances. An extension may be granted at the discretion of the department on a case-by-case basis.

7. A generator who generates one thousand kilograms or greater of hazardous waste per calendar month who also generates wastewater

treatment sludges from electroplating operations that meet the listing description for the hazardous waste code F006, may accumulate F006 waste onsite for more than ninety days, but not more than one hundred eighty days without a permit or without having interim status provided that:

a. The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering F006 or otherwise released to the environment prior to its recycling;

b. The F006 waste is legitimately recycled through metals recovery;

c. No more than twenty thousand kilograms of F006 waste is accumulated onsite at any one time; and

d. The F006 waste is managed in accordance with the following:

(1) The F006 waste is placed:

(a) In containers and the generator complies with the applicable requirements of sections 33-24-05-89 through 33-24-05-102 and sections 33-24-05-400 through 33-24-05-474;

(b) In tanks and the generator complies with the applicable requirements of sections 33-24-05-103 through 33-24-05-117 and sections 33-24-05-400 through 33-24-05-474, except for subsection 3 of section 33-24-05-110 and section 33-24-05-113;

(c) In containment buildings and the generator complies with sections 33-24-05-475 through 33-24-05-500, and has placed its professional engineer certification that the building complies with the design standards specified in section 33-24-05-476 in the facility's operating record prior to operation of the unit. The owner or operator must maintain the following records at the facility:

[1] A written description of procedures to ensure that the F006 waste remains in the unit for no more than one hundred eighty days, a written description of the waste generation and management practices for the facility showing that they are consistent with the one-hundred-eighty-day limit, and documentation that the generator is complying with the procedures; or

[2] Documentation that the unit is emptied at least once every one hundred eighty days.

(d) Or any combination of subparagraphs a, b, and c, as applicable;

(2) In addition, such a generator is exempt from all the requirements in sections 33-24-05-59 through 33-24-05-88, except for sections 33-24-05-60 and 33-24-05-63;

(3) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(4) While being accumulated onsite, each container and tank is labeled or marked clearly with the words, "Hazardous Waste"; and

(5) The generator complies with the requirements for owners or operators in sections 33-24-05-15 through 33-24-05-36, with section 33-24-05-07, and with subdivision e of subsection 1 of section 33-24-05-256.

8. A generator who generates one thousand kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the hazardous waste code F006, and who must transport this waste, or offer this waste for transportation, over a distance of two hundred miles [321.87 kilometers] or more for offsite metals recovery, may accumulate F006 waste onsite for more than ninety days, but not more than two hundred seventy days without a permit or without having interim status if the generator complies with the requirements of subdivisions a through d of subsection 7.

9. A generator accumulating F006 waste in accordance with subsections 7 and 8 who accumulates F006 waste onsite for more than one hundred eighty days (or for more than two hundred seventy days if the generator must transport this waste, or offer this waste for transportation, over a distance of two hundred miles [321.87 kilometers] or more), or who accumulates more than twenty thousand kilograms of F006 waste onsite is an operator of a storage facility and is subject to the requirements of sections 33-24-05-01 through 33-24-05-190, 33-24-05-300 through 33-24-05-524, and 33-24-05-550 through 33-24-05-599, and the permit requirements of chapter 33-24-06 unless the generator has been granted an extension to the one hundred eighty day (or two hundred seventy day if applicable) period or an exception to the twenty thousand kilogram accumulation limit. Such extensions and exceptions may be granted by the department if F006 waste must remain onsite for longer than one hundred eighty days (or two hundred seventy days if applicable) or if more than twenty thousand kilograms

of F006 waste must remain onsite due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to thirty days or an exception to the accumulation limit may be granted at the discretion of the department on a case-by-case basis.

History: Effective January 1, 1984; amended effective October 1, 1986; December 1, 1988; December 1, 1991; January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-03-13. Recordkeeping.

1. A generator must keep a copy of each manifest signed in accordance with subsection 1 of section 33-24-03-07 for three years or until the generator receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

2. A generator must keep a copy of each biennial report and exception report for a period of at least three years from the due date of the report, March first of each even-numbered year.

