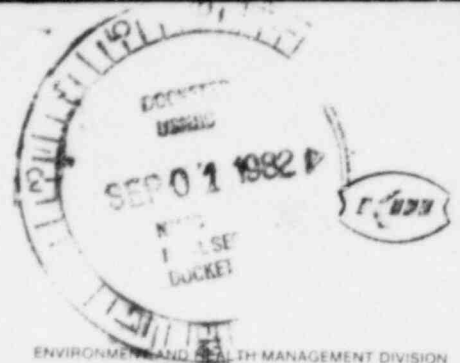


PDR-Return 396-SS



**KERR-MCGEE CORPORATION**  
RECEIVED  
KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125



'82 AUG 24 A9:07  
July 29, 1982

ENVIRONMENTAL AND HEALTH MANAGEMENT DIVISION

U.S. N.R.C.  
LIC. FEE MGMT. BRANCH

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

William Nixon  
Uranium Process Licensing Section  
Uranium Fuel Licensing Branch  
Division of Fuel Cycle & Mat'l Safety  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Applicant.....
Check No. <i>027654</i>
Amount/Fee Category <i>3500.00</i>
Type of Fee <i>uranium safety</i>
Date Check Rec'd. <i>8/24/82</i>
Received By <i>[Signature]</i>

Re: SUB-1010 Docket 40-2087  
Sequoyah Waste Disposal Well

Dear Mr. Nixon:

In accordance with our discussion, enclosed is a copy of the application to the Oklahoma State Department of Health - Industrial Waste Division for the use of the Deep Injection Well for the disposal of treated raffinate produced at the Sequoyah Facility. Also enclosed is a copy of the Rules and Regulations for Industrial Waste Management developed by the State Department of Health. Note that these were adopted February 9, 1982.

The initial application was submitted July 17, 1981 and subsequently we have responded to the questions raised by the Industrial Waste Division staff in the same manner as we respond to NRC questions.

You will note that our initial application contemplated a single injection of 5 million gallons during a 60-day period to permit more complete testing of the well by a reservoir engineering consultant to develop additional information on the reservoir, i.e. permeability, reservoir boundaries and other pertinent hydrogeological information. During our initial conversation with the State, subsequent in submission of the application, we were told that the then current regulations did not provide for a permit for a single year, and a State permit was issued for a 5 year period only. As a consequence, we modified our application to provide for the injection of 5 million gallons of treated raffinate each year for a 5 year period. As you can see, a significant amount of additional testing of the disposal well has been done at the request of the State.

This application was submitted to the State in the belief that it properly would be considered under the EPA's Underground Injection Control Program for which the State of Oklahoma now has primacy for installations in the state.

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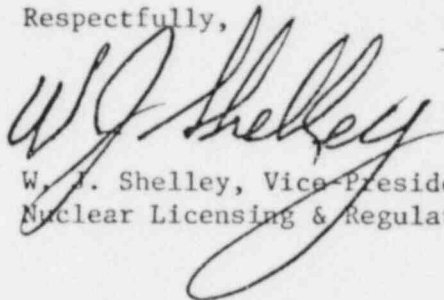
William Nixon  
July 29, 1982  
Page 2

It is Kerr-McGee's intention to use this well as an optional method of treated raffinate disposal in the event of heavy rainfall, adverse growing conditions, or other occurrences making land application infeasible for a period.

We request that the Sequoyah license SUB-1010 Docket 40-2087 be amended to permit the final disposal of treated raffinate in the Sequoyah waste disposal well conditioned on an approved state permit.

Your prompt review of this material would be appreciated and if you have additional questions, please let me know.

Respectfully,



W. J. Shelley, Vice President  
Nuclear Licensing & Regulations

WJS/p.

JAN 8 1982

PROPOSED  
AMENDMENTS TO  
RULES AND REGULATIONS FOR  
INDUSTRIAL WASTE MANAGEMENT

DEVELOPED UNDER AUTHORITY OF  
THE OKLAHOMA PUBLIC HEALTH CODE

Industrial Waste Division  
Industrial and Solid Waste Service  
Environmental Health Services  
Oklahoma State Department of Health  
Oklahoma City, Oklahoma

*APPROVED JANUARY 12, 1982, EFFECTIVE FEBRUARY 9, 1982*

EMERGENCY NOTIFICATION

IN CASE OF EMERGENCY REGARDING INDUSTRIAL  
WASTE, THE HEALTH DEPARTMENT MAY BE  
CONTACTED BY CALLING:

(405) 271-5338 (DURING BUSINESS HOURS)

(405) 271-5221 (24-HOUR NUMBER)

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## CHAPTER 1

### INDUSTRIAL WASTE MANAGEMENT - GENERAL PROVISIONS

#### 1.1 ~~4.0~~ DEFINITIONS

In addition to the definitions contained in the Oklahoma Controlled Industrial Waste Disposal Act, 63 O.S. ~~Supp. 1978, 1981.~~ Section 1-2001 through 1-2014, the following definitions shall apply for these Regulations.

- 1.1.1 1.1.1 "Act" means the Oklahoma Controlled Industrial Waste Disposal Act, 63 O.S. 1981, Sections 1-2001 through 1-2014.
- 1.1.2 ~~4.19~~ "Aquatic 96 Hr. TLM - Aquatic Median Threshold Limit" means the concentration of a substance which is lethal to fifty (50) percent of the test population over a ninety-six (96) hour exposure period. Threshold limit concentration is expressed in milligrams per liter.
- 1.1.3 1.1.3 "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.
- 1.1.4 ~~4.13~~ "Bioconcentration" means materials for which the detoxification-excretion mechanism is either non-existent or extremely slow (these materials can be categorized as either heavy metals or persistent organic materials).
- 1.1.5 ~~4.15~~ "Category 4 Reactive Materials" means materials which in themselves are capable of detonation or of explosive decomposition or explosive reaction at normal temperatures and pressures, Category 4 of NFPA, (No. 704M). The major areas of concern include:
- (a) Detonation by electrical shock; pertinent data can be found in the National Electric Code, (NFPA No. 70);
  - (b) Oxidizing materials, includes Grade 4 Self-Reactive Materials in the NAS rating system;
  - (c) Polymerization; hazardous wastes capable of auto-polymerization, includes Grade 3, Self-Reactive Agents in NAS ratings;
  - (d) Explosiveness; primary high explosives rated at five inches or less on the Picatinny Arsenal Scale, and
  - (e) Water or air reactive wastes; including material rated as Grade 4 Water Reactive in the NAS rating system.
- 1.1.6 ~~4.1~~ "Commissioner" means the State Commissioner of Health.

- 1.1.7 1.1.7 "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.
- 1.1.8 ~~1.1.8~~ "Dermal Penetration Toxicity LD<sub>50</sub>" means a dose of chemical which, through skin penetration, is expected to kill fifty (50) percent of a population.
- 1.1.9 1.1.9 "Elementary neutralization unit" means a device which:
- 1) Is used for neutralizing wastes which are controlled industrial wastes only because they exhibit the corrosivity characteristic defined in 40 CFR 261.22, or are listed in Subpart D of 40 CFR Part 261 only for this reason; and,
  - 2) Meets the definition of tank, container, transport vehicle, or vessel in 40 CFR 260.10 of this Chapter.
- 1.1.10 ~~1.1.10~~ "Facility" means a ~~processing or storage~~ controlled industrial waste facility.
- 1.1.11 ~~1.1.11~~ "Fresh water" means all water sources with a maximum of 10,000 mg/l total dissolved solids and all waters that are present or designated potential sources of drinking water, livestock, or irrigation water.
- 1.1.12 1.1.12 "Generator" means any person, by geographic location, whose act or process produces controlled industrial waste or recyclable materials identified or listed in Chapter 2 of these Regulations or whose act first causes a controlled industrial waste or recyclable material to become subject to regulations.
- 1.1.13 ~~1.1.13~~ "Genetic effects" ~~are wastes found to give~~ means that positive results to standard genetic tests have been found for the waste(s) tested.
- 1.1.14 ~~1.1.14~~ "Hauler" or "Transporter" means a person engaged in the off-site transportation of controlled industrial waste by air, rail, highway, or water.
- 1.1.15 1.1.15 "Hazardous materials" means those materials of commerce or manufacture which, if discarded, would be classified as controlled industrial waste under these Regulations.
- 1.1.16 1.1.16 "Incinerator" means an enclosed device using controlled flame combustion, the primary purpose of which is to thermally breakdown controlled industrial waste. Examples of incinerators are rotary kiln, fluidized bed, and liquid injection incinerators.
- 1.1.17 ~~1.1.17~~ "Incompatible wastes" shall mean two (2) or more separate and distinct wastes which, when allowed to come into contact with each other, will mix or react in such a way as to generate steam, toxic gases, pressure, extreme heat, flammable volatile gasses or liquids, shock-sensitive substances, or which will cause fire, explosion, or violent reactions.



- 1.1.18 4-3 "Industrial waste" is a collective term which may include both controlled industrial waste (and controlled industrial waste to be recycled) and other industrial wastes.
- 1.1.19 4-8 "Injection well" means any system used to convey, deposit, or discharge wastes to an underground reservoir.
- 1.1.20 1.1.20 "Landfill" means a disposal facility or part of a facility where controlled industrial waste is placed in or on land and which is not a land treatment facility, a surface impoundment, or an injection well.
- 1.1.21 1.1.21 "Land treatment facility" means a facility or part of a facility at which controlled industrial waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.
- 1.1.22 4-17 "LD<sub>50</sub> (sic LC<sub>50</sub>) - Lethal Concentration Fifty" means a dose of a chemical substance which, when administered by the respiratory route, will kill fifty (50) percent of a population of experimental animals during an exposure of four (4) hours. Concentration is expressed in terms of milligrams per liter.
- 1.1.23 4-16 "LD<sub>50</sub> - Lethal Dose Fifty" means a dose of chemical substance which is expected to kill fifty (50) percent of a population of experimental animals exposed through a route other than respiration. Dose concentration is expressed in terms of milligrams of chemical per kilogram of body weight.
- 1.1.24 4-12 "Mud" means mud of not less than thirty-six (36) viscosity (A.P.I. Full Funnel Method) and a weight of not less than nine (9) pounds per gallon.
- 1.1.25 4-14 "NFPA" is the National Fire Protection Association.
- 1.1.26 1.1.26 "Operation" means and includes the receiving, handling, treating, storing, or disposing of controlled industrial wastes (daily operations) and the closing of such controlled industrial waste facility (closure operations).
- 1.1.27 4-2 "Other industrial waste" means those refuse products which are designated by the Department to require special handling, but are not designated as "controlled industrial waste."
- 1.1.28 1.1.28 "Owner" means both the owner and the operator of a controlled industrial waste facility.
- 1.1.29 1.1.29 "Pile" means any non-containerized accumulation of solid, nonflowing controlled industrial waste that is used for treatment or storage.
- 1.1.30 4-24 "Potentially affected zone" means that area surrounding an injection well or injection well pattern in which the pressure change resulting

from an injection operation may cause a rise in pressure of injected fluid, formation fluid, or a combination thereof sufficient to enter an underground fresh water source.

1.1.31 1.1.30

"Site" means disposal site.

1.1.32 1.1.32

"Spill" means the accidental spilling, leaking, pumping, pouring, emitting, or dumping of controlled industrial waste, recyclable materials, or hazardous materials which, when spilled, become controlled industrial waste into or on any land or water.

1.1.33 1.1.23

"Statistical twenty-four (24) hour, fifty (50) year storm" means a storm of twenty-four (24) hour duration with a probable recurrence interval of once in fifty (50) years as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May, 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

1.1.34 1.1.34

"Statistical twenty-four (24) hour, one hundred (100) year storm" means a storm of twenty-four (24) hour duration with a probable recurrence interval of once in one hundred (100) years as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May, 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

1.1.35 1.1.35

"Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made 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.

1.1.36 1.1.36

"Tank" means a stationary device, designed to contain an accumulation of controlled industrial waste which is constructed primarily of non-earthen materials (e.g. wood, concrete, steel, plastic) which provide structural support.

1.1.37 1.1.37

"Thermal treatment" means the treatment of controlled industrial waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the controlled industrial waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge.

1.1.38 1.1.25

"In-plant treatment" means a totally "Totally enclosed treatment facility" means a facility for the treatment of a controlled industrial 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 controlled industrial

waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

- 1.1.39 1.1.39      "Transfer facility" means any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of controlled industrial waste are held during the normal course of transportation.
- 1.1.40 ~~1.1.40~~      "Transportation" means the act of transferring waste from one location to another by means including, but not limited to, public roads, railroads, and waterways.
- 1.1.41 ~~1.1.41~~      "Volatile waste" shall mean waste with a true vapor pressure of greater than 1.5 p.s.i.a. at 25° C.
- 1.1.42 1.1.42      "Wastewater treatment unit" means a device which:
- 1) Is part of a wastewater treatment facility which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act; and
  - 2) Receives and treats or stores an influent wastewater which is a controlled industrial waste as defined in Chapter 2 or generates and accumulates a wastewater treatment sludge which is a controlled industrial waste as defined in Chapter 2, or treats or stores a wastewater treatment sludge which is a controlled industrial waste as defined in Chapter 2; and
  - 3) Meets the definition of tank in Section 260.10 of this chapter.
- 1.1.43 ~~1.1.43~~      When reference is made to the Code of Federal Regulations, 40 CFR 260 et seq., it shall mean ~~45 Federal Register 98, pages 33066 through 33588, inclusive,~~ the Hazardous Waste and Consolidated Permit Regulations, Monday, May 19, 1980 as amended through September 30, 1981.
- 1.1.43.1 ~~1.1.43.1~~      When a provision of the Code of Federal Regulations (40 CFR ) is incorporated by reference, all citations contained therein are also incorporated by reference.
- 1.1.43.2 ~~1.1.43.2~~      When a provision of the Code of Federal Regulations (40 CFR ) is incorporated by reference, the definition of terms contained in 40 CFR 260.10 shall apply.
- 1.1.43.3 ~~1.1.43.3~~      For purposes of interfacing with 40 CFR 260 et seq., the following terms apply:
- 1.1.43.3.1 ~~1.1.43.3.1~~      Administrator is synonymous with Commissioner.
- 1.1.43.3.2 ~~1.1.43.3.2~~      Regional Administrator is synonymous with Director.
- 1.43.3.3 ~~1.1.43.3.3~~      Hazardous waste is synonymous with controlled industrial waste.

- 1.1.43.3.4 ~~1.27.3.4~~ Act is synonymous with Controlled Industrial Waste Disposal Act.
- 1.1.43.3.5 ~~1.27.3.5~~ State is synonymous with Department.
- 1.1.43.3.6 ~~1.27.3.6~~ EPA is the Environmental Protection Agency.
- 1.5 "Affected property owner" as defined by the Oklahoma Controlled Industrial Waste Disposal Act, means any property owner within one (1) mile of the proposed site or facility.
- 1.6 "Soil farming" or "Land Treatment" means the plowing of industrial waste into the soil for the purposes of disposal.
- 1.7 "Surface disposal site" means any constructed, excavated, or naturally occurring site, at or near the land surface, used for final disposition of controlled industrial waste.

1.2.0 ~~2.0~~ GENERAL PROVISIONS

- 1.2.1 ~~2.1~~ Industrial waste as designated by the Department shall not be deposited in any disposal site or processing facility other than a site or facility which has a currently valid permit.
- 1.2.2 ~~2.2~~ Disposal of industrial waste designated as other industrial waste may be at any permitted disposal site, provided that prior approval of the Department is obtained. Permitted disposal sites for other industrial waste may include sanitary landfills, separate land disposal sites or any other permitted disposal site approved for such disposal by the Department.
- 1.2.3 ~~2.3~~ Disposal, storage, and/or treatment of controlled industrial waste shall be at a site or facility specifically permitted for such disposal, storage or treatment, or one which has received Interim Status from the U. S. Environmental Protection Agency.
- 1.2.4 ~~2.9~~ Except for those generators qualifying for the small quantity exemptions of Rules ~~2.5, 2.6, and 2.8~~, 2.1, 2.2, and 2.4.1, all persons generating, transporting, disposing or otherwise handling controlled industrial waste in any manner shall apply to the Environmental Protection Agency for an EPA identification number in accordance with 40 CFR 262.12, 263.11, and 264.11, which are hereby incorporated by reference (and with 265.11).

1.3.0 ~~13.0~~ RECORDKEEPING REQUIREMENTS

- 1.3.1 ~~13.1~~ All controlled industrial waste generators, transporters, storage sites, disposal sites, and processing facilities shall develop and maintain such records as are necessary to accurately reflect the types and quantities of controlled industrial waste being produced, handled, and/or disposed. In addition to the requirements of 40 CFR 265.73 and 265.74, the following records, and their retention times, are required as a minimum:

- 1.3.1.1 ~~13.1.1~~ Injection wells shall maintain either the original chart recordings as specified in Regulation ~~5.8.6~~, these Regulations or accurate copies thereof.
- 1.3.1.2 ~~13.1.2~~ Records of processing facilities shall also indicate the quantities of waste residuals produced by such processing, their ultimate disposal methods or location, and the date of each shipment of residual off-site or for disposal.
- 1.3.1.3 ~~13.1.3~~ Transient storage site records shall also indicate the type, quantity, and date of each shipment of controlled industrial waste to processing or disposal if such information is not on manifests.
- 1.3.1.4 ~~13.1.4~~ All controlled industrial waste haulers shall maintain records of each shipment of waste, indicating the type, quantity, and date of each shipment, the generators, and the receiving site(s).
- 1.3.1.4.1 ~~13.1.4.1~~ All records kept by controlled industrial waste haulers shall be maintained for a period of at least three (3) years after the manifest is fully signed, after which said records shall be transferred to the Department and kept indefinitely.
- 1.3.1.5 ~~13.1.5~~ All controlled industrial waste generators shall maintain records of the type and quantity of waste produced, the waste hauler used, the location of any storage, and the processing facility or ultimate disposal site used.
- 1.3.1.5.1 ~~13.1.5.1~~ All records kept by controlled industrial waste generators shall be maintained for a period of at least three (3) years after origination, after which they shall be transferred to the Department and kept indefinitely.
- 1.3.1.6 ~~13.1.6~~ All controlled industrial waste disposers who utilize disposal practices, as per Regulation ~~14.0~~, these Regulations shall develop and maintain records indicating the type and quantities of wastes handled, the exact method(s) and place(s) of disposal, and the date(s) involved. Such records shall also indicate such other information as is deemed necessary by the Department.
- 1.3.1.6.1 ~~13.1.6.1~~ All records shall be maintained by the Disposer for at least five (5) years following origination. Following this five (5) year period, or upon permanent cessation of operations, the disposer shall, at his option, either continue to maintain all records in accordance with ~~this Regulation (13.1.6)~~ these Regulations or shall transfer such records, in their entirety, to the Department. Should the disposer opt to continue maintenance of records after cessation of operations, he may at some later date cease such maintenance by transferring same to the Department in their entirety.
- 1.3.1.7 ~~13.1.7~~ All records transferred to the Department, as per these Regulations, will be reviewed for relevance and applicability to current and anticipated program needs. Those records deemed relevant and

applicable by the Department will be retained in the Department files until such time as they no longer are needed. All records deemed by the Department as not relevant or applicable or no longer needed, shall be permanently stored, provided the person transferring such records originally shall, by prior notice at the time of transfer, be entitled to review of all stored records relating to his operation.

1.3.1.8 ~~13.1.8~~

The Department shall assume no liability for maintenance of records transferred to its care, as regards the availability of such records for billing, tax, or other purposes.

1.3.1.9 ~~13.1.9~~

Regulation requirements concerning transfer of records to the Department shall not be construed to prohibit the person transferring the records from keeping copies of any records for his own needs.

1.3.1.10 ~~13.1.10~~

No records required by ~~this Regulation (13.0)~~ these Regulations shall be required to include any information regarding prices, fees, or disposal costs.

1.3.1.11 ~~13.1.11~~

All records required to be maintained by ~~this Regulation (13.0)~~ these Regulations shall be kept in a single, established location. Such records shall be readily available for inspection and review by the Department's designated representatives during normal business hours.

1.3.2 ~~13.2~~

## Public Information and Business Confidentiality

1.3.2.1 ~~13.2.1~~

### Preamble

Pursuant to 40 CFR 123.132(a), any information obtained or used in the administration of a state program must be made available by the state to the Environmental Protection Agency upon EPA's request without restriction. Further, if the information is submitted to the Department under a claim of confidentiality, the Department must submit that claim to EPA when providing said information.

EPA is required to treat any information obtained from the Department and subject to a claim of confidentiality in accordance with its business confidentiality regulations in 40 CFR Part 2. In accordance with 40 CFR 2.101, EPA will make the fullest possible disclosure of records to the public, consistent with the rights of individuals to privacy, the rights of persons in business information entitled to confidential treatment, and the need for EPA to promote frank internal policy deliberations and to pursue its official activities without undue disruption. Further, all EPA records must be made available to the public unless they are exempt from the disclosure requirements of 5 USC Section 552 and all nonexempt EPA records must be made available to the public upon request regardless of whether any justification or need for such records has been shown by the requestor.

However, EPA is required to treat all information claimed

confidential by the submitter as confidential until an explicit determination is made that it is not entitled to confidential treatment. Prior notice of this determination is to be given to the submitter.

If EPA obtains information from the Department that is not claimed to be confidential, EPA may make that information available to the public without further notice.

For further information concerning the confidentiality of business records, please refer to 5 USC Section 552, the Freedom of Information Act, and 40 CFR Part 2, Public Information with particular emphasis on Subpart B, Confidentiality of Business Information.

In order for the Department to make the fullest possible disclosure of records to the public consistent with the need to treat certain records as confidential and to achieve the legislative goals of the Controlled Industrial Waste Disposal Act through administering a federally approved program, the Board finds it necessary to adopt the following regulations regarding claims of confidentiality:

1.3.2.2 ~~13.2.2~~

In accordance with Regulations II(F), the Rules of Practice of the Department, copies of all official records of the Department, not privileged or protected from publication by law, may be made and certified by the Commissioner, or designated agent, on the request of any person. The person making such request shall pay the expense of making such copies in accordance with a fee schedule adopted by the Department.

1.3.2.3 ~~13.2.3~~

All records submitted to the Department pursuant to the requirements of the Controlled Industrial Waste Disposal Act and these Rules and Regulations shall be made available upon request to EPA by the Director. Provided that, those records claimed to be confidential which are obtained under regulations and authority separate and distinct from the State Program Requirements as set forth in 40 CFR Part 123, and which records are physically separate and distinct from documents obtained under said regulations and authority of 40 CFR 123, need not be made available to the EPA.

1.3.2.4 ~~13.2.4~~

Upon receipt of records considered by the submitter to be privileged or protected from publication by law, the Department shall honor such claim of confidentiality if and only if the following requirements are fulfilled and documents are included with said claim, to wit:

1.3.2.4.1 ~~13.2.4.1~~

Reserved.

1.3.2.4.2 ~~13.2.4.2~~

Each page which the submitter claims to contain confidential information is clearly marked as "confidential," "proprietary," "trade secret," or similar notation; and

1.3.2.4.3 ~~13.2.4.3~~

a notarized statement authorizing the Department to release

said confidential records to the Environmental Protection Agency and holding the Department harmless from liability therefor; and

1.3.2.4.4 ~~13.2.4.4~~

a cover letter addressed to the EPA asserting a claim of confidentiality pursuant to 40 CFR Part 2(B). This cover letter will be maintained by the Director in accordance with the provisions of Appendix C 1-A.

1.3.2.5 ~~13.2.5~~

When all documents required by Regulations ~~13.2.4~~ 1.3.2.4 et seq., are enclosed with an asserted claim of confidentiality, the Department will:

1.3.2.5.1 ~~13.2.5.1~~

Maintain such records as confidential and disclose such records only to the EPA unless otherwise ordered by a court of competent jurisdiction; and

1.3.2.5.2 ~~13.2.5.2~~

submit the Regulation ~~13.2.4.4~~ 1.3.2.4.4 cover letter on behalf of the submitter of the confidential information and the information claimed to be confidential to the EPA upon request for such information and notify the submitter as per Appendix C 1-A.

1.3.2.5.3 ~~13.2.5.3~~

Deem satisfied the requirements of these Rules and Regulations which required the information to the extent that the confidential information submitted fulfills said requirements.

1.3.2.6 ~~13.2.6~~

Upon receipt of information which seems to indicate that the submitter desires confidential handling but which is not in substantial compliance with Rules ~~13.2.4~~ 1.3.2.4 through ~~13.2.4.4,~~ 1.3.2.4.4 then the Department:

1.3.2.6.1 ~~13.2.6.1~~

Shall consider such information to be confidential except as to the EPA; and

1.3.2.6.2 ~~13.2.6.2~~

may return such information to the submitter or may otherwise communicate with the submitter to ascertain whether the submitter wishes to make the records freely available to the public or whether the submitter will expeditiously comply with Regulation ~~13.2.4~~ 1.3.2.4 et seq.; and

1.3.2.6.3 ~~13.2.6.3~~

in the event timely satisfaction is not obtained in accordance with Rule ~~13.2.6.2,~~ 1.3.2.6.2, may seek appropriate enforcement action against the submitting entity for failure to timely comply with the substantive regulation which required the information, if appropriate.

1.3.2.7 ~~13.2.7~~

If a claim covering the information is received after the information itself is received, the Department will make such efforts as are administratively practical to associate the late claim with copies of the previously-submitted information in Department files. However, the Department cannot assure that such efforts will be effective due to the possibility of prior disclosure. When the



Department determines that information submitted and claimed to be confidential is not required to be submitted by these Rules and Regulations, then such information shall be returned.

1.4.0 ~~17.0~~ SUPREMACY

1.4.1 ~~17.1~~ The Department assumes supremacy to enforce the intent of the National Underground Injection Control Rules and Regulations pursuant to the Safe Drinking Water Act, Title 42 USC 300F et seq., and to the Resource Conservation and Recovery Act, Title 42 USC 6901 et seq., specifically including those situations where state laws and rules and regulations may not be applicable to a particular entity within the State.

1.4.2 ~~17.1.1~~ The Board intends to amend these Rules to follow changes in RCRA and UIC Rules (40 CFR) within one year of promulgation by the EPA, as necessary.

1.4.3 ~~17.2~~ In the event that there are inconsistencies or duplications in the requirements of those provisions incorporated by reference from 40 CFR 260 et seq., and these regulations, the provisions incorporated by reference from 40 CFR 260 et seq., shall prevail except where these regulations are more stringent.

1.5.0 ~~18.0~~ EXCLUSIONS

1.5.1 ~~18.1~~ Disposal of municipal, construction/demolition, rock and dirt, dead animal, carrion, slaughter waste and cannery waste are not considered as controlled industrial waste as defined in Title 63 O.S. ~~Supp. 1978~~ 1981, Section 2752 1-2002. Such waste shall be regulated in accordance with the Oklahoma Solid Waste Management Act, Title 63 O.S. 1971, Section 2251 et seq., as amended.

## APPENDIX 1-A C

### Information Concerning Claims of Confidentiality to the

#### EPA Pursuant to Rule 1.3.2.4.4

For purposes of complying with Rule ~~13.2.4.4~~ 1.3.2.4.4 (i.e., the cover letter to confidential information to be addressed to the U. S. EPA), claimants of such confidentiality are hereby advised that the EPA considers that failure to include substantiation of a claim of confidentiality may constitute a WAIVER of that claim. While the cover letter required by Rule 13.2.4.4 need not be in any particular format (although it must be addressed to the U. S. EPA), the Department would suggest that confidentiality claimants become familiar with 5 USC Section 552, the Freedom of Information Act, 40 CFR Part 2, Public Information, and any pertinent guidelines published by the EPA (such as "Instructions for Filing Notification of Hazardous Waste Activity - EPA Form 8700-12").

For example, guidelines for EPA Form 8700-12 require that the claimant identify the portions of records claimed to be confidential and indicate the following:

- (a) the period of time the information is to be treated as confidential,
- (b) measures taken to guard against disclosure to others,
- (c) the extent to which disclosure has been made to others and the precautions taken thereto,
- (d) whether or not the EPA or any other federal agency made a pertinent confidentiality determination (and if so, to enclose a copy of that determination), and
- (e) whether disclosure will be likely to substantially harm the claimants competitive position (and if so, to describe the nature, relationship, and magnitude of the harm). Furthermore, 40 CFR 2.203(b) states that claimants must clearly identify the information with the terms "trade secret," "proprietary," or "company confidential," and must clearly assert such a claim.

For purposes of claims of confidentiality and the cover letter to be addressed to the U. S. EPA required by Rule ~~13.2.4.4~~ 1.3.2.4.4 of the Rules and Regulations, ALL READERS ARE HEREBY NOTIFIED THAT THE DEPARTMENT ONLY ASSUMES THE FOLLOWING DUTIES, TO WIT:

1. The Department will maintain said letter in Department files; and
2. If and when the EPA seeks access to information claimed to be confidential, the Department will release the information and the cover letter to EPA; and
3. The Department will mail written notice to the claimant that said information and letter claiming confidentiality were transmitted to EPA within five (5) working days of same.

THE DEPARTMENT EXPRESSLY DISCLAIMS AND DENIES ANY DUTIES, RESPONSIBILITIES OR OBLIGATIONS OTHER THAN AS STATED IN 1, 2, and 3, ABOVE.

