



ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM

APPLICATION FORM 2C

Existing Manufacturing, Commercial, Mining and Silvicultural Operations

DEC Internal Use Only
Facility ID Number

Please submit this form to:

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wastewater Discharge Authorizations Program
555 Cordova Street
Anchorage, AK 99501
DEC.Water.WQPermit@alaska.gov

Form 2C must be completed for an applicant that is an existing industrial facility, including manufacturing facilities, mining activities, and silvicultural activities. This form must be completed by an applicant who checked "yes" to Section 6-B in APDES Form 1. Form 2C must be completed in conjunction with Form 1. Instructions for completing this form are attached.

SECTION 1 – FACILITY INFORMATION

(This information must match the facility information entered in Section 1 on Form 1.)

Facility Name:

Physical Address/Location:

SECTION 2 – OUTFALL LOCATION

List the latitude and longitude of each outfall location to the sixth decimal place and the name of the receiving water.

Outfall Number	Latitude	Longitude	Receiving Water
	°	°	

Lat/Long Coordinate Source: Internet Map GPS/Survey Other _____

Source Map Scale (if applicable):

Horizontal Accuracy: Horizontal Datum:

SECTION 3 – FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

Section A: For each outfall, provide a narrative identifying each type of process, operation, or production area contributing wastewater to the effluent from that outfall, including process wastewater, cooling water, and stormwater runoff. Also provide the average flow contributed by each process, and a description of the treatment received by the wastewater, including the ultimate disposal of any solid or liquid waste not discharged. For a privately owned treatment works, provide the identity of each user of the treatment works. The average flow of point sources composed of storm water may be estimated. Provide the basis for the rainfall event with the method of estimation.

Outfall Number: _____

Process, Operation, or Production Area		Average Flow	Treatment	
Users of the Treatment Works	Average Flow of Point Sources Composed of Storm Water	Basis for Rainfall Event	Method of Estimation	

Section 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 Section 3-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.

Section C: Except for stormwater runoff, leaks, or spills, are any of the discharges described in line drawing or the table above intermittent or seasonal?

- Yes (complete the following table) No (go to Section 4)

Outfall Number	Frequency		Flow				
	Days Per Week <i>(specify average)</i>	Months per Year <i>(specify average)</i>	Flow Rate <i>(in mgd)</i>		Total Volume <i>(specify with units)</i>		Duration <i>(in days)</i>
			Long Term Average	Maximum Daily	Long Term Average	Maximum Daily	

SECTION 4 – PRODUCTION

Section A: Does an effluent guideline limitation promulgated under 33 U.S.C. 1314 apply to your facility?

- Yes *(complete the next question)*
 No *(go to Section 5)*

Section B: Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

- Yes *(complete the next question)*
 No *(go to Section 5)*

Section C: If you answered "yes" to question 4-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

AVERAGE DAILY PRODUCTION			Affected Outfalls (list outfall numbers)
Quantity Per Day	Units of Measure	Operation, Product, Material, Etc. (specify)	

SECTION 5 – IMPROVEMENTS

Section A: Are you currently required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or for any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

- Yes (complete the following table) No (go to Section B)

Identification of condition, agreement, etc.	Affected Outfalls		Brief Description of Project	Final Compliance Date	
	No.	Source of Discharge		Reissued	Projected

Section B: OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you are now or plan to be subject to. Indicate whether each program is current or planned, and indicate your actual or planned schedules for construction.

- Check this box if a description of additional control programs is attached.

SECTION 10 – 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.

Right to Enter Premises

By submitting this application, the applicant hereby consents to entry upon the premises by representatives of the Alaska Department of Environmental Conservation in order to: 1) have access to and copy any records that permit conditions require the applicant to keep; 2) inspect any facilities, equipment, including monitoring and control equipment, practices, or operations regulated or required under a permit; and 3) sample or monitor any substances or parameters at any location for the purpose of assuring permit compliance or as otherwise authorized by 33 U.S.C. 1251-1387 (Clean Water Act).

Print Name & Official Title:

Signature: _____

Date: _____

INSTRUCTIONS FOR APDES FORM 2C

Existing Manufacturing, Commercial, Mining and Silvicultural Operations

In addition to the information reported on the application form, you shall provide to the department, at the department's request, any other information that the department may reasonably require to assess the discharges of the facility and to determine whether to issue an APDES permit. The additional information may include additional quantitative data and bioassays to assess the relative toxicity of discharges to aquatic life and information required to determine the cause of toxicity. See Form 1 General Instructions for additional information.

