



## Arizona Pollutant Discharge Elimination System **FORM 2D** INSTRUCTIONS

### FOR INDUSTRIAL AND COMMERCIAL OPERATIONS THAT PROPOSE TO DISCHARGE NON-DOMESTIC WASTEWATER New Sources and New Dischargers

#### **All applicants must complete this form if checked “yes” to Part VII.D on Form 1**

This form is to be used by private or government owners of facilities that propose to discharge wastewater other than domestic wastewater. This includes discharges from water treatment plants, groundwater remediation efforts, mining and silvicultural operations, and noncontact cooling waters among others. To further determine if you are a new source or a new discharger, see Arizona Administrative Code (A.A.C.) R18-9-A901 (19), R18-9-A901(20) and Code of Federal Regulations (CFR) Part 122.29, incorporated by reference under A.A.C. R18-9-A905(A)(1)(e). Your application will not be considered complete unless you answer every question on this form and on Form 1. If an item does not apply to you, enter “NA” (for not applicable) to show that you considered the question. This form should not be used for discharges of stormwater runoff.

#### **Availability of Information to Public**

Information contained in this application form will, upon request, be made available to the public for inspection and copying. No information on this form including effluent characterization data may be claimed as confidential. If you send in more information than is required in these forms that is considered company-privileged information, you may ask ADEQ to keep that extra information confidential. Otherwise, ADEQ may make the information public without letting you know in advance. For more information on claims of confidentiality, see Arizona Revised Statutes (A.R.S.) § 49-205.

#### **Follow-up Requirements**

Although you are now required to submit estimated data on this form, no later than two years after you begin discharging from the proposed facility, you must complete and submit Item V of AZPDES Application Form 2D to ADEQ. However, you need not complete those portions of Item V requiring tests which you have already performed under the discharge monitoring requirements of your AZPDES permit.

#### **Definitions**

All significant terms used in these instructions and in the form are defined in the glossary found in Section D-Glossary of Instructions, which accompanies Form 1.

#### **Item I. Outfall Location**

Provide 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. Discharge Date**

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

## **Item III. Flows, Sources of Pollution and Treatment Technologies**

### **Part III.A**

Attach a line drawing showing 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 Part III-B. 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. An example of an acceptable line drawing appears in Figure 2D-1 to these instructions.

### **Part III.B**

List all outfalls and their sources (operations contributing to the flow). Operations may be described in general terms (for example, "dye-making reactor" or "distillation tower"). Provide an estimate of average flow from each source. For stormwater discharges you may estimate the average flow, but you must indicate the rainfall event upon which the estimate is based and the method of estimation. Briefly describe the planned treatment for these wastewaters prior to discharge. Also describe the ultimate disposal method of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should describe the treatment in either a narrative form or use the proper code for the treatment unit from a list provided in Table 2D-1 to fill in column 3.b.

### **Part III.C**

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. Fill in every applicable column in this part for each source of intermittent or seasonal discharge. Base your answers on your best estimate. Report the highest daily value for flow rate in the "MAXIMUM DAILY FLOW RATE" column (column 4.a) and should be measured in million gallons per day. "MAXIMUM TOTAL DAILY VOLUME" column (column 4.b) represents the highest total volume of any one discharge within 24 hours and is measured in units such as gallons.

## **Item IV. Production**

"Production" in this item 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, you 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. Effluent Characteristics

This item requires 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 must submit a separate Item V for each outfall. 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 general instructions apply to the entire item.

### General Instructions

Each part of this item requires you to provide an estimated maximum daily and long term average value for each pollutant or parameter listed according to the specific instructions below. The source of the data is also required. 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. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated stormwater runoff.) 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 resubmit Item V of AZPDES Application Form 2C (follow-up data) to ADEQ.**

### Reporting

All estimated pollutant or parameter levels must be reported as concentration and as total mass, except for discharge flow, temperature and pH. Mass is the total weight of pollutants or parameters discharged over a day (24 hours). Maximum daily value is the highest daily value obtained. Long term average value is the average of all daily values.