SUBMITTERS OF RECORDS CLAIMED TO BE CONFIDENTIAL ARE ADVISED THAT IT IS THEIR RESPONSIBILITY, NOT THE DEPARTMENT'S RESPONSIBILITY, TO MONITOR AND/OR DEFEND SAID CLAIMS OF CONFIDENTIALITY WITH THE EPA.

THE DEPARTMENT EXPRESSLY DISCLAIMS AND DENIES RESPONSIBILITY OR LIABILITY FOR ANY DISCLOSURE BY THE EPA OF RECORDS CLAIMED BY THE SUBMITTER TO BE CONFIDENTIAL.

## CHAPTER 2

### IDENTIFICATION OF CONTROLLED INDUSTRIAL

#### WASTE - CHARACTERISTICS - WASTE LISTS

- 2.1 2.5 40 CFR Part 261, including Appendices I, II, III, VII, and VIII, as it exists or may be amended, Identification and Listing of Hazardous Waste, is incorporated herein by reference in its entirety.
- 2.2 2.6 The wastes listed in Appendix 2-A are examples of common industrial wastes which also are considered controlled industrial wastes, when produced in quantities in excess of 1000 kilograms per month, or accumulated in excess of 1000 kilograms, unless it can be demonstrated by the generator to the satisfaction of the Department that said wastes do not exceed the noted characteristic(s) in accordance with 40 CFR Part 261 and Appendix I thereto, except where these wastes may appear on the list of acutely toxic substances in 40 CFR 261.33(e).
- 2.3 2.7 If a waste contains any of the chemicals listed in Appendix 2-B the Department will utilize the criteria enumerated in 40 CFR 261.11(a)(3), Criteria for Listing Hazardous Waste, as it has been incorporated by reference, to determine whether or not that waste is also a controlled industrial waste.
- 2.4 2.8 Amendments to Appendices 2-A or 2-B may be based on consideration of the characteristics enumerated in Regulations ~~2.8.1~~ 2.4.1 or ~~2.8.2~~ 2.4.2 inclusive, as follows:
- 2.4.1 ~~2.8.1~~ A waste may be listed as a controlled industrial waste when it exhibits any one of the following characteristics of aquatic toxicity when produced in quantities in excess of 1000 kilograms per month or accumulated in excess of 1000 kilograms.
- 2.4.1.1 ~~2.8.1.1~~ An aquatic ninety-six (96) hour toxicity rating (TLm96) equal to or less than 100 milligrams per liter.
- 2.4.1.2 ~~2.8.1.2~~ The concentration of any of the constituents of the waste exceeds twenty (20) times the lowest published TLm concentration for that constituent or twenty (20) times the lowest value of a published TLm concentration range for that constituent.
- 2.4.1.3 ~~2.8.1.3~~ The sum of the concentration of each constituent divided by twenty (20) times that constituent's lowest published TLm96 concentration is equal to or greater than unity. That is, the waste stream is hazardous if:

$$\frac{C_1}{20 \times \text{TLM}96_1} + \frac{C_2}{20 \times \text{TLM}96_2} + \dots + \frac{C_n}{20 \times \text{TLM}96_n}$$

is greater than 1.0, where  $C_X$  = concentration of constituent X, and  $\text{TLM}96_X$  = the lowest published TLM96 concentration for constituent X.

2.4.2 2.8.2

Unless the Director concludes that the waste is not capable of posing a substantial present or potential hazard to human health or the environment in accordance with the criteria in 40 CFR 261.11(a)(3), a waste may be listed as a controlled industrial waste when it exhibits any one of the following properties as determined by controlled laboratory experiments involving a mammalian species or as published in a refereed professional journal or comprehensive reference volume such as, but not limited to, the Merck Index or the National Institute for Occupational Safety and Health Registry of Toxic Effects of Chemical Substances, to wit:

2.4.2.1 2.8.2.1

The waste or any of its constituents has been shown to accumulate in the tissues of any test species.

2.4.2.2 2.8.2.2

The waste or any of its constituents has been shown to cause cancer, ~~neoplastic effects~~, oncogenesis mutations, birth defects, or any deleterious genetic effect.

4.2.3 2.8.2.3

The waste has a mammalian Inhalation Toxicity  $LC_{50}$  equal to or less than 2 mg/l as dust or mist or 1000 mg/l as vapor.

2.4.2.4 2.8.2.4

The waste has a mammalian (rabbit preferred) Dermal Penetration Toxicity  $LD_{50}$  equal to or less than 1000 mg/kg body weight.

2.4.2.5 2.8.2.5

The waste has a mammalian oral  $LD_{50}$  equal to or less than 500 mg/kg body weight (rat preferred).

## APPENDIX 2-A

### COMMON INDUSTRIAL WASTES

The characteristics to be tested for the wastes are as follows: (E) E.P. Toxic, (C) Corrosive, (I) Ignitable, and (R) Reactive.

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Acid and water (C,E)	Pickling liquor (C,E)
Acid sludge (C,E)	Pigments (E)
AFU Floc (E)	Plating waste (E,C)
Alkaline caustic liquids (C)	Printing Ink (E,I)
Alkaline cleaner (C)	Retrograde explosives (R)
Alkaline corrosive battery fluid (C)	Sludge acid (C,E)
Alkaline corrosive liquids (C)	Soda ash (C)
Battery acid (C,E)	Solvents (I)
Boiler cleaning waste (E,C)	Spent acid (C,E)
Caustic sludge (C)	Spent plating solution (E)
Caustic wastewater (C)	Sulfonation oil (I)
Chemical cleaners (C,E)	Tank bottom sediment (E,I)
Cleaning solvents (I)	Tank cleaning sludges (E,I)
Corrosion inhibitor (E,C)	Tanning sludges (E)
Data processing fluid (I)	Toxic chemical toilet wastes (E)
Dyes (E)	Unrinsed pesticide containers (E)
Etching acid liquid or solvent (C,I,E)	Unwanted or waste pesticides -an unusable portion of active ingredient or undiluted formulation (E)
Fuel waste (E,I)	Waste chemicals (C,R,I,E)
Insecticides (E)	Waste epoxy (unreacted) (I)
Laboratory waste (C,R,I,E)	Waste (or slop) oil <u>not destined for recycling</u> (I,E)
Lime and sulfur sludge (C)	Weed killer (E)
Obsolete explosives (R)	
Paint (or varnish) remover or stripper (I,E)	
Paint waste (or slops) (I)(E)	

## APPENDIX 2-B A - 2

CHEMICAL LIST

The chemicals indicated in the list are as follows: (T) toxic, (C) corrosive or irritant, (F) flammable, (S) strong sensitizer and (P) pressure generating.

Acetaldehyde (F)	Amyl Trichlorosilane (T,C)
Acetic Acid, (glacial) (C)	beta-Amylene (cis or trans) (F)
Acetone (T,F)	Aniline oil (T,C)
Acetone cyanhydrin (T)	Anisoyl chloride (T,C)
Acetonitrile (T,F)	Anthracene (T)
2-Acetylaminofluorene (T)	Antimony (T)
Acetyl Benzoyl Peroxide (T,F,P)	Antimony compounds (T)
Acetyl chloride (T,C)	Antimony pentachloride (T,C)
Acetyl peroxide (P)	Antimony pentafluoride (T,C)
Acridine (C)	Antimony pentasulfide (T,F)
Acrolein Aqualin (T,F)	Antimony potassium tartrate (T)
Acrylonitrile (T)	Antimony sulfate (T)
Adiponitrile (T)	Antimony trichloride (T,C)
Aldrin (T)	Antimony trifluoride (T,C)
Alkyl aluminum chloride (F,P)	Antimony trioxide (T)
Alkyl aluminum compounds (F,P)	Antimony trisulfide (T,F,P)
Allyl alcohol (T)	Arsenic (T)
Allyl bromide (T,F)	Arsenic acid and salts (T)
Allyl chloride (T,F)	Arsenic bromide (T)
Allyl chlorocarbonate (T,C)	Arsenic chloride (T)
Allyl chloroformate (T,C)	Arsenic compounds (T)
Allyl trichlorosilane (T,C,F)	Arsenic iodide (T)
Aluminum chloride	Arsenic pentaselenide (T)
Aluminum powder (F)	Arsenic pentoxide (T)
Aluminum Fluoride (T)	Arsenic sulfide (T)
Aluminum nitrate (F)	Arsenic trioxide (T)
Aluminum phosphide, Phostoxin (T,F)	Arsenous acid and salts (T,C)
4-Aminodiphenyl (T)	Arsines (T)
2-Aminopyridine (T)	Asbestos (T) (friable)
Ammonium arsenate (T)	Azodrin (T)
Ammonium bichromate (T,F)	Barium (T)
Ammonium bifluoride (T,C)	Barium azide (T,F)
Ammonium chromate (T,F,P)	Barium bromide (T)
Ammonium fluoride (T,C)	Barium carbonate (T,C)
Ammonium hydroxide (C)	Barium chlorate (T,C,P)
Ammonium molybdate (T)	Barium chloride (T)
Ammonium nitrate (F,P)	Barium chromate (T)
Ammonium nitrate-carbonate mixtures (F,P)	Barium citrate (T)
Ammonium perchlorate (F,P)	Barium compounds soluble (T)
Ammonium permanganate (T,F,P)	Barium cyanide (T)
Ammonium persulfate (F,P)	Barium fluoride (T)
Ammonium picrate (P)	Barium fluorosilicate (T)
Ammonium sulfide (T,C)	Barium hydroxide (T)
Amyl acetate (T,F)	Barium iodide (T)
Amyl amine (and isomers) (T,F)	Barium manganate (T)
Amyl chloride (F)	Barium nitrate (T,F)
Amyl mercaptan (F)	Barium oxide (T,C)
Amyl nitrite (T,F)	Barium perchlorate (T,F,P)

Barium permanganate (T,F,P)  
 Barium peroxide (T,F,P)  
 Barium phosphate (T)  
 Barium stearate (T)  
 Barium sulfide (T)  
 Barium sulfite (T)  
 Benzene (T,F)  
 Benzene hexachloride (T)  
 Benzenephosphorous dichloride (T,C)  
 Benzenesulfonic acid (T,C)  
 Benzidine and salts (T)  
 Benzine (T)  
 Benzotrifluoride (T)  
 Benzoyl chloride (T,C)  
 Benzoyl peroxide (F,P)  
 Benzyl bromide (T,C)  
 Benzyl chloroformate (T,C)  
 Benzyl chloride (T,C)  
 Beryllium (T,F)  
 Beryllium chloride (T)  
 Beryllium compounds (T)  
 Beryllium copper (T)  
 Beryllium fluoride (T)  
 Beryllium hydride (T,F)  
 Beryllium hydroxide (T,C)  
 Beryllium oxide (T)  
 Bidrin (T)  
 Bismuth (T,F)  
 Bismuth chromate (T)  
 Bismuth compounds (T)  
 Black powder (F,P)  
 Bonyl (T)  
 Boranes (di-,penta-,trichloro-) (T,F)  
 Bordeaux arsenites (T)  
 Boron trichloride (T,C)  
 Boron trifluoride (T,C)  
 Bromic acid (T,C)  
 Bromine (T,C)  
 Bromine pentafluoride (T,P)  
 Bromine trifluoride (T,C,P)  
 Brucine (T)  
 1,2,4-Butanetriol trinitrate (P)  
 Butyl acetate (and isomers) (T,F)  
 Butyl alcohol (and isomers) (T,F)  
 Butyl amine (and isomers) (T)  
 Butyl formate (and isomers) (T,F)  
 Butyl lithium solutions (F,P)  
 Butyl mercaptan (T,F)  
 tert-Butyl hydroperoxide (F,P)  
 tert-Butyl peracetate (F,P)  
 tert-Butyl perbenzoate (F,P)  
 tert-Butyl peroxyphthalate (F,P)  
 Butyl trichlorosilane (C,F)  
 tert-Butyl toluene (T)  
 Butyraldehyde (and isomers) (T,F)  
 Cacodylic acid (T)  
 Cadmium (T)  
 Cadmium chloride (T)  
 Cadmium compounds (T)  
 Cadmium cyanide (T)  
 Cadmium fluoride (T)  
 Cadmium nitrate (T,F,P)  
 Cadmium oxide (T)  
 Cadmium phosphate (T)  
 Cadmium sulfate (T)  
 Calcium arsenate, Pensal (T)  
 Calcium arsenite (T)  
 Calcium carbide (F,P)  
 Calcium chlorate (F)  
 Calcium chlorite (F)  
 Calcium fluoride (T)  
 Calcium hydride (C,F,P)  
 Calcium hydroxide (C)  
 Calcium hypochlorite (T,C,F)  
 Calcium metal (F,P)  
 Calcium molybdate (T)  
 Calcium nitrate (F,P)  
 Calcium oxide (C)  
 Calcium permanganate (T,F)  
 Calcium peroxide (C,F)  
 Calcium phosphide (T,F)  
 Calcium resinate (F)  
 Caprylyl peroxide (F)  
 Carbanolate (T)  
 Carboic Acid, Phenol (T,C)  
 Carbon bisulfide (T,F)  
 Carbon tetrachloride (T)  
 Carbophenothion, Trithion (T)  
 Caustic potash (C)  
 Caustic soda (C)  
 Chloral hydrate (T)  
 Chlordane (T)  
 Chlordinitrobenzene (T,C)  
 Chlorferriumphos (T)  
 Chlorine (T,F)  
 Chlorine dioxide (T,F,P)  
 Chlorine pentafluoride (T,C,P)  
 Chlorine trifluoride (T,C,P)  
 Chloroacetaldehyde (T,F)  
 alpha-Chloroacetophenone (T)  
 Chloroacetyl chloride (T,C)  
 Chlorobenzene (T,F)  
 p-Chlorobenzoyl peroxide (F,P)  
 o-Chlorobenzylidene malonitrile, OCB (T)  
 Chloroform (T)  
 bis-Chloromethyl ether (T)  
 Chloropicrin (T)  
 Chloropicrin and methyl chloride mixture (T)  
 Chlorosulfonic acid (T,C)  
 Chlorosulfonic acid-sulfur trioxide mixture (T,C)  
 Chloro-o-toluidine hydrochloride (T)



Chromic acid chromium trioxide (T,F)  
 Chromic anhydride (T,C,F)  
 Chromic chloride (T,S)  
 Chromic fluoride (T,C)  
 Chromic hydroxide (T,C)  
 Chromic oxide (T,S)  
 Chromic sulfate (T,S)  
 Chromium (VI) salts (solid) (T,C,F)  
 Chromium (VI) salts (solution) (T,C)  
 Chromyl chloride (T,C)  
 Cobalt bromide (T)  
 Cobalt chloride (T)  
 Cobalt compounds (T)  
 Cobalt nitrate (T,F)  
 Cobalt powder (T,F)  
 Cobalt resinate (F)  
 Cobalt sulfate (T)  
 Cocculus (T)  
 Collodion (F)  
 Compound 4072 (T)  
 Copper compounds (T)  
 Copper acetoarsenite, Paris green (T)  
 Copper acetylde (P)  
 Copper arsenate (T)  
 Copper arsenite (T)  
 Copper chloride (T)  
 Copper chlorotetrazole (P)  
 Copper cyanide (T)  
 Copper nitrate (T,F,P)  
 Copper sulfate (T)  
 Coroxon (T)  
 Cotrifuryl, Fumarin (T)  
 Crotetralyl, Bayer 25634, Racumin 57 (T)  
 Crimidine, Castrix (T)  
 Crotonaldehyde (T,F)  
 Cumene (T)  
 Cumene hydroperoxide (F,P)  
 Cupriethylene diamine (T,C)  
 Cyanide salts (T)  
 Cyanoacetic acid (T,C)  
 Cyanogen (T)  
 Cyanogen bromide (T)  
 Cyanuric triazide (P)  
 Cycloheptane (T,F)  
 Cyclohexane (T,F)  
 Cyclohexane (methyl) (T,F)  
 Cyclohexanone peroxide (F)  
 Cyclohexenyl trichlorosilane (C)  
 Cycloheximide, Actidione (T)  
 Cyclohexyl trichlorosilane (C)  
 Cyclopentane (T,F)  
 Cyclopentane (methyl) (T,F)  
 DDT (T)  
 DDVP, Dichlorvos, Vapona (T)  
 Decaborane (T,F)  
 Decalin (T)  
 Demeton-s-methylsulfone (T)  
 Demeton, Systox (T)  
 Dizaodinitrophenol (P)  
 Dibroane (T,F)  
 Dibutyl ether (T,F)  
 Dichloroethylene (T,F)  
 2,4,-Dichlorophenoxyacetic acid (2,4-D) (T,C)  
 o-Dichlorobenzene (T,C)  
 p-Dichlorobenzene (T,C)  
 3,3-Dichlorobenzidine (T)  
 Dichloroethyl ether (T)  
 Dichloroisocyanuric acid, (dry, containing more than 39 percent available chlorine) (T,F)  
 Dichloromethane (T)  
 1,2-Dichloropropane (F)  
 1,3-Dichloropropene (T)  
 Dicumyl peroxide (F)  
 Dieldrin (T)  
 2-(Diethoxyphosphinylimino)-1,3-dithiolane(T)  
 Diethylaluminum chloride (F,P)  
 Diethylamine (T,C,F)  
 Diethyl chlorovinyl phosphate (T)  
 Diethyldichlorosilane (T,C,F)  
 Diethylene glycol dinitrate (P)  
 Diethyl isopropylthiomethyl dithiophosphate(T)  
 Diethyl methylcoumarinyl phosphorothioate (T)  
 Diethylzinc (F,P)  
 Difluorophosphoric acid (T,F)  
 Diglycidyl ether (T)  
 Diisopropylbenzene hydroperoxide (T,F)  
 Diisopropyl peroxydicarbonate (F,P)  
 Dimefox, Hanane, Pextox 14 (T)  
 Dimethylamine (T,C,F)  
 Dimethylaminoazobenzene (T)  
 Dimethyldichlorosilane (T,C,F)  
 Dimethylhexane dihydroperoxide (F)  
 1,1-Dimethylhydrazine (T,F)  
 Dimethyl sulfate (T)  
 Dimethyl sulfide (T)  
 Dinoseb (T)  
 2,4-Dinitroaniline (T)  
 Dinitrobenzene (T,C,P)  
 Dinitrochlorobenzene (T)  
 Dinitrocresol, Sinox, Egetol 30 (T)  
 Dinitrophenol (T,P)  
 2,4-Dinitrophenyl hydrazine (P)  
 Dinitrotoluene (T)  
 Dioxane (T,F)  
 Dioxathion, Delnay (T)  
 Dipentaerythritol hexanitrate (P)  
 Diphenyl (T)  
 Diphenylamine (T)  
 Diphenylamine chloroarsine (T)  
 Diphenyldichlorosilane (T,C)  
 Dipicrylamine (P)  
 Dipropyl ether (T,F)

Disulfoton, Disyston (T)  
 Dodecyltrichlorosilane (T,C)  
 Dowco 139, Zetran (T)  
 Dowicide 7, PCP, Penchloro (T)  
 Dyfonate, Ethylphenylethyl phosphonodithioate(T)  
 Endosulfan, Thiodan (T)  
 Endothall, 3,6-Endoxohexahydrophthalate (T)  
 Endothion (T)  
 Endrin (T)  
 Epichlorohydrin (T)  
 EPN (T)  
 Epoxy resin systems containing in any concentration ethylenediamine, diethylenetriamine, Hexafluorophosphoric acid (T,C) and diglycidyl ethers having a molecular weight of less than 200 (S).  
 Ether (F)  
 Ethion, Nialate (T)  
 Ethyl acetate (T,F)  
 Ethyl alcohol (T,F)  
 Ethyl amine (T,F)  
 Ethyl benzene (T,F)  
 Ethyl butyrate (T,F)  
 Ethyl chloride (T,C,F)  
 Ethyl chloroformate (T,C,F)  
 Ethyl ether (F)  
 Ethyl formate (T,C)  
 Ethyl mercaptan (T,F)  
 Ethyl nitrate (F)  
 Ethyl nitrite (F)  
 Ethyl propionate (T,F)  
 Ethylamine (F)  
 Ethyldichloroarsine (T)  
 Ethyldichlorosilane (T,C,F)  
 Ethylene bromide (T)  
 Ethylene cyanohydrin (T)  
 Ethylene dichloride (T,C,F)  
 Ethylene oxide (T,F)  
 Ethyleneimine (T)  
 Ethylphenyldichlorosilane (T,C)  
 Ethyltrichlorosilane (T)  
 Fensulfothion, Bayer 25141 (T)  
 Ferric arsenate (T)  
 Ferrous arsenate (T)  
 Fluoboric acid (T,C)  
 Fluoride salts (T)  
 Fluorine (T,F)  
 Fluoroacetanilide, AFL 1082 (T)  
 Fluoroacetic acid, (Sodium salt), Compound 1080(T)  
 Fluorosulfonic acid (T,C)  
 Formaldehyde (T,S)  
 Formic Acid (T,C)  
 Fulminate of mercury (P)  
 Furadan, NIA/IO, 242 (T)  
 Furan (F)  
 Gasoline (F)  
 GBI (T)  
 Glutaraldehyde (S)  
 Glycerolmonolactate trinitrate (P)  
 Glycol Dinitrate (P)  
 Gold fulminate (P)  
 Guanidine nitrate (F,P)  
 Guanyl nitrosaminoguanilydine hydrazine  
 Guthion (T)  
 Hafnium metal (F)  
 Heptachlor (T)  
 Heptane (and isomers) (T,F)  
 Heptene (and isomers) (T,F)  
 Hexadecyltrichlorosilane (T,C)  
 Hexaethyl tetraphosphate (T)  
 Hexamethylenediamine (T,C)  
 Hexane (and isomers) (T,F)  
 Hexene (and isomers) (T,F)  
 Hexylamine (and isomers) (T,F)  
 Hexyltrichlorosilane (T,C)  
 Hydrazine (T,C,F)  
 Hydrazine azide (P)  
 Hydrazoic acid (P)  
 Hydriodic acid (T,C)  
 Hydrobromic acid (T,C)  
 Hydrochloric acid (T,C)  
 Hydrocyanic acid, Hydrogen cyanide (T)  
 Hydrofluoric acid, Hydrogen fluoride (T,C)  
 Hydrofluorosilicic acid (T,C)  
 Hydrogen peroxide (T,C,P)  
 Hydrogen peroxide (greater than 90%) (T,C,P)  
 Hydrogen selenide (T)  
 Hydrogen sulfide (T,F)  
 Hypochlorite solutions (T,C)  
 Indium (T)  
 Indium compounds (T)  
 Iodine monochloride (T,C)  
 Iron (III) chloride, Ferric chloride (T,C)  
 Isooctane (T,F)  
 Isooctene (T,F)  
 Isopentane (T,F)  
 Isoprene (T,F)  
 Isopropanol (T,F)  
 Isopropyl acetate (T,F)  
 Isopropyl acetylene (T,F)  
 Isopropyl chloride (T,F)  
 Isopropyl ether (T,C,F)  
 Isopropyl mercaptan (T,C,F)  
 Isopropyl percarbonate (C,F)  
 Isopropylamine  
 m-Isopropylphenyl-n-methylcarbamate, AC 5,727 (T)  
 Lauroyl peroxide (T,C,F,P)  
 Lead compounds  
 Lead acetate  
 Lead arsenate  
 Lead arsenite (T)  
 Lead azide (P)  
 Lead carbonate (T)

Lead chlorite (P)  
 Lead cyanide (T)  
 Lead 2,4-dinitroresorcinate (P)  
 Lead mononitroresorcinate (P)  
     d nitrate (T,P)  
 Lead oxide (T)  
 Lead styphnate (P)  
 Lewisite (T)  
 Lithium aluminum hydride (F,P)  
 Lithium amide (F,P)  
 Lithium ferrosilicon (F)  
 Lithium hydride (F,P)  
 Lithium hypochlorite compounds (T,C,F)  
 Lithium metal (F,P)  
 Lithium peroxide (F,P)  
 Lithium silicon (F)  
 London purple (T)  
 Magnesium arsenate (T)  
 Magnesium arsenite (T)  
 Magnesium chlorate (F)  
 Magnesium metal (F)  
 Magnesium nitrate (F,P)  
 Magnesium perchlorate (F,P)  
 Magnesium peroxide (F)  
 Maleic anhydride (T)  
 Manganese acetate (T)  
 Manganese arsenate (T)  
 Manganese bromide (T,C)  
 Manganese chloride (T,C)  
 Manganese methylcyclopentadienyl-tricarbonyl (T)  
     ganesium nitrate (T,F)  
 Manganese powder (T,F)  
 Mannitol hexanitrate (P)  
 Medinoterb acetate (T)  
 Menthyltetrahydrophthalic anhydride (T,C)  
 Mercarbam (T)  
 Mercuric acetate (T)  
 Mercuric ammonium chloride (T)  
 Mercuric benzoate (T)  
 Mercuric bromide (T)  
 Mercuric chloride (T)  
 Mercuric cyanide (T)  
 Mercuric iodide (T)  
 Mercuric nitrate (T,F)  
 Mercuric oleate (T)  
 Mercuric oxide, (red) (T)  
 Mercuric oxide, (yellow) (T)  
 Mercuric oxycyanide (T)  
 Mercuric potassium iodide (T)  
 Mercuric salicylate (T)  
 Mercuric subsulfate (T)  
 Mercuric sulfate (T)  
 Mercuric thiocyanate (T)  
 Mercuriol, Mercury nucleate (T)  
 Mercurous bromide (T)  
 Mercurous gluconate (T)  
 Mercurous iodide (T)  
 Mercurous nitrate (T)  
 Mercurous oxide (black) (T)  
 Mercurous sulfate (T)  
 Mercury acetate (T)  
 Mercury bisulfate (T)  
 Mercury compounds (T)  
 Mercury cyanide (T)  
 Mercury metal (T)  
 Metal carbonyls (T)  
 Metal hydrides (F,P)  
 Metal powders (T,F)  
 Methomyl, Lannate (T)  
 Methoxyethylmercuric chloride, Agallol, Aretan (T)  
 Methyl acetate (T,F)  
 Methyl acetone (T,F)  
 Methyl alcohol (T,F)  
 Methylaluminum sesquibromide (F)  
 Methyl aluminum sesquichloride (F)  
 Methyl amine (T,F)  
 n-Methylaniline (T)  
 Methyl bromide (T)  
 Methyl bromide and chlorpicrin mixture (T)  
 Methyl bromide and ethylene dibromide mixture (T)  
 2-Methyl-1-butene (F)  
 3-Methyl-1-butene (F)  
 Methyl butyl ether (and isomers) (T,F)  
 Methyl butyrate (and isomers) (T,F)  
 Methyl chloride (F)  
 Methyl chloroformate (T,C)  
 Methyl chloromethyl ether (T,F)  
 Methyl dichloroarsine (T)  
 Methyl dichlorosilane (T,C,F)  
 Methyl ethyl ether (T,F)  
 Methyl ethyl ketone (T,F)  
 Methyl ethyl ketone peroxide (F,P)  
 Methyl formate (T,F)  
 Methyl hydrazine (T,F)  
 Methyl isocyanate (T)  
 Methyl iso-propenyl ketone (F)  
 Methyl mercaptan (T,F)  
 Methyl methacrylate monomer (T,F)  
 Methyl parathion (T)  
 Methyl propionate (T,F)  
 Methyl trichlorosilane (T,C,F)  
 Methyl valerate (and isomers) (T,F)  
 Methyl vinyl ketone (C,F)  
 4,4'-Methylene bis (2-Chloroaniline), Moca (T)  
 Methylmagnesium bromide (F)  
 Methylmagnesium chloride (F)  
 Methylmagnesium iodide (F)  
 bis-(Methylmercuric)-sulfate, Cerewet, Ceresan liquid (T)  
 Mevinphos, Phosdrin (T)  
 Mocap, o-Ethyl 5,5 dipropyl phosphorodithioate (T)