Who Must File Form 2C

Form 2C must be completed in conjunction with Form 1. This form must be completed by all applicants who check "yes" to Section 6-B in APDES Form 1. This form should not be used for discharges of stormwater runoff, except for an existing discharge of stormwater combined with other nonstormwater discharges from a manufacturing, commercial, mining, or silvicultural operation.

Section 1 – Facility Information

Enter the facility's official or legal name. Do not use a colloquial name.

Section 2 – Outfall Location

Indicate the latitude and longitude of each outfall to the sixth decimal place as well as the name of the receiving water. For latitude and longitude information interpolated from a hardcopy map, the fourth decimal place is acceptable and the source map scale must be provided. 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, provide the name or description (if no name is available) of the ditch, the tributary, and the river. The preferred location information will be provided as the latitude and longitude in decimal degrees, Alaska Albers Projection, North American Datum of 1983. The preferred source of the coordinates will be by a GPS unit, but other methods will be accepted, including GPS, survey, internet (such as Topozone.com), and printed map. Clearly identify the horizontal accuracy and unit of measurement (e.g. 10 meters) and horizontal datum.

Section 3 – Flows, Sources of Pollution, and Treatment Technologies

Section 3-A:

For each outfall, list all sources (processes, operations, or production areas contributing to the flow), and give the average flow for each source. Processes, operations, or production areas may be described in general terms (for example, "dye making reactor" or "distillation tower"). Describe the treatment for these wastewaters prior to discharge in either a narrative form or by listing the proper code for the treatment unit from the list provided in Table 2C-1. Describe the ultimate disposal of any solid or liquid wastes not discharged. Privately owned treatment works must also identify each user of the treatment works. Be sure to include the units used to measure the average flows. Provide additional copies of this Section as necessary for each outfall.

Section 3-B:

An example of an acceptable line drawing appears in Figure 2C-1 in these instructions. The line drawing should show the route taken by water in your facility from intake to discharge. Show all sources of wastewater, including process and production areas, sanitary flows, cooling water, and stormwater runoff. You may group similar operations into a single unit, labeled to correspond to the more detailed listing in Section 3-A. The water balance should show average flows. Show all significant losses of water to production, atmosphere, and discharge. You should use actual measurements whenever available; otherwise use your best estimate.

Section 3-C:

Fill in every applicable column in this section for each source of intermittent or seasonal discharges. A discharge is intermittent if it occurs with interruptions during the operating hours of the facility, except for routine shutdowns for maintenance, process changes, or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns under "Flow Rate" and "Total Volume." Report the average of all daily values measured during days when discharge occurred within the last year in the "Long Term Average" columns under "Flow Rate" and "Total Volume." Base your answers on actual data whenever available; otherwise, provide your best estimate.

Section 4- Production

Section 4-A: All effluent guidelines promulgated under 33 U.S.C. 1314 appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by a BPT, BCT, or BAT guideline. If you are unsure whether you are covered by a promulgated effluent guideline, check with DEC. You must check "yes" if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check "no."

Section 4-B: An effluent guideline is expressed in terms of production (or other measure of operation) if the limitation is expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

Section 4-C: The Average Daily Production table must be completed only if you checked “yes” in Section 4-B. The production information requested here is necessary to apply effluent guidelines to your facility and you cannot claim it as confidential. However, you do not have to indicate how the reported information was calculated. Report quantities in the units of measurement used in the applicable effluent guideline. The production figures provided must be based on actual daily production and not on design capacity or on predictions of future operations. To obtain alternate limits under 18 AAC 83.520(b) – (d), you must define your maximum production capability and demonstrate to the Department that your actual production is substantially below maximum production capability and that there is a reasonable potential for an increase above actual production during the duration of the permit.

Section 5 – Improvements

Section 5-B

If you are subject to any present requirements or compliance schedules for construction, upgrading, or operation of waste treatment equipment, fill in the table to provide an identification of the abatement requirement, a description of the abatement project, and a listing of the required and projected final compliance dates. You may attach a copy of any previous submission you have made to DEC containing the same information.

Section 5-C

You are not required to submit a description of future pollution control projects if you do not wish to or if none are planned.