Use the following abbreviations for units:

	<b>Concentration</b>		<b>Mass</b>
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)

All reporting of values for metals must be in terms of "total recoverable metal," unless:

1. An applicable, promulgated effluent limitation or standard specifies the limitation for the metal in dissolved, valent or total form; or
2. All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium); or
3. ADEQ has determined that in establishing case-by-case limitations it is necessary to express the limitations on the metal in dissolved, valent or total form to carry out the provisions of the CWA.

## Source

In providing the estimates, use the codes in the following table to indicate the source of such information in column 4 of Part V.A and column 5 of Parts V.B through V.D.

	<b>Code</b>
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

## Reporting of 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) incorporated by reference under A.A.C. R18-9-A905(A)(3)(e)), under Item VII (other information). You will then be contacted by ADEQ for further instructions.

### Part V.A (BOD<sub>5</sub>, COD, TOC, TSS, Ammonia, Flow, Temperature, and pH)

All applicants must report estimates of data on pollutants or parameters 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 ADEQ 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 ADEQ before or with the permit application. ADEQ may waive the requirements for information about these pollutants or parameters if it determines that less stringent reporting requirements are adequate to support issuance of the permit.

### Part V.B (27 Conventional and Non-conventional Pollutants)

Mark “X” in column 2 for each pollutant and for all outfalls, including outfalls containing only noncontact cooling water or nonprocess wastewater if any of the following conditions apply:

1. You know or have reason to believe that the pollutant will be discharged, or
2. The pollutant is limited directly by an applicable effluent limitations guideline or a new source performance standard (NSPS), or
3. The pollutant is limited indirectly but expressly through applicable promulgated imitations or NSPS on an indicator pollutant (e.g., use of TSS as an indicator to control the discharge of iron and aluminum).

If you mark column 2 for any pollutant, you must provide an estimate of data for that pollutant. Complete one table for each outfall.

### Part V.C

The 126 priority pollutants in Part V.C are divided into the following three sections:

1. 15 Metal toxic pollutants, total cyanide and total phenols
2. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)(CAS #1764-016)
3. 110 Organic toxic pollutants (gas chromatography/mass spectrometry or GC/MS fractions)
  - (a) 28 Volatile compounds

- (b) 11 Acid compounds
- (c) 46 Base/neutral compounds
- (d) 25 Pesticides

For pollutants listed in Sections 1 and 3, you must mark "X" in column 2 and report estimates as instructed in Part V.B, above.

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

1. 2,4,5-Trichlorophenoxy acetic acid (2,4,5-T) (CAS # 93-765);
2. 2-(2,4,5-Trichlorophenoxy) propanoic acid (Silvex, 2,4,5 TP) (CAS #93-72-1);
3. 2-(2,4,5-Trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) (CAS #136-25-4);
4. 0,0-Dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnol) (CAS #299-84-3);
5. 2,4,5-Trichlorophenol (TCP) (CAS #95-95-4); or
6. Hexachlorophene (HCP) (CAS #70-30-4).

### **Small Business Exemption**

If you are a "small business", you are exempt from the reporting requirement for Part V.C (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 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 Part V.C only. Even if you are eligible for a small business exemption, you are still required to provide information on other pollutants as required elsewhere in Form 2D.

### **Part V.D**

Report estimates of quantitative data for any of the State of Arizona surface water quality standards applicable to the receiving water which is not covered in Item V, Parts A, B, C, and E of Form 2D if you know or have reason to believe that the pollutant(s) will be discharged from each outfall. Please refer to A.A.C. R18-11-109, Appendix B for the list of Arizona surface waters and their designated uses. A.A.C. R18-11-109, Appendix A lists applicable water quality standards for all designated uses.

