



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

South Dakota Surface Water Discharge Program
Application for Permit to Discharge Wastewater

GENERAL INFORMATION

This form is provided by the Secretary of the South Dakota Department of Environment and Natural Resources in accordance with '74:03:18:09 of the Administrative Rules of South Dakota. No South Dakota Surface Water Discharge Permit will be issued except under completion, and submittal of this form to:

South Dakota Department of Environment and Natural Resources
Surface Water Quality Program
Joe Foss Building
523 East Capitol Avenue
Pierre, South Dakota 57501-3181

Check the appropriate response:

Permit Renewal New Application

Indicate type of facility (check most appropriate response):

POTW Industry
Water Treatment Plant Federal
Other (please specify)

PLEASE PRINT OR TYPE

1. Name of Facility:

2. Mailing Address of Owner:

Name _____
Street _____
City _____
State _____ County _____ Zip Code _____

3. Mailing address of facility (if different from owner):

Name _____
Street _____
City _____
State _____ County _____ Zip Code _____

Include other local contacts:

Name _____ Title _____ Phone _____
Name _____ Title _____ Phone _____

4. Telephone Number:

Owner: _____ Facility: _____

FOR SDDENR USE ONLY

Application Number: _____ Permit Number: _____
Date Received: _____ Date Permitted: _____
New Facility: _____ Existing Facility: _____
Receiving Stream: _____ PCS: _____

5. Is this facility located on Indian lands?

Yes

No

6. Please include a brief description of the nature of the business conducted at this facility.

Include from one to four Standard Industrial Classification (SIC) codes which best reflect the principal products or services provided by the facility.

Please list all the activities which require the applicant to obtain a discharge permit.

7. Operational History:

Date Constructed: _____

Operational Start-up: _____

NOTE: Provide a narrative description of each change or improvement made to this facility, either currently underway or anticipated over the next five years, which will affect the quality of the discharge or generated sludge. For each change or improvement, provide projected dates, as accurately as possible, for completion of each step listed below:

A. Begin Construction _____

B. End Construction _____

C. Begin Discharge _____

D. Operational Level Attained _____

8. Type of treatment (check all appropriate boxes):

A. No treatment

Stabilization pond:

- A. Effluent discharge to "Waters of the State"
- B. Effluent used for irrigation
- C. Total retention - No Discharge
- D. Stabilization pond/artificial wetland system
- E. Infiltration/percolation basins
- F. Aerated Lagoon
- G. Other, please explain: _____

Mechanical Treatment Facilities:

- A. Conventional Secondary Treatment
- B. Advanced Treatment - Tertiary
- C. Other, please explain: _____

NOTE: Please attach a description of the treatment units employed by the facility, including a line drawing of the current wastewater treatment facility. Waters of the State can not be used for treatment

9. Number of separate discharge points which have an existing or potential release of treated or untreated wastewater (outfalls): _____

Describe the discharge and the type of wastewater from each outfall. Include all overflows, bypasses, or seasonal discharges from lift stations, lagoons, holding ponds, etc.:

- Outfall 001 _____
- Outfall 002 _____
- Outfall 003 _____

Attach additional sheets if necessary.

NOTE: Please place points of discharge on a topographic map, or other map if a topographic map is unavailable. This map should extend to one (1) square mile beyond the property boundaries of the facility and each of its intake and discharge facilities; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, drinking water wells, and surface water intake structures listed in public records, or otherwise known to the applicant in the map area.

10. Are you able to bypass your treatment facility?

Yes If yes, which outfall(s) listed above correspond to this bypass discharge? _____
No

11. Is discharge (check one):

- A. Continuous
- B. Intermittent
- C. Seasonal
- D. No Discharge

If other than continuous, please explain:

12. Name of Receiving Waters: _____

If wastewater is discharged to places other than surface water, please explain:

13. Type of Sludge disposal (check all appropriate boxes):

A. Land Application (please explain): _____

B. Surface Disposal

C. Landfill

D. Other (please explain): _____

E. Sludge is not generated or disposed of at this facility

14. If A, B, C, or D was marked in Question 13, provide a narrative on the following sludge production information: (Attach additional sheets if necessary)

A. Tons of dry sludge produced each year _____

B. Average percent solids sludge produced _____

C. Tons of dry sludge disposed of each year _____

D. Average percent solids sludge sent for use and/or disposal _____

E. Attach any sludge monitoring data obtained over the last year (including groundwater monitoring data, results of hazardous waste tests, and results of actions taken to determine whether sludge is hazardous). Include a description of the methods used and sampling locations and dates.

15. List other information which you feel should be brought to the attention of the SDDENR in regard to the issuance of a discharge permit for the facility. (Attach additional sheets if necessary.)