Section 6 – Intake and Effluent Characteristics

Tables 6-A, 6-B, and 6-C require you to collect and report data on the pollutants discharged for each of your outfalls. Each part of this section addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire section.

General Instructions for Section 6

Table 6-A requires you to report at least one analysis for each pollutant listed. Tables 6-B and 6-C require you to report analytical data in two ways. For some pollutants in Table 6-C, you may be required to mark “X” in the “Testing Required” column and test and report the levels of the pollutants in your discharge whether or not you expect them to be present. For all other pollutants in Tables 6-B and 6-C, you must mark “X” in either the “Believe Present” column or the “Believe Absent” column based on your best estimate, and test for those which you believe to be present. Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or a similar effluent. If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark “Believe Present,” but you are not required to sample and analyze for that pollutant. Instead, simply mark an ‘X’ anywhere in the “Intake” column.

Reporting.

All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out the tables as long as all the required information is submitted in a format which is consistent with the tables in spacing and in identification of pollutants and columns. (For example, the data system used in your GC/MS analysis may be able to print data in the proper format.) Use the following abbreviations in the columns headed “Units” in each table.

Concentration		Mass	
ppm.....	parts per million	lbs.....	pounds
mg/l.....	milligrams per liter	ton.....	tons (<i>English tons</i>)
ppb.....	parts per billion	mg.....	milligrams
µg/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) The permitting authority 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.

If you measure only one daily value, complete only the “Maximum Daily Values” columns and insert ‘1’ into the “Number of Analyses” column. DEC may require you to conduct additional analyses to further characterize your discharges. For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant and those values are representative of your waste stream, you must report those values. Submit a description of your method of testing and data analysis. You also must determine the average of all values within the last year and report the concentration and mass under the “Long Term Average Values” and the total number of daily values

under the "Number of Analyses" columns. Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 day Values" columns.

Sampling

The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact DEC for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods in 40 C.F.R. Part 136, adopted by reference at 18 AAC 83.310(f), should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. You should sample at a time when the flow is representative of your normal operation, to the extent feasible, with all processes which contribute wastewater during normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit, or at any site adequate for the collection of a representative sample.

For information regarding pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and fecal streptococcus, grab samples must be used. For all other pollutants, 24 hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period of greater than 24 hours. For stormwater discharges, a minimum of one to four grab samples may be taken, depending on the duration of the discharge. One sample must be taken within the first hour of discharge, with one additional sample taken in each succeeding hour of discharge, up to a minimum of four samples for discharges lasting four or more hours. For discharges other than stormwater discharges, the Director may waive composite sampling for any outfall for which you demonstrate that use of an automatic sampler is infeasible and that a minimum of four grab samples will be representative of your discharge.

Grab and composite samples are defined as follows:

Grab sample: An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

Composite sample: A combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. Four (rather than eight) aliquots or grab samples should be collected for VOA. These four samples should be collected during actual hours of discharge over a 24 hour period and need not be flow proportional. Only one analysis is required.

Data from samples taken in the past may be used, provided that:

- All data requirements are met;
- Sampling was done no more than three years before submission; and
- All data are representative of the present discharge.

Among the factors which would cause the data to be unrepresentative are significant changes in production level, changes in raw materials, processes, or final products, and changes in wastewater treatment. DEC may request additional information, including current quantitative data, if it is determined to be necessary to assess your discharges.

Analysis

You must analyze effluent samples with analytical methods approved in 40 CFR Part 136, adopted by reference at 18 AAC 83.010(f); however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method on an attached separate sheet. Your description should include the sample holding time, preservation techniques, and the quality control measures which you used. If you have two or more substantially identical outfalls, you may request permission from DEC to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

Reporting of Intake Data

You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. APDES regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (*if your water is treated before use, test the water after it is treated*), and discuss the requirements for a net limitation with your permitting authority.

Section 6, Table 6-A

Table 6-A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, DEC may waive the reporting requirements for individual point sources or for a particular industry category, upon a determination that available information is adequate to support issuance of the permit with less stringent reporting requirements. The "Long Term Average Values" column and "Maximum 30 Day Values" column are not compulsory but should be filled out if data is available. Use composite samples for all pollutants in this table, except use grab samples for pH and temperature.