### **Part V.E**

List any pollutants in Table 2D-2 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-3 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:

1. The substance and the amount of each substance which may be discharged;
2. The origin and source of the discharge of the substance;
3. The treatment which is to be provided for the discharge by:
  - (a) An onsite treatment system separate from any treatment system which will treat your normal discharge,
  - (b) 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
  - (c) Any combination of the above.

An exemption from the Section 311 reporting requirements pursuant to 40 CFR Part 117 for pollutants on Table 2D-3 does not exempt you from the Section 402 reporting requirements pursuant to 40 CFR Part 122 for 80 pollutants listed on Table 2D-2. For further information on exclusions from Section 311, see 40 CFR Section 117.12(a)(2) and (c).

## **Item VI. Engineering Report on Wastewater Treatment**

### **Part 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."

### **Part 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 processes, wastewater constituents or wastewater treatment. No studies need be conducted to respond to this part. Only available data 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. Other Information**

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. Certification**

All permit applications must be signed and certified as provided by 40 CFR Part 122.22(d) incorporated by reference under A.A.C. R18-9-A905(A)(1)(c). A person who signs an application for an AZPDES permit and other information requested by ADEQ shall make the following 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."*

The signature must be of a qualified person as indicated below and the application can not be signed by a consultant who prepares it.

An application submitted by a municipality, State, Federal or other public agency **must be signed by either a principal executive officer or ranking elected official**. A principal executive officer of a Federal agency includes: (1) The chief executive officer of the agency or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

An application submitted by a corporation **must be signed by a responsible corporate officer**. A responsible corporate officer means:

1. A president, secretary, treasurer or vice president in charge of a principal business function or any other person who performs similar policy or decision making functions; or
2. The manager of manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25million ( in second quarter 1980 dollars), if the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

An application submitted by a partnership or sole proprietorship **must be signed by a general partner or the proprietor**, respectively. Federal and state statutes provide for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the CWA 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."

A.R.S. § 49-262 (C) provides that any person who violates any provision of a rule adopted pursuant to A.R.S. Article 3.1 of Title 49, Chapter 2, Water Quality Control is subject to a civil penalty of up to \$25,000 per day per violation.

**TABLE 2D-1. CODES FOR TREATMENT UNITS**

**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 (Hyperfiltration)
1-H.....Flotation	1-T.....Screening
1-I.....Foam Fractionation	1-U.....Sedimentation (Settling)
1-J.....Freezing	1-V.....Slow Sand Filtration
1-K.....Gas-Phase Separation	1-W.....Solvent Extraction
1-L.....Grinding (Comminutors)	1-X.....Sorption

**CHEMICAL TREATMENT PROCESSES**

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

**BIOLOGICAL TREATMENT PROCESSES**

3-A.....Activated Sludge	3-E.....Pre-Aeration
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-G .....Composting
5-B.....Anaerobic Digestion	5-H.....Drying Beds
5-C.....Belt Filtration	5-I.....Elutriation
5-D.....Centrifugation	5-J.....Flotation Thickening
5-E.....Chemical Conditioning	5-K.....Freezing
5-F.....Chlorine Treatment	5-L.....Gravity Thickening
5-M.....Heat Drying	5-S.....Pyrolysis
5-N.....Heat Treatment	5-T.....Sludge Lagoons
5-O.....Incineration	5-U.....Vacuum Filtration
5-P.....Land Application	5-V.....Vibration
5-Q.....Landfill	5-W.....Wet Oxidation
5-R.....Pressure Filtration	

**TABLE 2D-2. 80 TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT**

### TOXIC POLLUTANT

Asbestos

### HAZARDOUS SUBSTANCES

Acetaldehyde  
 Allyl alcohol  
 Allyl chloride  
 Amyl acetate  
 Benzonitrile  
 Benzyl chloride  
 Butyl acetate  
 Butylamine  
 Captan  
 Carbaryl  
 Carbofuran  
 Carbon disulfide  
 Chloropyrifos  
 Coumaphos  
 Cresol  
 Crotonaldehyde  
 Cyclohexane  
 2,4-D (2,4-Dichlorophenoxyacetic acid)  
 Diazinon  
 Dicamba  
 Dichlobenil  
 Dichlone  
 2,2-Dichloropropionic acid  
 Dichlorvos  
 Diethyl amine  
 Phenolsulfonate  
 Phosgene  
 Propargite  
 Propylene oxide  
 Pyrethrins  
 Quinoline  
 Resorcinol  
 Strontium  
 Strychnine  
 2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)  
 TDE (Tetrachlorodiphenyl ethane)