Molybdenum trioxide (T)  
 Molybdic acid and salts (T)  
 Monochloroacetone (T)  
 Monochloroacetic acid (T,C)  
 Molybdenum powder (F)  
 Monoethylamine (T,C,F)  
 Monofluorophosphoric acid (T,C)  
 Monomethyl hydrazine (T,F)  
 Naphtha (T,F)  
 Naphthalene (T,C,S)  
 alpha-Naphthylamine (T)  
 beta-Naphthylamine (T)  
 Neohexane (F)  
 Nickel acetate (T)  
 Nickel antimonide (T)  
 Nickel arsenide (T)  
 Nickel carbonyl (T)  
 Nickel chloride (T)  
 Nickel cyanide (T)  
 Nickel nitrate (T,P)  
 Nickel powder (T,F)  
 Nickel selenide (T)  
 Nickel sulfate (T)  
 Nicotine (T)  
 Nicotine hydrochloride (T)  
 Nicotine salicylate (T)  
 Nicotine sulfate (T)  
 Nicotine tartrate (T)  
 Nitric Acid (T,C)  
 Nitro carbo nitrate (F,P)  
 Nitroaniline (T)  
 Nitrobenzol, Nitrobenzene (T)  
 Nitrocellulose (F)  
 Nitrochlorobenzene (T)  
 Nitrogen mustard (T,C)  
 Nitrogen tetroxide, Nitrogen dioxide (T,P)  
 Nitroglycerin (P)  
 Nitrohydrochloric acid (T,C)  
 Nitromannite (P)  
 4-Nitrophenol (T,C)  
 N-Nitrosodimethylamine (T)  
 Nitrosoguanidine (P)  
 Nitrostarch (F)  
 Nitroxylol, Nitroxylene (T)  
 Nonene (and isomers) (T,F)  
 Nonyltrichlorosilane (T,C)  
 Octadecyltrichlorosilane (T,C)  
 Octane (and isomers) (T,F)  
 Octene (and isomers) (T,F)  
 Octyltrichlorosilane (T,C)  
 Oil of bergamot (S)  
 Oils (of petroleum origin) (T,F)  
 Oleum (T,C)  
 Osmium compounds (T,C)  
 Oxalic acid (T,C)  
 Oxygen difluoride (T,P)  
 Paramethane hydroperoxide (F)  
 Paraxon, Mintacol, Diethyl-p-nitrophenyl phosphate (T)  
 Parathion (T)  
 Pentaborane (T,C,F)  
 Pentachlorophenol (T)  
 Pentaerythrite tetranitrate (P)  
 Pentane (and isomers) (T,F)  
 Pentane (methyl) (and isomers) (T,F)  
 Pentanone (and isomers) (T,F)  
 Pentene (and isomers) (T,F)  
 Peracetic acid (T,C,F)  
 Perchloric acid (T,C,F)  
 Perchloroethylene (T)  
 Perchloromethyl mercaptan (T)  
 Perchloryl fluoride (T)  
 Permanganate of potash (T,C,F)  
 Permanganate of soda (T,F,C)  
 Petroleum ether (F)  
 Phenol (T,C)  
 Phenyl trichlorosilane (T,C)  
 Phenyldichloroarsine (T)  
 Phenylenediamine (ortho, meta, and Para) (C,S)  
 Phenylhydrazine hydrochloride (T)  
 Phenylphenol, Orthozenol, Dovicide I (T)  
 Phorate, Thimet (T)  
 Phosgene (T)  
 Phosphamidon, Dimecron (T)  
 Phosphine (T)  
 Phosphoric acid (C)  
 Phosphoric anhydride (C,F)  
 Phosphorus (amorphous, red) (F,P)  
 Phosphorus (white or yellow) (T,F,P)  
 Phosphorus oxybromide (T,C)  
 Phosphorus oxychloride (T,C)  
 Phosphorus pentachloride (C,P)  
 Phosphorus pentasulfide (T,C,F)  
 Phosphorus sesquisulfide (T,C,F)  
 Phosphorus tribromide (T,C,P)  
 Phosphorus trichloride (T,C,P)  
 Picramide (P)  
 Picric acid (P)  
 Picryl chloride (P)  
 Platinum compounds (T)  
 Polychlorinated biphenyls, PCB (T)  
 Polyvinyl nitrate (P)  
 Potassium arsenate (T)  
 Potassium arsenite (T)  
 Potassium bifluoride (T,C)  
 Potassium binoxalate (T)  
 Potassium bromate (F)  
 Potassium cyanide (T)  
 Potassium dichloroisocyanurate (T,F)  
 Potassium dichromate (T,C,F)  
 Potassium dinitrobenzofuroxan (P)  
 Potassium fluoride (T)  
 Potassium hydride (C,F,P)  
 Potassium metal (C,F,P)

Potassium nitrate (F,P)  
 Potassium nitrite (F,P)  
 Potassium oxalate (T,C)  
 Potassium perchlorate (F,P)  
 Potassium permanganate (T,C,F)  
 Potassium peroxide (F,P)  
 Potassium sulfide (T,F,P)  
 Powdered orris root (S)  
 Propargyl bromide (T)  
 beta-Propiolactone (T)  
 Propionaldehyde (T,F)  
 Propionic acid (T,C)  
 Propyl acetate (T,F)  
 Propyl alcohol (T,F)  
 Propyl amine (and isomers) (T,F)  
 Propylene oxide (F)  
 Propyleneimine (T,F)  
 Propyl formate (T,F)  
 Propyl mercaptan  
 Propyltrichlorosilane (T,C,F)  
 Prothoate, Fostion, FAC, Trimethoate (T)  
 Pyridine (T,F)  
 Pyrusulfuryl chloride (T,C,P)  
 Pyroxylin plastics (F)  
 Quinone (T)  
 Raney nickel (F)  
 Selenium (T)  
 Selenium fluoride (T)  
 Selenous acid and salts (T)  
 Shradan, OMPA (T)  
 Silicon tetrachloride (T,C)  
 Silver acetylide (P)  
 Silver azide (P)  
 Silver compounds (T,C)  
 Silver nitrate (T)  
 Silver sytphrate (P)  
 Silver tetrazene (P)  
 Sodium aluminate (T,C)  
 Sodium aluminum hydride (C,F,P)  
 Sodium amide (C,F,P)  
 Sodium arsenate (T)  
 Sodium arsenite (T)  
 Sodium azide (T)  
 Sodium bifluoride (C)  
 Sodium bromate (T,F)  
 Sodium cacodylate (T)  
 Sodium carbonate peroxide (F)  
 Sodium chlorate (F,P)  
 Sodium chlorite (F,P)  
 Sodium chromate (T,C)  
 Sodium cyanide (T)  
 Sodium dichloroisocyanurate (T,F)  
 Sodium dichromate (T,C)  
 Sodium fluoride (T)  
 Sodium hydride (C,F,P)  
 Sodium hydrosulfite (F)  
 Sodium metal (C,F,P)  
 Sodium methylate (F,C)  
 Sodium molybdate (T)  
 Sodium nitrate (F)  
 Sodium nitrite (F)  
 Sodium oxide (C)  
 Sodium perchlorate (F,P)  
 Sodium permanganate (T,C,F)  
 Sodium peroxide (F,P)  
 Sodium picramate (T,F,P)  
 Sodium potassium alloys, NAK (C,F,P)  
 Sodium selenate (T)  
 Sodium sulfide (C,F)  
 Sodium thiocyanate (T)  
 Stannic chloride (T,C)  
 Strontium arsenate (T)  
 Strontium peroxide (F,P)  
 Strontium nitrate (F,P)  
 Strontium peroxide (F,P)  
 Strychnine and salts (T)  
 Styrene (T)  
 Succinic acid peroxide (C,F)  
 Sulfide salts (soluble) (T,C)  
 Sulfotep, Dithione, Bladafun, Tetramethyl dithiopyrophosphate (T)  
 Sulfur chloride (T,C)  
 Sulfur pentafluoride (T,C)  
 Sulfur trioxide (T,C)  
 Sulfur mustard (T,C)  
 Sulfuric acid (T,C)  
 Sulfurous acid (T,C)  
 Sulfuryl chloride (T,C)  
 Sulfuryl fluoride (T,C)  
 Supracide, Ustracide Giegy (T)  
 Surecide (T)  
 Tellurium hexafluoride (T,C)  
 Telodrin, Octachloro-tetrahydro-methanophthalar (T)  
 Temik (T)  
 tert-butylisopropyl benzene hydroperoxide (F)  
 2,3,78-Tetrachlorodibenzo-p-dioxin, TCDD, Dioxin (T)  
 Tetrachloroethane (T)  
 Tetraethyl dithiopyrophosphate (T)  
 Tetraethyl lead and other organic lead (T)  
 Tetraethyl pyrophosphate, TEPP (T)  
 Tetrahydrofuran (T,F)  
 Tetralin (T)  
 Tetramethyl lead (T)  
 Tetramethyl succinonitrile (T)  
 Tetranitromethane (T)  
 Tetrasul, Animert (T)  
 Tetrazene (P)  
 Thallium (T)  
 Thallium compounds (T)  
 Thallous sulfate (T)  
 Thiocarbonyl-chloride (T,C)  
 Thionazin, Zinophos (T)  
 Thionyl chloride (T,C)  
 Thiophosgene (T)

Thiophosphoryl chloride (T,C)  
 Thorium powder (F)  
 Tin compounds (organic) (T)  
 Tin tetrachloride (anhydrous) (T,C)  
 Titanium powder (F)  
 Titanium sulfate (T,C)  
 Titanium tetrachloride (T,C)  
 Toluene (T,F)  
 Toluene-2,4-diisocyanate, TDI (T,S,P)  
 o-Toluidine (T)  
 Tranid (T)  
 Trichloroborane (T,F)  
 Trichloroethane (T)  
 Trichloroethylene (T)  
 Trichloroisocyanuric acid (dry, containing more  
 than 39% available chlorine) (T,F)  
 2,4,5-Trichlorophenoxyacetic Acid (2,4,5-T) (T)  
 Trichlorosilane (F)  
 Trimethylamine (C,F)  
 Trinitroanisole (P)  
 Trinitrobenzene (P)  
 Trinitrobenzoic acid (P)  
 Trinitronaphthalene (P)  
 Trinitroresorcinol (P)  
 Trinitrotoluene, TNT (T,P)  
 Tris (1-aziridinyl) phosphine oxide (T,C)  
 Tungstic acid and salts (T)  
 Turpentine (T)  
 Uranyl nitrate (T,F,P)  
 Urea nitrate (P)  
 Valeraldehyde (and isomers) (T,F)  
 Vanadic acid and salts (T)  
 Vanadium oxytrichloride (T,C)  
 Vanadium pentoxide (T,C)  
 Vanadium tetrachloride (T,C)  
 Vanadium tetraoxide (T,C)  
 Vanadium trioxide (T,C)  
 Vanadous acid and salts (T)  
 Vanadyl sulfate (T,C)  
 Vinyl acetate (F)  
 Vinyl chloride (T,P)  
 Vinyl ethyl ether (F)  
 Vinyl isopropyl ether (F)  
 Vinyl trichlorosilane (F,T)  
 Vinylidene Chloride (F)  
 VX (T)  
 Wepsyn 155, WP 155, Wepsin (T)  
 Xylene (ortho, meta, para) (T,F)  
 Zinc ammonium nitrate (F)  
 Zinc arsenate (T)  
 Zinc arsenite (T)  
 Zinc chlorate (F,F)  
 Zinc chloride (C)  
 Zinc compounds (T)  
 Zinc cyanide (T)  
 Zinc nitrate (F,P)  
 Zinc permanganate (F)  
 Zinc peroxide (F,P)  
 Zinc phosphide (T)

Zinc powder (F)  
 Zinc sulfate (T)  
 Zirconium chloride (T)  
 Zirconium metal (F)  
 Zirconium picramate (F)

APPENDIX B 2C

DECISION MODEL FOR IDENTIFYING CONTROLLED INDUSTRIAL WASTE

Waste, water soluble portion of the waste, and products of the reaction of the waste under conditions representative of routine waste management processes.

RULE	CRITERIA OR CHARACTERISTIC	Exclusion Limit	Controlled Ind. Waste ?
<del>2-5</del> <u>2.1</u>	Is waste listed in 40 CFR 261.31 or 261.32 ?	1000 kg.	YES-listed waste
<del>2-5</del> <u>2.1</u>	Is waste listed in 40 CFR 261.33(e)?	1.0 kg.	YES-acutely toxic
<del>2-5</del> <u>2.1</u>	Is waste a container of more than 20 liters capacity, as identified in 40 CFR 261.33(c) ?	stated	YES-acutely toxic
<del>2-5</del> <u>2.1</u>	Does waste consist of inner liners from containers, as identified in 40 CFR 261.33(c) ?	10 kg.	YES-acutely toxic
<del>2-5</del> <u>2.1</u>	Does waste consist of soil, water, or other debris contaminated with any of the chemicals listed in 40 CFR 261.33(e) ?	100 kg.	YES-acutely toxic
<del>2-6</del> <u>2.2</u>	Is waste listed in Appendix A-1 <u>2-A</u> of these Rules ?	1000 kg.	YES-listed waste
<del>2-5, 2-7</del> <u>2.1, 2.2</u>	Does the waste contain any of the constituents listed in 40 CFR 261, Appendix VIII, or Appendix A-2 <u>2-B</u> of these Rules, such that the Commissioner has declared it to be a controlled industrial waste ?	varies	YES-listed waste
<del>2-5</del> <u>2.1</u>	Is waste ignitable as per 40 CFR 261.21 ?	1000 kg.	YES-ignitable
<del>2-5</del> <u>2.1</u>	Is waste corrosive as per 40 CFR 261.22 ?	1000 kg.	YES-corrosive
<del>2-5</del> <u>2.1</u>	Is waste reactive as per 40 CFR 261.23 ?	1000 kg.	YES-reactive
<del>2-5</del> <u>2.1</u>	Does waste exhibit the EP Toxicity characteristics as per 40 CFR 261.24, Table 1 ?	1000 kg.	YES-toxic

### CHAPTER 3

9.0

#### REQUIREMENTS FOR

#### GENERATORS / PRODUCERS OF CONTROLLED INDUSTRIAL WASTE

- 3.1 2-10 The requirements of 40 CFR 262.51, Farmer exclusion, are herein incorporated by reference.
- 3.2 9-1 All persons generating controlled industrial waste within Oklahoma shall file a plan for disposal with the Department for approval, on forms provided by the Department.
- 3.3 9-2 All out-of-state persons generating controlled industrial waste which is transported into Oklahoma shall file a plan for disposal with the Department for approval, on forms provided by the Department.
- 3.4 9-3 Each plan shall indicate the following:
- 3.4.1 9-3-1 The amount of waste generated.
- 3.4.2 9-3-2 The types of materials making up the wastes, including but not limited to, the separate chemicals or groups of materials.
- 3.4.3 9-3-3 The percentage of liquids divided into water and others.
- 3.4.4 9-3-4 Type, volume, and duration of storage facilities. All storage shall be conducted in compliance with applicable portions of these Regulation Regulations. 10-0
- 3.4.5 9-3-5 The treatment and disposal methods proposed, including any pre-treatment.
- 3.4.6 9-3-6 The ~~disposal site(s) or~~ facility(ies) proposed to be used.
- 3.4.7 9-3-7 The controlled industrial waste haulers used.
- 3.5 9-4 The Department will assign each plan a number upon approval. This plan number shall be entered on each copy of the shipping manifest.
- 3.6 9-5 The generator shall update the plan as needed and shall notify the Department ~~immediately~~ within five (5) working days of any proposed changes in said plan. Such changes shall not be implemented until such time as approval is received from the Department.
- 3.7 9-6 The generator/~~producer~~ shall submit quarterly reports to the Department in accordance with the Oklahoma Controlled Industrial Waste Disposal Act.
- 3.8 9-7 Where deemed necessary by the Department, the generator shall notify



the Department, local health departments, and such other concerned officials, of shipments of controlled industrial waste which enter or cross such officials' jurisdictional area.

- 3.9 ~~9.8~~ The generator shall fully and properly complete and sign the manifest prior to transport and shall retain one (1) copy with the handwritten signature of and date of acceptance by the initial hauler.
- 3.10 ~~9.9~~ A generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated disposal site or facility within thirty-five (35) days of the date the waste was accepted by the initial hauler shall contact the hauler and/or the owner/operator of the designated disposal site or facility to determine the status of the waste.
- 3.10.1 ~~9.9.1~~ A generator must submit a report to the Department if he has not received a signed copy of the manifest with the handwritten signature of the owner/operator of the designated disposal site or facility within forty-five (45) days of the date the waste was accepted by the initial hauler.
- 3.10.2 ~~9.9.2~~ Said report (Rule ~~9.9.1~~ 3.10.1) shall include a legible copy of the manifest for which the generator does not have confirmation of delivery, as well as a letter describing the results of the tracking efforts.
- 3.10.3 ~~9.9.3~~ If the waste were designated for transport outside Oklahoma, then said report (Rule ~~9.9.2~~ 3.10.2) shall also be sent to EPA Region VI and to the state in which the shipment may have been delivered.
- 3.11 ~~9.10~~ Any person who exports controlled industrial waste to or imports controlled industrial waste from a foreign country shall comply with 40 CFR 262.50, the requirements of which are incorporated herein by reference.
- 3.12 ~~9.11~~ The quarterly reports required of controlled industrial waste generators by 63 O.S. ~~Supp. 1980~~ 1981, Section ~~2754(9)~~ 1-2004.7, shall contain at a minimum the information required by 40 CFR 262.41, the provisions of which are hereby incorporated by reference. Quarterly reports shall be submitted no later than thirty (30) days after the close of each calendar quarter ~~and shall reference both Department assigned disposal plan numbers and EPA Identification Numbers.~~
- 3.13 ~~9.12~~ All controlled industrial waste generators shall comply with the requirements of 40 CFR 262.11, the provisions of which are hereby incorporated by reference, and shall further comply with the provisions of 40 CFR 262.12.
- 3.14 ~~10.3.5~~ The controlled industrial waste generator shall know the sites or locations of all storage of his wastes, except for pre-disposal storage, and shall report same to the Department when filing a disposal plan.
- ~~10.4.1~~ All on-site storage shall be subject to the requirements of Regulation

~~2.5.1~~ (40 CFR 261.5 as amended), Regulations 3.5 through 3.9, inclusive, all applicable portions of this Regulation (10.0), and Regulation ~~10.4.1.1~~

3.15 ~~10.4.1.1~~

A generator may accumulate controlled industrial waste on-site for ninety (90) days or less without a permit or without interim status, provided that:

- (a) The waste is placed in containers which meet the standards of 40 CFR 262.30, which is hereby incorporated by reference, and are managed in accordance with 40 CFR 265.174 and 265.176 or in tanks, provided the generator complies with the requirements of Subpart J of 40 CFR Part 265 except Subsection 265.193; and
- (b) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container; and
- (c) Each container is properly labeled and marked according to 40 CFR 262.31 and 262.32, which are hereby incorporated by reference; and
- (d) The generator complies with the requirements for owners or operators in Subparts C and D in 40 CFR Part 265 and with Subsection 265.16.

3.16 ~~10.4.2~~

Information regarding on-site storage shall be submitted to the Department for approval prior to construction, as an integral part of the generator's disposal plan.

3.17 ~~10.4.3~~

On-site storage by the generator for periods in excess of ninety (90) days shall not be allowed unless the generator meets the requirements of 40 CFR Part 264 or 265, as applicable, as ~~it~~ they have been incorporated by reference.

## CHAPTER 4

11.0

### REQUIREMENTS FOR THE TRANSPORTATION OF CONTROLLED INDUSTRIAL WASTE

- 4.1 11.1 Each person who owns or leases one or more vehicles which engage in the transportation of controlled industrial waste shall be required to register for transportation on forms available from the Department. Persons who transport controlled industrial waste only within the confines of a generator's plant site, or within the boundaries of a disposal site or processing facility, shall not be required to register so long as no movement occurs along a public right-of-way.
- 4.1.1 11.1.1 Persons transporting controlled industrial waste in bulk carriers shall include on the registration form adequate descriptions and capacities of each individual bulk carrier.
- 4.1.2 11.1.2 Totally contained portable containers, such as steel drums, which are used to transport controlled industrial waste, shall be closed and sealed to prevent any escape of controlled industrial waste during normal handling and transportation.
- 4.1.3 11.1.3 Registration to transport controlled industrial waste, issued by the Department, shall not serve to relieve the transporter from any requirements for transporting issued by any other state or federal regulatory agency.
- 4.2 11.2 The waste hauler shall be responsible for the proper and safe handling, transportation, and delivery of all controlled industrial wastes consigned to him. This shall include, but is not limited to:
- 4.2.1 (a) Training and education of operators in proper handling procedures and emergency precautions.
- 4.2.2 (b) Adequate cleaning of tanks, etc., between loads to prevent any reaction of wastes transported.
- 4.2.3 (c) Accepting only those wastes which may be safely transported in a given vehicle.
- 4.2.4 (d) Insuring the waste will be adequately contained so as to prevent any leakage, spillage, blowing, or dumping of the waste while in transport.
- 4.2.5 (e) Equipping all hauling vehicles with adequate first-aid, fire protection, and personnel safety equipment necessary to reasonably safeguard the personal health and safety of the operator, and the public health and safety and environmental quality of the state.
- 4.3 11.3 No person shall transport, receive or dispose of controlled industrial

waste without a completed manifest, containing the disposal plan number and EPA Identification Number of the generator(s) thereon. Provided, that such manifests are not required for transportation only within the confines of a generator's plant site or within a disposal site or processing facility so long as transportation does not occur along any public right-of-way.

4.3.1 ~~4.3.1~~

Each generator of controlled industrial waste shall provide at least four (4) legible copies of a fully completed manifest to the hauler for each load of waste material shipped. All self-printed manifest forms must be approved by receive the written approval of the Department, before use. Standard Department forms will be provided upon request in accordance with the cost schedule approved by the Commissioner.

4.3.1.1 ~~4.3.1.1~~

Both the generator and the operator of the transport vehicle shall sign the manifest upon receipt by the waste hauler.

4.3.1.2 ~~4.3.1.2~~

The manifest shall contain information regarding emergency procedures to be used in the event of spillage, leakage, or accident.

4.4 ~~4.4~~

The hauler shall have at least four (4) legible copies of the shipping manifest in his possession at all times while the controlled industrial waste is in transit to the disposal site or facility.

4.4.1 ~~4.4.1~~

The site/facility operator or his agent shall sign and date all copies of said manifest upon receipt of waste, note any significant discrepancies thereon, shall return one (1) copy to the hauler at time of delivery, and shall return one (1) copy to the generator within twenty (20) days of delivery. Manifests shall be maintained for a period of at least three (3) years and then transferred to the Department for indefinite storage.

4.5 ~~4.5~~

Controlled industrial waste shall be delivered and released only to a waste receiving site listed on the manifest, which is subject to, either 40 CFR Part 264 or 40 CFR Part 265 and which has an EPA I.D. number or be returned to the generator if delivery to the receiving site is not possible.

4.6 ~~4.6~~

Hauling vehicles and cleaning facilities may be inspected by the Department. Prior notification of such inspection need not be given by the Department.

4.7 ~~4.7~~

Registration to transport controlled industrial waste is not transferable.

4.8 ~~4.8~~

The operator of each authorized controlled industrial waste disposal site or facility shall include a certified copy of each shipping manifest in the monthly report to the Department.

4.9 ~~4.9~~

Pipelines used to convey controlled industrial waste shall not be required to be registered, but shall be subject to approval as an integral portion of the generator disposal plan, for pipelines on or beneath the generator property or easements. Pipelines shall be considered as an

integral portion of the site or facility for pipelines or portions of pipelines on or beneath a site or facility.

4.10 ~~11-10~~

Governmental entities and the designated representatives shall not be required to register for the transportation of controlled industrial waste in emergency or unusual, non-recurring situations, provided that an authorized representative of the organization involved notify the Department of his organization's intentions prior to actual transport.

4.11 ~~11-11~~

Emergency Procedures - In the event of a derailment, accident, overturning, collision, or other event where controlled industrial wastes are or may be released from the hauling vehicle, the emergency provisions of ~~Regulation 12.0~~ Chapter 6 shall apply.

4.11.1 ~~11-11-1~~

The requirements of 40 CFR 263, Subpart C, Hazardous Waste Discharges, Sections 263.30 and 263.31, are herein incorporated by reference.

## CHAPTER 5

15.0

### REQUIREMENTS FOR THE RECYCLING OF CONTROLLED INDUSTRIAL WASTE

- 5.1 ~~15.1~~ Recycling shall include, but is not limited to, the direct reuse of a recyclable material or a controlled industrial waste as a replacement for or supplement to a virgin product and the rerefining, reprocessing, neutralizing, or treatment of such waste to produce a useable product.
- 5.2 ~~15.2~~ A recycled product from a recyclable material or a controlled industrial waste shall not pose a threat to the public health and safety, or environmental quality, greater than the threat posed by the virgin product it replaces or supplements.
- 5.3 ~~15.3~~ Recycling facilities are defined as facilities which, through physical, chemical, biological, or any other means are able to convert recyclable materials or controlled industrial waste, or a portion thereof, into a useable product. The average quantity of the usable product shall be at least fifty (50) percent of the original quantity of each controlled industrial waste category accepted by the facility.
- 5.3.1 ~~15.3.1~~ Recycling facilities shall not be subject to the permitting requirements of the Oklahoma Controlled Industrial Waste Disposal Act as a processing facility, but storage of controlled industrial waste and recyclable material shall be subject to the requirements of this Regulation (15.0) these Regulations.
- ~~15.3.2~~ Facilities which do not recover at least fifty (50) percent of the waste accepted shall be considered as processing treatment facilities as defined by the Oklahoma Controlled Industrial Waste Disposal Act and shall be required to meet the permitting requirements of Regulation 7.0, these Regulations.
- 5.3.2 5.3.2 Surface Impoundments and tanks used as a part of the recycling process shall be fully subject to the permitting requirements of these Regulations as storage facilities, except for tanks which qualify as elementary neutralization units or wastewater treatment units.
- 5.3.3 5.3.3 Waste or slop oil (classified as I,E) being recycled or destined for recycling shall not be subject to regulation as a recyclable material under this chapter so long as the requirements for manifests, recordkeeping, and reporting, and Regulations 5.4.1 through 5.4.3, inclusive, are met.
- 5.4 ~~15.4~~ Recycled waste Recyclable materials and recycling facilities shall be subject to the following:
- 5.4.1 ~~15.4.1~~ Generators of waste which are recycled recyclable materials shall

keep the Department informed, in writing, of the types and quantities of wastes materials being recycled and the recycling methods used, but shall not be required to include recycled wastes on their disposal plans. ~~or quarterly reports.~~

5.4.1.1 ~~5.4.1.1~~

For the purposes of complying with 63 O.S. 1981, Sections 1-2004 and 1-2011, the Department shall assign facsimile disposal plan numbers to those generators reporting recyclable materials. Generators may use their actual disposal plan when reporting recyclable materials, at their discretion.

5.4.2 ~~5.4.2~~

Manifests shall be maintained by the owner/operator of the facility for a period of at least three (3) years after receipt.

5.4.3 ~~5.4.3~~

All recycling shall be conducted in such a manner that the public health and safety and the environmental quality of the State of Oklahoma are not endangered.

5.4.4 ~~5.4.4~~

All residuals remaining ~~after processing~~ shall be evaluated to determine whether such residuals are considered to be controlled industrial waste or other industrial waste. Such residuals shall be disposed of in compliance with the Oklahoma Controlled Industrial Waste Disposal Act and these Regulations.

5.4.5 ~~5.4.5~~

All storage of recyclable materials, controlled industrial waste and residuals which are determined to be controlled industrial waste shall be in compliance with ~~Regulation 10.0,~~ these Regulations.

5.4.6 ~~5.4.6~~

After closure, storage tanks and other equipment on the site, which have been in contact with controlled industrial waste, shall either be dismantled and transferred to a separate permitted controlled industrial waste ~~disposal site or processing facility or approved storage site,~~ or completely decontaminated and removed for other uses. ~~Approval~~ Written approval by the Department is required for removal of decontaminated tanks or equipment.

## CHAPTER 6

12.0

### PROVISIONS FOR EMERGENCY SITUATIONS

#### INVOLVING CONTROLLED INDUSTRIAL WASTE, RECYCLABLE

#### MATERIALS, OR HAZARDOUS MATERIALS

- 6.1 12.1 If an emergency situation arises, the owner, operator, or other responsible person shall immediately notify the Department.
- 6.2 12.2 Such emergency situations shall include, but not be limited to, accidental spills, illegal dumping, or improper operations.
- 6.3 12.3 A written statement regarding such emergency situation shall be submitted to the Department within forty-eight (48) hours after the occurrence.
- 6.4 12.4 The Commissioner or his authorized representative may take or order such action as is deemed necessary to prevent damage to the public health or to the environment, provided such measures do not exceed statutory authority.
- 6.5 12.5 In the case of spillage or leaks which may ultimately enter surface or ground waters, a dike or other containment feature shall be constructed as soon as possible to prevent loss of waste and degradation of such waters, unless a greater danger is presented to public health and safety or environmental quality by such action.
- 6.6 12.6 In the case of a spill of a controlled industrial waste, recyclable materials, or a hazardous material, all quantities possible shall be recovered and either returned to the originator of the shipment, or shipped to the original destination. All quantities of spilled wastes or materials which cannot be recovered in this manner, and all contaminated soils, vegetation, or other equipment and materials, shall be deemed as controlled industrial waste and shall be handled and disposed accordingly.
- 6.7 12.7 All equipment used to contain or clean-up a spill or leakage will be decontaminated, and the resultant waste disposed of in a controlled industrial waste disposal site.
- 6.8 12.8 The Commissioner may, at his option, assess costs relating to expenses and damages incurred by the Department in responding to the emergency. Such costs shall be borne by the person(s) responsible for the emergency.



## CHAPTER 7

### REQUIREMENTS FOR CONTROLLED INDUSTRIAL WASTE FACILITIES, INCLUDING RECYCLABLE MATERIALS STORAGE FACILITIES

#### 7.1 7.1      GENERAL

7.1.1 7.1.1      The purpose of this chapter is to provide the minimum, acceptable requirements for all facilities which treat, store, and/or dispose of controlled industrial waste or store recyclable materials.

7.1.2 7.1.2      These Regulations prescribe the minimum acceptable standards for the siting, design, construction, management, operation, maintenance, and closure of said facilities, including requirements of financial responsibility both during operation and after closure.