16. Type of Discharge (check all that apply):

Publicly Owned Treatment Works (Complete Appendix A)

Existing Industrial process wastewater (Complete Appendix B)

New Industrial process wastewater (Complete Appendix C)

Non-contact cooling water, or other non-process wastewater (Complete Appendix D)

Storm water associated with industrial activity (Complete Appendix E)

Large or medium municipal separate storm sewer system

Discharge to sanitary sewer and/or Publicly Owned Treatment Works (Complete Appendix C)

Backwash from water treatment plants (Complete Appendix C)

Concentrated animal feeding operation (Complete Appendix C)

Concentrated aquatic animal production facility (Complete Appendix C)

Privately owned treatment works (Complete Appendix C)

Federal facility (except those located on Indian reservations) (Complete Appendix C)

Silvicultural point source (Complete Appendix C)

Other (please specify) _____

17. Does this application substantially duplicate an application by the same applicant which was denied by the SDDENR or the USEPA within the past five years and which has not been reversed by a court of competent jurisdiction?

Yes

No

18. Existing Environmental Permits

Please check all other Environmental Permits which are held by the facility. Include permit numbers in the space provided:

A. NPDES or SWD (Discharges to Surface Water) _____

B. UIC (Underground Injection of Fluids) _____

C. RCRA (Hazardous Wastes) _____

D. PSD (Air Emissions from Proposed Sources) _____

E. Other (please specify) _____

F. Other (please specify) _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I also certify that I will provide for the operation of this facility in accordance with the Rules and Regulations Governing Operation of Water Pollution Control Facilities and will provide certified operators as required by SDCL 34A-3, Water Supply and Treatment System Operators. I am aware that there are significant penalties for submitting false information, including revocation of the permit and the possibility of fine and imprisonment for knowing violations.

NOTE: Application must be signed by the authorized chief elective or executive officer of the applicant, or by the applicant, if an individual.

I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct.

Name _____ Title _____

Date _____

Signature _____

STATE OF SOUTH DAKOTA

BEFORE THE SECRETARY OF

THE DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES

IN THE MATTER OF THE)	
APPLICATION OF)	
_____)	CERTIFICATION OF
)	
STATE OF _____)	APPLICANT
)	
COUNTY OF _____)	

I, _____, the applicant in the above matter after being duly sworn upon oath hereby certify the following information in regard to this application:

I have read and understand South Dakota Codified Law Section 1-41-20 which provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

- (1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner, or resident general manager of the facility for which application has been made:

 - (a) Has intentionally misrepresented a material fact in applying for a permit;*
 - (b) Has been convicted of a felony or other crime involving moral turpitude;*
 - (c) Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;*
 - (d) Has had any permit revoked under the environmental laws of any state or the United States; or*
 - (e) Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or**
- (2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.*

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification,

consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26.”

I certify pursuant to 1-41-20, that as an applicant, officer, director, partner, or resident general manager of the activity or facility for which the application has been made that I; a) have not intentionally misrepresented a material fact in applying for a permit; b) have not been convicted of a felony or other crime of moral turpitude; c) have not habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage; (d) have not had any permit revoked under the environmental laws of any state or the United States; or e) have not otherwise demonstrated through clear and convincing evidence of previous actions that I lack the necessary good character and competency to reliably carry out the obligations imposed by law upon me. I also certify that this application does not substantially duplicate an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Further;

“I declare and affirm under the penalties of perjury that this claim (petition, application, information) has been examined by me, and to the best of my knowledge and belief, is in all things true and correct.”

Dated this _____ day of _____, 20_____ .

Applicant (print)

Applicant (signature)

Subscribed and sworn before me this _____ day of _____, 20_____ .

Notary Public (signature)

My commission expires: _____

(SEAL)

**PLEASE ATTACH ANY ADDITIONAL INFORMATION NECESSARY TO DISCLOSE
ALL FACTS AND DOCUMENTS PERTAINING TO
SDCL 1-41-20 (1) (a) THROUGH (e).
ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT
AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION**



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

South Dakota Surface Water Discharge Program
Application for Permit to Discharge Wastewater

APPENDIX C - NEW INDUSTRIAL PROCESS WASTEWATER

Permits Division



Application Form 2D —

New Sources and New Dischargers:

Application for Permit to Discharge Process Wastewater

Form 2D Instructions

facilities which discharge only nonprocess wastewater that is not regulated by an effluent limitations guideline or new source performance standard may use EPA Form 3510-2E (Form 2E). Educational, medical, and commercial chemical laboratories should use this form or EPA Form 3510-2C (Form 2C). To further determine if you are a new source or a new discharger, see §122.2 and §122.29. This form should not be used for discharges of stormwater runoff.

Public Availability of Submitted Information

You may not claim as confidential any information required by this form or Form 1, whether the information is reported on the forms or in an attachment. Section 402(j) of the CWA requires that all permit applications shall be available to the public. This information will therefore be made available to the public upon request.

You may claim as confidential any information you submit to EPA which goes beyond that required by this form and Form 1. Confidentiality claims for effluent data must be denied. If you do not assert a claim of confidentiality at the time of submitting the information, EPA may make the information public without further notice. Claims of confidentiality will be handled in accordance with EPA's business confidentiality regulations in 40 CFR Part 2.

Completeness

Your application will not be considered complete unless you answer every question on this form and on Form 1 (except as instructed below). If an item does not apply to you, enter "NA" (for "not applicable") to show that you considered the question.