Section 6, Table 6-B

Table 6-B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. DEC will consider requests to eliminate the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representative of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary, because the facilities in the category or subcategory discharge substantially identical levels of the pollutant or discharge the pollutant uniformly at sufficiently low levels. Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease, and fecal coliform. The "Long Term Average Values" column and "Maximum 30 day Values" column are not compulsory but should be filled out if data is available. You do not have to provide quantitative data for these pollutants if you know or have reason to believe that the pollutant is present in a discharge solely as the result of its presence in intake water; however, you shall report that these pollutants are present by simply writing "present" under the "Intake" column.

Section 6, Table 6-C

Table 2C-2 lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes which contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column and test for (1) all of the toxic metals, cyanide, and total phenols, and (2) the organic toxic pollutants contained in Table 2C-2 as applicable to your category, unless you qualify as a small business (*see below*). The organic toxic pollutants are organized by GC/MS fractions in Table 6-C. For example, the Organic Chemicals Industry has an "X" in all four fractions in Table 2C-2; therefore, applicants in this category must test for all organic toxic pollutants in Table 6-C. The inclusion of total phenols in Table 6-C is not intended to classify total phenols as a toxic pollutant. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. If the department determines that you fall within an industrial category for the purpose of testing requirements, that determination does not establish your category for any other purpose and you are not giving up your right to challenge your inclusion in that category (for example, for deciding whether an effluent guideline is applicable) before your permit is issued.

For all other cases (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), you must mark "X" in either the "Believed Present" column or the "Believed Absent" column for each pollutant. For every pollutant you know or have reason to believe is present in your discharge in concentrations of 10 ppb or greater, you must report quantitative data. You must report quantitative data for acrolein, acrylonitrile, 2, 4 dinitrophenol, and 2-methyl-4, 6 dinitrophenol if you expect any of these four pollutants to be discharged in concentrations of 100 ppb or greater. For every pollutant expected to be discharged in concentrations less than the thresholds specified above, you must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged. At your request DEC may waive the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representative of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary because the facilities in question discharge substantially identical levels of the pollutant or discharge the pollutant uniformly at sufficiently low levels. If you qualify as a small business (*see below*) you are exempt from testing for the organic toxic pollutants. For pollutants in intake water, see discussion in General Instructions to this section. You do not have to provide quantitative data for these pollutants if you know or have reason to believe that the pollutant is present in a discharge solely as the result of its presence in intake water; however, you shall report that these pollutants are present by simply writing "present" under the "Intake" column. The "Long Term Average Values" column and "Maximum 30 day Values" column are not compulsory but should be filled out if data is available.

You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

- 2,4,5-trichlorophenoxy acetic acid, (2,4,5,-T);
- 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5,-TP);
- 2-(2,4,- trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon);
- 0,0-dimethyl -0(2,4,5-trichlorophenyl) phosphorothioate (Ronnel);
- 2,4,5-trichlorophenol (TCP); or
- hexachlorophene (HCP).

If you mark "Testing Required" or "Believed Present," you must perform a screening analysis for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), using a screening procedure not calibrated with analytical standards. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." DEC may require you to perform a quantitative analysis if you report a positive result. The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Table 6-C in the course of its BAT guidelines development program. If your effluents are sampled and analyzed as part of this program in the last three years, you may use these data to answer Table 6-C provided that DEC approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

Small Business Exemption:

A facility qualifies as a "small business" and is exempt from the quantitative data requirements for the organic toxic pollutants listed in Table 6-C if:

- 1) the facility is a coal mine with an expected total annual production of less than 100,000 tons per year;

2) the facility has a gross total annual sales averaging less than \$233,00 per year in 2003 dollars.

Section 6, Table 6-D

You must disclose in this table whether you know or have reason to believe that asbestos or any of the hazardous substances listed in Table 2C-3 (attached) are discharged from each outfall. For every pollutant believed to be discharged, briefly describe the reasons the pollutant is expected to be discharged and report any qualitative data you have for any pollutant. You do not have to provide quantitative data for these pollutants if you know or have reason to believe that the pollutant is present in a discharge solely as the result of its presence in intake water; however, you shall report that these pollutants are present.

Note: Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances (listed in Table 2C-4 of these instructions) may be exempted from the requirements of section 311 of CWA, which establishes reporting requirements, civil penalties and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance may be exempted if the origin, source, and amount of the discharged substances are identified in the APDES permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. To apply for an exclusion of the discharge of any hazardous substance from the requirements of section 311, attach additional sheets of paper to your form, setting forth 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 treating 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.