7.1.3 7.1.3      The owner/operator of a controlled industrial waste facility shall be held responsible for compliance with all applicable requirements of these regulations, and with the conditions listed on any permits authorizing construction or operation of said facility.

7.1.4 2.4.3      These regulations shall not abrogate in any way the zoning authority of any duly constituted zoning agency with respect to the siting of any site or facility.

7.1.5 7.1.5      All facilities which treat, store or dispose of controlled industrial waste, or which store recyclable materials, shall be required to apply for and obtain a permit for construction before commencing construction, and a permit for operation before beginning operations, in accordance with these Regulations. Provided, that those facilities in existence prior to November 18, 1980, and which notified either the U. S. Environmental Protection Agency or the Department prior to that time of their operations, shall be considered as having interim status and shall be required to apply for and obtain an operations permit only, in accordance with Chapter 8 (Note: Generators storing their wastes in containers or tanks for less than ninety (90) days are exempt from certain permit requirements - See Rule 3.15.)

7.1.5.1 7.1.5.1      The following facilities are exempt from the requirements of this section:

7.1.5.1.1 7.1.5.1.1      Elementary neutralization units and wastewater treatment units, as defined.

7.1.5.2 7.1.5.2      A transporter storing properly manifested shipments of controlled industrial waste or recyclable materials in containers meeting the requirements of 40 CFR 262.30 (as incorporated by Rule 3.15) at a transfer facility for periods of ten (10) days or less.

- 7.1.6 ~~2.1.1~~ 40 CFR Part 265, as amended by 45 FR 72024, et seq., as amended through September 30, 1981, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities, is hereby incorporated by reference subject to the following exceptions specifically noted, to wit:
- ~~2.1.1.1~~ The requirement of 40 CFR 265.117(d), Post-Closure Care and Use of Property, Period of Care, is amended from thirty (30) years to ten (10) years after the date of completing closure for post-closure care.
- 7.1.6.1 ~~7.1.6.1~~ The provision of 40 CFR 265.1(c)(4) are not incorporated by reference.
- 7.1.6.2 ~~2.1.1.2~~ The requirements of 40 CFR 265.14, Security, are not incorporated by reference.
- 7.1.6.3 ~~2.1.1.3~~ The requirements of 40 CFR 265.15, General Inspection Requirements, are not incorporated by reference; provided, however, that owners and operators of incinerators and thermal treatment systems shall comply with the respective requirements of 40 CFR 265.347 and 265.377.
- 7.1.6.4 ~~2.1.1.4~~ The requirements of 40 CFR 265.71, Use of Manifest System, are not incorporated by reference.
- 7.1.6.5 ~~7.1.6.5~~ The requirements of 40 CFR 265, Subpart H, Financial Requirements, are not incorporated by reference, except as specifically provided herein.
- 7.1.6.6 ~~2.1.1.5~~ The requirements of 40 CFR 265.272, General Operating Requirements, are not incorporated by reference.
- 7.1.7 ~~7.1.7~~ 40 CFR Part 264, as amended through September 30, 1981, Regulations for Owners and Operators of Permitted Hazardous Waste Facilities, is hereby incorporated by reference subject to the following exceptions specifically noted, to wit:
- 7.1.7.1 ~~7.1.7.1~~ The provision of 40 CFR 264.1(f) are not incorporated by reference.
- 7.1.7.2 ~~7.1.7.2~~ The requirements of 40 CFR 264.14, Security, are not incorporated by reference.
- 7.1.7.3 ~~7.1.7.3~~ The requirements of 40 CFR 264.15, General Inspection Requirements, are not incorporated by reference; provided, however, that owners and operators of incinerators shall comply with the requirements of 40 CFR 264.347.
- 7.1.7.4 ~~7.1.7.4~~ The requirements of 40 CFR 264.71, Use of Manifest Systems, are not incorporated by reference.
- 7.1.7.5 ~~7.1.7.5~~ The requirements of 40 CFR 264, Subpart H, Financial Requirements, are not incorporated by reference, except as

specifically provided herein.

7.1.8     7.1.8     The requirements of 40 CFR Part 267, Interim Status Standards for Owners and Operators of New Hazardous Waste Land Disposal Facilities, is hereby incorporated by reference, subject to the following exceptions specifically noted, to wit:

7.1.8.1   7.1.8.1     The requirements of 40 CFR 267.42, General Operating Requirements, are not incorporated by reference.

7.1.8.2   7.1.8.2     The General Design Requirements of 40 CFR 267.21, 40 CFR 267.31, and 40 CFR 267.41, and the General Operating Requirements of 40 CFR 267.22 and 40 CFR 267.32, shall be considered as cumulative to those specific design and generating standards listed in Rules 7.12, 7.14, and 7.15.

7.1.9     7.1.9     LIABILITY INSURANCE AND FINANCIAL RESPONSIBILITY

7.1.9.1   7.1.9.1     LIABILITY INSURANCE

7.1.9.1.1   7.1.9.1.1     The owner of a controlled industrial waste facility or group of facilities shall secure and maintain environmental impairment liability insurance for claims arising from injuries to other parties. Such liability insurance shall include coverage for bodily injury or damage to property of others on, below, or above the surface resulting from the release of controlled industrial wastes, in the following minimum amounts:

(a)         One million dollars (\$1,000,000.00) per sudden occurrence, with an annual aggregate of two million dollars (\$2,000,000.00); and

(b)         for new disposal sites, three million dollars (\$3,000,000.00) per non-sudden occurrence, with an annual aggregate of six million dollars (\$6,000,000.00), or four million dollars (\$4,000,000.00) per sudden or non-sudden occurrence, with an annual aggregate of eight million dollars (\$8,000,000.00).

7.1.9.1.2   7.1.9.1.2     As evidence of liability insurance, the owner of a facility or group of facilities shall deliver to the Director of the Controlled Industrial Waste Division a certificate or certificates of insurance, which shall also include the deductible amount(s) and a provision requiring at least sixty (60) days notice of cancellation be given to the Director of the Controlled Industrial Waste Division.

7.1.9.1.3   7.1.9.1.3     Environmental impairment liability insurance shall be maintained for the period of operation of the facility or group of facilities and after closure of the facility, until the end of the post-closure maintenance and monitoring period.

NEW RULE 7.1.9.1.1(c)

- (c) new storage and treatment facilities shall comply with the requirements of Rule 7.1.9.1.1(b).

NEW RULE 7.1.9.1.1(d)

- (d) interim status controlled industrial waste facilities shall comply with the requirements of Rule 7.1.9.1.1(b).

7.1.9.1.4 7.1.9.1.4

The owner shall certify to the Department in writing his ability to meet the deductible amount(s) of his insurance, and shall specify the means by which the deductible amount(s) will be met.

- (a) The net worth or value of the facility(ies) being insured may not be used as an asset in specifying the means by which the deductible amounts will be met.
- (b) Deductible amounts may not exceed ten percent (10%) of the net worth of the owner, excluding the net worth of the facility(ies) insured.

7.1.9.1.5 7.1.9.1.5

The insurance provisions listed in Rule 7.1.9.1 shall be effective according to the following schedule:

- (a) For all new facilities permitted after the effective date of these Regulations, the insurance shall be in effect prior to first receipt of waste, as evidenced by submission of the certificate of insurance.
- (b) For facilities existing upon the effective date of these Regulations, with annual sales of the owner in the last calendar year in excess of ten million dollars (\$10,000,000.00), six (6) months after the effective date of these Regulations.
- (c) For facilities existing upon the effective date of these Regulations, with annual sales of the owner between five million dollars (\$5,000,000.00) and ten million dollars (\$10,000,000.00), eighteen (18) months after the effective date of these Regulations.
- (d) For all other existing facilities, thirty (30) months after the effective date of these Regulations.

7.1.9.1.6 7.1.9.1.6

The requirement for liability insurance may be met by substituting an alternative mechanism described in 7.1.9.4.2.

7.1.9.2 7.1.9.2

#### FINANCIAL RESPONSIBILITY

7.1.9.2.1 7.1.9.2.1

The owner of a controlled industrial waste facility shall demonstrate financial responsibility for the facility in accordance with the following:

- (a) The ability to conduct daily operations as defined shall be demonstrated by means of cost and asset projections, the annual report of the business, or other similar means sufficient to show that funds will be available for the term chosen to cover estimated costs (see Rule 7.1.9.3, below), in accordance with the following schedule.

- (i) Construction Permit - submitted as a part of the permit application.
  - (ii) Operations Permits - submitted as a part of the permit application, and sixty (60) days prior to the annual anniversary date of the permit thereafter.
  - (iii) Interim Status Facilities - submitted by May 1 of each year, beginning on May 1, 1982, until such time as a permit is issued.
- (b) The ability to perform closure operations as defined shall be demonstrated by means of submission of one of the security mechanisms described in Rule 7.1.9.4, or a combination thereof, sufficient to close the facility at any time during the term chosen as per Rule 7.1.9.3, below, in accordance with the following schedule:
- (i) Construction Permit - discussion of security mechanisms proposed to be used, submitted with permit application. Actual security mechanisms need not be in effect.
  - (ii) Operations Permit - draft forms of security mechanisms submitted with application. Security mechanisms must be in effect prior to operations permit issuance.
  - (iii) Interim Status Facilities - submitted and in effect by May 1, 1982, and kept in effect until such time as a permit is issued.
- (c) The ability to perform post-closure maintenance and monitoring functions required shall be demonstrated by means of submission of a bond and such other security mechanisms, as described in Rule 7.1.9.4, sufficient to perform all post-closure maintenance and monitoring for the post-closure care period, should the facility close at any time during the term chosen, in accordance with the following schedule:
- (i) Construction Permit - submitted with the application must be a discussion of the functions to be performed, their estimated costs, and a proposed post-closure care period, which must include a detailed analysis of the rationale for selecting said period. The bond and other security mechanisms must be in effect prior to permit issuance.
  - (ii) Operations Permit - If the post-closure bond has been submitted in conjunction with construction permit issuance, no further action is needed, other than updating the discussions and proposals

listed in light of new information. If no construction permit is in existence, then the requirements of Rule 7.2.1.9.2.1(c)(i) apply in full.

- (iii) Interim Status - submitted and in effect by May 1, 1982, and kept in effect until a permit is issued. A post-closure care period of thirty (30) years shall be assumed until permit issuance, at which time a specific period shall be adopted.

7.1.9.3 7.1.9.3

7.1.9.3.1 7.1.9.3.1

#### TIME COMPUTATIONS AND ESTIMATES OF COST

Term - For purposes of this section (7.1.9) in computing closure and post-closure costs and providing assurances of financial responsibility, the word "term" shall mean either:

- (a) One calendar year from the date of issuance of a permit, or May 1, 1982, if on Interim Status, and yearly intervals thereafter; or
- (b) The projected operational lifetime of the controlled industrial waste facility;

whichever the owner may choose, at a time prior to permit issuance, or by May 1, 1982 for Interim Status facilities. The owner may change term chosen only upon issuance, renewal or revocation and reissuance, of a permit.

7.1.9.3.2 7.1.9.3.2

#### ESTIMATION OF COSTS

- (a) Owners of interim status facilities and applicants for permits shall prepare closure and post-closure maintenance and monitoring cost estimates in accordance with 40 CFR 265.142 and 265.144 and 40 CFR 264.142 and 264.144, respectively, which are hereby incorporated by reference herein. The estimate of closure cost shall be based upon closure occurring at any time during the term chosen by the owner. The post-closure maintenance and monitoring estimate shall be based upon maximum projected facility utilization, and shall list estimated costs based upon a post-closure care period of up to thirty (30) years.
- (b) The owner shall re-evaluate the costs projected for operations and post-closure care at least yearly, and shall submit such re-evaluation to the Department at least sixty (60) days prior to the annual anniversary date of the operations permit, if applicable, or by May 1 of each year for Interim Status Facilities.
- (c) The owner shall adjust the security mechanisms provided to reflect any changes in estimates of costs within thirty (30) days of notification of approval of said costs by the Department. Provided, that decreases in the security mechanisms may require the notarized signature of the



Commissioner, as listed in Rule 7.1.9.4.

7.1.9.4 7.1.9.4

SECURITY MECHANISMS

7.1.9.4.1 7.1.9.4.1

If the owner chooses to demonstrate financial responsibility for the entire projected lifetime of the controlled industrial waste facility, then the owner shall comply with 40 CFR 264, Subpart H (Financial Requirements) as it has been incorporated by reference.

(a) The owner shall word the instruments as provided in 40 CFR 264.151 except that the Oklahoma State Department of Health, "Department," an agency of the State of Oklahoma" shall be used in lieu of phrases containing the words "Environmental Protection Agency"; "Commissioner of Health" shall be used in lieu of phrases containing the words "Regional Administrator;" "Department" shall replace "EPA"; "Act" shall replace "Section 3008 of the Resource Conservation and Recovery Act;" and "Department permit" shall replace "RCRA permit;" and

(b) The certification in each instrument that the language is identical to respective provisions of 40 CFR 264.151 shall include the phrase "United States Environmental Protection Agency approved amendment, for the State of Oklahoma,".

7.1.9.4.2 7.1.9.4.2

If the owner chooses to demonstrate financial responsibility for one year intervals, for the controlled industrial waste facility, then the owner shall use one or a combination of the mechanisms described hereunder, and each permit shall be conditioned upon the annual amendment thereof to reflect the cost of closure or post-closure maintenance and monitoring within the succeeding term:

a. a Surety bond which shall be a contract by which a surety company engages to be answerable to the commissioner for the default or debts by an owner or operator on responsibilities relating to closure or post-closure care, and agrees to satisfy these responsibilities if the owner or operator does not, in accordance with the terms of the surety bonds. Cancellation of the bond must be preceded by at least sixty (60) days written notification to the Department, or approval of an alternate bond or other security mechanism.

b. Trust fund which shall be a fund established by an owner or operator and held by a financial institution as the trustee with a fiduciary responsibility to carry out the terms of the trust

regarding closure and post-closure as specified in these regulations for the benefit of the Oklahoma State Department of Health. Removal of the principal, in all or in part, from a trust fund shall require the notarized signature of the Commissioner of Health. The expenses of the owner, or successors, for closure or post-closure costs, based upon the cost estimates, shall be reimbursable to the owner, following certification by the Commissioner.

- c. letter of credit which shall be an irrevocable engagement by an issuing bank, which is a member of the federal reserve system, at the request of an owner or operator, that it will honor demands for payment made by the Oklahoma State Department of Health (beneficiary) for the period of the letter of credit and under terms specified in these Regulations.
- d. Deposits of cash or marketable securities, acceptable to the Department, in an account established by the owner to the benefit of the Oklahoma State Department of Health. Marketable securities shall be securities that are traded on recognized established securities markets where there are independent bona fide offers to buy and sell and where payment will be received in settlement of a sale within a relatively short time conforming to trade custom. Removal of such securities shall require the notarized signature of the Commissioner.
- e. Provided that, amounts may be decreased from time to time to reflect the projected closure cost with the term based upon proof of actual closure of all or portions of the facility.

7.1.9.4.3 7.1.9.4.3

Maintenance and monitoring bonds shall be for the post-closure care period specified above, and shall meet the requirements of Rule 7.1.9.4.2 (a), above.

7.1.9.4.4 7.1.9.4.4

The security mechanisms listed above shall be liable and subject to forfeiture only when the facility owner or operator has failed to fulfill the conditions specified in his permit and/or failed to comply with the OCIWDA, and these Regulations. Upon notification by the Commissioner that the owner or operator has failed to perform as guaranteed by the security mechanism, the surety company, trustee, or financial institution (hereinafter "Surety") providing the security mechanism shall, within 30 days, make available to the Commissioner the funds specified. The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the

total secured, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said total.

7.1.9.5 7.1.9.5

EFFECT AND GROUNDS FOR REVOCATION

7.1.9.5.1 7.1.9.5.1

Failure of a permit applicant to comply with the requirements of this section (7.1.9) as regards Insurance and Financial Responsibility shall be grounds for permit denial.

7.1.9.5.2 7.1.9.5.2

Failure of an owner of an Interim Status Facility to comply with the requirements of this section (7.1.9) as regards Insurance and Financial Responsibility by the dates specified shall be grounds for terminating interim status and ordering or causing the closure of the facility.

7.1.9.5.3 7.1.9.5.3

Failure of an owner to provide increased security mechanisms in response to increases in the cost estimates shall be grounds for permit revocation or terminating interim status, and ordering or causing closure of the facility.

7.1.9.5.4 7.1.9.5.4

Cancellation of insurance or security mechanisms without substitution of other insurance or security shall be grounds for permit revocation or terminating interim status, ordering or causing closure of the facility, and calling in the security mechanisms to insure closure and post-closure care.

7.1.10 7.2

Any plan for a proposed controlled industrial waste facility shall be critically reviewed by the Department to assure that design of said facility will preclude the possibility of air, ground and/or surface water contamination ~~or personal injury~~, and meets the statutory requirement of physical and technical suitability.

7.3

Operating Standards

7.1.11 7.3.4

Operational procedures and methods shall conform with plans submitted and approved as a part of the permit application. Any significant deviation from these original plans must first be submitted to the Department in writing. The Department shall then approve or deny said proposal within thirty (30) days.

7.1.12 7.3.5

All residuals remaining after ~~processing~~ treatment shall be considered to be controlled industrial waste unless proven otherwise by the owner/operator. Such residuals shall be disposed of in compliance with the Oklahoma Controlled Industrial Waste Disposal Act and these Regulations.

7.1.13 7.3.6

All storage of controlled industrial waste and residuals which are determined to be controlled industrial waste shall be in compliance with ~~Regulation 10.5~~ these Regulations.

7.1.14 7.4

All controlled industrial waste ~~processing~~ facilities permitted prior to November 18, 1980, shall prepare closure plans in accordance

with 40 CFR 265 Subpart G, and shall file one (1) copy with the Department. All such sites not in existence or not permitted from and after November 18, 1980, shall submit the plans (40 CFR 265 Subpart G) in the construction permit application.

3.5 No site or facility located at an elevation of less than two (2) feet above a one-hundred-year flood elevation shall be granted a permit, unless in the Department's judgment adequate flood control measures have been provided in the site or facility design and construction. Flood control measures shall include protection against flooding to at least two (2) feet above the one-hundred-year flood elevation.

## 7.2 3.6 General Facility Requirements

7.2.1 3.6.1 All controlled industrial waste disposal sites and facilities shall be located, constructed, maintained, operated, and closed in a manner so as to prevent any endangerment of the public health and safety, or degradation of the environment. Guidelines for interpretation of compliance for construction permits for new landfills, land-treatment facilities, and surface impoundments shall be in accordance with 40 CFR 267, Subpart B. Degradation of the environment shall be deemed to have occurred if the site or facility in question causes or may cause a discharge to either the air, land, or water external to the facility which statistically increases (or decreases, in the case of pH) the level of a controlled industrial waste chemical or compound, or a parameter indicative of controlled industrial waste contamination, over what may normally be expected to be found in the environment at that time, except that discharges in compliance with all requirements of any state or federal pollution control agency shall not be deemed as degradation. A statistical increase (or decrease) shall be determined by use of the Student's t test at the 0.01 level of significance.

7.2.2 3.6.2 All precipitation and runoff contacting an industrial waste site or facility, which may are or may lead to be become contaminated with industrial waste shall be retained within the permitted area in a manner to prevent degradation of ground or surface waters, unless otherwise specified by the Department.

7.2.2.1 3.6.2.1 No discharges to surface or underground fresh waters shall be allowed unless and until the operator shall either prove to the satisfaction of the Department that the retained runoff will not cause degradation of the environment if discharged or has received all applicable permits for such discharge from either the Oklahoma Water Resources Board or the U. S. Environmental Protection Agency.

7.2.2.2 3.6.2.2 At a minimum, that portion of the site that is or may become contaminated with industrial waste shall be capable of retaining the total precipitation and runoff generated by a statistical twenty-four (24) hour, fifty (50) One Hundred (100) year storm, plus a minimum freeboard of two (2) feet.

7.2.3 3.6.3 All material handling conducted on the site or facility, including the

loading or unloading of industrial wastes to or from highway or rail carriers, shall be conducted within dikes, retention walls or other features, such that any leakage or spillage of industrial waste is adequately contained. Additionally, loading or unloading, whether from truck, railcar, barge, or other mode of transportation, shall be conducted only in areas previously designated for such loading or unloading and approved by the Department.

7.2.3.1 ~~3.6.3.1~~

All liquids contained within the above dikes, walls, or other features, whether spilled waste, precipitation or combinations, shall be considered as industrial waste and shall be handled and disposed as such.

7.2.3.2 ~~3.6.3.2~~

Such dikes, walls, or other features shall be designed and constructed to contain, at a minimum, a quantity of material equivalent to the larger of the following:

- (i) The volume of the largest truck and/or railcar to be loaded or unloaded at the site or facility;
- (ii) a volume equivalent to twenty (20) percent of the maximum total volume of all trucks and/or railcars capable of being loaded or unloaded at any one (1) time;

Plus, the total precipitation and runoff generated by the statistical twenty-four (24) hour, fifty (50) year storm;

Plus, a minimum freeboard of twelve (12) inches.

7.2.3.3 ~~3.6.3.3~~

All vehicles loading or unloading at any site or facility shall be inspected prior to exiting the containment features specified herein, to insure that industrial wastes will not drip, flow, blow, or otherwise be deposited on public rights-of-way. If necessary, each vehicle shall be washed or rinsed as may be needed to insure that the conditions contained in this paragraph will be met.

7.2.4 ~~3.6.4~~

All above-ground tanks or groups of tanks used for storage of industrial waste shall be enclosed by a dike, retention wall, or other feature sufficient to retain a volume of liquid equivalent to the larger of the following:

- (i) The volume of the largest tank within the enclosure; or
- (ii) a volume equivalent to twenty (20) percent of the total maximum volume to be contained within the enclosure;

Plus, all precipitation and runoff resulting from the statistical twenty-four (24) hour, fifty (50) year storm;

Plus, a minimum freeboard of two (2) feet.

7.2.4.1 3.6.4.1

If incompatible industrial wastes are stored in tanks, such tanks shall be segregated, and each tank or group of tanks so segregated shall be enclosed by separate and distinct containment features. Each such enclosure shall be required to meet the capacity requirements outlined in Regulation 3.6.4 7.2 above.

7.2.5 3.6.5

If the retention structures required by ~~this Section~~ Regulation 7.2 are integrated with the required precipitation retention structures, ~~required by Regulation 3.6.2~~ then all rainfall precipitation and runoff contained by said structures shall be considered as industrial waste and shall be handled and disposed accordingly. Additionally, the minimum freeboard requirement as specified in Regulation 3.6.2.2 7.2.3.2 above shall be increased to two (2) feet.

7.2.6 3.6.6

No open burning of industrial waste shall be allowed at any site or facility except as provided by 40 CFR 265.382.

7.3 3.7

### Fencing and Security Requirements

7.3.1 3.7.1

All industrial waste disposal sites, processing facilities, and storage sites shall be enclosed by adequate fencing and lockable gates sufficient to prevent the unknowing and/or unauthorized entry of all persons and domestic livestock. Unless otherwise specified in these Regulations or specifically exempted by the Department, the minimum construction necessary to meet this requirement shall be a six (6) foot "chain-link" or "cyclone" fence with three (3) strands of barbed wire at the top, which shall surround the entire site or facility.

7.3.1.1 3.7.1.1

Controlled industrial waste surface disposal sites and injection well sites shall be required to enclose only the active portion of the site with fencing, as specified above. The entire permitted area, less any easements specifically excluded by the Department, shall be enclosed by a fence with a minimum height of four (4) feet and consisting of at least four (4) strands of barbed wire or ~~better,~~ a more secure fence. For the purposes of these Regulations, the active portion of a site shall be taken to mean that portion of the site where loading, unloading, storage, treatment, or disposal occurs at the time in question and shall include any pits, ponds, lagoons, landfills, tanks, or other storage or disposal features which contain or did contain controlled industrial waste and which have not been certified as closed or decontaminated by the Department.

7.3.1.2 3.7.1.2

Controlled industrial waste ~~soil farming~~ land treatment sites and all other industrial waste disposal sites shall not be required to meet the minimum fencing requirements listed in Regulation 3.7.1 7.3, but shall be enclosed by a fence with a minimum height of four (4) feet and consisting of at least four (4) strands of barbed wire, or shall have personnel posted as guards at all times. Such guards shall have a clear view of the site from their given stations and shall be given sufficient authority by the operator to adequately safeguard the site from unauthorized

entry by persons or domestic livestock. Fences shall be installed at the permit boundary, less any easements specifically excluded by the Department.

3.1.3 ~~3.7.1.3~~

Access to all industrial waste sites and facilities shall be controlled by lockable gates equivalent in construction to the applicable fencing. Gates shall be locked at any time competent personnel are not present.

7.4 ~~3.8~~

#### Warning Signs

7.4.1 ~~3.8.1~~

Warning signs, sufficient to provide basic information regarding the purpose and function of the facility, emergency information, and warning against unauthorized entry, shall be posted around each site or facility. Such signs shall be in the English language and shall consist of a bright background, overlaid with contrasting letters or figures, capable of being read at a distance of at least fifty (50) feet by persons with normal eyesight. All signs must receive the approval of the Department before installation. The Department may waive the placement and/or modify the placement and/or wording of the warning signs required by this Section (~~3.8~~) upon a sufficient showing, by the applicant or operator, that such signs would be redundant or unnecessary due to geographical location or existing warning mechanisms.

7.4.1.1 ~~3.8.1.1~~

At each point of access to a site or facility, a warning sign shall be posted containing the information and in the approximate format of that listed on Figure 1. Such signs shall be capable of being read from a vehicle approaching the site or facility. Such signs shall not be required for sites or facilities that have adequate 24-hour surveillance.

7.4.1.2 ~~3.8.1.2~~

At each corner of the facility, and at intervals of not greater than four-hundred (400) feet along each side of the facility, warning signs shall be posted on the enclosing fence, containing the information and in the approximate format listed on Figure 2. Such signs shall be capable of being read upon approach to the site or facility. If no fences are required, signs shall be placed on posts at a height of between four (4) feet and six (6) feet.

7.4.2 ~~3.8.2~~

All warning signs shall be installed and maintained so as to be readily visible. Trees, brush, shrubs, and other vegetation which might obscure said signs shall be trimmed or removed as necessary.

7.5 ~~3.9~~

#### Site and Facility Safety Requirements

7.5.1 ~~3.9.1~~

In addition to the requirements of 40 CFR 264, Subparts C and D, and 40 CFR 265 Subparts C and D, as incorporated by reference the following shall apply:

7.5.2 ~~3.9.2~~

Injection wells need not have personnel on-site during actual injection operations, provided that the facility is provided with an automatic surveillance system which will:

- 7.5.2.1 ~~3.9.2.1~~ detect changes in pressure, flow, temperature, and liquid level which would indicate a malfunction or possible failure of the injection well system;
- 7.5.2.2 ~~3.9.2.2~~ automatically shut-off all equipment and valves if such malfunction or possible failure occurs; and
- 7.5.2.3 ~~3.9.2.3~~ immediately notify personnel, as listed in Regulation ~~3.9.1~~ above, who are capable of responding to the malfunction or possible failure condition within fifteen (15) minutes after notification.

7.5.3 ~~3.9.3~~ All listed operations on industrial waste ~~soil farms~~ land treatment facilities shall be conducted in the presence of at least one (1) person, who shall meet the qualifications listed in 40 CFR ~~265.16~~ 264.16.

7.6 ~~2.12~~ The monthly reports required of controlled industrial waste sites and facilities by 63 O.S. ~~Supp. 1980~~ 1981, Section 2754 ~~(10)~~ 8 shall contain, at a minimum the information required by 40 CFR 265.75, (a), (h), (c), and (d), and shall be submitted on forms specified by the Division no later than thirty (30) days after the end of each month. Included with the report shall be one (1) legible copy of each manifest received. Said reports shall reference both EPA I.D. numbers and state assigned disposal plan numbers and permit numbers, as applicable.

7.7 ~~6.6.5~~ Self Inspections

7.7.1 ~~6.6.5.1~~ The operator or his designated representative shall make inspections of the major features of the site at least once during each day of operation. Such inspection shall concern itself with items such as, but not limited to, dike and retention pond conditions, storage conditions and quantities, application rates, and general site appearance.

7.7.2 ~~6.6.5.2~~ The operator or his designated representative shall make a complete inspection of all features of the site at least once each week. This inspection shall include all fences, and shall extend to adjacent access roads.

7.7.3 ~~6.6.5.3~~ The operator shall maintain a daily log of inspections, which shall be initialled by the person making the inspection. All deficiencies noted during inspections shall be posted in the log. The log shall become a part of the permanent site records. All deficiencies noted during inspections shall be promptly corrected.

7.7.4 ~~6.6.5.4~~ The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections.