Dinitrobenzene  
 Diquat  
 Disulfoton  
 Diuron  
 Epichlorohydrin  
 Ethion  
 Ethylene diamine  
 Ethylene dibromide  
 Formaldehyde  
 Furfural  
 Guthion  
 Isoprene  
 Isopropanolamine dodecylbenzenesulfonate  
 Kelthane  
 Kepone  
 Malathion  
 Mercaptodimethur  
 Methoxychlor  
 Methyl mercaptan  
 Methyl methacrylate  
 Methyl parathion  
 Mevinphos  
 Mexacarbate  
 Monoethyl amine  
 Monomethyl amine  
 Naled  
 Napthenic acid  
 Nitrotoluene  
 Parathion  
 2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]  
 Trichlorofon  
 Triethanolamine dodecylbenzenesulfonate  
 Triethylamine  
 Uranium  
 Vanadium  
 Vinyl acetate  
 Xylene  
 Xylenol  
 Zirconium

**TABLE 2D-3. HAZARDOUS SUBSTANCES**

Acetaldehyde	Ammonium oxalate
Acetic acid	Ammonium silicofluoride
Acetic anhydride	Ammonium sulfamate
Acetone cyanohydrin	Ammonium sulfide
Acetyl bromide	Ammonium sulfite
Acetyl chloride	Ammonium tartrate
Acrolein	Ammonium thiocyanate
Acrylonitrile	Ammonium thiosulfate
Adipic acid	Amyl acetate
Aldrin	Aniline
Allyl alcohol	Antimony pentachloride
Allyl chloride	Antimony potassium tartrate
Aluminum sulfate	Antimony tribromide
Ammonia	Antimony trichloride
Ammonium acetate	Antimony trifluoride
Ammonium benzoate	Antimony trioxide
Ammonium bicarbonate	Arsenic disulfide
Ammonium bichromate	Arsenic trichloride
Ammonium bifluoride	Arsenic trioxide
Ammonium bisulfite	Arsenic trisulfide
Ammonium carbamate	Barium cyanide
Ammonium carbonate	Benzene
Ammonium chloride	Benzoic acid
Ammonium chromate	Benzonitrile
Ammonium citrate	Benzoyl chloride
Ammonium fluoroborate	Benzyl chloride
Ammonium fluoride	Beryllium chloride
Ammonium hydroxide	Beryllium fluoride
Beryllium nitrate	Cupric chloride
Butylacetate	Cupric nitrate
n-Butylphthalate	Cupric oxalate
Butylamine	Cupric sulfate
Butyric acid	Cupric sulfate ammoniated
Cadmium acetate	Cupric tartrate
Cadmium bromide	Cyanogen chloride
Cadmium chloride	Cyclohexane
Calcium arsenate	2,4-D acid (2,4-Dichlorophenoxy- acetic acid)
Calcium arsenite	2,4-D esters (2,4-Dichlorophenoxy- acetic acid esters)
Calcium carbide	DDT
Calcium chromate	Diazinon
Calcium cyanide	Dicamba
Calcium dodecylbenzenesulfonate	Dichlobenil
Calcium hypochlorite	Dichlone
Captan	Dichlorobenzene
Carbaryl	Dichloropropane
Carbofuran	Dichloropropene
Carbon disulfide	Dichloropropene-dichloropropane mix
Carbon tetrachloride	2,2-Dichloropropionic acid
Chlordane	Dichlorvos
Chlorine	Dieldrin
Chlorobenzene	Diethylamine
Chloroform	Dimethylamine
Chloropyrifos	Dinitrobenzene
Chlorosulfonic acid	Dinitrophenol
Chromic acetate	Dinitrotoluene
Chromic acid	Diquat
Chromic sulfate	Disulfoton
Chromous chloride	Diuron
Cobaltous bromide	Dodecylbenzenesulfonic acid
Cobaltous formate	Endosulfan
Cobaltous sulfamate	Endrin
Coumaphos	Epichlorohydrin
Cresol	Ethion
Crotonaldehyde	Ethylbenzene
Cupric acetate	
Cupric acetoarsenite	