See 40 CFR §117.12(a)(2) and (c) published on August 29, 1979, in 44 FR 50766, or contact DEC for further information on exclusions from section 311.

Section 7 – Potential Discharges Not Covered By Analysis

This requirement applies to current use or manufacture of a toxic pollutant as an intermediate or final product or byproduct. DEC may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and if DEC has adequate information to issue your permit. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts.

Section 8 – Biological Toxicity Testing Data

Prove information on all biological toxicity testing data. Additional details may be requested after the application is received.

Section 9 – Contract Analysis Information

Self explanatory.

Section 10 – Certification

Alaska Statute 46.03.790 provides for severe penalties for submitting false information on this application form. State regulations at 18 AAC 83.385 require this application to be signed as follows:

1. **For a corporation**, a responsible corporate officer shall sign the application; in this subsection, a responsible corporate officer means:
 - (A) 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
 - (B) the manager of one or more manufacturing, production, or operating facilities, if
 - (i) the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental statutes and regulations;
 - (ii) the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and
 - (iii) authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
2. **For a partnership or sole proprietorship**, the general partner or the proprietor, respectively, shall sign the application; and
3. **For a municipality, state, federal, or other public agency**, either a principal executive officer or ranking elected official shall sign the application; in this subsection, a principal executive officer of an agency means
 - (A) the chief executive officer of the agency; or
 - (B) a senior executive officer having responsibility for the overall operations of a principal geographic unit or division of the agency.

Include the name and title of the person signing the form and the date of signing.

Table 6-A

Provide the results of at least one analysis for each pollutant in this table. Complete a separate table for each outfall. See instructions for additional details.

OUTFALL NO: _____												
Pollutant	Effluent							Units <i>(specify if blank)</i>		Intake <i>(optional)</i>		
	Maximum Daily Value		Maximum 30 Day Value <i>(if available)</i>		Long Term Average Value <i>(if available)</i>		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
	Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
Biochemical Oxygen Demand (<i>BOD</i>)												
Chemical Oxygen Demand (<i>COD</i>)												
Total Organic Carbon (<i>TOC</i>)												
Total Suspended Solids (<i>TSS</i>)												
Ammonia (<i>as N</i>)												
Flow	Value		Value		Value					Value		
Temperature (<i>winter</i>)	Value		Value		Value				°C	Value		
Temperature (<i>summer</i>)	Value		Value		Value				°C	Value		
pH	Minimum	Maximum	Minimum	Maximum				Standard Units				

Table 6-B

Mark "X" in the appropriate column for each pollutant you know or have reason to believe is present or you believe to be absent. For any pollutant you believe present which is limited either directly or indirectly by express limitations on an indicator in an effluent limitations guideline (e.g. use of TSS as an indicator to control the discharge of iron and aluminum), you must provide the results of at least one analysis for that pollutant. For other pollutants which you believe present, you must provide quantitative data or an explanation of their presence in your discharge. Complete a separate table for each outfall. See the instructions for additional details and requirements.

OUTFALL NO: _____														
Pollutant and CAS No. (if available)	Mark "X"		Effluent							Units		Intake (optional)		
	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
			Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
Bromide (24959-67-9)														
Chlorine, Total Residual														
Color														
Fecal Coliform														
Fluoride (18984-48-8)														
Nitrate-Nitrite (as N)														
Nitrogen, Total Organic (as N)														
Oil and Grease														
Phosphorus (as P), Total (7723-14-0)														
Radioactivity														
(1) Alpha, Total														
(2) Beta, Total														
(3) Radium, Total														

Table 6-B Continued... OUTFALL NO: _____

Pollutant and CAS No. (if available)	Mark "X"		Effluent							Units		Intake (optional)		
	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
			Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
(4) Radium 226, Total														
Sulfate (as SO ₄) (14808-79-8)														
Sulfide (as S)														
Sulfite (as SO ₃) (14265-45-3)														
Surfactants														
Aluminum, Total (7429-90-5)														
Barium, Total (7440-39-3)														
Boron, Total (7440-42-8)														
Cobalt, Total (7440-48-4)														
Iron, Total (7439-89-6)														
Magnesium, Total (7439-95-4)														
Molybdenum, Total (7439-98-7)														
Manganese, Total (7439-96-5)														
Tin, Total (7440-31-5)														