Followup Requirements

Although you are now required to submit estimated data on this form (Form 2D), please note that no later than two years after you begin discharging from the proposed facility, you must complete and submit Items V and VI of NPDES application Form 2C (EPA Form 3510-2C). However, you need not complete those portions of Item V requiring tests which you have already performed under the discharge monitoring requirements of your NPDES permit. In addition, the permitting authority may waive requirements of Items V-A and VI if the permittee makes the demonstrations required under 40 CFR §122.22(g)(7)(i)(B) and 122.21(g)(9).

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

Item I

You may use the map you provided for Item XI of Form 1 to determine the latitude and longitude (to the nearest 15 seconds) of each of your outfalls and the name of the receiving water. You should name all waters to which discharge is made and which flow into significant receiving waters. For example, if the discharge is made to a ditch which flows into an unnamed tributary which in turn flows into a named river, you should provide the name or description (if no name is available) of the ditch, the tributary, and the river.

Item II

This item requires your best estimate of the date on which your facility or new outfall will begin to discharge.

Item III-A

List all outfalls, their source (operations contributing to the flow), and estimate an average flow from each source. Briefly describe the planned treatment for these wastewaters prior to discharge. Also describe the ultimate disposal of any solid or liquid wastes not discharged. You should describe the treatment in either a narrative form or list the proper code for the treatment unit from a list provided in Table 2D-1.

Item III-B

An example of an acceptable line drawing appears in Figure 2D-1 to these instructions. The line drawing should show the route taken by water in your proposed facility from intake to discharge. Show all sources of wastewater, including process and production areas, sanitary flows, cooling water, and storm water runoff. You may group similar operations into a single unit, labeled to correspond to the more detailed listing in Item III-A. The water balance should show estimates of anticipated average flows. Show all significant losses of water to production, atmosphere, and discharge. You should use your best estimates.

Item III-C

Fill in every applicable column in this item for each source of intermittent or seasonal discharge. Base your answers on your best estimate. A discharge is intermittent if it occurs with interruptions during the operating hours of the facility. Discharges caused by routine maintenance shutdowns, process changes, or other similar activities are not considered to be intermittent. A discharge is seasonal if it occurs only during certain parts of the year. The reported flow rate is the highest daily value and should be measured in gallons per day. Maximum total volume means the total volume of any one discharge within 24 hours and is measured in units such as gallons.

Item IV

"Production" in this question refers to those goods which the proposed facility will produce, not to "waste-water" production. This information is only necessary where production-based new source performance standards (NSPS) or effluent guidelines apply to your facility. Your estimated production figures should be based on a realistic projection of actual daily production level (not design capacity) for each of the first three operating years of the facility. This estimate must be a long-term-average estimate (e.g., average production on an annual basis). If production will vary depending on long-term shifts in operating schedule or capacity, the applicant may report alternate production estimates and the basis for the alternate estimates.

If known, report quantities in the units of measurement used in the applicable NSPS or effluent guideline. For example, if the applicable NSPS is expressed as "grams of pollutant discharged per kilogram of unit production," then report maximum "**Quantity Per Day**" in kilograms. If you do not know whether any NSPS or effluent guideline applies to your facility, report quantities in any unit of measurement known to you. If an effluent guideline or NSPS specifies a method for estimating production, that method must be followed.

There is no need to conduct new studies to obtain these figures; only data already on hand are required. You are not required to indicate how the reported information was calculated.

Items V-A, B, and C

These items require you to estimate and report data on the pollutants expected to be discharged from each of your outfalls. Where there is more than one outfall, you should submit a separate Item V for each outfall. For Part C only a list is required. Sampling and analysis are not required at this time. If, however, data from such analyses are available, then those data should be reported. Each part of this item addresses a different set of pollutants or parameters and must be completed in accordance with the specific instructions for that part. The following are the general and specific instructions for Items V-A through V-C.

Item V — General Instructions

Each part of this item requires you to provide an estimated maximum daily and average daily value for each pollutant or parameter listed (see Table 2D-2), according to the specific instructions below. The source of the data is also required.

For Parts A through C, base your determination of whether a pollutant will be present in your discharge on your knowledge of the proposed facility's raw materials,

maintenance chemicals, intermediate and final products, byproducts, and any analyses of your effluent or of any similar effluent. You may also provide the determination and the estimates based on available in-house or contractor's engineering reports or any other studies performed on the proposed facility (see Item VI of the form). If you expect a pollutant to be present solely as a result of its presence in your intake water, please state this information on the form.

Please note that no later than 2 years after you begin discharging from the proposed facility, you must complete and submit Items V and VI of NPDES application Form 2C (followup data).

Reporting Intake Data. You are not required to report pollutants or parameters present in intake water unless you wish to demonstrate your eligibility for a "net" effluent limitation for these pollutants or parameters, that is, an effluent limitation adjusted to provide allowance for the pollutants or parameters present in your intake water. If you wish to obtain credits for pollutants or parameters present in your intake water, please insert a separate sheet, with a short statement of why you believe you are eligible (see §122.45 (g)), under Item VII (Other Information). You will then be contacted by the permitting authority for further instructions.

