United States
Environmental Protection
Agency

Office of Water
Enforcement and Permits
Washington, DC 20460

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Permits Division

EPA

Application Form 2D —

New Sources and New Dischargers:

Application for Permit to Discharge Process Wastewater

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Form 2D Instructions

Form 2D must be completed in conjunction with EPA Form 3510-1 (Form 1).

This form must be completed by all applicants who checked "yes" to Item II-D in Application Form 1. However, 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). How-ever, 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 "wastewater" 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 eligibilty 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/1 ...milligrams per liter	ton .....tons (English tons)
ppb .....parts per billion	mg .....milligrams
Ug/1 ...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-I);
C. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) (CAS # 136-25-4);
D. 0,O-dimethyl 0-(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 40 CFR 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—B .....Dialysis
1—C .....Diatomaceous Earth Filtration
1—D .....Distillation
1—E .....Electrodialysis
1—F .....Evaporation
1—G .....Flocculation
1—H .....Flotation
1—I .....Foam Fractionation
1—J .....Freezing
1—K .....Gas-Phase Separation
1—L .....Grinding *(Comminutors)*
1—M .....Grit Removal
1—N .....Microstraining
1—O .....Mixing
1—P .....Moving Bed Filters
1—Q .....Multimedia Filtration
1—R .....Rapid Sand Filtration
1—S .....Reverse Osmosis *(Hyperfiltration)*
1—T .....Screening
1—U .....Sedimentation *(Settling)*
1—V .....Slow Sand Filtration
1—W .....Solvent Extraction
1—X .....Sorption

CHEMICAL TREATMENT PROCESSES

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

BIOLOGICAL TREATMENT PROCESSES

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

OTHER PROCESSES

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

SLUDGE TREATMENT AND DISPOSAL PROCESSES

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

Table 2D-1

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 SO_4)
Sulfide (as S)
Sulfite (as SO_3)
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
Chlorodibramomethane
2-Chloroethylvinyl Ether
Dichlorobomomethane
1,2-Dichloroethane
1,2-Dichloropropane
Ethylbenzene
Methyl Chloride
1,1,2,2-Tetrachloroethane
Toluene
1,1,1-Trichloroethane
Trichloroethylene
Vinyl Chloride
Acrylonitirle
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