7.8 7.8 USE AND MANAGEMENT OF CONTAINERS



- 7.8.1 7.8.1 Controlled industrial waste or recyclable materials management using containers shall be limited to storage and treatment only. Disposal of controlled industrial waste by means of containers is prohibited, except that containers may be landfilled as provided in Rule 7.13.
- 7.8.2 7.8.2 Interim Status Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to controlled industrial waste facilities having interim status, which use containers to store or treat controlled industrial waste or recyclable materials. (Note: Rule 7.1.6 incorporates portions of 40 CFR Part 265 by reference. As applicable to this rule, 40 CFR 265, Subparts "A" through "I" would apply.)
- 7.8.3 7.8.3 Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to permitted controlled industrial waste facilities which use containers to store or treat controlled industrial waste or recyclable materials. (Note: Rule 7.1.7 incorporates portions of 40 CFR Part 264 by reference. As applicable to this rule, 40 CFR 264, Subparts "A" through "I" would apply.)

**CONTROLLED INDUSTRIAL WASTE**

**DISPOSAL SITE**

**INJECTION WELL FACILITY**

OSDH PERMIT NUMBER: CW 78000

OPERATOR/OWNER: John Doe Enterprises, Inc.  
BUSINESS ADDRESS: 100 Broadway Avenue North  
Any Town, Oklahoma 73000  
FACILITY PHONE NO.: (405) 555-1234

**IN CASE OF EMERGENCY, NOTIFY:** Mr. John Doe

Phone No. (405) 555-1234

Nights and Holidays: (405) 555-4000

**HOURS OF OPERATION:** MON-FRI 8:00 - 5:30  
SAT. 8:00 - 1:00  
SUN-HOLIDAYS Closed

**WARNING-POTENTIALLY HARMFUL MATERIALS**  
**UNAUTHORIZED ENTRY PROHIBITED**

OKLAHOM STATE DEPARTMENT OF HEALTH PHONE NUMBER:  
(405) 271-5338

COUNTY HEALTH DEPARTMENT PHONE NUMBER: (000) 000-0000

FIGURE I

CONTROLLED INDUSTRIAL WASTE

DISPOSAL SITE

WARNING: POTENTIALLY HARMFUL MATERIALS

UNAUTHORIZED ENTRY PROHIBITED

FIGURE 2

7.9 7.9

TANKS

7.9.1 7.9.1

Controlled industrial waste or recyclable materials management using tanks shall be limited to treatment and/or storage only. Disposal of controlled industrial waste in tanks is prohibited.

7.9.2 7.9.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to controlled industrial waste facilities having interim status, which use tanks to store or treat controlled industrial waste or recyclable materials. (Note: Rule 7.1.6 incorporates portions of 40 CFR Part 265 by reference. As applicable to this rule, 40 CFR 265, Subparts "A" through "H" and Subpart "J" would apply.)

7.9.3 7.9.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to permitted controlled industrial waste facilities which use tanks to store or treat controlled industrial waste or recyclable materials. (Note: Rule 7.1.7 incorporates portions of 40 CFR Part 264 by reference. As applicable to this rule, 40 CFR 264, Subparts "A" through "H" and Subpart "J" would apply.)

7.10 7.10

SURFACE IMPOUNDMENTS

7.10.1 7.10.1

Surface Impoundments may be used for the treatment, storage, and disposal of controlled industrial waste or recyclable materials. Specific regulations shall apply to either treatment and storage, or disposal.

7.10.2 7.10.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7, inclusive, and the requirements of Appendix 7-A shall apply to facilities having interim status which use surface impoundments to treat, store, or dispose of controlled industrial waste or recyclable materials. (Note: Rule 7.1.6 incorporates portions of 40 CFR Part 265 by reference. As applicable to this rule, see 40 CFR 265 Subparts "A" through "H" and Subpart "K.")

7.10.3 7.10.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, and the requirements of Appendices 7-A and 7-B, shall apply to permitted facilities which treat, store, or dispose of controlled industrial waste or recyclable materials. (Note: Rule 7.1.7 incorporates portions of 40 CFR Part 264 by reference, which apply to treatment and storage only. Rule 7.1.8 incorporates 40 CFR Part 267, which applies to disposal only. See 40 CFR 264, Subparts "A" through "H" and Subpart "K," or 40 CFR 267, Subparts "A," "B," "D," and "E," respectively.

7.11 7.11

WASTE PILES

7.11.1 7.11.1

Waste Piles may be used for the treatment, storage, or disposal of controlled industrial waste or recyclable materials. Specific regulations shall apply to either treatment and storage, or disposal.

7.11.2 7.11.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7,

inclusive, shall apply to facilities having interim status which treat, store, or dispose of controlled industrial waste or recyclable materials by means of waste piles. (Note: Rule 7.1.6 incorporates certain provisions of 40 CFR Part 265 by reference. For waste piles which treat or store only, see 40 CFR 265, Subparts "A" through "H," and Subpart "L." For those which are used for disposal, see 40 CFR 265, Subparts "A" through "H," and Subpart "N.")

7.11.3 7.11.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to permitted facilities which treat or store controlled industrial waste or recyclable materials in waste piles. (Note: Rule 7.1.7 incorporates certain provisions of 40 CFR 264 by reference - see also 40 CFR Part 264, Subparts "A" through "H" and Subpart "L.") Facilities using waste piles for the disposal of controlled industrial waste shall not be granted permits, but may remain in interim status, until further notice. No new facilities using waste piles for disposal will be permitted or allowed, until further notice.

7.12 7.12

#### LAND TREATMENT (formerly Soil Farming)

7.12.1 6.1

Soil Farms Land Treatment Facilities shall be for the purpose of treatment or disposal of controlled industrial wastes which, by interaction with the environment, are rendered essentially degradable in their entirety, harmless. Inert substances which are not classified as controlled industrial waste may be disposed of at soil farming sites land treatment facilities, provided that such substances do not interfere with the degradation of controlled industrial waste being applied. Such degradation shall render the wastes essentially harmless.

7.12.2 7.12.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7 and the requirements of Appendix 7-C shall apply to facilities having interim status which use land treatment to treat or dispose of controlled industrial waste. (Note: Rule 7.1.6 incorporates certain provisions of 40 CFR Part 265 which would apply to Land Treatment Facilities, see 40 CFR 265, Subparts "A" through "H" and Subpart "M.")

7.12.3 7.12.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, and the requirements of Appendices 7-C and 7-D shall apply to new facilities and additions to interim status facilities which use land treatment to treat or dispose of controlled industrial waste. Interim status facilities shall not be required to obtain permits under these provisions, but may do so voluntarily (Note: Rule 7.1.8 incorporates certain provisions of 40 CFR Part 267 by reference. See 40 CFR 267, Subparts "A," "B," and "F.")

7.13 7.13

#### LANDFILLS

7.13.1 7.13.1

These Rules (7.13) apply to disposal of controlled industrial waste in landfills. A waste pile in which waste is disposed is also considered as a landfill, and is subject to these requirements.

7.13.2 7.13.2 Interim Status Facilities - the provisions of Rules 7.1 through 7.7 and the requirements of Appendix 7-A apply to facilities having interim status which dispose of wastes by means of landfilling. (Note: Rule 7.1.6 incorporates certain provisions of 40 CFR 265, Subparts "A" through "H" and Subpart "N.")

7.13.3 7.13.3 Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, and the requirements of Appendices 7-A and 7-B shall apply to new permitted facilities and additions to interim status facilities which dispose of controlled industrial waste by landfilling. Interim status facilities shall not be required to obtain permits under these provisions, but may do so voluntarily. (Note: Rule 7.1.8 incorporates certain provisions of 40 CFR Part 267 by reference. See also 40 CFR 267, Subparts "A," "B," and "C.")

7.14 7.14 INCINERATORS

7.14.1 7.14.1 Incineration of controlled industrial waste shall be for the purpose of thermally breaking down said waste, by means of flame combustion, within an enclosed device.

7.14.2 7.14.2 These Rules shall apply to the design construction, operation, maintenance, and closure of controlled industrial waste incinerators. Emissions from incinerators, and their related facilities, shall be governed by the Air Quality Control Regulations promulgated pursuant to the Oklahoma Clean Air Act, as administered by the Air Quality Service of the Oklahoma State Department of Health (Note: Owners and operators of controlled industrial waste incinerator facilities are advised to familiarize themselves with the Air Quality Regulations.)

7.14.3 7.14.3 Interim Status Facilities - the provisions of Rules 7.1 through 7.7 shall apply to incinerator facilities which dispose of controlled industrial waste which have interim status. (Note: Rule 7.1.6 incorporates portions of 40 CFR Part 265 by reference. See 40 CFR 265 Subparts "A" through "H" and Subpart "O.") Emissions from such incinerators and their related facilities are subject to the provisions of the Air Quality Control Regulations, as promulgated pursuant to the Oklahoma Clean Air Act.

7.14.4 7.14.4 Permitted Facilities - the provisions of Rules 7.1 through 7.7 shall apply to permitted incinerator facilities. In addition, such facilities shall be required to comply with the permitting requirements of the Air Quality Control Regulations and the Oklahoma Clean Air Act, as regards emissions from such facilities. (Note: Rule 7.1.7 incorporates certain provisions of 40 CFR Part 264 by reference. See also 40 CFR 264, Subparts "A" through "H" and Subpart "C.")

7.14.4.1 7.14.4.1 In addition to the information required by these Rules for applications for permit, the applicant shall also submit the specific information required by the Air Quality Control Regulations, regarding emission types, rates and sources, and control technology on the air pollutants specified by the Oklahoma Clean Air Act.

7.14.5 7.14.5

Waste Oils and Organic Solvents — Incineration of waste oils and organic solvents in high-efficiency boilers, furnaces and other similar facilities for the purpose of heat recovery shall be considered as recycling for a beneficial use, and shall not require permitting, but shall be subject to the following requirements:

7.14.5.1 7.14.5.1

A positive heat gain must be realized from the burning of such materials.

7.14.5.2 7.14.5.2

The heat realized must be recovered for a use (i.e. steam generation, electrical generation, etc.).

7.14.5.3 7.14.5.3

The facility complies with the requirements of Chapter 5 of these Rules.

7.14.5.4 7.14.5.4

The waste oil or organic solvent being burned does not meet the characteristics of 40 CFR 261.22 (Corrosivity), 261.23 (Reactivity), or 261.24 (E.P. Toxicity), and

7.14.5.5 7.14.5.5

The waste oil or organic solvent is not otherwise regulated by 40 CFR Subpart "O" (Incinerators).

7.15 7.15

THERMAL TREATMENT

7.15.1 7.15.1

Thermal Treatment Facilities shall be for the purpose of thermal treatment of controlled industrial waste, but which are not incinerators (i.e. do not use controlled flame combustion).

7.15.2 7.15.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to thermal treatment facilities which have interim status. (Note: Rule 7.1.6 incorporates certain provisions of 40 CFR Part 265 by reference. See also 40 CFR 265, Subparts "A" through "H" and Subpart "P.")

7.15.3 7.15.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7 shall apply to permitted controlled industrial waste thermal treatment facilities. In addition, the following rules shall apply: (Note: The provisions of 40 CFR Part 264, Subparts "A" through "H," as incorporated by Rule 7.1.7, apply to permitted thermal treatment facilities.)

7.0

**MINIMUM SPECIFICATIONS FOR CONTROLLED INDUSTRIAL WASTE PROCESSING FACILITIES**

7.1

All the requirements of Regulation 3.0 shall apply to processing facilities.

7.15.3.1 7.3.3

Air, surface water and ground water monitoring shall be required as deemed necessary by the Department. The operator of a processing treatment facility shall bear the expense for installation and maintenance of any sampling equipment, and subsequent sampling and analysis. In addition to these requirements, annual testing for heavy metals as listed in 40

CFR 261.24, Table 1, which are expected to be in the waste stream(s), will be required.

7.15.3.1.1 ~~7.3.3.1~~

Upon request, the operator shall provide representative samples to the Department, at no expense to the Department. The Department shall bear the expense of any analyses of these samples.

7.3.4 Self-Inspections

~~7.3.4.1~~

The operator or his designated representative shall make inspections of the major features of the site at least once during each day of operation. Such inspection shall concern itself with items such as, but not limited to, dike and retention pond conditions, waste quantities received, stored, processed, and disposed of, leachate detection/collection system status, and general site appearance.

~~7.3.4.2~~

The operator or his designated representative shall make a complete inspection of all features of the site at least once each week. This inspection shall include all fences, and shall extend to adjacent access roads.

~~7.3.4.3~~

The operators shall maintain a daily log of inspections, which shall be initiated by the person making the inspection. All deficiencies noted during inspections shall be posted in the log. The log shall become a part of the permanent site records. Any deficiencies noted during such inspections shall be promptly corrected.

~~7.3.4.4~~

The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction of any operator error goes undetected between inspections.

7.15.3.3 ~~7.4.1~~

Closure shall consist of the removal of all controlled industrial waste and residuals from the facility for disposal in a permitted site or facility, removal of all equipment and tanks, grading of the site to insure proper drainage, and revegetation of the site.

7.15.3.4 ~~7.4.2~~

Prior written approval by the Department or written proof of decontamination, is required for removal of decontaminated tanks or equipment.

7.16 7.16

#### CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT

7.16.1 7.16.1

These Rules (7.16) apply to facilities which treat controlled industrial waste by chemical, physical, or biological methods in other than tanks, surface impoundments, or land treatment facilities. Chemical, physical, or biological treatment of controlled industrial waste in tanks, surface impoundments, and land treatment facilities must be conducted in accordance with Rules 7.9, 7.10, and



7.12, respectively.

7.16.2 7.16.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to chemical, physical, and biological treatment facilities which have interim status. (Note: Rule 7.1.6 incorporates certain provisions of 40 CFR Part 265 by reference. See also 40 CFR 265, Subparts "A" through "H" and Subparts "Q.")

7.16.3 7.16.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7 shall apply to permitted controlled industrial waste chemical, physical, and biological treatment facilities. In addition, the following rules shall apply: (Note: The provisions of 40 CFR Part 264, Subparts "A" through "H," as incorporated by Rule 7.1.7, apply to permitted Thermal Treatment Facilities.)

7.16.3.1 7.16.3.1

Air, surface water and ground water monitoring shall be required as deemed necessary by the Department. The operator of a processing treatment facility shall bear the expense for installation and maintenance of any sampling equipment, and subsequent sampling and analysis. In addition to these requirements, annual testing for heavy metals as listed in 40 CFR 261.24, Table 1, which are expected to be in the waste stream(s), will be required.

7.16.3.1.1 7.16.3.1.1

Upon receipt, the operator shall provide representative samples to the Department, at no expense to the Department. The Department shall bear the expense of any analyses of these samples.

7.16.3.2 7.16.3.2

Closure shall consist of the removal of all controlled industrial waste and residuals from the facility for disposal in a permitted site or facility, removal of all equipment and tanks, grading of the site to insure proper drainage, and revegetation of the site.

7.16.3.3 7.16.3.3

Prior written approval by the Department or written proof of decontamination is required for removal of decontaminated tanks or equipment.

7.17 7.17

#### INJECTION WELLS

7.17.1 7.17.1

Injection well facilities shall be for the subsurface emplacement of controlled industrial waste by means of a bored, driven, drilled, or dug well, where the depth of the well is greater than the largest surface dimension. Placement into an injection well (i.e. well injection) shall be considered as disposal. An injection well facility shall be taken to include all casing, tubing, packers, and associated equipment and materials, up to the main injection cut-off valve at the well-head. This shall be taken to include any and all associated meters, gauges or devices (i.e. injection and annulus pressure, temperature, flow, pH, etc.) used to monitor performance of the well regardless of the point of connection. All surface facilities associated with the well (i.e. tanks, containers, surface impoundments, piping, unloading areas, etc.), up to the main cut-off valve at the wellhead, shall be subject to the requirements of Rules

7.1 through 7.16, as applicable.

7.17.2 7.17.2

Interim Status Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to facilities which have interim status and use well injection. In addition, injection well facilities shall be subject to the requirements of Appendix 7-E. (Note: Rule 7.1.6 incorporates certain provisions of 40 CFR Part 265 by reference. See also 40 CFR 265, Subparts "A" through "F" and Subpart "R.")

7.17.3 7.17.3

Permitted Facilities - the provisions of Rules 7.1 through 7.7, inclusive, shall apply to permitted injection well facilities. In addition, such facilities shall be subject to the requirements of Appendices 7-E and 7-F. (Note: Rule 7.1.8 incorporates certain provisions of 40 CFR Part 267 by reference. See also 40 CFR 267, Subparts "A," "B," and "F.")

APPENDIX 7-A

MINIMUM SPECIFICATIONS FOR CONTROLLED INDUSTRIAL WASTE

SURFACE IMPOUNDMENTS AND LANDFILL FACILITIES

(SURFACE DISPOSAL SITES)

- 7A.1 ~~4.4.4~~ Usage of any piece of land as a controlled industrial waste surface disposal site shall be considered as dedicating that land exclusively to that usage. Sites may not be converted to any other usage until and unless such usage is specifically allowed by the Department, or the Department determines that the site no longer presents a danger to the public health and safety or environmental quality if converted to a general usage and releases it from these requirements.
- 7A.2 ~~4.4.5~~ Air, surface water and groundwater monitoring will be required as deemed necessary by the Department.
- 7A.2.1 ~~4.4.5.1~~ Ground water monitoring shall be in accordance with 40 CFR 265 Subpart F. In addition to these requirements, annual testing for heavy metals as listed in 40 CFR 261.24, Table 1, which are expected to be in the waste stream(s), will be required.
- 7A.2.2 ~~4.4.5.2~~ Water sampling points will be established sufficient to adequately sample all surface water discharges from the site.
- 7A.2.3 ~~4.4.5.3~~ Air sampling points shall be established by the operator, as required by the Department.
- 7A.2.4 ~~4.4.5.4~~ The operator of a site shall bear all expenses relating to installation of sampling equipment and all subsequent sampling and analysis.
- 7A.2.5 ~~4.4.5.5~~ The operator shall be required to supply, upon request, a representative sample from all sampling points, at no expense to the Department. The Department shall bear the expense of subsequent analysis of such samples.
- 7A.2.6 ~~4.4.5.6~~ Unless otherwise specified by the Department, surface water samples shall be obtained and analyzed at least once each month, and air samples shall be obtained and analyzed at least each six (6) months.
- 7A.2.7 ~~4.4.5.7~~ Upon issuance of any operational permits, the Department will notify the operator of the parameters to be analyzed from the samples.
- 4.6.3 Self Inspections
- 4.6.3.1 The operator or his designated representative shall make inspections

of the major features of the site at least once during operation. Such inspection shall concern itself with items but not limited to dike and retention pond conditions, leak detection/collection system status, and general site appearance.

4.6.3.2 The operator or his designated representative shall make a complete inspection of all features of the site at least once each week. This inspection shall include all fences, and shall extend to adjacent access roads.

4.6.3.3 The operator shall maintain a daily log of inspections, which shall be initiated by the person making the inspection. All deficiencies noted during inspections shall be posted in the log. The log shall become a part of the permanent site records. All deficiencies noted shall be promptly corrected.

4.6.3.4 The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections.

7A.3 7A.3 Closure shall be conducted in accordance with the closure plan prepared in compliance with Rule 7.1.12.

4.7 All controlled industrial waste surface disposal sites permitted prior to November 18, 1980, shall prepare closure plans in accordance with 40 CFR 265 Subpart G, and shall file one (1) copy with the Department. All such sites not in existence or not permitted from and after November 18, 1980, shall submit the plans (40 CFR 265 Subpart G) in the construction permit application.

7A.3.1 4.7.1 Closure shall consist of an orderly sequence of steps to remove the hydraulic head from the disposal area, consolidate remaining solids as necessary to maintain stability and then covering the disposal area with a material of low permeability of a thickness sufficient to effectively prevent infiltration of precipitation.

7A.3.1.1 4.7.1.1 The hydraulic head shall be removed by either evaporation of liquids, physical removal of liquids to a separate controlled industrial waste disposal site or area, by intermixing the liquids with soil or other material sufficient to absorb all free liquids, or other similar methods.

7A.3.1.2 4.7.1.2 The solids remaining in the disposal area shall be consolidated by rolling, tamping, vibration, or dessication, sufficient to provide a stable, reasonably firm base. Such consolidation shall not be required if the operator can prove to the satisfaction of the Department that the solids as they then exist will provide a stable, reasonably firm base.

7A.3.1.3 4.7.1.3 Unless otherwise specified by the Department, the cover material will be identical to the material used for containment of wastes, i.e. clays shall be used on clay liners, artificial

materials on artificial liners, subject to the following conditions:

7A.3.1.3.1 4.7.1.3.1

Clay soils used for cover materials shall meet the requirements of Regulation 4.3.1, except that a minimum thickness of four (4) feet shall be required.

7A.3.1.3.2 4.7.1.3.2

Artificial materials used as cover materials shall be identical to and shall meet the same criteria as that used in the liner. Two layers of the material shall be installed as follows:

- (i) The lower layer shall be laid directly on the solids, plus any soils used for leveling, and the perimeter shall be joined to and sealed with the liner.
- (ii) The second layer shall be separated from the first a distance of one (1) to three (3) feet by means of soil, sand, or similar material. The second layer shall be installed so as to slope to the exterior of the disposal area, and shall extend at least ten (10) feet beyond the disposal area.
- (iii) Soil shall be placed over the second layer and compacted to a minimum two (2) foot thickness.

7A.3.1.4 4.7.1.4

All covers shall be sloped to provide free drainage off of the disposal area, but shall not be sloped so as to encourage erosion.

7A.3.1.5 4.7.1.5

Top soil shall be applied to the top of the cover material in a minimum thickness of one (1) foot. The top soil shall also be sloped for free drainage.

7A.3.1.6 4.7.1.6

The top soil shall be seeded, sprigged, or otherwise planted with shallow-rooted vegetation such as grasses, sufficient to effectively retard erosion.

7A.3.2 4.7.2

Prior written approval by the Department or written proof of decontamination is required for removal of decontaminated tanks or equipment.

APPENDIX 7-B

MINIMUM DESIGN AND CONSTRUCTION SPECIFICATIONS  
WHICH APPLY ONLY TO PERMITTED  
SURFACE IMPOUNDMENTS AND LANDFILLS

- 7B.1 7B-1 The provisions of this Appendix (7-B) shall be strictly construed in the permitting of new surface impoundments and landfills. In the permitting of interim status surface impoundments which store or treat controlled industrial waste or recyclable materials, and landfills which dispose of controlled industrial waste, the Department may waive certain of these requirements upon a showing that the facility will remain physically and technically suitable. Interim status surface impoundments which dispose of controlled industrial waste shall not be required to obtain permits (i.e. may remain in interim status), but may do so voluntarily.
- 4.0 **MINIMUM SPECIFICATIONS FOR CONTROLLED INDUSTRIAL WASTE SURFACE DISPOSAL SITES**
- 4.1 ~~Controlled industrial waste surface disposal sites shall include all sites utilizing pits, ponds, lagoons, landfills, or other such feature at or near the surface of the land for disposal of wastes. Such sites shall not include soil farms.~~
- 4.1.1 All requirements set forth in Regulation 3.0 shall apply to surface disposal sites.
- 7B.2 7B-2 Location criteria, in addition to those enumerated in 40 CFR 264.18.
- 7B.2.1 4.1.2 Surface disposal sites may be located and constructed so that in-situ soils are utilized for containment, or by constructing or placing a liner of either soils or artificial material for the purpose of containment.
- 7B.2.2 4.1.3 Unless otherwise specified by the Department, the bottom of any pit, pond, lagoon, or landfill shall be a minimum of fifteen (15) feet above the ~~historical~~ annual high phreatic surface of any ground water. A distance of less than fifteen (15) feet may be allowed by the Department, provided that any potential leachate from the site can be detected and removed before it contaminates ground water.
- 7B.3 4.5 Buffer Zone, Sizing Requirements, and Spacing Requirements
- 7B.3.1 4.5.1 A buffer zone with a minimum width of Two Hundred (200) feet shall be established at the perimeter of the site , provided that interim status facilities with existing buffer zones of less than 200 feet may be permitted, but may encroach no further onto the buffer zone existing on November 19, 1980.

- 7 3.1.1 4-5-1-1 The exterior boundary of the buffer zone shall coincide with the outer fence line.
- 7B.3.1.2 4-5-1-2 No disposal, storage, or handling of controlled industrial waste shall occur within the buffer zone. Activities within the buffer shall be limited to establishment of office and control buildings, supporting facilities, and vehicular parking, provided such vehicles do not contain controlled industrial waste. Vegetation of the buffer zone is encouraged, but shall not be required.
- 7B.3.1.3 4-5-1-3 The buffer shall be widened where necessary to account for foreseeable right-of-way or easement requirements, so that the Two Hundred (200) foot minimum specified may be maintained at all times.
- 7B.3.2 4-5-2 Unless otherwise specified by the Department, no permit boundary for a new surface disposal site shall be less than 2,640 feet on any side.
- 7B.3.2.1 4-5-2-1 Unless otherwise specified by the Department, the minimum site size acceptable for permitting of a new facility is 160 acres.
- 7B.3.3 4-5-3 Disposition of controlled industrial waste shall begin as close to the center of the property as possible unless otherwise specified by the Department.
- 7B.4 4-2 Soil Criteria for Undisturbed, In-Situ Soils - The following soil characteristics shall be continuous for a distance of at least ten (10) feet in all directions downward and laterally of the actual disposal area:
- 7B.4.1 4-2-1 Fine-grained soils generally falling into group classification CH, OH, ~~or~~ CL, GC, or SC per the Unified Soil Classification System;
- 7B.4.2 4-2-2 Maximum hydraulic conductivity of  $10^{-7}$  cm/sec., both horizontally and vertically. Correlation between laboratory (microscopic) values and field (macroscopic) values will be required;
- 7B.4.3 4-2-3 Tests for particle size distribution, Liquid Limit, Plasticity Index, pH, clay mineral content, moisture and density (in-situ), cation exchange capacity (C.E.C.), and dispersive characteristics shall be required by the Department to adequately evaluate the soil's capacity to contain the wastes deposited therein.
- 7B.4.4 4-2-4 Borings used to prove the physical and technical suitability of the in-situ soils shall have continuous undisturbed samples taken for the full depth of the hole, unless otherwise specified by the Department. Information on exploratory or preliminary borings used for feasibility studies may be submitted as supportive data; such borings need not have continuous undisturbed samples.
- 7B.4.5 4-2-5 The Department may require a distance of more than ten (10) feet of soil meeting the above criteria if in its judgment such greater distance is necessary.

7B.4.6 4-2-6

The requirement for ten (10) feet of soil meeting these characteristics does not include allowances for erosion, equipment damage, frost damage, nor other environmental and operational damage. This requirement shall be increased by a thickness sufficient to maintain, at all times, the required ten (10) foot thickness, should damage from any source disturb the containment capabilities of any soil horizons.

7B.4.7 4-2-7

The applicant shall submit information regarding the potential adverse effects such as a change in hydraulic conductivity or moisture retention ability of the wastes upon the soils.

7B.4.8 4-2-8

Test borings shall be required in an amount and to a depth sufficient to adequately define all subsurface conditions and features. All borings which fall within ten (10) feet of a given pit, pond, lagoon, or landfill shall be plugged in a manner such that both microscopic and macroscopic hydraulic conductivity values are not increased. Plugging materials and methods must receive prior approval of the Department.

7B.4.9 4-2-9

Leachate Detection - All pits, ponds, lagoons, and landfills (hereinafter referred to as the disposal area) constructed using in-situ soils as containment shall install a series of wells, drain trench, or other system capable of detecting and removing any leachate or seepage leaving the disposal area. Such system shall use the best available technology for detecting leakage in both vertical and horizontal directions.

7B.4.9.1 4-2-9.1

Such systems shall be located at least ten (10) feet, but not more than fifty (50) feet from the disposal area in question.

7B.4.9.2 4-2-9.2

Systems used jointly by two (2) or more disposal areas shall be constructed in such a manner that it is possible to determine which disposal area is leaking.

7B.5 4-3

In lieu of the natural or undisturbed soil criteria set forth above in Section 4.2 and its subsections, an impervious liner of reconstituted natural or specific clays or artificial material may be substituted. The following minimum criteria shall apply to such liners:

7B.5.1 4-3.1

#### Clay Liners

- (a) shall be at least five (5) feet thick.
- (b) shall be reconstituted and compacted on a substantially stable base.
- (c) shall, after compaction, have a maximum hydraulic conductivity of  $10^{-8}$  cm/sec., both horizontally and vertically.
- (d) shall be subject to Sections 4-2-1 7B.4.1 and Sections 4-2-3 7B.4.3.



- 7B.5.1.1 4-3-1-1 The applicant shall submit evidence correlating laboratory compaction and permeability values to those reasonably expected in the field.
- 7B.5.1.2 4-3-1-2 Test borings shall be taken in an amount and to a depth sufficient to adequately define all subsurface conditions and features, and to establish that liners will be placed upon a firm, stable base.
- 7B.5.1.3 4-3-1-3 The Department may require a distance of more than five (5) feet of soil meeting the above criteria if in its judgment such greater distance is necessary.
- 7B.5.1.4 4-3-1-4 The requirement for five (5) feet of soil meeting these characteristics does not include allowances for erosion, equipment damages, frost damages, nor other environmental and operational damage. This requirement shall be increased by a thickness sufficient to maintain, at all times, the required five (5) foot thickness, should damage from any source disturb the containment capabilities of any of the soils horizons.
- 7B.5.1.5 4-3-1-5 The applicant shall submit information regarding the potential adverse effects of the wastes upon the soils.
- 7B.5.2 4-3-2 Artificial liners (concrete, plastics, etc.)
- (a) shall be non-reactive to waste materials.
  - (b) shall be placed on a stable-type base.
  - (c) shall have a minimum thickness of .020 inches for plastic and rubber liners.
  - (d) shall not be unduly affected by exposure to sunlight, temperature, or other environmental factors.
  - (e) shall be resistant to puncturing or rupture.
- 7B.5.2.1 4-3-2-1 Test borings shall be taken in an amount and to a depth sufficient to adequately define all subsurface conditions and features, and to establish that liners will be placed upon a firm, stable base.
- 7B.5.3 4-3-3 Leachate Detection - All disposal areas using either compacted clay or artificial materials as liners for containment shall install a formal leachate detection/collection system beneath the liner. Unless otherwise specified by the Department, this system shall be extended upward, behind the liner, at the edges of the area, to the maximum anticipated liquid level.
- 7B.5.3.1 4-3-3-1 Such systems shall be constructed so as to freely drain to one (1) or more central monitoring points, which shall be located outside the area.