All estimated pollutant or parameter levels must be reported as concentration and as total mass, except for discharge flow, temperature, and pH. Total mass is the total weight of pollutants or parameters discharged over a day.

Use the following abbreviations for units:

Concentration		Mass	
ppm	... parts per million	lbs	... pounds
mg/l	... milligrams per liter	ton	... tons (English tons)
ppb	... parts per billion	mg	... milligrams
Ug/l	... micrograms per liter	g	... grams
kg	... kilograms	T	... Tonnes (metric tons)

Source

In providing the estimates, use the codes in the following table to indicate the source of such information in column 4 of Parts V — A and — B.

	Code
Engineering study	1
Actual data from pilot plants	1
Estimates from other engineering studies	2
Data from other similar plants	3
Best professional estimates	4
Others	specify on the form

Item V-A

Estimates of data on pollutants or parameters in Group A must be reported by all applicants for all outfalls, including outfalls

containing only noncontact cooling water or nonprocess wastewater.

To request a waiver from reporting any of these pollutants or parameters, the applicant must submit to the permitting authority a written request specifying which pollutants or parameters should be waived and the reasons for requesting such a waiver. This request should be submitted to the permitting authority before or with the permit application. The permitting authority may waive the requirements for information about these pollutants or parameters if he or she determines that less stringent reporting requirements are adequate to support issuance of the permit. No extensive documentation will normally be needed, but the applicant should contact the permitting authority if she or he wishes to receive instructions on what his or her particular request should contain.

Item V-B

Estimates of data on pollutants in Group B must be reported by all applicants for all outfalls, including outfalls containing only noncontact cooling water or nonprocess wastewater. You are merely required to report estimates for those pollutants which you know or have reason to believe will be discharged or which are limited directly by an effluent limitations guideline (or NSPS) or indirectly through promulgated limitations on an indicator pollutant. The priority pollutants in Group B are divided into the following three sections:

- 1) Metal toxic pollutants, total cyanide, and total phenols
- 2) 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD) (CAS # 1764-016)
- 3) Organic Toxic Pollutants (Gas Chromatography/-Mass Spectrometry Fractions)
 - a) Volatile compounds
 - b) Acid compounds
 - c) Base/neutral compounds
 - d) Pesticides

For pollutants listed in Sections 1 and 3, you must report estimates as instructed above.

For Section 2, you are required to report that TCDD may be discharged if you will use or manufacture one of the following compounds, or if you know or have reason to believe that TCDD is or may be present in an effluent:

- A. 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) (CAS # 93-765);
- B. 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4, 5TP) (CAS # 93-72-1);
- C. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) (CAS # 136-25-4);
- D. O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) (CAS # 299-84-3);

E. 2,4,5-trichlorophenol (TCP)(CAS # 95-95-4); or

F. Hexachlorophene (HCP) (CAS # 70-30-4).

Small Business Exemption

If you are a "small business," you are exempt from the reporting requirement for Item V-B (section 3). You may qualify as a "small business" if you fit one of the following definitions:

- 1) Your expected gross sales will total less than \$100,000 per year for the next three years, or
- 2) in the case of coal mines, your average production will be less than 100,000 tons of coal per year.

If you are a "small business," you may submit projected sales or production figures to qualify for this exemption. The sales or production figures you submit must be for the facility which is the source of the discharge. The data should not be limited only to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, where intracorporate transfers of goods and services are involved, the transfer price per unit should approximate market prices for those goods and services as closely as possible. If necessary, you may index your sales figures to the second quarter of 1980 to demonstrate your eligibility for a small business exemption. This may be done by using the gross national product price deflator (second quarter of 1980 = 100), an index available in "National Income and Product Accounts of the United States" (Department of Commerce, Bureau of Economic Analysis).

The small business exemption applies to the GC/MS fractions (Section 3) of Item V-B only. Even if you are eligible for a small business exemption, you are still required to provide information on metals, cyanide, total phenols, and dioxin in Item V-B, as well as all of Items V-A and C.

Item V-C

List any pollutants in Table 2D-3 that you believe will be present in any outfalls and briefly explain why you believe they will be present. No estimate of the pollutant's quantity is required, unless you already have quantitative data.

Note: The discharge of pollutants listed in Table 2D-4 may subject you to the additional requirements of section 311 of the CWA (Oil and Hazardous Substance Liability). These requirements are not administered through the NPDES program. However, if you wish an exemption under 40CFR 117.12(a)(2) from these requirements, attach additional sheets of paper to this form providing the following information:

- A. The substance and the amount of each substance which may be discharged;

- B. The origin and source of the discharge of the substance;
- C. The treatment which is to be provided for the discharge by:
 1. An onsite treatment system separate from any treatment system which will treat your normal discharge,
 2. A treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above, or
 3. Any combination of the above.

An exemption from the section 311 reporting requirements pursuant to 40 CFR Part 117 for pollutants on Table 2D does not exempt you from the section 402 reporting requirements pursuant to 40 CFR Part 122 (Item V-C) for pollutants listed on Table 2D-3.