Ethylenediamine	Nickel nitrate
Ethylene dibromide	Nickel sulfate
Ethylene dichloride	Nitric acid
Ethylene diaminetetracetic acid (EDTA)	Nitrobenzene
Ferric ammonium citrate	Nitrogen dioxide
Ferric ammonium oxalate	Nitrophenil
Ferric chloride	Nitrotoluene
Ferric fluoride	Paraformaldehyde
Ferric nitrate	Parathion
Ferric sulfate	Pentachlorophenol
Ferrous chloride	Phenol
Ferrous sulfate	Phosgene
Formaldehyde	Phosphoric acid
Formic acid	Phosphorus
Fumaric acid	Phosphorus oxychloride
Furfural	Phosphorus pentasulfide
Guthion	Phosphorus trichloride
Heptachlor	Polychlorinated biphenyls (PCB)
Hexachlorocyclopentadiene	Potassium arsenate
Hydrochloric acid	Potassium arsenite
Hydrofluoric acid	Potassium bichromate
Hydrogen cyanide	Potassium cyanide
Hydrogen sulfide	Potassium hydroxide
Isoprene	Potassium permanganate
Isopropanolaminedodecylbenzene-sulfonate	Propargite
Kelthane	Propionic acid
Kepone	Propionic anhydride
Lead acetate	Propylene oxide
Lead arsenate	Pyrethrins
Lead chloride	Quinoline
Lead fluoborate	Resorcinol
Lead flourite	Selenium oxide
Lead iodide	Silver nitrate
Lead nitrate	Sodium
Lead stearate	Sodium arsenate
Lead sulfate	Sodium arsenite
Lead sulfide	Sodium bichromate
Lead thiocyanate	Sodium bifluoride
Lindane	Sodium bisulfite
Lithium chromate	Sodium chromate
Malathion	Sodium cyanide
Maleic acid	Sodium dodecylbenzenesulfonate
Maleic anhydride	Sodium fluoride
Mercaptodimethur	Sodium hydrosulfide
Mercuric cyanide	Sodium hydroxide
Mercuric nitrate	Sodium hypochlorite
Mercuric sulfate	Sodium methylate
Mercuric thiocyanate	Sodium nitrite
Mercurous nitrate	Sodium phosphate (dibasic)
Methoxychlor	Sodium phosphate (tribasic)
Methyl mercaptan	Sodium selenite
Methyl methacrylate	Strontium chromate
Methyl parathion	Strychnine
Mevinphos	Styrene
Mexacarbate	Sulfuric acid
Monoethylamine	Sulfur monochloride
Monomethylamine	2,4,5-T acid (2,4,5-Trichlorophenoxy- acetic acid)
Naled	2,4,5-T amines (2,4,5-Trichlorophenoxy- acetic acid amines)
Naphthalene	2,4,5-T esters (2,4,5-Trichlorophenoxy- acetic acid esters)
Napthenic acid	2,4,5-T salts (2,4,5-Trichlorophenoxy- acetic acid salts)
Nickel ammonium sulfate	2,4,5-TP acid (2,4,5-Trichlorophenoxy-propanoic acid)
Nickel chloride	2,4,5-TP acid esters (2,4,5-Trichlorophenoxypropanoic acid esters)
Nickel hydroxide	
TDE (Tetrachlorodiphenyl ethane)	Trichlorofon
Tetraethyl lead	Trichloroethylene
Tetraethyl pyrophosphate	Trichlorophenol
Thallium sulfate	Triethanolamine dodecylbenzenesulfonate
Toluene	Triethylamine
Toxaphene	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