- 5.3.2 ~~4.3.3.2~~ A second liner shall be constructed beneath the leachate detection/collection system.
- 7B.5.3.2.1 ~~4.3.3.2.1~~ If the secondary liner is of artificial materials, it shall meet the requirements of Regulation ~~4.3.2~~ 7B.5.2 in full.
- 7B.5.3.2.2 ~~4.3.3.2.2~~ If the secondary liner is of compacted clay, it shall meet the requirements of Regulation ~~4.3.1~~ 7B.5.1, except that the minimum required thickness shall be one (1) foot.
- 7B.6 ~~4.4~~ General Requirements for all Surface Disposal Sites
- 7B.6.1 ~~4.4.1~~ All testing methods shall be the latest ASTM or other methods approved by the Department.
- 7B.6.2 ~~4.4.2~~ The applicant shall submit information to the Department regarding the projected operational lifetime of the project and of each disposal area. This lifetime of the site shall be determined as follows:
- 7B.6.2.1 ~~4.4.2.1~~ For sites utilizing clay liners or natural clays for containment: The time necessary for clear water to pass through the established clay barrier shall be determined based upon the following equation, derived from Darcy's Law:
- $$t = \frac{xnL^2}{kH} \text{ where, } t = \text{penetration time in years}$$
- k=maximum anticipated hydraulic conductivity, in cm/sec.
- H= maximum anticipated liquid head in feet
- L=minimum clay thickness in feet which shall not include any clay thicknesses which may be damaged by erosion, frost, etc.
- n=Soil porosity (dimensionless)
- $x = 9.65 \times 10^{-7} \frac{\text{cm-years}}{\text{foot-sec.}}$  a constant to maintain consistency in units.
- The projected operational lifetime shall then be determined by application of a reasonable and prudent Safety Factor, which shall not be less than 1.5, to the time figure determined above.
- 7B.6.2.2 ~~4.4.2.2~~ For sites utilizing artificial liners for containment: by use of hydraulic flow equations or other methods as applicable, the point in time necessary for liquids to penetrate the artificial liner shall be determined based upon:
- (i) maximum anticipated permeability, or equivalent factor.
  - (ii) maximum anticipated liquid head.

- (iii) minimum liner thickness, less allowances for damage.
- (iv) minimum reasonable life expectancy of the liner.
- (v) "worst case" environmental conditions.

The projected operational lifetime shall then be determined by application of a reasonable and prudent Safety Factor, which shall not be less than 2.0, to the time figure established above. **IN NO CASE** will a projected operational lifetime in excess of 100 years be accepted by the Department.

7B.6.2.3 ~~4423~~

All determinations of projected operational lifetimes shall be made using established engineering principles, equations, and practices, and will represent sound engineering judgment. The applicant shall submit supporting evidence to substantiate all data and assumptions used to determine the projected operational lifetime.

7B.6.3 ~~443~~

Upon expiration of the projected operational lifetime, the operator of a site shall cease operations in the affected disposal area(s) and commence closure operations.

APPENDIX 7-C

MINIMUM STANDARDS FOR CONTROLLED INDUSTRIAL WASTE

LAND TREATMENT FACILITIES

7C.1 7C.1      Usage of any piece of land as a controlled industrial waste land treatment site shall be considered as dedicating that land exclusively to that usage. Sites may not be converted to any other usage until and unless such usage is specifically allowed by the Department, or the Department determines that the site no longer presents a danger to the public health and safety or environmental quality if converted to a general usage and releases it from these requirements.

6.6      Operational Standards

6.6.1      Operational procedures and methods shall conform with plans submitted and approved as a part of the application. Any significant deviation from these original plans must first be submitted to the Department in writing. The Department shall then approve or deny said proposal within thirty (30) days.

7C.2 6.6.2      Application rates and operating procedures shall be such as to minimize or prevent the development of anaerobic conditions on the site, and to maintain efficient and timely degradation rates.

7C.3 6.6.3      Air, surface water, and ground water monitoring will be required as deemed necessary by the Department. Requirements concerning such monitoring shall be the same as those listed in Regulation ~~4.4.5~~ 7A.2.

6.6.4      Monthly operational reports shall be submitted to the Department by the site operator or his designated representative in accordance with Title 63 O.S. Supp. 1978, Section 2754(10). Forms for such reports will be provided by the Department.

7C.4 6.6.3      Runoff shall be collected, in accordance with Rule ~~3.6.2~~ 7.2, and provided that the two foot (2') freeboard requirement of Rule 7.2.2.2 shall only apply to the impoundment area. Run-on shall be diverted from the active portion of the site.

6.6.5      Self Inspections

6.6.5.1      The operator or his designated representative shall make inspections of the major features of the site at least once during each day of operation. Such inspection shall concern itself with items such as, but not limited to, dike and retention pond conditions, storage conditions and quantities, application rates, and general site appearance.

6.6.5.2      The operator or his designated representative shall make a complete inspection of all features of the site at least once each week. This inspection shall include all fences, and shall extend to adjacent

access roads.

6.6.5.3 The operator shall maintain a daily log of inspections, which shall be initiated by the person making the inspection. All deficiencies noted during inspections shall be posted in the log. The log shall become a part of the permanent site records. All deficiencies noted during inspections shall be promptly corrected.

6.6.5.4 The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction of any operator error goes undetected between inspections.

7C.5 6.6.6 Soil monitoring shall be in accordance with 40 CFR 265.278.

6.7 All controlled industrial waste soil farming sites permitted prior to November 18, 1980, shall prepare closure plans in accordance with 40 CFR 265 Subpart G, and shall file one (1) copy with the Department. All such sites not in existence or not permitted from and after November 18, 1980, shall submit the plans (40 CFR 265 Subpart G) in the construction permit application.

7C.6 6.7.1 Closure shall consist of an orderly sequence of steps to remove all stored controlled industrial waste, transport such wastes to a permitted controlled industrial waste disposal site, and/or apply them to the soil farm itself, remove all contaminated, non-degradable materials to a permitted controlled industrial waste disposal site, fill all pits, ponds, or depressions, level the site to insure proper drainage without excessive risk of erosion, and establishing permanent vegetation over the entire disposal and storage area and over all dikes and retention structures.

7C.6.1 6.7.1.1 Vegetation used on the site shall not be used for food-stuffs for human consumption, or for animals (and animal products) which may be used for human consumption, until such time as the vegetation has been thoroughly analyzed and shown to be free of harmful levels of any waste constituent or degradation product, which at a minimum is in accordance with 40 CFR 265.276, and such use is approved by the Department.

7C.7 6.7.2 Prior written approval by the Department or written proof of decontamination is required for removal of decontaminated tanks or equipment.

APPENDIX 7-D

MINIMUM DESIGN AND CONSTRUCTION SPECIFICATIONS

WHICH APPLY ONLY TO

PERMITTED LAND TREATMENT FACILITIES

**6.0 MINIMUM SPECIFICATIONS FOR SOIL FARMING DISPOSAL SITES**

6.1.1 All requirements set forth in Regulation 3.0 shall apply to soil farming sites.

7D.1 6.2 As a part of the application for construction permit, the applicant shall submit a detailed plan as required by Title 63 O.S. Supp. 1978 1981, Section 2765 1-2014, which shall include the following:

7D.1.1 6.2.1 Type of waste(s) to be soil farmed.

7D.1.2 6.2.2 Chemical components of the waste(s).

7D.1.3 6.2.3 Application techniques.

7D.1.4 6.2.4 Application rate.

7D.1.5 6.2.5 Accurate soil and rock profile(s) to a depth of at least ten (10) feet.

7D.1.6 6.2.6 Topographic map(s) showing drainage patterns of the site.

7D.1.7 6.2.7 Detailed information on proposed method of drainage and/or surface water control.

7D.1.8 6.2.8 Detailed information on any proposed pre-disposal storage facilities for controlled industrial waste. All such storage shall be conducted in compliance with Regulation 10.0.

7D.2 6.3 Soil tests for particle size distribution, Liquid Limit, Plasticity Index, pH, moisture and density (in-situ), and Cation Exchange Capacity will be required by the Department to establish the general characteristics of the soils and their ability to absorb and retain the applied wastes until degradation, and any residuals following degradation, specifically toxic metal ions.

7D.3 6.4 General Requirements for Soil Farm Sites

7D.3.1 6.4.1 All testing methods shall be the latest ASTM or other methods approved by the Department.

7D.3.2 7D.3.2 The permittee shall demonstrate by means of laboratory tests the absorption capacity of the specific soils on the site to absorb the specific cations contained in the waste stream, in the concentrations expected. This absorption capacity must be such

that the provisions of Rule 7.2.1 are complied with. Absorbtion capacity of the upper thirty-six inch (36") shall be considered as long as the annual high water table is at least five (5) feet from the surface. IN NO CASE, should the depth of absorptive zone be closer than two (2) feet to the annual high water table.

7D.3.3 6.4.2

The applicant shall submit information to the Department regarding the projected operational lifetime of the project and of each disposal area. This lifetime of the site shall be the lesser of the ~~time periods~~ determined by the following: (6.4.2.1) By consideration of the Cation Exchange Capacity of the upper twelve inches of soils on the site, the application rates of waste material, and the cation concentrations of the individual toxic metal compounds in said wastes; the time period necessary to apply the said wastes, such that the total milliequivalents of cations in the total applied waste is within 1.0 milliequivalents per 100 grams of the average effective Cation Exchange Capacity of the soil shall be determined.

7D.3.4 6.4.2.2

All determinations of projected operational lifetimes shall be made using established engineering principles, equations, and practices, and will represent sound engineering judgment. The applicant shall submit supporting evidence to substantiate all data and assumptions used to determine the projected operational lifetime.

7D.4 6.5

#### Buffer Zone, Sizing Requirements, and Spacing Requirements

D.4.1 6.5.1

A buffer zone with a minimum width of fifty (50) feet shall be established at the perimeter of the site, unless otherwise specified by the Department. Provided, that interim status facilities with existing buffer zones of less than fifty (50) feet may be permitted, but may encroach no further into the buffer zone existing on November 19, 1980.

7D.4.1.1 6.5.1.1

The exterior boundary of the buffer zone shall coincide with the outer fence line.

7D.4.1.2 6.5.1.2

No disposal, storage, or handling of controlled industrial waste shall occur within the buffer zone. Activities within the buffer shall be limited to establishment of office and control buildings, supporting facilities, and vehicular parking, provided such vehicles do not contain controlled industrial waste. Vegetation of the buffer zone is encouraged, but shall not be required.

7D.4.1.3 6.5.1.3

The buffer shall be widened where necessary to account for foreseeable right-of-way or easement requirements, so that the fifty (50) foot minimum specified may be maintained at all times.

APPENDIX 7-E

MINIMUM SPECIFICATIONS FOR ALL

CONTROLLED INDUSTRIAL WASTE INJECTION WELLS

- 7E.1 ~~5.6.2~~ An injection well shall be completed, equipped, and maintained in a manner that will prevent degradation of or endanger fresh water, damage to sources of oil or gas, or danger to other natural resources.
- 7E.2 7E.2 Injection into or above an underground source of fresh water is prohibited.
- 7E.3 ~~5.6.3~~ Disposal of industrial waste shall be through adequate tubing and below a packer, which is strategically set so as to isolate the waste receiving formation.
- 7E.4 ~~5.6.5~~ The annular space between tubing and production casing shall be filled with a non-corrosive fluid and the annulus closed off. Unless otherwise specified by the Department, the annulus fluid shall be maintained at a minimum positive pressure of ten (10) p.s.i.g at the well head.
- 7E.5 ~~5.6.6~~ The injection pressure at the well head, the flow rate, the annulus pressure, and the temperature of the injected fluid shall be monitored and recorded continuously on either a circular or strip chart recorder. The operator shall maintain records accurately reflecting the volume of fluid injected on any given day. As part of the monthly reports required by the Oklahoma Controlled Industrial Waste Disposal Act, the operator shall submit representative copies of the charts or records which will reasonably reflect the well head and annulus pressures, the flow rate, and temperature of the injected fluid, which were encountered on any given day of the month in question. The operator shall maintain a permanent file of all charts and records obtained under this paragraph as a part of the permanent site records.
- 7E.5.1 7E.5.1 Injection and annulus pressure monitoring taps shall be provided for the use of the Department. Such taps shall both be connected near, or at, the locations on the well of the facility pressure monitoring recorders. The taps shall provide a one-fourth inch (1/4") diameter N.P.T. male pipe fitting, valved and capped so as to prevent fluid loss when not in use. Said taps shall allow simultaneous pressure monitoring by facility pressure recorders and Department pressure gauges.
- 7E.5.2 7E.5.2 The requirement for monitoring of the flow rate and temperature of the injected fluid and the installation of monitoring taps shall become effective July 31, 1982. (All other requirements of Rule 7E.5 became effective January 1, 1980.)
- ~~5.6.6.1~~ This Regulation shall be effective immediately for injection wells which enter operation after January 1, 1979. All injection wells



which were in operation on or before January 1, 1979, shall be in compliance with this Section by January 1, 1980.

- 7E.6 7E.6 Injection fluids shall be analyzed with sufficient frequency, acceptable to the Director, to yield representative data of their characteristics. The physical, chemical and other relevant characteristics of the injected fluids shall be submitted as part of the monthly reports required by the Oklahoma Controlled Industrial Waste Disposal Act and shall remain a part of the permanent site records.
- 7E.7 ~~5.6.7~~ The maximum total pressure gradient (disposal pressure and fluid pressure) of any injection well shall not exceed sixty-five percent (65%) of the established overburden pressure gradient in pounds per square inch per foot (p.s.i./ft.) of depth from ground surface to the top of the disposal zone. If the effective overburden gradient is not established, the maximum total pressure gradient shall not exceed 0.65 p.s.i./ft. of depth from ground surface to the top of the disposal zone unless otherwise specified by the Department. Allowances in this specified maximum pressure may be made to account for pressure losses due to friction in piping or tubing.
- 7E.8 ~~5.6.8~~ The tubing shall be tested at One Hundred Fifty percent (150%) of its maximum proposed operating pressure or 300 p.s.i., whichever is greater, before operation of an injection well.
- 7E.9 ~~5.6.10.1~~ At least ~~once~~ during each five (5) years of operation, the operator shall conduct such tests, such as cement bond logs, temperature or noise logs, or tracer surveys, as are necessary to insure the continued integrity of the cementing, and shall submit such information to the Department. Such tests shall be conducted no more than 90 days prior to application for permit or permit renewal, and the results shall be included with said application. The owner shall notify the Department at least seven (7) days in advance of the time and date of such tests, so that Department observers may be present.
- 7E.10 ~~5.6.11~~ Formation pressure decay tests as specified shall be conducted annually and the results submitted to the Department. with the monthly report following completion of the test.
- 7E.10.1 ~~5.6.11.1~~ Such formation pressure decay tests shall be conducted by pressurizing the well to its maximum normal injection pressure for a length of time sufficient to establish stable conditions, then closing off the well and monitoring the decay in well head pressure. The test may be terminated when the well head pressure changes no more than three (3) p.s.i. in one (1) hour, or at the end of twenty-four (24) hours, whichever comes first.
- 7E.11 ~~5.6.12~~ ~~Air and water~~ Water monitoring will be required as deemed necessary by the Department.
- ~~5.6.13~~ Monthly operational reports shall be submitted to the Department by the site operator or other responsible person in accordance with Title 63 O.S. Supp. 1978, Section 2754(10). Forms for such reports will be provided by the Department.

5.6.14 Self inspections.

5.6.14.1 The operator or his designated representative shall make inspections of the major features of the site at least once during each day of operation. Such inspection shall concern itself with items such as, but not limited to, dike and retention pond conditions, well pressures, spillage, leaks, repairs, general maintenance, waste receipts, storage and disposal quantities, and general site appearance.

5.6.14.2 The operator or his designated representative shall make a complete inspection of all features of the site at least once each week. This inspection shall include all fences, and shall extend to adjacent access roads.

5.6.14.3 The operator shall maintain a daily log of inspections, which shall be initiated by the person making the inspection. All deficiencies noted during inspections shall be posted in the log. The log shall become a part of the permanent site records. All deficiencies noted during the inspections shall be promptly corrected.

7E.12 5.7 Pre-Treatment.

7E.12.1 5.7.2 Pre-Treatment shall render substances which are to be disposed of compatible with solids and liquids in the disposal zone.

7E.12.3 5.7.3 Materials and sludges resulting from pre-treatment or storage of controlled industrial waste, which are not amenable to injection, shall also be considered as controlled industrial waste and disposed of in accordance with these Regulations. For the purposes of disposal of these materials and sludges, the facility shall be considered a controlled industrial waste generator and must file a disposal plan for approval by the Department.

5.7.4 Waste materials retained at any well site shall not exceed the quantity that may be disposed of in a normal ten (10) day working period for that facility. If additional waste, over this amount, are to be retained, the facility must meet all standards as a controlled industrial waste surface disposal site (see Section 4.0-4.7.3).

7E.13 5.8 Emergency Procedures.

7E.13.1 5.8.1 In the event of component or operational failure, the well owner, operator, or other responsible person shall cease operations immediately and utilize the back-up systems as reported in Regulation 5.5.2. implement the contingency plans specified in 40 CFR 264, Subpart D, or 40 CFR 265, Subpart D. Failure shall be taken to include any condition which will necessitate, or may necessitate, opening of the well head; or replacement or repair of tubing or casing; or extensive maintenance or repairs of which causes the facility to cease injection for a period of more than twenty-four (24) hours; or mechanical failure or down-hole problems which indicate that a disposal well is not or may not be directing the injected fluid solely into the permitted or authorized injection zone. Normal maintenance of equipment at the well head,

such as repair or replacement of valves, pumps and similar items, shall not be deemed as failure, unless such repairs or replacements modify the operation of the well, or alter injection well capacity.

- 7E.13.2 ~~5.8.2~~ The well owner, operator, or other responsible person shall notify the Department immediately when operations cease and, within forty-eight (48) hours, shall submit a written statement delineating the nature of the problem and the estimated time required to resume disposal operations.
- 7E.13.3 ~~5.8.3~~ Any remedial or emergency work shall be commenced immediately. The operator must demonstrate the mechanical integrity of the affected part of the well and receive approval of the Department shall be obtained prior to resumption of injection. The operator shall report repair operations to the Department and shall submit a final report within ten (10) days following completion of such work.
- 7E.13.4 7E.13.4 The Department shall respond promptly to notifications of emergency situations, and shall expedite approvals for resumption of operations following emergencies, to prevent undue delay to operations. Interim approval for a period of not more than 72 hours may be given orally, but final approval must be in writing, following an inspection of the facility and the repairs made.
- 7E.14 ~~5.9~~ Abandonment and Plugging.
- 7E.14.1 ~~5.9.1~~ Any well to be permanently abandoned shall be immediately plugged. Every well shall be plugged in such a manner as to permanently prevent the migration of any disposed substances out of the disposal zone as well as the migration of oil, gas, or salt water into or out of any productive formations by means of the well bore.
- 7E.14.2 ~~5.9.2~~ The plugging operator shall notify the Department of the exact time during which all plugging operations will take place. The Department may be present at plugging operations if deemed necessary by the Department or if requested by the plugging operator.
- 7E.14.3 ~~5.9.3~~ The well shall be filled with mud from the bottom of the well to a point One Hundred (100) feet below the top of the highest disposal zone and then with a cement plug from there to One Hundred (100) feet above the top of the disposal zone.
- 7E.14.4 ~~5.9.4~~ A cement plug shall also be set from a point fifty (50) feet below the shoe of the surface casing to a point five (5) feet above the lowest fresh water zone.
- 7E.14.5 ~~5.9.5~~ A final cement plug shall extend from a point thirty (30) feet below the ground surface to a point five (5) feet below the ground surface.
- 7E.14.6 ~~5.9.6~~ All intervals between plugs shall be filled with mud.
- 7E.14.7 ~~5.9.7~~ The top of the plug of any plugged well shall clearly show the well permit number and date of plugging by permanent markings whether

inscribed in the cement or on a steel plate embedded in the cement.

7E.14.8 ~~5.9.8~~ Within fifteen (15) days after a well has been plugged, the owner or operator shall file a plugging record in triplicate with the Department.

7E.14.9 ~~5.9.9~~ The owner will submit, at least 180 days prior to cessation of operations, plans for the proper disassembly, decontamination, and restoration of the site. After plan approval, the site restoration program will be implemented and completed within six (6) months, unless otherwise specified by the Department.

7E.14.9.1 ~~5.9.9.1~~ The submitted plan will include a method for reconditioning, recycling or disposal of all contaminated materials, residual liquids, sludges, and holding tanks.

7E.14.9.2 ~~5.9.9.2~~ This plan will also include proper filling of all pits, ponds, and lagoons, the regrading of the entire site with proper cover to avoid excessive runoff, and the use of ground cover vegetation, i.e. grasses, to control excessive erosion.

APPENDIX 7-F

MINIMUM DESIGN AND CONSTRUCTION SPECIFICATIONS

WHICH ONLY APPLY TO

PERMITTED INJECTION WELL FACILITIES

**5.0 MINIMUM SPECIFICATIONS FOR INJECTION WELL DISPOSAL SITES.**

5.1 Injection well disposal sites shall be taken to include all ancillary surface facilities such as, but not limited to, tanks, pumps, pits, and truck unloading areas, as well as the injection well itself.

7F.1 7F.1 These requirements shall be strictly construed for all new controlled industrial waste injection wells.

5.2 Injection well disposal sites shall be subject to all applicable requirements list in Regulation 3.0

7F.2 5.3 Existing industrial waste injection wells, permitted by the Oklahoma Water Resources Board prior to the adoption of these regulations may not be required to meet the construction specifications delineated herein. Each existing injection well will be evaluated by the Department to determine if such well's construction is adequate to prevent contamination of fresh water, and damage to sources of oil or gas. After Based upon such evaluation, the Department may will either approve or deny the continuation of operation of such injection wells or order remedial measures necessary for issuance of a permit, as appropriate. Upon approval of an existing injection well, the Department shall issue a permit for operation. Injection not authorized by permit or interim status is prohibited.

7F.3 5.4 In addition to the requirements set forth in Regulation 3.0, Rule 7.1 through 7.6 the The following items shall be included in applications for construction permits for injection wells:

7F.3.1 5.4.1 Plat certificates and any other records filed with the County Clerk or the Oklahoma Corporation Commission showing every oil, gas, water, irrigation or disposal well and every "dry hole" or other artificial penetration deeper than twenty-five (25) feet within a two (2) mile radius of the proposed injection well, unless otherwise specified by the Department.

7F.3.2 5.4.2 Scale and schematic drawings of all proposed pre-treating and/or auxiliary surface equipment, including any backup, fail-safe, or standby systems to be utilized in case of well failure.

7F.3.3 5.4.3 Schematic drawing illustrating in detail the proposed well construction including dimensions of well bore, casing, cementing, tubing, and packer(s).

- 7F.3.4 ~~5.4.4~~ Information on any proposed well testing programs including any stimulation procedures to be used.
- 7F.3.5 ~~5.4.5~~ Narrative geological, hydrological, and engineering report on the proposed disposal zone including an isopachous and structural map maps of the zone and all available data from logs of other wells in the area; this would include operational status and plugging records. The applicant shall be required to submit information regarding the physical integrity of all wells penetrating the injection formation that lies within the Potentially Affected Zone.
- 7F.3.5.1 ~~5.4.5.1~~ The Potentially Affected Zone shall be determined by consideration of injection pressure, volumes and characteristics of fluids to be injected, years of operation, and geological characteristics and shall, in all cases, include at a minimum the area within a one (1) mile radius of each proposed well.
- 7F.3.5.2 ~~5.4.5.2~~ Included in the report required by Regulation ~~5.4.5~~ 7F.3.5 above shall be a discussion of known or potential fluid flow directions and fluid distributions within the receiving formation(s).
- 7F.3.5.3 ~~5.4.5.3~~ The applicant shall be required to demonstrate with geologic, hydrologic, and engineering data that the proposed disposal zone has sufficient size, porosity, and permeability to accept the proposed waste at the rate and in the volume proposed. The applicant shall further demonstrate the integrity of the seals (aquitards and aquicludes), including any affecting faults, of the proposed zone to assure that the injected wastes shall be safely contained. Such demonstration may include the use of existing well logs and records.
- 7F.3.6 ~~5.4.6~~ Two (2) detailed stratigraphic cross sections showing all formations to be penetrated, both along the axis of the structure and normal to each other. The cross sections shall cover an area large enough to depict both local and regional structure, shall show details of lithologies to be penetrated, and shall be referenced to the information submitted in compliance with Regulation ~~5.4.5~~ 7F.3.5.
- 7F.3.7 ~~5.4.7~~ The applicant shall submit information regarding potential adverse effects to any existing injection well. For the purpose of this Section, an existing injection well is defined to be an injection well either currently in operation, under construction, or one which has a complete application submitted to the Department for consideration. Should it be shown that such potential exists, the application shall be denied, except that the operator of the existing injection well may waive this requirement. To waive this requirement, the operator of an existing injection well shall indicate same to the Department in writing and shall certify the ability of his well to be operated in compliance with the Oklahoma Controlled Industrial Waste Disposal Act and these Regulations.
- 7F.3.8 ~~5.4.8~~ The applicant shall submit information regarding all ancillary surface features such as, but not limited to, tanks, pits, diking, pumps, truck unloading areas, material handling areas, and fencing.

Such information shall be considered as an integral part of the application, and will be subject to the relevant requirements of Rules 7.8 through 7.16.

7F.4 ~~5.5~~

In addition to the requirements set forth in Regulation 3.0, Rules 7.1 through 7.6, the following items shall be included in applications for operational permits for injection wells:

7F.4.1 ~~5.5.1~~

Drawing of well (scaled vertically) showing:

- (a) Total depth of well.
- (b) Depth and relative thickness of formations and lithologies penetrated.
- (c) Depth and construction of all casings.
- (d) Depth of packer(s).
- (e) Depth of top and bottom of all cemented areas, verified by a cement bond log.

7F.4.2 ~~5.5.2~~

Geological/hydrological report on disposal zone:

- (a) Depth to top and bottom of disposal zone.
- (b) Porosity and permeability of disposal zone.
- (c) Compatibility with the industrial wastes to be injected.
- (d) Fluid pressure, temperature and fracture pressure of the disposal zone.
- ~~(d)~~ (e) Results of any preliminary flow tests and stimulation practices; such tests shall be conducted using either fresh water or the formation waters encountered.
- ~~(e)~~ (f) Discussion of direction and distribution of flow within the zone.
- ~~(f)~~ (g) Discussion of geologic anomalies, such as faults or caverns, which were not considered or anticipated by the construction permit application.

7F.4.3 ~~5.5.3~~

Logs and surveys including:

- (a) An electrical resistivity or induction log of the type determined best for the condition of the hole being logged. The log shall have an S. P. Curve and a single or multiple resistivity curve.
- (b) Drillers log.
- (c) Mechanically recorded drilling time log (Geograph or

similar).

(d) Temperature log.

~~(d)~~ (e) A porosity log which shall have an S. P. or gamma-ray curve, and a borehole caliper survey, which shall be accompanied by a micro resistivity, interval transit time, compensated density, neutron, or other curve developing similar information regarding porosity and potential faulting.

~~(e)~~ (f) Gamma-ray/neutron log if disposal zone is cased.

~~(f)~~ (g) Electro Magnetic Thickness Log and Caliper Log of the in-place casing.

(h) Fracture finder log.

~~(g)~~ (i) Bottom hole pressure test made in hole and disposal zone.

(j) Noise logs.

7F.4.4 ~~5.5.4~~ Detailed lithological description of all formations penetrated and all core data obtained.

7F.5 ~~5.6~~ Construction and Operation Standards.

7F.5.1 ~~5.6.1~~ The applicant shall provide the Department with sufficient information to prove the integrity of the injection formation and all penetrations of the confining formations within the Potentially Affected Zone to be such that no contamination of underground fresh water sources, surface waters, the surface of the land or improvements thereon, and damage to sources of oil or gas shall occur.

7F.5.2 ~~5.6.4~~ Tubing, casing, cement, and all other constructed materials coming in contact with the waste fluid shall be resistant to the corrosive effects of the waste. If the tubing is not designed for the life expectancy of the well, plans for periodic testing and/or replacement are to be presented to the Department.