For further information on exclusions from Section 311, see 40 CFR Section 117.12(a)(2) and (c), or contact your EPA Regional office (Table 1 in the Form 1 instructions).

Item VI-A

If an engineering study was conducted, check the box labeled "report available." If no study was done, check the box labeled "no report."

Item VI-B

Report the name and location of any existing plant(s) which (to the best of your knowledge) resembles your planned operation with respect to items produced, production process, wastewater constituents, or wastewater treatment. No studies need be conducted to respond to this item. Only data which are already available need be submitted.

This information will be used to inform the permit writer of appropriate treatment methods and their associated permit conditions and limits.

Item VII

A space is provided for additional information which you believe would be useful in setting permit limits, such as additional sampling. Any response is optional.

Item VIII

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application, . . . shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

40 CFR Part 122.22 Requires the Certification To Be Signed as Follows:

- A. For a corporation: by a responsible corporate officer. A responsible corporate officer means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- B. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- C. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

PHYSICAL TREATMENT PROCESSES

1—A	Ammonia Stripping	1—M	Grit Removal
1—B	Dialysis	1—N	Microstraining
1—C	Diatomaceous Earth Filtration	1—O	Mixing
1—D	Distillation	1—P	Moving Bed Filters
1—E	Electrodialysis	1—Q	Multimedia Filtration
1—F	Evaporation	1—R	Rapid Sand Filtration
1—G	Flocculation	1—S	Reverse Osmosis (<i>Hyperfiltration</i>)
1—H	Flotation	1—T	Screening
1—J	Foam Fractionation	1—U	Sedimentation (<i>Settling</i>)
1—J	Freezing	1—V	Slow Sand Filtration
1—K	Gas-Phase Separation	1—W	Solvent Extraction
1—L	Grinding (<i>Comminutors</i>)	1—X	Sorption

CHEMICAL TREATMENT PROCESSES

2—A	Carbon Adsorption	2—G	Disinfection (<i>Ozone</i>)
2—B	Chemical Oxidation	2—H	Disinfection (<i>Other</i>)
2—C	Chemical Precipitation	2—I	Electrochemical Treatment
2—D	Coagulation	2—J	Ion Exchange
2—E	Dechlorination	2—K	Neutralization
2—F	Disinfection (<i>Chlorine</i>)	2—L	Reduction

BIOLOGICAL TREATMENT PROCESSES

3—A	Activated Sludge	3—E	Preaeration
3—B	Aerated Lagoons	3—F	Spray Irrigation/Land Application
3—C	Anaerobic Treatment	3—G	Stabilization Ponds
3—D	Nitrification-Denitrification	3—H	Trickling Filtration

OTHER PROCESSES

4—A	Discharge to Surface Water	4—C	Reuse/Recycle of Treated Effluent
4—B	Ocean Discharge Through Outfall	4—D	Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5—A	Aerobic Digestion	5—M	Heat Drying
5—B	Anaerobic Digestion	5—N	Heat Treatment
5—C	Belt Filtration	5—O	Incineration
5—D	Centrifugation	5—P	Land Application
5—E	Chemical Conditioning	5—Q	Landfill
5—F	Chlorine Treatment	5—R	Pressure Filtration
5—G	Composting	5—S	Pyrolysis
5—H	Drying Beds	5—T	Sludge Lagoons
5—I	Elutriation	5—U	Vacuum Filtration
5—J	Flotation Thickening	5—V	Vibration
5—K	Freezing	5—W	Wet Oxidation
5—L	Gravity Thickening		