3. A generator must keep records of any test results, waste analyses, or other determinations made in accordance with section 33-24-03-02 for at least three years from the date the waste was last sent to onsite or offsite treatment, storage, or disposal.

4. The periods for retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the department.

History: Effective January 1, 1984; amended effective July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-03-20. Notification of intent to export.

1. A primary exporter of hazardous waste shall notify the department and the environmental protection agency of an intended export before such waste is scheduled to leave the United States. A complete notification should be submitted sixty days before the initial shipment is intended to be shipped offsite. This notification may cover export activities extending over a twelve-month or lesser period. The notification must be in writing, signed by the primary exporter, and include the following information:

a. Name, mailing address, telephone number, and identification number of the primary exporter; and

b. By consignee, for each hazardous waste type~~;~~:

(1) A description of the hazardous waste and ~~state/environmental protection agency~~ hazardous waste number (from chapter 33-24-02), United States department of transportation proper shipping name, hazard class, and identification number (UN/NA) for each hazardous waste as identified in 49 CFR part 171-177;

(2) The estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported;

(3) The estimated total quantity of the hazardous waste in units as specified in instructions to the uniform hazardous waste manifest form (8700-22);

(4) All points of entry to and departure from each foreign country through which the hazardous waste will pass;

(5) A description of the means by which each shipment of the hazardous waste will be transported (for example, mode of transportation vehicle (air, highway, rail, water, etc.)), types of container (drums, boxes, tanks, etc.);

(6) A description of the manner in which the hazardous waste will be treated, stored, or disposed of in the receiving country (for example, land or ocean, incineration, other land disposal, ocean dumping, recycling);

(7) The name and site address of the consignee and any alternate consignee; and

(8) The name of any transit countries through which the hazardous waste will be sent and a description of the approximate length of time the hazardous waste will remain in such country and the nature of its handling while there.

2. Notification must be sent to the department and to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), Environmental Protection Agency, 401 M Street~~,~~ SW, Washington, D.C. 20460. Hand-delivered notifications should be sent to~~:~~ Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting, and Data Division (2222A), Environmental Protection Agency, Ariel Rios Building,

12 Street and Pennsylvania Avenue~~,~~ NW.~~,~~ Washington, D.C. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export".

3. Except for changes to the telephone number in subdivision a of subsection 1, changes to paragraph 5 of subdivision b of subsection 1~~,~~ and decreases in the quantity indicated pursuant to paragraph 3 of subdivision b of subsection 1 when the condition specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous waste specified in the original notification), the primary exporter shall provide the department and the environmental protection agency with a written notification of the change. The shipment cannot take place until consent of the receiving country to the changes (except for changes to paragraph 8 of subdivision b of subsection 1 and in the ports of entry to and departure from transit countries pursuant to paragraph 4 of subdivision b of subsection 1) has been obtained and the primary exporter receives an environmental protection agency acknowledgment of consent reflecting the receiving country's consent to the changes.

4. Upon request by the department or the environmental protection agency, a primary exporter shall furnish to the department or the environmental protection agency any additional information which a receiving country requests in order to respond to a notification.

5. A notification is complete when the department receives a notification which the department determines satisfies the requirements of subsection 1 and the requirements of the environmental protection agency such that an environmental protection agency acknowledgment of consent is issued to the primary exporter.

6. The primary exporter shall provide the department with a copy of the environmental protection agency acknowledgment of consent prior to shipment offsite.

History: Effective December 1, 1988; amended effective January 1, 1994; July 1, 1997; December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04

33-24-03-40. Farmers. A farmer disposing of ~~pesticide containers~~ waste pesticides from the farmer's own use which are hazardous wastes is not required to comply with the standards in this chapter or chapters 33-24-05 and 33-24-06 for those wastes provided the farmer triple rinses each emptied pesticide container in accordance with subdivision a, b, or c of subsection 4 of section 33-24-02-07 and

disposes of the pesticide ~~residue~~ residues on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label.

History: Effective December 1, 1988; amended effective December 1, 2003.
General Authority: NDCC 23-20.3-03
Law Implemented: NDCC 23-20.3-03, 23-20.3-04