7F.5.3 ~~5.6.9~~ The surface casing shall extend from the surface down to a minimum of fifty (50) feet below the lowest freshwater bearing formation.

7F.5.4 ~~5.6.10~~ All annular spaces between casings and between the casings and the bore hole shall be filled with cement circulated from the bottom of the hole to ground surface, unless otherwise specified.

7F.5.5 ~~5.6.12.1~~ As a minimum, at least one (1) monitoring well shall be installed and maintained at the expense of the owner. The Department may require additional wells if they are deemed necessary to adequately monitor groundwater quality and level around the site. Specifications for the location, construction and maintenance of monitoring and/or observation holes must be approved by the



Department prior to installation.

- 7F.5.5.1 5.6+12.1+1 Well(s) shall be sufficient to provide monitoring of the lowest fresh water ~~zone~~ aquifer beneath the site.
- 7F.5.5.2 5.6+12.1+2 Well(s) shall be arranged so that at least one (1) well will be placed hydraulically down-gradient from the site.
- 5.6+12.2 Water sampling points will be established sufficient to adequately sample all surface water discharges from the site. Additionally, monitoring wells will be established sufficient to sample area groundwaters for possible degradation from leakage or spillage from waste storage, handling, and transfer areas. Such wells need not be deeper than fifty (50) feet, and placement shall be approved by the Department prior to installation.
- 5.6+12.3 Air sampling points shall be established by the operator, as required by the Department.
- 5.6+12.4 The operator of a site shall bear all expenses relating to installation of sampling equipment and all subsequent sampling and analysis.
- 5.6+12.5 The operator shall be required to supply, upon request, a representative sample from all sampling points, at no expense to the Department. The Department shall bear the expense of subsequent analysis of such samples.
- 5.5.3 5.6+12.6 Unless otherwise specified by the Department, water samples shall be obtained and analyzed at least once each month, and submitted as part of the monthly report, and air samples shall be obtained and analyzed at least each six (6) months.
- 7F.5.5.4 5.6+12.7 Upon issuance of any operational permits, the Department will notify the operator of the parameters to be analyzed from the samples.
- 7F.6 5.7.1 All applications for injection well permits shall be critically evaluated by the Department to determine that the best practical measures for pre-treatment of wastes have been applied.
- 7F.7 5.9.10 Dedication.
- 7F.7.1 5.9.10.1 Upon permit approval, all facilities and equipment on-site or off, connected with the disposal operation, as described in the permit, shall be dedicated to sole use for matters described previously for that site's operation. This requirement shall not be taken to include highway or rail transport vehicles used to convey controlled industrial waste to the facility from off-site generators. Transfer of use, or sale of this equipment is prohibited unless Department approval is obtained in writing. Approval may be obtained only if the owner can show that said equipment is not or no longer contaminated and will not contaminate the environment in its future use. Nor will the absence of such material effect the operational safety of the site.

7F.8 5-10

Life-time.

7F.8.1 5-10-1

The owner shall submit the life-time expectancy for his injection well based upon that well's Potentially Affected Zone, giving the facilities projected volume of injection, fluid type, and all the geologic and hydrologic factors for that region.

7F.8.2 5-10-2

When the projected life-time expectancy of the well is reached and the well is still in operation, the owner must submit plans for immediate shut-down and follow abandonment and plugging procedures.

7F.8.3 5-10-3

If the well is operating effectively and within its permit limits, the owner may resubmit a revised well life-time expectancy. This resubmittal should be received by the Department at least 180 days prior to the expiration of the previously projected date. The revised date should include an explanation as to what the revision is based on. All applications for revised well life-time expectancies shall be considered as modifications to the original construction permit, and as such will be subject to the requirements for public hearings.

## CHAPTER 8

### CONTROLLED INDUSTRIAL WASTE FACILITY

#### PERMIT REQUIREMENTS - INTERIM STATUS - PERMITTING PROCEDURES

##### PUBLIC PARTICIPATION - DUTIES OF PERMIT HOLDERS

#### **3.0 PERMIT REQUIREMENTS FOR INDUSTRIAL WASTE DISPOSAL SITES OR PROCESSING FACILITIES.**

- 8.1 ~~3.1~~ 3.1 With the exceptions noted in Rule 8.6, Any any person proposing to operate a site or facility for the processing and/or disposal of controlled industrial waste shall obtain a permit for construction as well as a permit for operation. Permits will not be transferable.
- 8.2 8.2 Applications will be reviewed by the Department for completeness of information relating to and proving the physical and technical suitability as provided for in 63 O.S. 1981, Section 1-2007 and as defined by these Regulations.
- 8.3 ~~3.2~~ 3.2 The applicant for a controlled industrial waste disposal site or facility shall bear the burden of proof of whether the disposal site is physically and technically suitable.
- 8.4 8.4 The following sections of 40 CFR Part 122, as amended through September 30, 1981, are herein incorporated by reference:
- 8.4.1 8.4.1 40 CFR 122.4, Application for a permit.
- 8.4.2 8.4.2 40 CFR 122.6, Signatories to permit applications and reports.
- 8.4.3 8.4.3 40 CFR 122.7, Conditions applicable to all permits.
- 8.4.4 8.4.4 40 CFR 122.8, Establishing permit conditions.
- 8.4.5 8.4.5 40 CFR 122.10, Schedule of compliance.
- 8.4.6 8.4.6 40 CFR 122.11, Requirements for recording and reporting of monitoring results.
- 8.4.7 8.4.7 40 CFR 122.15, Modification or revocation and reissuance of permits.
- 8.4.8 8.4.8 40 CFR 122.16, Termination of permits.
- 8.4.9 8.4.9 40 CFR 122.22, Application for a permit.
- 8.4.10 8.4.10 40 CFR 122.24, Contents of Part A.
- 8.4.11 8.4.11 40 CFR 122.25, Contents of Part B.

- 8.4.12 8.4.12 40 CFR 122.17(b), Short-term permits - Trial burn permits.
- 8.4.13 8.4.13 40 CFR 122.28, Additional conditions applicable to all RCRA permits, except that 40 CFR 122.28(c) is not incorporated herein by reference.
- 8.5 8.5 Establishment of Interim Status for Existing Facilities
- 8.5.1 8.5.1 Facilities which were either operating or under construction as of November 19, 1980, qualify for interim status by:
- a. Having notified the Regional Administrator of the U. S. Environmental Protection Agency of such activities by filing a Part "A" permit application prior to November 19, 1980, as described in 40 CFR Part 122, or having filed with the Department the information required by 40 part 122 for a Part A application, prior to November 19, 1980; and,
- b. maintaining full compliance with the Interim Status Standards as required in Chapter 7 of these Regulations.
- 8.5.2 8.5.2 The relevant Interim Status Standards of Chapter 7 shall be fully enforceable upon facilities which have achieved Interim Status.
- 8.5.3 8.5.3 The Department may, at any time after the effective date of the relevant standards for permitting of a given type of facility, require the owner of a facility to submit a permit application for operation of said facility. The facility owner shall be required to file such application with the Department within six (6) months of notification by the Department that the application be submitted. Facility owners may voluntarily submit a permit application at any time after the effective date.
- 8.5.3.1 8.5.3.1 Owners of Interim Status facilities which fail to file an application for permit within six (6) months of notification by the Department, or who file applications which, on their face, do not contain the information required by Rule 8.7 of these Regulations, shall be considered as operating an unpermitted facility in violation of 63 O.S. 1981, Section 1-2009.1, and shall be fully subject to the enforcement provisions of 63 O.S. 1981, Section 1-2013.
- 8.5.3.2 8.5.3.2 Owners of Interim Status facilities shall not be required to obtain a construction permit for their facilities, but shall be required to obtain an operations permit for same.
- 8.6 8.6 The owners of the following facilities shall not be required to obtain a permit for construction, nor a permit for operation, of said facilities:
- a. Generators who store controlled industrial waste or recyclable materials on-site for less than ninety (90) days in accordance with Rule 3.15.

- b. Farmers who dispose of controlled industrial waste pesticides from their own use as provided in Rule 3.1
- c. Persons who own or operate facilities solely for the treatment, storage or disposal of controlled industrial waste excluded from regulation due to the quantity exclusions of Chapter 2.
- d. Owners of totally enclosed treatment facilities, wastewater treatment units, or elementary neutralization units.
- e. Transporters storing properly manifested shipments of controlled industrial waste in containers at a transfer facility for periods of ten (10) days or less.
- f. Those persons conducting activities carried out for the purposes of containing or treating controlled industrial waste in immediate response to a spill of controlled industrial waste or materials which, when spilled, become controlled industrial waste.
- g. Recycling facilities, in accordance with Chapter 5. ✓

8.7 8.7

Permit Procedures

3.3

Upon receipt of a tentative application for a controlled industrial waste disposal site or facility, the Department shall review same and respond to the applicant within sixty (60) days. If additional information is required, the Department shall designate such information and upon subsequent receipt of same shall again respond to said applicant within sixty (60) days. When the tentative application is certified complete, the ninety (90) day statutory period as required at Title 63, O.S. Supp. 1978, Section 2757 shall begin, provided that such period shall be tolled during the hearing. The hearing shall be considered to exist from the date of initial filing of notice in the Oklahoma Gazette until the close of record as provided by the Administrative Procedures Act, Title 75 O.S. Supp. 1971, Section 301 et seq.

8.7.1 3.4

General (For Emergency Permits, see also Rule 8.7.6) - The applicant shall submit five (5) complete and integrated tentative applications to the Department. Of these, three (3) shall be for in-house use, review, and analysis. One copy shall be forwarded directly to the County Health Department, if any, of the county where the site is located, for their review and comment. The remaining copy shall be available for review by interested parties, with priority being given to affected property owners. The application shall contain proof-of-publication, or similar proofs, that the notices to affected property owners and the public required by this Rule (8.7) have been published or broadcast as specified. The application shall not be considered as officially submitted, and no formal review shall begin, until these proofs are supplied.

8.7.1.1 3.4.1

If a tentative application is reviewed and found to be incomplete, the Department will return three (3) copies of the application to the applicants. The one (1) copy retained by the Department will be placed in the permanent project file,

maintained by the Department.

8.7.1.2 ~~3.4.2~~

Upon resubmission of an application, any additional information requested by the Department shall be integrated into the original ~~tentative~~ application. Upon each submission or resubmission of a ~~tentative~~ an application, the applicant shall again supply five (5) complete and integrated copies to the Department, for use and distribution as listed in Paragraph ~~3.4~~ 8.7.1.

8.7.1.3 8.7.1.3

Review of the permit application shall involve an in-depth, detailed analysis of all data, studies, reports and other documentation offered in support of the application, and shall include visits to and inspection of the site by Department personnel. The application shall fully support all assumptions, conclusions, and recommendations of the site design, construction, management, operation, maintenance, and closure, including submission of data and descriptions of analytical procedures used in formulating same.

8.7.1.4 8.7.1.4

All permit applications shall be subject to the requirements of 40 CFR 122.4 and 40 CFR 122.6.

8.7.1.5 ~~3.4.3~~

Upon certification by the Department that an application is complete, the applicant shall submit two (2) additional copies of the complete and integrated application to the Department, and shall maintain at least six (6) complete and integrated copies of the application for subsequent distribution to interested parties as directed by the Department. Of the copies in the possession of the Department at that time, four (4) will be distributed to the Oklahoma Corporation Commission, the Oklahoma Water Resources Board, the Oklahoma Geological Survey, and the U. S. Environmental Protection Agency for review and comment, one (1) will be retained for placement in the permanent project files, and one (1) will be made available for public display at any public meetings or hearings.

8.7.1.6 8.7.1.6

Upon certification by the Department that an application is complete, the draft permit or denial, as described in Rule 8.7.4, shall be prepared and the public meeting or hearing process of Rule 8.8 shall begin.

8.7.1.7 ~~3.4.4~~

Upon issuance or denial of a permit, the Department shall retain two (2) copies of the application for its files, and return all undistributed copies to the applicant, except that if a permit is issued, one (1) copy shall be mailed to the Health Department of the county in which the site or facility is located.

3.10

Permit Applications - Procedure for Controlled Industrial Waste Sites of Facilities

8.7.2 ~~3.10.1~~

Construction Permit


- (a) Applicant shall submit tentative application, engineering report and drawings to the Department. The required application forms are available upon request from the Department.

8.7.2.1 8.7.2.1

Applications shall be subject to the relevant requirements of 40 CFR 122.22, and shall contain all information pertaining to the design, location, siting, and construction of the proposed facility, including the requirements of Chapter 7 of these Rules and 40 CFR 122.25 and 122.26 that relate to the design, location, siting, and construction of the facility. This information shall include any requirements dealing with the management, operation, maintenance, and closure of the facility which relate to, affect, or are affected by, the proposed design, location, siting, and construction of the facility. (Note: Closure and Post-Closure bonds are required before issuance of the construction permit.)

8.7.2.2

- (b) Applications will be reviewed and evaluated by the Department and any additional information deemed necessary will be requested within sixty (60) days of ~~initial~~ official receipt of the application.

-  *cannot apply*  
(c) For the purposes of these Rules, the area considered to be within one mile of the facility, for determination of affected property owners, shall be determined from the perimeter of the property of the site or facility as applied for in the construction permit application, including any buffer zones.

- (d) A public hearing, if requested in writing within fifteen (15) days after proper notification of affected property owners as defined by the Oklahoma Controlled Industrial Waste Disposal Act, and the local health departments, will be scheduled and conducted in accordance with the Administrative Procedures Act and the Oklahoma Controlled Industrial Waste Disposal Act. Proper notification shall be notice published in a local newspaper as well as in the Oklahoma Gazette. Additionally, the applicant shall post weather-resistant signs along the perimeter of the site or facility giving notice to the general public of opportunity to request a public hearing. Sign size, wording, and placement shall be approved by the Department prior to placement.

- (e) A decision to deny or issue permit will be rendered by the Department within thirty (30) days after public hearing or within ninety (90) days after the application and engineering report are certified as complete by the Department.

8.7.3 ~~3-10-2~~

Operation Permit - Procedures for Controlled Industrial Waste Sites of Facilities

8.7.3.1

- (a) After issuance of a permit for construction and after upon nearing completion of said construction, an application may then be submitted for an operational permit. Forms will be available from the Department.

8.7.3.2 8.7.3.2

Application shall be subject to the relevant requirements of 40

CFR 122.22, and shall contain all information pertaining to the management, operation, maintenance, and closure of the facility, including the requirements of Chapter 7 of these Rules and 40 CFR 122.25 and 122.26 that were not addressed in the construction permit. In addition, the application shall contain any information relevant to the design, location, siting, and construction of the facility which was discovered after construction permit issuance, or developed during construction of the facility, and which was not considered during the construction permit phase.

8.7.3.3 (b) Applications will be reviewed and evaluated by the Department and any additional information deemed necessary will be requested within thirty (30) days of initial receipt of the application.

8.7.3.4 (c) The applicant and the Department shall jointly inspect the proposed site or facility following approval of the operational plan by the Department.

8.7.3.5 (d) Based on the joint inspection, an operational permit will be issued provided the requirements of the Oklahoma Controlled Industrial Waste Disposal Act have been met, the proposed site or facility has been constructed according to approved plans and specifications, and the applicant can demonstrate to the Department that Regulation ~~3.4.2(e)~~ 8.7.3.6 has been satisfied.

(e) As a condition of receiving an Operations Permit, the owner/operator of a controlled industrial waste surface disposal site ~~or soil farming or land treatment site~~ shall record in the appropriate county property records a deed restriction that the owner/operator or any future owner of the property is permanently barred from alteration or disturbance to the final cover, liner(s), or monitoring system(s), or any activity which would interfere with or alter the waste in place or features of the site, or allow the wastes contained in or on the site to leave the site boundaries following closure of the site. Provided, that any owner of the site may make application to the Department for permission to remove, treat, stabilize, or otherwise treat the wastes contained therein to an innocuous state. Such application shall be considered as an application for a construction permit, for a controlled industrial waste ~~processing~~ treatment facility, and shall be subject to the requirements of these Regulations.

(f) The applicant's real property shall be excluded from the appraisal value of the property within one (1) mile of the site or facility.

~~3.11~~ Implementation

~~3.11.1~~ All items noted in Regulation ~~3.5~~ through Regulation ~~3.9~~, inclusive, shall become effective July 1, 1979, for all sites or facilities.

8.7.4 8.7.4 Application Processing, Permit Issuance, Modification or



## Revocation, Permit Compliance and Enforcement

### 8.7.4.1 8.7.4.1

Upon submission of an application, the applicant shall cause to be published notices of opportunity to comment upon the application, and to request public meetings and hearings. The form of the notices, method of publication and broadcast, and information required shall be in accordance with the provisions of Rule 8.8. An application shall not be considered as officially submitted, and no review of said application shall begin, until proof-of-publication and broadcast is submitted to the Department demonstrating compliance with the provisions of Rule 8.8.

### 8.7.4.2 8.7.4.2

Upon completion of the review of the application under Rules 8.7.1, 8.7.2, and 8.7.3, the Department shall notify the applicant, in writing, of deficiencies, errors, informational needs, or other areas of incompleteness which must be corrected or satisfied prior to further consideration for permitting, or that the application is complete. The burden shall be upon the applicant to develop and submit the information specified by the Department as needed to correct the incomplete areas.

### 8.7.4.2.1 8.7.4.2.1

For new facilities, or expansions to existing permitted facilities, the applicant shall submit the required information in a timely fashion. If the information specified has not been received by the Department within six (6) months of the notification of incompleteness, the entire application shall be considered as withdrawn. Provided, that the Department may extend this period as necessary upon a good faith showing by the applicant that additional time is needed to provide the required information.

### 8.7.4.2.2 8.7.4.2.2

For interim status facilities, the notification of incompleteness shall contain specific date(s) for submission of the required information. If the owner fails or refuses to submit the required information by the specified date, or if the information submitted does not satisfy the notice of incompleteness, he shall be considered as operating an unpermitted facility in violation of 63 O.S. 1981, Section 1-2009.1, and shall be subject to the enforcement provisions of 63 O.S. 1981, Section 1-2013. Provided, that the Department may grant an extension of the specified date(s) upon a petition by the applicant showing: 1) good faith efforts to supply the required information, and 2) that the information required cannot be submitted by the date(s) specified through no fault of the applicant.

### 8.7.4.2.3 8.7.4.2.3

Each application shall be reviewed and judged independently of any other application or permit.

### 8.7.4.2.4 8.7.4.2.4

Upon completion of the review of the resubmitted application containing the new information, the Department shall inform the applicant, in writing, either that the application is considered complete, or that the additional information

submitted fails to satisfy the original notification of incompleteness. If the information submitted fails to satisfy the original notification, Rules 8.7.4.2.1 or 8.7.4.2.2 shall apply. Provided, that the Department may not raise new issues in a subsequent notification of incompleteness that were not raised in the prior such notification.

8.7.4.3 8.7.4.3

When an application is certified as complete, the Department shall prepare a draft permit or draft denial, as described in 40 CFR 124.6, which shall be supplied to the applicant. For draft permits, the applicant shall publish notice, as provided in Rule 8.8, giving opportunity for public comment on the draft permit. For draft denials, the Department shall publish the required notice.

8.7.4.3.1 8.7.4.3.1

Notices shall provide a minimum of forty-five (45) days for submission of comments. Provided, that the comment period may be extended by the Department upon a good faith showing by any party that the comment period provided is not adequate for preparation and submission of comments.

8.7.4.3.2 8.7.4.3.2

When a draft permit or denial is prepared for a major controlled industrial waste facility, or one for which there is considerable public interest or major issues raised, the Department shall also prepare a fact sheet outlining the reasons for the decision proposed, described by 40 CFR 124.8.

8.7.4.3.3 8.7.4.3.3

If a public meeting or public hearing has been requested in accordance with the previous notice of opportunity, the Department shall establish the time, date, and place of the meeting and/or hearing, which information shall also be published in the same notice.

8.7.4.3.4 8.7.4.3.4

If no meeting or hearing has been requested, the notice published will also note that fact. The Department shall then either issue or deny the permit, as appropriate, within thirty (30) days of the close of the comment period. Provided, that the Department may extend this period as needed, should the comments submitted indicate a substantial need for additional information, or comments which require a reply from the applicant before a final determination of physical and technical suitability may be made.

8.7.4.3.5 8.7.4.3.5

Public hearings shall be subject to the Oklahoma Administrative Procedures Act.

8.7.4.3.6 8.7.4.3.6

The permit issued by the Department shall specify certain conditions of operation, monitoring, construction, management, or other such related factors, as noted in 40 CFR 122.8, 122.10, 122.11, and 122.28(a),(b),(d), and (e).

8.7.5 8.7.5

Effective Date of Permits, Permit Lifetimes, Modification or Revocation of Permits

- 8.7.5.1 8.7.5.1 The effective date of the permit shall be the date of issuance as shown on the face of the permit.
- 8.7.5.2 8.7.5.2 Permits for controlled industrial waste facilities shall expire no later than five (5) years from the date of issuance, but shall be renewable based upon re-application to the Department, a review by the Department showing continued physical and technical suitability and compliance with all applicable regulations and permit conditions, and public meetings if required.
- 8.7.5.3 8.7.5.3 All permit renewals shall be treated as applications for operations permits. Provided that no additional construction is proposed, the construction permit renewal shall be combined with, and treated with, the operations permit renewal.
- 8.7.5.4 8.7.5.4 Permit renewal applications must be submitted at least 180 days prior to permit expiration. The Department may for good cause allow a later filing date, which shall not be later than the expiration date of the permit.
- 8.7.5.5 8.7.5.5 If the permittee has filed a complete renewal application in a timely fashion, and the Department does not reissue the permit by the expiration date, through no fault of the permittee, then the original permit shall continue in full force and effect past the expiration date until such time as the permit application is decided.
- 8.7.5.6 8.7.5.6 The Department may institute proceedings to modify or revoke a permit for a controlled industrial waste facility, upon its own motion, upon request from any party including the permittee. Provided, that the Department shall fully evaluate any requests for permit alteration for relevance, physical and technical suitability, reasonableness, and necessity for protection of public health and the environment, before beginning proceedings. (Note: For the purpose of these Rules, "revocation" and "termination" are synonymous.)
- 8.7.5.6.1 8.7.5.6.1 Proceedings to modify a permit may consider only those portions of the permit affected by the proposed modification.
- 8.7.5.6.2 8.7.5.6.2 Proceedings to revoke a permit shall consider all aspects of the permit. Reapplication for reissuance of a revoked permit shall be treated as a new permit application, fully subject to the provisions of these Rules.
- 8.7.5.6.3 8.7.5.6.3 Procedures for modification or revocation of a permit shall be in accordance with the Oklahoma Administrative Procedures Act. However, where there is no conflict, the provisions of 40 CFR 122.15 and 122.16 shall serve as interpretive guidance for such proceedings.
- 8.7.5.6.4 8.7.5.6.4 Any proposal to modify a facility shall require amendment of the operation permit and, in addition to opportunity for

public meeting, notice to affected property owners. A proposal for the substantial modification of a facility shall also require a construction permit and include the opportunity for a public hearing concerning the physical and technical suitability of the proposed substantial modification. A substantial modification, as used herein, shall mean and include:

- a. A significant alteration of the physical processes of a facility; or
- b. A significant change in the characteristics of wastes handled at a facility; or
- c. An increase in the waste handling capacity of a facility by greater than 50% beyond the total capacity which was fully considered in a public hearing for a construction permit.

8.7.5.6.5 8.7.5.6.5


Modifications to permits shall be effective upon the date of issuance of said modification approval by the Department.

8.7.5.6.6 8.7.5.6.6

Modifications to permits shall not affect the expiration date of the original permit, and shall expire on the same date as the original permit. Thereafter, the original permit and previous modifications shall be treated as one permit.

8.7.5.6.7 8.7.5.6.7

If a permit is reissued following revocation and reapplication, it shall reflect a new effective date and new expiration date.

  
7.6.8  
8.7.6.1 8.7.6.1

Emergency Permits - Notwithstanding any other provision of these Rules, in the event the Department finds an imminent and substantial endangerment to human health or the environment, the Department may issue a temporary emergency permit to a facility to allow treatment, and/or storage, of controlled industrial waste. This emergency permit:

- a. Shall be written.
- b. Shall not exceed ninety (90) days in duration:
- c. Shall clearly specify the controlled industrial waste to be received, and the manner and location of their treatment or storage.
- d. May be terminated by the Department at any time without process if it is determined that termination is appropriate to protect human health and the environment.
- e. Shall be accompanied by a public notice published under Rule 8.8 including:
  - (i) name and address of the office granting the emergency authorization;

- (ii) Name and location of the permitted controlled industrial waste facility;
- (iii) A brief description of the wastes involved;
- (iv) A brief description of the action authorized and reasons for authorizing it; and
- (v) Duration of the emergency permit; and
- (f) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of these Rules.

8.7.6.2 8.7.6.2

Trial burn permits for controlled industrial waste incinerators shall be governed by 40 CFR 122.27(b).

8.8 8.8

Public Participation - Notices - Meetings - Hearings

8.8.1 8.8.1

It is the policy of the Oklahoma State Department of Health to both allow and encourage the participation of the public in the permitting of facilities, and in enforcement proceedings by:

- (a) filing of notices of permit applications, public meetings or hearings, and similar actions.
- (b) requesting public comment on applications and other proposed actions.
- (c) conducting public meetings and hearings, upon proper request, as provided by the Oklahoma Controlled Industrial Waste Disposal Act.
- (d) allowing appearances, presentation of evidence, and general participation in meetings and hearings, as provided by the Oklahoma Controlled Industrial Waste Disposal Act and the Oklahoma Administrative Procedures Act.
- (e) maintaining files open to public access and perusal to the extent allowed by considerations of business confidentiality.
- (f) responding to comments presented.

8.8.2 8.8.2

Public Notices

8.8.2.1 8.8.2.1

Upon submission of an application for a permit, the applicant shall notify affected property owners and shall cause to be published a notice of the application in at least two (2) newspapers of general circulation in the general area of the proposed facility, and have said notice broadcast over at least one (1) local radio station.

8.8.2.1.1 8.8.2.1.1

The required notice shall appear in the two (2) newspapers at least twice, with publication dates approximately one (1)

week apart and as nearly as possible coinciding with each other.

8.8.2.1.2 8.8.2.1.2

The required notice shall be broadcast at least twice on one day, coinciding as nearly as possible with the date of first publication in the newspapers. At least one broadcast shall occur between the hours of 8:00 a.m. to 12:00 noon, and at least one shall occur between the hours of 6:00 p.m. and 10:00 p.m.

8.8.2.1.3 8.8.2.1.3

The notice shall provide at least forty-five (45) days for submission of comments and requests for meeting or hearing, beginning the first day after the first publication date. Should the last day of this period fall on a weekend or holiday, the comment period shall be extended to the next working day.

8.8.2.1.4 8.8.2.1.4

The notice shall follow the format shown in Appendix 8-A, and shall contain at least the following information:

- (a) Name and address of the Industrial Waste Division of the Oklahoma State Department of Health;
- (b) Name and address of the applicant and facility, including legal description of the facility;
- (c) A brief description of the business conducted and activity proposed at the facility;
- (d) Name, address, and telephone number of a person or persons from whom additional information can be obtained;
- (e) The statement: "Any person wishing to do so may submit comments on the proposed application. Additionally, any person residing or doing business in Oklahoma may request an informal public meeting to present written or oral views opposing the application. Such request must be in writing, and must state that the site is being opposed. Comments and requests for an informal public meeting must be received at the Industrial Waste Division of the Oklahoma State Department of Health, P. O. Box 5355, Oklahoma City, Oklahoma 73152, no later than the close of business on (date) ."

*does not apply*

For notices of application for construction permit, the following statement shall appear immediately after that required by Rule 8.8.2.1.4(e): "In addition to the above referenced meeting, any owner of real property within one (1) mile of the facility ("affected property owner") and any organization with twenty-five or more members, who must be legal residents of Oklahoma ("qualified interest group") may request a formal public

hearing on the merits of the application. Such request must be in writing and must be received at the above address by the close of business on \_\_\_\_\_ (date) ."

(g) The statement: "The Industrial Waste Division is currently reviewing the application, and will consider all comments pertaining to physical and technical suitability of the proposed facility. Following this review, and upon certification that the application is complete, the Department will issue either a draft permit or a draft denial of the permit, and will allow further comment thereon by additional published notice. Any requested meetings or hearings shall be held prior to formal permit issuance or denial."

8.8.2.2 8.8.2.2

Upon issuance of a draft permit, the applicant shall cause to be published a notice of the availability of the draft permit in at least two (2) newspapers of general circulation in the general area of the proposed facility, and have said notice broadcast over at least one (1) local radio station.

8.8.2.2.1 8.8.2.2.1

The required notice shall appear in the two (2) newspapers at least twice, with publication dates approximately one (1) week apart and as nearly as possible coinciding with each other.

8.8.2.2.2 8.8.2.2.2

The required notice shall be broadcast at least twice on one day, coinciding as nearly as possible with the date of first publication in the newspapers. At least one broadcast shall occur between the hours of 8:00 a.m. and 12:00 noon, and at least one shall occur between the hours of 6:00 p.m. and 10:00 p.m.