Table 2D-1

LINE DRAWING

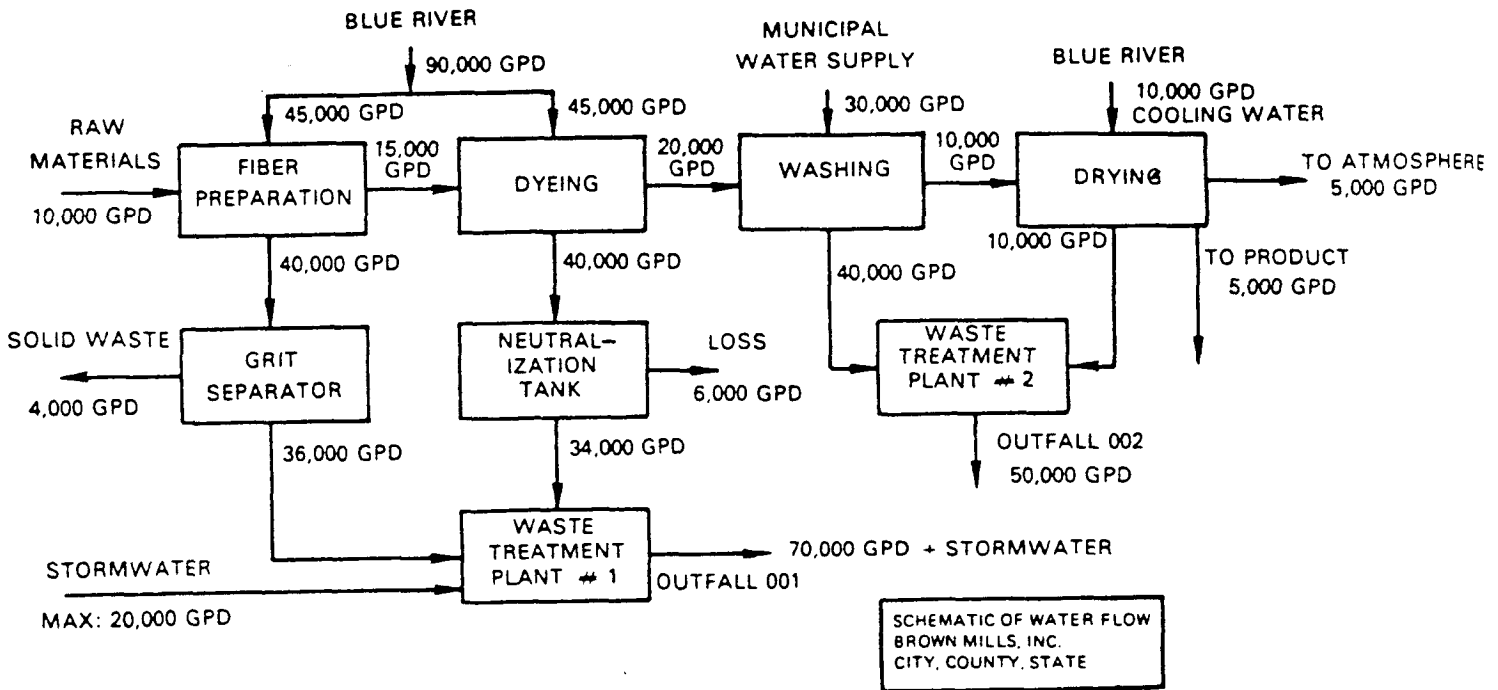


Figure 2D-1

GS/MS FRACTION — ACID COMPOUNDS

2-Chlorophenol	2,4-Dichlorophenol
2,4-Dimethylphenol	4,6-Dinitro-O-Cresol
2,4-Dinitro-phenol	2-Nitrophenol
4-Nitrophenol	P-Chloro-M-Cresol
Pentachlorophenol	Phenol
2,4,6-Trichlorophenol	

GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS

Acenaphthene	Acenaphthylene
Anthracene	Benzidine
Benzo (a) Anthracene	Benzo (a) Pyrene
3,5-Benzofluoranthene	Benzo (ghi) Perylene
Benzo (k) Fluoranthene	Bis (2 Chloroethoxy) Methane
Bis (2-Chloroethyl) Ether Bis	(2-Chloroisopropyl) Ether
Bis (2-Ethylhexyl) Phthalate	4-Bromophenyl Phenyl Ether
Butyl Benzyl Phthalate	2-Chloronaphthalene
4-Chlorophenyl Phenyl Ether	Chrysene
Dibenzo (a, h) Anthracene	1,2-Dichlorobenzene
1,3-Dichlorobenzene	1,4-Dichlorobenzene
3,3-Dichlorobenzidine	Diethyl Phthalate
Dimethyl Phthalate	Di-N-Butyl Phthalate
2,4-Dinitrotoluene	2,6-Dinitrotoluene
Di-N-Octyl Phthalate	1,2, Diphenylhydrazine (as Azobenzen)
Fluoranthene	Fluorene
Hexachlorobenzene	Hexachlorobutadiene
Hexachlorocyclopentadiene	Hexachloroethane
Indeno (1,2,3-cd) Pyrene	Isophorone
Naphthalene	Nitrobenzene
N-Nitro-sodimethylamine	N-Nitrosodi-N-Propylamine
N-Nitro-sodiphenylamine	Phenanthrene
Pyrene	1,2,4-Trichlorobenzene

GC/MS FRACTION — PESTICIDES

Aldrin	Gamma-BHC
Alpha-BHC	Delta-BHC
Beta-BHC	Chlordane
4,4' DDT	4,4' DDE
4,4'-DDD	Dieldrin
Alpha-Endosulfan	Beta-Endosulfan
Endosulfan Sulfate	Endrin
Endrin Aldehyde	Heptachlor
Heptachlor Epoxide	PCB-1242
PCB-1254	PCB-1221
PCB-1232	PCB-1248
PCB-1260	PCB-1016
Toxaphene	

*fractions defined in 40 CFR Part 136

Table 2D-2

GROUP A

Biochemical Oxygen Demand (BOD)
Chemical Oxygen Demand (COD)
Total Organic Carbon (TOC)
Total Suspended Solids (TSS)
Flow

Ammonia (as N)
Temperature (winter)
Temperature (summer)
pH

GROUP B

Bromide
Total Residual Chlorine
Color
Fecal Coliform
Fluoride
Nitrate-Nitrite (as N)
Oil and Grease
Phosphorus (as P) Total
Radioactivity
 (1) Alpha, Total
 (2) Beta, Total
 (3) Radium, Total
 (4) Radium 226, Total