# AZPDES APPLICATION FORM 2D

Arizona Dept. of Environmental Quality  
AZPDES Individual Permits / Water Permits Section  
1110 W. Washington Street  
Phoenix, AZ 85007

## FOR MANUFACTURING, MINING AND SILVICULTURAL OPERATIONS THAT PROPOSE TO DISCHARGE PROCESS WASTEWATER New Sources and New Dischargers

Please print or type in the unshaded areas only

AZPDES (NPDES) Permit No.

### I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

1. OUTFALL NUMBER <i>(list)</i>	2. LATITUDE			3. LONGITUDE			4. RECEIVING WATER <i>(list)</i>
	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.** 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 Part III. **B.** 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.

**B.** 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 as necessary.*

1. (OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
	a. OPERATIONS <i>(list)</i>	b. AVERAGE FLOW <i>(include units)</i>	a. DESCRIPTION	b. LIST CODES FROM TABLE 2D-1

C. Except for storm runoff, leaks or spills, will any of the discharges described in Item III.A be intermittent or seasonal?  
 G YES (complete the following table) G NO (go to Item IV)

1. OUTFALL NUMBER (list)	2. OPERATION CONTRIBUTING FLOW (list)	1. FREQUENCY		2. FLOW		
		a. DAYS PER WEEK (specify average)	b. MONTHS PER YEAR (specify average)	a. MAXIMUM DAILY FLOW (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 New Source Performance Standards (NSPS), for each outfall list the estimated level of production (projection of actual production level, not design capacity), expressed in the terms and units used in the applicable effluent guideline or NSPS, for each of the first three years of operation. If production is likely to vary, you may also submit alternative estimates (Attach a separate sheet as necessary to provide all alternative estimates or information on additional outfalls).

1. OUTFALL NUMBER.	2. YEAR	3. OPERATION, PRODUCT, MATERIAL, ETC. (Specify)	4. QUANTITY PER DAY	5. UNITS OF MEASURE

**V. EFFLUENT CHARACTERISTICS**

**A, B, C & D:** See instructions before proceeding. NOTE: Parts V.A, V.B, V.C, and V.D are included in the “**ADDENDUM**” to Form 2D. Complete one set of Parts V.A - V.D for each outfall. Annotate the outfall and AZPDES permit number in the space provided at the bottom of each page.

**E.** Use the space below to list any of the 80 pollutants listed in Table 2D-2 “Toxic Pollutants and Hazardous Substances”, which you know or have reason to believe will or may be discharged from any outfall. For every pollutant, briefly describe the reasons you believe it to be present.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

**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 address of any existing plant(s), to the best of your knowledge, resembles this production facility with respect to production processes, wastewater constituents or wastewater treatments.

NAME	LOCATION

**VI. OTHER INFORMATION**

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 & OFFICIAL TITLE (*type or print*)

**B.** PHONE NO. (telephone and area code)

**C.** SIGNATURE

**D.** DATE SIGNED

Pursuant to A.R.S. § 41-1030:

- (1) ADEQ shall not base a licensing decision, in whole or in part, on a requirement or condition not specifically authorized by statute or rule. General authority in a statute does not authorize a requirement or condition unless a rule is made pursuant to it that specifically authorizes the requirement or condition.
- (2) Prohibited licensing decisions may be challenged in a private civil action. Relief may be awarded to the prevailing party against ADEQ, including reasonable attorney fees, damages, and all fees associated with the license application.
- (3) ADEQ employees may not intentionally or knowingly violate the requirement for specific licensing authority. Violation is cause for disciplinary action or dismissal, pursuant to ADEQ's adopted personnel policy. ADEQ employees are still afforded the immunity in A.R.S. §§ 12-821.01 and 12-820.02.