8.8.2.2.3 8.8.2.2.3

The notice shall provide at least forty-five (45) days for submission of comments, beginning the first day after the first publication date. Should the last day of this period fall on a weekend or holiday, the comment period shall be extended to the next working day.

8.8.2.2.4 8.8.2.2.4

The notice shall follow the format shown in Appendix 8-B, and shall contain at least the following information:

- (a) Name and address of the Industrial Waste Division of the Oklahoma State Department of Health.
- (b) Name and address of the applicant and facility, including legal description of the facility.
- (c) A brief description of the business conducted and activity proposed at the facility.
- (d) Name, address, and telephone number of a person or persons from whom additional information can be

obtained.

(e) The statement: "A draft permit has been prepared and is available from the Industrial Waste Division, Oklahoma State Department of Health, P.O. Box 53551, Oklahoma City, Oklahoma 73152." (Note: ~ If a fact sheet has been prepared in conjunction with the draft permit, this fact shall be stated here.) "Any person wishing to do so may submit comments on the draft permit. All comments must be written, and received at the Industrial Waste Division, Oklahoma State Department of Health, P.O. Box 53551, Oklahoma City, Oklahoma 73152, by the close of business on (date) \_\_\_\_\_.

(f) If a public meeting has been requested, the statement: "An informal public meeting for the presentation of written and oral views will be held \_\_\_\_\_ (time, date, and place, determined by the Department) \_\_\_\_\_.

*do not*  
*copy*  
*1/1*  
if a public hearing has been requested on a construction permit, the following statement: "A formal public hearing to consider the physical and technical suitability of the proposed facility will be held (time, date and place, determined by the Applicant) . This hearing will be held in accordance with the Oklahoma Controlled Industrial Waste Disposal Act and the Oklahoma Administrative Procedures Act."

(h) If neither a meeting nor a hearing will be held, a statement to that effect.

8.8.2.3 8.8.2.3

If a draft denial of a permit is issued by the Department, and there has been a significant showing of public interest supporting the issuance of a permit, then the Department shall cause to be issued the notices required by Rule 8.8.2.2, which shall be subject to the requirements enumerated in that Rule. Provided, that broadcast of the notice over a local radio station may be excluded by the Department.

8.8.2.4 8.8.2.4

All notices must receive the approval of the Department prior to publishing or broadcast. Copies of the notices shall be supplied to the Department by the Applicant.

8.8.2.5 8.8.2.5

Upon submission of an application, or first notice that such an application will be submitted, the Department shall initiate and maintain a mailing list on which the names and addresses of all known interested parties will be placed. Copies of all notices shall be distributed to the persons listed on the mailing list.

8.8.2.6 8.8.2.6

Any additional notices needed for such purposes as delaying a meeting or hearing, extending comment periods, or similar purposes, shall be published and broadcast in the same manner as the original notice.



8.8.3 8.8.3

Informal Public Meeting shall be held at a location reasonably near the proposed facility, and will allow for the presentation of both written and oral views on the draft permit or draft denial. Provided, that reasonable limits may be set upon the time allowed for oral presentations, and the submission of prepared statements in writing may be required.

8.8.3.1 8.8.3.1

A deadline for written comments as a result of the public meeting shall be established at the beginning of the meeting, and it shall be the obligation of all parties wishing to comment on the draft permit or draft denial to comment during the comment period.

8.8.3.2 8.8.3.2

All comments submitted at the public meeting shall be carefully and fully considered by the Department. Responses to all comments will be prepared as appropriate, to be available at the time of final permit issuance or denial. All pertinent and substantial comments dealing with the physical and technical suitability of the facility, and which have not been previously addressed during application processing, shall either be submitted to the applicant for reply or presented for consideration at any subsequent public hearings.

 8.8.4

Formal Public Hearings shall be held at a location reasonably near the proposed facility, and will be conducted as an evidentiary hearing to consider the physical and technical suitability of the proposed facility. Both written and oral evidence may be admitted, and the conduct of the hearing shall be in accordance with the Oklahoma Administrative Procedures Act.

8.8.4.1 8.8.4.1

A deadline for written comments shall be established at the hearing, and it shall be the obligation of all interested parties to submit any comments by that deadline.

8.8.4.2 8.8.4.2

Consideration of evidence, preparation of Findings of Fact, Conclusions of Law, and the Final Order shall be in accordance with the Oklahoma Administrative Procedures Act.

8.8.4.3 8.8.4.3

Bifurcation of Injection Well Construction Permit Hearing -- Upon the written motion of the applicant, the hearing examiner may order the issuance of a temporary, interim construction permit to allow the drilling of the proposed well so that actual test data and logs from the well may be obtained for consideration at the hearing. Such temporary, interim permits may not have a lifetime in excess of ninety (90) days, and the hearing examiner shall stay all proceedings in the hearing during its duration. The temporary, interim permit shall allow only the drilling, casing, and completion of the well necessary for sampling, cores, logs, or obtaining such data as is needed for consideration of physical and technical suitability of the well itself. All such data shall be submitted and considered when the hearing is reconvened.

The temporary, interim permit may not be issued until such time

as the applicant supplies a performance bond, acceptable to the Department, guaranteeing the closure and plugging of the well should a full permit not be granted. The issuance of a temporary, interim permit shall not allow controlled industrial waste operations of any kind, and shall not be used as an assumption of final permit issuance. A temporary, interim permit shall not convey any property rights, nor any privilege, exclusive or non-exclusive, regarding full construction and operation of a controlled industrial waste facility.

8.8.5    8.8.5    Any appeals from a public meeting, public hearing, or permit issuance or denial shall be subject to the requirements of the Oklahoma Administrative Procedures Act.

8.9      8.9      Duties of Permit Holders

8.9.1    8.9.1      The conditions for permit holders enumerated in 40 CFR 122.7 shall apply to all permitted controlled industrial waste facilities.

8.9.2    8.9.2      It shall also be the duty of permit holders to maintain compliance with all applicable Rules herein unless a specific exemption to a given Rule is listed in the permit.

8.9.3    8.9.3      Non-compliance with the conditions listed in 40 CFR 122.7 or with the pertinent Rules contained herein constitutes a violation of the Oklahoma Controlled Industrial Waste Disposal Act and is considered grounds for enforcement action which may include: permit modification, permit suspension, permit revocation, and, if so adjudged by a court of competent jurisdiction, restraining orders against activities, fines and imprisonment.

APPENDIX 8-A

FORMAT FOR NOTICE OF APPLICATION  
(see Rule 8.8.2.1.4)

NOTICE

In accordance with the Oklahoma Controlled Industrial Waste Disposal Act (63 O.S. 1981) and the Rules and Regulations for Industrial Waste Management (ODH Bulletin 0525), an application to construct a Controlled Industrial Waste Facility was filed on (date) by (name and address of the applicant). The proposed facility is to be located (address and legal description of the facility).

(Description of business conducted and activity proposed at the facility).

If more specific information is desired, it may be obtained by contacting (name, address, and telephone number of person or persons, representing the applicant, who can supply information), or by contacting the Director of the Industrial Waste Division, OSDH, at (405) 271-5338, or at the address listed below.

Any person wishing to do so may submit comments on the proposed application. Additionally, any person residing or doing business in Oklahoma may request an informal public meeting to present written or oral views opposing the application. Such request must be in writing, and must state that the site is being opposed. Comments and requests for an informal public meeting must be received at the Industrial Waste Division of the Oklahoma State Department of Health, P. O. Box 53551, Oklahoma City, Oklahoma 73152, no later than the close of business of (date established by the Department) .

(For notices of application for construction permit, the following statement shall appear)

In addition to the above referenced meeting, any owner of real property within one (1) mile of the facility ("affected property owner") and any organization with twenty-five or more members, who must be legal residents of Oklahoma ("qualified interest group") may request a formal public hearing on the merits of the application. Such request must be in writing and must be received at the above address by the close of business on (date established by the Department) .

The Industrial Waste Division is currently reviewing the application, and will consider all comments pertaining to physical and technical suitability of the proposed facility. Following this review, and upon certification that the application is complete, the Department will issue either a draft permit or a draft denial of the permit, and will allow further comment thereon by additional published notice. Any requested meetings or hearings shall be held prior to formal permit issuance or denial.

The application is on file in Room 803 of the OSDH Building, 1000 N.E. 10th,

Oklahoma City, Oklahoma, and may be inspected anytime between the hours of 8:00 a.m. to 4:30 p.m., Monday through Friday, excluding holidays.

APPENDIX 8-B  
FORMAT FOR NOTICE OF  
ISSUANCE OF DRAFT PERMIT

NOTICE

On (date) , an application for a(n) ( type ) permit for a controlled industrial waste facility was submitted to the OSDH, Industrial Waste Division, by ( company name and address ). The facility is to be located at (address and legal description of facility ).

(Description of business conducted and activity proposed at the facility).

Additional information may be obtained from (name, address and telephone number of applicants representative who can provide such information), or from the Director of the Industrial Waste Division, OSDH, by calling (405) 271-5338 or writing to the address listed below.

A draft permit has been prepared and is available from the Industrial Waste Division, Oklahoma State Department of Health, P. O. Box 53551, Oklahoma City, Oklahoma 73152. (Note: If a fact sheet has been prepared in conjunction with the draft permit, this fact shall be stated here). Any person wishing to do so may submit comments on the draft permit. All comments must be written, and received at the Industrial Waste Division, Oklahoma State Department of Health, P. O. Box 53551, Oklahoma City, Oklahoma 73152, by the close of business on (date established by the Department. )

(If a public meeting has been requested, the statement:)

An informal public meeting for the presentation of written and oral views will be held ( time, date, and place, determined by the Department ).

(If a public hearing has been requested on a construction permit, the following statement:)

A formal public hearing to consider the physical and technical suitability of the proposed facility will be held ( time, date and place, determined by the Department ). This hearing will be held in accordance with the Oklahoma Controlled Industrial Waste Disposal Act and the Oklahoma Administrative Procedures Act.

(If neither a meeting nor a hearing will be held, a statement to that effect.)

## CHAPTER 9

### OTHER INDUSTRIAL WASTE DISPOSAL

#### 16.0 OTHER INDUSTRIAL WASTE DISPOSAL

- 9.1 ~~16.1~~ Other industrial waste may be disposed of at permitted sanitary landfills or at an other industrial waste disposal site, specifically permitted for disposal of such wastes.
- 9.1.1 ~~16.1.1~~ Disposal of other industrial waste at a permitted sanitary landfill is contingent upon compatibility of the other industrial waste with the landfill and is subject to approval of the Department.
- 9.2 ~~16.2~~ Application for permit shall be made to the Department. The applicant shall submit four (4) copies of the application with all engineering plans, specifications, and drawings.
- 9.2.1 ~~16.2.1~~ All requirements of Regulation ~~3.5~~ 7.2 through Regulation ~~3.9~~ 7.7, inclusive, shall apply to other industrial waste disposal sites  ~~,~~  , if deemed applicable by the Department.
- 9.2.2 ~~16.2.2~~ The applicant shall be required to prove to the satisfaction of the Department that the requirements of Regulation ~~3.5~~ 7.2 through Regulation ~~3.9~~ 7.7 will be met ~~,~~  , if deemed applicable by the Department.
- 9.2.3 ~~16.2.3~~ All applications will be critically evaluated by the Department, prior to issuance of a permit for such a site, to preclude the possibility of air, ground and/or surface water contamination, ~~or personal injury.~~ Relevant portions of Regulations ~~4.0, 5.0, 6.0, or 7.0~~ Chapter 7 may be required if deemed applicable by the Department.
- 9.3 9.3 Other Industrial Waste Injection Wells. Pursuant to 63 O.S. 1981, Section 1-908, permits for the construction and operation of underground injection wells, including appurtenant surface structures and equipment, for the injection of materials as classified by 40 CFR 122.32 (a), (c), and (e), which are hereby incorporated by reference, other than controlled industrial waste or wastes produced from or obtained or used in connection with the drilling, development, producing and processing of oil and gas, are required. Applicants for such permits shall submit to the Commissioner an application based upon and in compliance with the following provisions of the Rules and Regulations for Industrial Waste Management, to wit:
- 9.3.1 9.3.1 Rule 7.1.9, only to the extent that a bond sufficient to insure plugging of the well as described in Rule 7E.14, shall be required.
- 9.3.2 9.3.2 Rule 7.2.2; and
- 9.3.3 9.3.3 Rule 7.2.3; and

- 9.3.4 9.3.4 Rule 7.2.4; and
- 9.3.5 9.3.5 Rules 7.3 (Fencing and Security Requirements); and
- 9.3.6 9.3.6 Rule 7.5.2; and
- 9.3.7 9.3.7 Appendix 7-E (Minimum Specifications for all Controlled Industrial Waste Injection Wells), provided that the requirements of 7E.12.2 shall not be applicable, and
- 9.3.8 9.3.8 Appendix 7-F (Minimum Design and Construction Specifications Which Only Apply to Permitted Injection Well Facilities), provided that the requirements of 7F.7 shall not be applicable; and
- 9.3.9 9.3.9 Rule 8.3; and
- 9.3.10 9.3.10 Rule 8.4; and
- 9.3.11 9.3.11 Rule 8.5; and
- 9.3.12 9.3.12 Rules 8.7 (Permit Procedures), provided that the requirements of 8.7.3, [REDACTED], [REDACTED], [REDACTED], and [REDACTED] shall not be applicable.
- 9.3.13 9.3.13 Class V injection wells, as described by 40 CFR 122.32(e), shall be considered as having permits, provided the owner(s) or operator(s) of such well(s) comply fully with 40 CFR 146.52, Inventory and Assessment (45 FR 123, Page 42511), which is hereby incorporated by reference.

## CHAPTER 10

### NON-SITE SPECIFIC TREATMENT OR DISPOSAL PRACTICES

#### 14.0 NON-SITE SPECIFIC DISPOSAL PRACTICES

- 10.1 ~~14.1~~ The Department may issue permits for treatment or the disposal of controlled industrial waste by means of methods or practices which are not restricted to any one site or locality but which may vary from site to site with time. Such practices ~~may~~ shall be permitted ~~only if it can be shown by the applicant that the requirements of Regulations 3.1 through 3.6, inclusive, and Regulations 3.9 through 3.11, inclusive, will be met~~ subject to the requirements of Rule 7.2 and Chapter 8. Such practices shall also be subject to governmental limitations and to the following:
- 10.1.1 ~~14.1.1~~ No controlled industrial waste containing the following chemicals or compounds may be disposed of by practices permitted by this Regulation ~~(14.0)~~ (10.0):
- (a) Any chemical or compound which has been proscribed from use by any state or federal agency.
  - (b) Any chemical or compound which is known or suspected to cause genetic effects, or is subject to bioaccumulation.
- 10.1.2 ~~14.1.2~~ The applicant shall demonstrate to the Department, through appropriate analyses and evaluation, that the treatment or disposal practice proposed will not cause, or continue in effect, a public nuisance or adversely affect any individual or group of individuals as regards use and enjoyment of properties or possessions.
- 10.1.3 ~~14.1.3~~ Practices permitted under this Regulation ~~(14.0)~~ (10.0) shall not be used when climatic or environmental conditions may cause a violation of Regulation ~~3.6.1~~ 7.2.1 to occur.
- 10.1.4 ~~14.1.4~~ The Department shall encourage innovative techniques for the treatment and disposal of controlled industrial waste which may serve to benefit the general public. Provided that, IN NO CASE will the Department permit a practice which may, in the Department's judgment, endanger the public health and safety or environmental quality of the State of Oklahoma.
- 10.2 ~~14.2~~ Example of Practice Permitted - Road Oiling
- 10.2.1 ~~14.2.1~~ The practice of applying waste oils and waste oil sludges, which are not classified as controlled industrial wastes, to unpaved roadbeds for dust control and surface stabilization may be permitted, subject to the following conditions, as well as Regulation ~~14.1~~ 10.1 through ~~14.4~~ 10.4, inclusive:
- 10.2.1.1 ~~14.2.1.1~~ Typical waste sources may include, but are not limited to, tank



bottoms from storage areas, API separator sludges, skimmings from oil/water separators, grease traps, and oil storage tank clean-out wastes, provided that such wastes do not contain any bacteriacides or other additives which would violate Regulation ~~14.1.1~~ 10.1.1, and provided that they are not otherwise classified as controlled industrial waste.

- 10.2.2 ~~14.2.2~~ Wastes may not be applied to any area that is subject to seasonal flooding or inundation, or where precipitation may collect and stand.
- 10.2.3 ~~14.2.3~~ Wastes may not be applied when ground conditions are such that rapid absorption of the oils is prevented by high ground moisture, ice, snow, packed soil conditions, or steep ground slopes.
- 10.2.4 ~~14.2.4~~ Wastes may not be applied at any time the National Weather Service forecasts indicate a probability of precipitation greater than twenty (20) percent within the twenty-four (24) hour period immediately following application.
- 10.2.5 ~~14.2.5~~ Waste oils may not be applied to any area more frequently than once every six (6) months, or less frequently if deemed necessary by the Department.
- 10.2.6 ~~14.2.6~~ Unless otherwise specified by the Department, waste oils shall not be applied in rates in excess of the following:
- (a) For two-lane city or county roads, no more than 10,000 total gallons of liquid, nor more than 3,000 gallons of oil, may be applied per statute mile.
  - (b) For single-lane roads (i.e. farm and ranch roads) no more than 5,000 total gallons of liquid, nor more than 1,500 gallons of oil, may be applied per statute mile.
  - (c) For all other applications, rates shall not exceed 5,000 total gallons of liquid, or 1,500 gallons of oil, per acre.
- 10.2.7 ~~14.2.7~~ The disposer shall obtain written permission from either the land owner, the county commissioners, or the governing body of the city or town involved, whichever is applicable, prior to application of waste oils. Such written agreement shall clearly state the nature and properties of the waste to be utilized.
- 10.2.8 ~~14.2.8~~ The disposer shall be held responsible for insuring that waste oils are handled safely while in his care, and are disposed of in such a manner that they will be absorbed by the roadbed in question and not run or be washed off of such roads into any streams, rivers, lakes, or other surface waters. The disposer shall also post warning signs, where necessary, alerting road users to the fact that fresh oil has been applied.
- 10.2.9 ~~14.2.9~~ Monitoring of surface water quality in the region adjacent to or down-stream from the areas where oils are applied may be required, if deemed necessary by the Department. The expense of such

monitoring shall be borne by the disposer.

- 10.3 10.3 Example of Permitted Practice - Portable Treatment Units
- 10.3.1 10.3.1 Portable units for the treatment of industrial waste may be permitted, subject to the following conditions, as well as Regulation 10.1 through 10.4, inclusive.
- 10.3.1.1 10.3.1.1 Typical wastes may include, but are not limited to, waste oils, oil/water emulsions, solvents, sludges, transformer oils, or similar wastes.
- 10.3.2 10.3.2 Portable treatment units may be totally self-contained, or may utilize various portions of the site or facility where it is being used, provided that the requirements of Rules 7.2 through 7.7 are met.
- 10.3.3 10.3.3 Wastes may not be treated when adverse weather conditions, or the probability of adverse weather conditions, make it a reasonable possibility that Rules 7.2 through 7.7 will be violated.
- 10.3.4 10.3.4 The treatment unit operator shall be responsible for obtaining written agreements with the waste owners, and for insuring that all wastes treated and residuals produced thereby are properly handled.
- 10.3.5 10.3.5 All residuals from treatment shall be considered as controlled industrial waste until and unless proven otherwise.
- 10.3.6 10.3.6 Air, surface water, and groundwater monitoring may be required if deemed necessary by the Department. The expense of such monitoring shall be borne by the treatment unit operator.
- 10.4 ~~14.3~~ For treatment or disposal practices not specifically mentioned in this Regulation, the Department will critically evaluate each application for conformance with Regulation ~~14.1~~ 10.1, and to assure that the public health and safety and the environmental quality of the State of Oklahoma are not endangered.

CHAPTER 11  
RESEARCH AND DEVELOPMENT

- 11.1 11.1 It shall be the policy of the Department to encourage research into and development of new or advanced technologies in controlled industrial waste treatment, storage, and disposal, for purposes of conserving resources or significant economic benefit.
- 11.2 2.4 In accordance with the above policy, the Department may issue temporary research permits for experimental disposal sites or processing facilities, subject to the following conditions:
- 11.2.1 11.2.1 The applicant for a research permit must demonstrate that the project proposed is not reasonably included in existing facility regulations, that the research proposed goes beyond existing applied technologies, that the research proposed is in accordance with the above stated policy of the Department, and that there is no other mechanism reasonably available to gain the information which will be obtained from the proposed project.
- 11.2.2 2.4.1 Such temporary research permits shall be for a period not to exceed one (1) year.
- 11.2.3 2.4.2 Temporary Research permits may be renewed, by reapplication to the Department, no more than two (2) times.
- 11.2.4 2.4.3 The Department may waive certain requirements agree to and require a compliance schedule for certain of these Regulations, except that but not Regulations 2.0, 3.0, 4.0, and 5.0 7.1 through 7.8, 7.10, 7.13, and 7.17, may not be waived, as a condition of a research permit. Additional requirements in excess of those enumerated in these Regulations may be made by the Department if they are deemed necessary to adequately protect the public health and safety and the environmental quality of the State.
- 11.2.5 2.4.4 The Department may hold a public hearing on the merits of any application for temporary research permit. Such hearing may be called by either the applicant or the Department to resolve disagreements regarding permit conditions, issuance or denial of such permit, or other cause. Such hearing may also be called by the Department should there be a showing of significant public interest in the proposed project.
- 11.2.6 2.4.5 Applicants for temporary research permits shall be required to meet the insurance and bonding specifications listed in the Oklahoma Controlled Industrial Waste Disposal Act.
- 11.2.7 2.4.6 Because of the experimental nature of the project, temporary research permits may be suspended or revoked by order of the Division Director at any time the site or facility in question fails to meet the requirements placed upon the site or facility by the

Department.

- 2.8 2.4.7 The Director may order such remedial measures, or changes in the temporary research permit conditions at any time evidence indicates such changes are necessary to adequately protect the public health and safety and environmental quality. . . . .
- 11.2.9 2.4.8 Should a temporary research permit be suspended or revoked by the Director, the operator may appeal such action by submission of evidence to the Department or by requesting a public hearing showing cause why the permit should not be suspended or revoked.
- 11.2.10 11.2.10 Continuation of a research project beyond the three (3) years maximum duration of research permit status shall require that the facility be fully subject to all construction and operation permit requirements of these Regulations.

4.6 Operational Standards

- 4.6.1 Operational procedures and methods shall conform with plans submitted and approved as a part of the application. Any significant deviation from these original plans must first be submitted to the Department in writing. The Department shall then approve or deny said proposal within thirty (30) days.
- 4.6.2 Monthly operational reports shall be submitted to the Department by the site operator or his designated representative in accordance with Title 63 O.S. Supp. 1978, Section 2754(10). Forms for such reports will be provided by the Department.

8.0 MINIMUM SPECIFICATIONS FOR OTHER DISPOSAL METHODS FOR CONTROLLED INDUSTRIAL WASTE

8.1 All the requirements of Regulation 3.0 shall apply to sites using unique methods of disposal not specifically covered by these Regulations.

8.2 Any unique method for disposal not specifically covered by these Regulations will be critically evaluated by the Department, prior to issuance of a permit for such a site, to preclude the possibility of air, ground and/or surface water contamination or personal injury. Relevant portions of Regulations 4.0, 5.0, 6.0, or 7.0 may be required if deemed applicable by the Department.

10.0 STORAGE

10.1 Except as noted below, or specifically exempted by the Department, all storage of controlled industrial waste shall be conducted in compliance with 40 CFR Part 265, and Regulations 3.5 through 3.9, inclusive.

10.2 Storage of controlled industrial waste shall be considered in separate and distinct categories, as follows:

10.2.1 Storage at the generator's plant site or at the point of generation shall be termed "on-site storage."

10.2.2 Storage at a disposal site or processing facility prior to disposal or processing at that site or facility shall be termed "pre-disposal storage."

10.2.3 Storage at a site controlled by the generator, whether by ownership or lease, but which is geographically separate from the plant site or point of generation, shall be termed "off-site storage."

10.2.4 Storage at any site or location which does not meet any of the conditions listed in Regulation 10.2.1, 10.2.2, or 10.2.3, above, shall be termed "transient storage." Sites or locations where transient storage takes place may be referred to as "transfer stations."

10.3 General Storage Requirements

10.3.1 Storage of controlled industrial waste shall be conducted in such a manner that no discharge of controlled industrial waste into the air or water or onto the land occurs in violation of the federal Clean Air Act, the federal Clean Water Act, or Regulation 3.6.1.

10.3.2 (Reserved)

10.3.3 (Reserved)

10.3.4 Storage tanks which contain volatile waste shall be constructed, vented, and maintained in compliance with the provisions of the Clean Air Act and Regulations promulgated pursuant thereto.

10.3.6 The Department may require the installation of air and surface water, and shall require ground water, monitoring equipment at sites or locations where controlled industrial waste is stored.

10.3.6.1 Location and specification of monitoring devices shall be approved by the Department prior to installation.

10.3.7 Any person proposing to store controlled industrial waste in a pit, pond, lagoon, or other facility constructed of earthen materials, shall be required to prove to the satisfaction of the Department that the controlled industrial waste contained therein will not leak, seep, or leach out of the structure, or otherwise violate Regulation 3.6.1 or Regulation 10.3.1.

10.5 Specific Requirements for "Pre-Disposal Storage"

10.5.1 All pre-disposal storage shall comply with the requirements of Regulation 3.5 through Regulation 3.9, inclusive.

10.5.2 All storage areas constructed or installed as an integral portion of the site or facility at the time of initial permitting of the site or facility, shall be subject to the requirements for proof of physical and technical suitability, and subject to the hearing requirements of the Oklahoma Controlled Industrial Waste Disposal Act.

10.5.3 Additions to storage capacities after issuance of a construction permit shall meet the following requirements:

(a) Additions which were evaluated and approved during the construction permit phase, referred as "Future," or similar, may be constructed as approved by notification to the Department in writing, of the intention of the operator to construct such storage areas. Such storage areas shall not be utilized until the operator has applied to the Department and received approval amending his operational permit to include such storage.

(b) Additions to storage which duplicates existing storage areas, and which utilize tanks, drums, barrels, or other similar containers, must be reviewed by the Department and approved prior to construction or installation. Such storage shall not be used until such time as the operator has applied to the Department and received approval amending his operational permit to include such storage.

(c) Additions to storage which significantly alter drainage patterns, retention requirements, or which do not duplicate existing storage areas, using containers, or any addition using a pit, pond, or lagoon, shall be considered as a change in the construction permit conditions. The operator shall apply for an amended construction permit, and shall be subject to the permitting requirements of Regulation 3.0.

10.5.4 Pre-disposal storage at a controlled industrial waste disposal site or processing facility shall not exceed the following quantities unless otherwise specified:

(a) That quantity of waste which may be safely applied to a soil farm in a six (6) month period.

(b) That quantity which may be disposed of by injection during ten (10) days of normal operation.

(c) That quantity which may be processed by a processing facility in ninety (90) days.

(d) That quantity which may be safely disposed of within six (6) months at any other disposal site.



#### 10.6 Specific Requirements for Off-Site Storage

10.6.1 Off-site storage areas shall be subject to the requirements listed in Regulation 10.4, except that storage of quantities of less than 5,000 gallons of controlled industrial waste shall be required to meet the requirements of Regulation 3.6.2 through Regulation 3.6.5, inclusive, Regulation 3.7, and Regulation 3.8, in addition to those enumerated.

#### 10.7 Specific Requirements for Transient Storage

10.7.1 All transfer stations shall be subject to the requirements of Regulation 3.5 through Regulation 3.9, inclusive.

10.7.2 Transfer stations shall not be required to obtain construction and operation permits, but shall be required to submit plans and specifications to the Department for approval prior to construction of use.

10.7.3 The owner/operator of a transfer station shall establish, to the satisfaction of the Department, that adequate arrangements for ultimate disposal, processing, or recycling of the wastes stored have been made before wastes are accepted.

10.7.4 No controlled industrial waste may be stored at a transfer station for periods in excess of ninety (90) days, unless otherwise specified by the Department. For transfer stations which intermingle wastes in large storage tanks, or other structures, which are generally in continual use, the average storage period shall not exceed ninety (90) days.

"LICENSE AMENDMENTS"

Docket No. 40-8027

William O. Miller, License Fee Management Branch, ADM

MATERIALS LICENSE AMENDMENT CLASSIFICATION



Applicant: Kerr-McGee  
License No: [redacted] SUB-1010 Fee Category: dc  
Application Dated: July 29 1982 Received: \_\_\_\_\_  
Applicant's Classification: minor safety

The above application for amendment has been reviewed by NMSS in accordance with §170.31 of Part 170, and is classified as follows:

1. Safety and Environmental Amendments to Licenses in Fee Categories 1A through 1H, 2A, 2B, 2C, and 4A
  - (a)  Major safety and environmental
  - (b)  Minor safety and environmental
  - (c)  Safety and environmental (Categories 1D through 1G only)
  - (d)  Administrative

2. Justification for reclassification: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. The application was filed (a)  pursuant to written NRC request and the amendment is being issued for the convenience of the Commission, or (b)  Other (State reason): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature W. S. Row  
Division of Fuel Cycle & Material Safety  
Date 8/20/82