Sulfate (as SO₄)
Sulfide (as S)
Sulfite (as SO₃)
Surfactants
Aluminum, Total
Barium, Total
Boron, Total
Cobalt, Total
Iron, Total
Magnesium, Total
Molybdenum, Total
Manganese, Total
Tin, Total
Titanium, Total

Section 1

Antimony, Total
Beryllium, Total
Chromium, Total
Lead, Total
Nickel, Total
Silver, Total
Zinc, Total
Phenols, Total

Arsenic, Total
Cadmium, Total
Copper, Total
Mercury, Total
Selenium, Total
Thallium, Total
Cyanide, Total

Section 2

2,3,7,8-Tetrachlorodibenzo-P-Dioxin

Section 3

GC/MS FRACTION* — VOLATILE COMPOUNDS

Acrolein
Benzene
Carbon Tetrachloride
Chlorodibromomethane
2-Chloroethylvinyl Ether
Dichlorobromomethane
1,2-Dichloroethane
1,2-Dichloropropane
Ethylbenzene
Methyl Chloride
1,1,2,2-Tetrachloroethane
Toluene
1,1,1-Trichloroethane
Trichloroethylene

Vinyl Chloride
Acrylonitrile
Bromoform
Chlorobenzene
Chloroethane
Chloroform
1,1-Dichloroethane
1,1-Dichloroethane
1,3-Dichloropropylene
Methyl Bromide
Methylene chloroethane
Tetrachloroethylene
1,2-Trans-Dichloroethylene
1,1,2-Trichloroethane

Table 2D-2

**TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES
REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED
TO BE PRESENT**

TOXIC POLLUTANT

HAZARDOUS SUBSTANCES

Asbestos

Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos

HAZARDOUS SUBSTANCES

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumpahos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophinoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2 Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine dodecylbenzenesulfonate
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor

Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Naphthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrochlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanic acid]
Trichlorofon
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

TABLE 2D-3

HAZARDOUS SUBSTANCES

Acetaldehyde	Butylamine	Dichlorvos
Acetic acid	Butyric acid	Dieldrin
Acetic anhydride	Cadmium acetate	Diethylamine
Acetone cyanohydrin	Cadmium bromide	Dimethylamine
Acetyl bromide	Cadmium chloride	Dinitrobenzene
Acetyl chloride	Calcium arsenate	Dinitrophenol
Acrolein	Calcium arsenite	Dinitrotoluene
Acrylonitrile	Calcium carbide	Diquat
Adipic acid	Calcium chromate	Disulfoton
Aldrin	Calcium cyanide	Diuron
Allyl alcohol	Calcium dodecylbenzenesulfonate	Dodecylbenzenesulfonic acid
Alyll chloride	Calcium hypochlorite	Endosulfan
Aluminum sulfate	Captan	Endrin
Ammonia	Carbaryl	Epichlorohydrin
Ammonium acetate	Carbofuran	Ethion
Ammonium benzoate	Carbon disulfide	Ethylbenzene
Ammonium bicarbonate	Carbon tetrachloride	Ethylenediamine
Ammonium bichromate	Chlordane	Ethylene dibromide
Ammonium bifluoride	Chlorine	Ethylene dichloride
Ammonium bisulfite	Chlorobenzene	Ethylene diaminetetracetic acid (EDTA)
Ammonium carbamate	Chloroform	Ferric ammonium citrate
Ammonium carbonate	Chloropyrifos	Ferric ammonium exalate
Ammonium chloride	Chlorosulfonic acid	Ferric chloride
Ammonium chromate	Chromic acetate	Ferric fluoride
Ammonium citrate	Chromic acid	Ferric nitrate
Ammonium flouoroborate	Chromic sulfate	Ferric sulfate
Ammonium fluoride	Chromous chloride	Ferrous chloride
Ammonium hydroxide	Cobaltous bromide	Ferrous sulfate
Ammonium oxalate	Cobaltous formate	Formaldehyde
Ammonium silicofluoride	Cobaltous sulfamate	Formic acid
Ammonium sulfamate	Coumaphos	Fumaric acid
Ammonium sulfide	Cresol	Furfural
Ammonium sulfite	Crotonaldehyde	Guthion
Ammonium tartrate	Cupric acetate	Heptachlor
Ammonium thiocyanate	Cupric acetoarsenite	Hexachlorocyclopentadiene
Ammonium thiosulfate	Cupric chloride	Hydrochloric acid
Amyl acetate	Cupric nitrate	Hydrofluoric acid
Aniline	Cupric oxalate	Hydrogen cyanide
Antimony pentachloride	Cupric sulfate	Hydrogen sulfide
Antimony potassium tartrate	Cupric sulfate ammoniated	Isoprene
Antimony tribromide	Cupric tartrate	Isopropanolamine
Antimony trichloride	Cyanogen chloride	dodecylbenzenesulfonate
Antimony trifluoride	Cyclohexane	Kelthane
Antimony trioxide	2,4-D acid	Kepone
Arsenic disulfide	(2,4-Dichlorophenoxyacetic acid)	Lead acetate
Arsenic trichloride	2,4-D esters	Lead arsenate
Arsenic trioxide	(2,4-Dichlorophenoxyacetic acid	Lead chloride
Arsenic trisulfide	esters)	Lead fluoborate
Barium cyanide	DDT	Lead fluorite
Benzene	Diazinon	Lead iodide
Benzoic acid	Dicamba	Lead nitrate
Benzonitrite	Dichlobenil	Lead stearate
Benzoyl chloride	Dichlone	Lead sulfate
Benzyl chloride	Dichlorobenzene	Lead sulfide
Beryllium chloride	Dichloropropane	Lead thiocyanate
Beryllium fluoride	Dichloropropene	Lindane
Beryllium nitrate	Dichloropropene-Dichloropropane	Lithium chromate
Butylacetate	mix	Malathion
n-Butylphthalate	2,2-Dichloropropionic acid	