GS/MS FRACTION — ACID COMPOUNDS

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

GC/MS FRACTION — BASE/NEUTRAL COMPOUNDS

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

GC/MS FRACTION — PESTICIDES

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

*fractions defined in 40 CFR Part 136

Table 2D-2

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

TOXIC POLLUTANT

Asbestos

HAZARDOUS SUBSTANCES

Aceltaldehyde
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

HAZARDOUS SUBSTANCES

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

TABLE 2D-4

HAZARDOUS SUBSTANCES *(Continued)*

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

Table 2D-4

LINE DRAWING

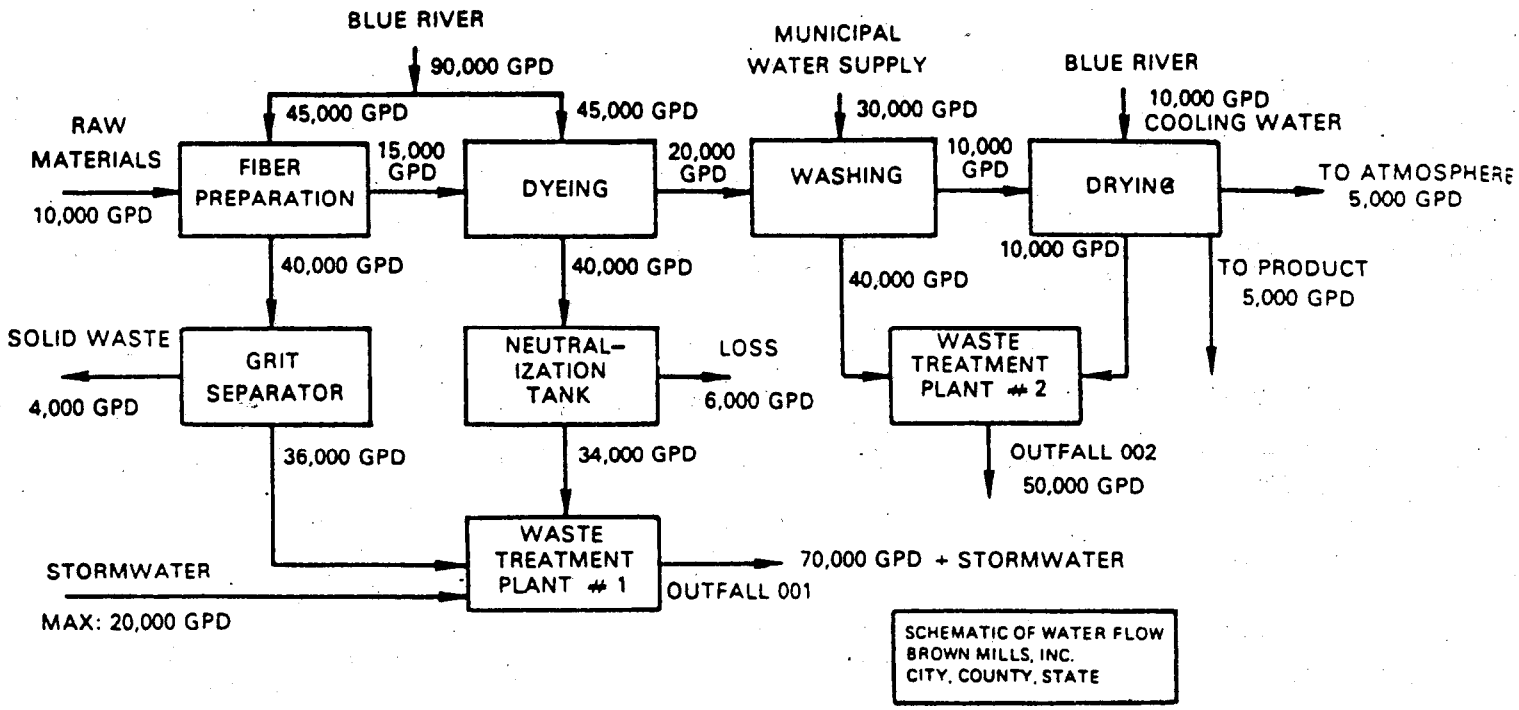

Figure 2D-1

Form Approved. OMB No. 2040-0086. Approval expires 8-31-98.

Please type or print in the unshaded areas only

EPA ID Number *(copy from Item 1 of Form 1)*

Form 2D NPDES

EPA

New Sources and New Dischargers Application for Permit to Discharge Process Wastewater

I. Outfall Location

For each outfall, list the latitude and longitude, and the name of the receiving water.

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	

II. Discharge Date *(When do you expect to begin discharging?)*

III. Flows, Sources of Pollution, and Treatment Technologies

A. For each outfall, provide a description of (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

Outfall Number	1. Operations Contributing Flow *(list)*	2. Average Flow *(include units)*	3. Treatment *(Description or List Codes from Table 2D-1)*

B. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item III-A. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

C. Except for storm runoff, leaks, or spills, will any of the discharges described in item III-A be intermittent or seasonal?

☐ Yes *(complete the following table)* ☐ No *(go to item IV)*

Outfall Number	1. Frequency		2. Flow		
	a. Days Per Week *(specify average)*	b. Months Per Year *(specify average)*	a. Maximum Daily Flow Rate *(in mgd)*	b. Maximum Total Volume *(specify with units)*	c. Duration *(in days)*

IV. Production

If there is an applicable production-based effluent guideline or NSPS, for each outfall list the estimated level of production (projection of actual production level, not design), expressed in the terms and units used in the applicable effluent guideline or NSPS, for each of the first 3 years of operation. If production is likely to vary, you may also submit alternative estimates (attach a separate sheet).

Year	a. Quantity Per Day	b. Units of Measure	c. Operation, Product, Material, etc *(specify)*

CONTINUE ON NEXT PAGE

CONTINUED FROM THE FRONT	EPA ID Number *(copy from Item 1 of Form 1)*	Outfall Number

V. Effluent Characteristics

A, and B: These items require you to report estimated amounts *(both concentration and mass)* of the pollutants to be discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and should be completed in accordance with the specific instructions for that part. Data for each outfall should be on a separate page. Attach additional sheets of paper if necessary.

General Instructions *(See table 2D-2 for Pollutants)*

Each part of this item requests you to provide an estimated daily maximum and average for certain pollutants and the source of information. Data for all pollutants in Group A, for all outfalls, must be submitted unless waived by the permitting authority. For all outfalls, data for pollutants in Group B should be reported only for pollutants which you believe will be present or are limited directly by an effluent limitations guideline or NSPS or indirectly through limitations on an indicator pollutant.

1. Pollutant	2. Maximum Daily Value *(include units)*	3. Average Daily Value *(include units)*	4. Source *(see instructions)*

 CONTINUE ON REVERSE

CONTINUED FROM THE FRONT	EPA ID Number *(copy from Item 1 of Form 1)*	

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

CONTINUE ON NEXT PAGE

EPA ID Number *(copy from item one of Form 1)*

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

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Please type or print in the unshaded areas only

EPA ID Number *(copy from Item 1 of Form 1)*

Form 2D NPDES

EPA

New Sources and New Dischargers Application for Permit to Discharge Process Wastewater

I. Outfall Location

For each outfall, list the latitude and longitude, and the name of the receiving water.

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	

II. Discharge Date *(When do you expect to begin discharging?)*

III. Flows, Sources of Pollution, and Treatment Technologies

A. For each outfall, provide a description of (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

Outfall Number	1. Operations Contributing Flow *(list)*	2. Average Flow *(include units)*	3. Treatment *(Description or List Codes from Table 2D-1)*

B. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item III-A. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

C. Except for storm runoff, leaks, or spills, will any of the discharges described in item III-A be intermittent or seasonal?

☐ Yes *(complete the following table)* ☐ No *(go to item IV)*

Outfall Number	1. Frequency		2. Flow		
	a. Days Per Week *(specify average)*	b. Months Per Year *(specify average)*	a. Maximum Daily Flow Rate *(in mgd)*	b. Maximum Total Volume *(specify with units)*	c. Duration *(in days)*

IV. Production

If there is an applicable production-based effluent guideline or NSPS, for each outfall list the estimated level of production (projection of actual production level, not design), expressed in the terms and units used in the applicable effluent guideline or NSPS, for each of the first 3 years of operation. If production is likely to vary, you may also submit alternative estimates (attach a separate sheet).

Year	a. Quantity Per Day	b. Units of Measure	c. Operation, Product, Material, etc *(specify)*

CONTINUE ON NEXT PAGE

CONTINUED FROM THE FRONT	EPA ID Number *(copy from Item 1 of Form 1)*	Outfall Number

V. Effluent Characteristics

A, and B: These items require you to report estimated amounts ***(both concentration and mass)*** of the pollutants to be discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and should be completed in accordance with the specific instructions for that part. Data for each outfall should be on a separate page. Attach additional sheets of paper if necessary.

General Instructions *(See table 2D-2 for Pollutants)*

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1. Pollutant	2. Maximum Daily Value *(include units)*	3. Average Daily Value *(include units)*	4. Source *(see instructions)*

CONTINUE ON REVERSE

EPA ID Number *(copy from item one of Form 1)*

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