TABLE 2D-4

HAZARDOUS SUBSTANCES *(Continued)*

Maleic acid	Sodium bifluoride	Zinc ammonium chloride
Maleic anhydride	Sodium bisulfite	Zinc borate
Mercaptodimethur	Sodium chromate	Zinc bromide
Mercuric cyanide	Sodium cyanide	Zinc carbonate
Mercuric nitrate	Sodium dodecylbenzenesulfonate	Zinc chloride
Mercuric sulfate	Sodium fluoride	Zinc cyanide
Mercuric thiocyanate	Sodium hydrosulfide	Zinc fluoride
Mercurous nitrate	Sodium hydroxide	Zinc formate
Methoxychlor	Sodium hypochlorite	Zinc hydrosulfite
Methyl mercaptan	Sodium methylate	Zinc nitrate
Methyl methacrylate	Sodium nitrate	Zinc phenolsulfonate
Methyl parathion	Sodium phosphate (dibasic)	Zinc phosphide
Mevinphos	Sodium phosphate (tribasic)	Zinc silicofluoride
Mexacarbate	Sodium selenite	Zinc sulfate
Monoethylamine	Strontium chromate	Zirconium nitrate
Monomethylamine	Strychnine	Zirconium potassium fluoride
Naled	Styrene	Zirconium sulfate
Naphthalene	Sulfuric acid	Zirconium tetrachloride
Naphthenic acid	Sulfur monochloride	
Nickel ammonium sulfate	2,4,5-T acid	
Nickel chloride	(2,4,5-Trichlorophenoxy	
Nickel hydroxide	acetic acid)	
Nickel nitrate	2,4,5-Tamines	
Nickel sulfate	(2,4,5-Trichlorophenoxy	
Nitric acid	acetic acid amines)	
Nitrobenzene	2,4,5-T esters	
Nitrogen dioxide	(2,4,5-Trichlorophenoxy	
Nitrophenil	acetic acid esters)	
Nitrotoluene	2,4,5-T salts	
Paraformaldehyde	(2,4,5-Trichlorophenoxy acetic	
Parathion	acid salts)	
Pentachlorophenol	2,4,5-TP acid	
Phenol	(2,4,5-Trichlorophenoxy	
Phosgene	propanoic acid)	
Phosphoric acid	2,4,5-TP acid esters	
Phosphorus	(2,4,5-Trichlorophenoxy	
Phosphorus oxychloride	propanoic acid esters)	
Phosphorus pentasulfide	TDE (Tetrachlorodiphenyl ethane)	
Phosphorus trichloride	Tetraethyl lead	
Polychlorinated biphenyls (PCB)	Tetraethyl pyrophosphate	
Potassium arsenate	Thallium sulfate	
Potassium arsenite	Toluene	
Potassium bichromate	Toxaphene	
Potassium cyanide	Trichlorofon	
Potassium hydroxide	Trichloroethylene	
Potassium permanganate	Trichlorophenol	
Propargite	Triethanolamine	
Propionic acid	dodecylbenzenesulfonate	
Propionic anhydride	Triethylamine	
Propylene oxide	Trimethylamine	
Pyrethrins	Uranyl acetate	
Quinoline	Uranyl nitrate	
Resorcinol	Vanadium pentoxide	
Selenium oxide	Vanadyl sulfate	
Silver nitrate	Vinyl acetate	
Sodium	Vinylidene chloride	
Sodium arsenate	Xylene	
Sodium arsenite	Xylenol	
Sodium bichromate	Zinc acetate	

Table 2D-4

C. Use the space below to list any of the pollutants listed in Table 2D-3 of the instructions which you know or have reason to believe will be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it will be present.

1. Pollutant	2. Reason for Discharge

VI. Engineering Report on Wastewater Treatment

A. If there is any technical evaluation concerning your wastewater treatment, including engineering reports or pilot plant studies, check the appropriate box below.
 Report Available No Report

B. Provide the name and location of any existing plant(s) which, to the best of your knowledge, resembles this production facility with respect to production processes, wastewater constituents, or wastewater treatments.

Name	Location

VII. Other Information (Optional)

Use the space below to expand upon any of the above questions or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit limitations for the proposed facility. Attach additional sheets if necessary.

VIII. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name and Official Title (type or print)

B. Phone No.

C. Signature

D. Date Signed