Table 6-B Continued... OUTFALL NO: _____

Pollutant and CAS No. <i>(if available)</i>	Mark "X"		Effluent							Units		Intake <i>(optional)</i>		
	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value <i>(if available)</i>		Long Term Average Value <i>(if available)</i>		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
			Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
Titanium, Total (7440-32-6)														

Table 6-C

If you have processes that qualify in one or more of the primary industry categories listed in Table 2C-2, you must reference this table to determine which of the GC/MS fractions you must test for. Mark "X" in the "testing required" column for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols present in your effluent. If you are not required to mark the "testing required" (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in the "believed present" for each pollutant you know or have reason to believe is present, and mark "X" in the "believed absent" column for each pollutant you believe is absent. Complete a separate table for each outfall. See instructions for additional details and requirements for reporting and analyses.

OUTFALL NO: _____															
Pollutants and CAS No. (if available)	Mark "X"			Effluent						Units		Intake (optional)			
	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
TOXIC METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)															
2M. Arsenic, Total (7440-38-2)															
3M. Beryllium, Total (7440-41-7)															
4M. Cadmium, Total (7440-43-9)															
5M. Chromium, Total (7440-47-3)															
6M. Copper, Total (7440-50-8)															
7M. Lead, Total (7439-92-1)															
8M. Mercury, Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
11M. Silver, Total (7440-22-4)															
12M. Thallium, Total (7440-28-0)															

Table 6-C Continued... OUTFALL NO: _____

Pollutants and CAS No. (if available)	Mark "X"			Effluent						Units		Intake (optional)			
	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
TOXIC METALS, CYANIDE, AND TOTAL PHENOLS cont.															
13M. Zinc, Total (7440-66-6)															
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total															
DIOXIN															
2,3,7,8-tetrachlorodibenzo-p-dioxin (1764-01-6)	Describe results														
GC/MS FRACTION – VOLATILES															
1V. acrolein (107-02-8)															
2V. acrylonitrile (107-13-1)															
3V. benzene (71-43-2)															
5V. bromoform (75-25-2)															
6V. carbon tetrachloride (56-23-5)															
7V. chlorobenzene (106-90-7)															
8V. chlorodibromomethane (124-48-1)															
9V. chloroethane (75-00-3)															
10V. 2-chloroethylvinyl ether (100-75-8)															

Table 6-C Continued... OUTFALL NO: _____

Pollutants and CAS No. (if available)	Mark "X"			Effluent						Units		Intake (optional)			
	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – VOLATILES cont.															
11V. chloroform (67-66-3)															
12V. dichlorobromomethane (75-27-4)															
14V. 1,1-dichloroethane (75-34-3)															
15V. 1,2-dichloroethane (107-06-2)															
16V. 1,1-dichloroethylene (75-35-4)															
17V. 1,2-dichloropropane (78-87-5)															
18V. 1,3-dichloropropylene (542-75-8)															
19V. ethylbenzene (100-41-4)															
20V. methyl bromide (74-83-9)															
21V. methyl chloride (74-87-3)															
22V. methylene chloride (75-09-2)															
23V. 1,1,2,2-tetrachloroethane (79-34-5)															
24V. tetrachloroethylene (127-18-4)															
25V. toluene (108-88-3)															

Table 6-C Continued... OUTFALL NO: _____

Pollutants and CAS No. (if available)	Mark "X"			Effluent								Units		Intake (optional)	
	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – VOLATILES cont.															
26V. 1,2-trans-dichloroethylene (156-60-5)															
27V. 1,1,1-trichloroethane (71-55-6)															
28V. 1,1,2-trichloroethane (79-00-5)															
29V tri-chloroethylene (79-01-6)															
30V. Trichloro-fluoromethane (75-69-4)															
31V. vinyl chloride (75-01-4)															
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-chlorophenol (95-57-8)															
2A. 2,4-dichlorophenol (120-83-2)															
3A. 2,4-dimethylphenol (105-67-9)															
4A. 4,6-dinitro-ocresol (534-52-1)															
5A. 2,4-dinitrophenol (51-28-5)															
6A. 2-nitrophenol (88-75-5)															
7A. 4-nitrophenol (100-02-7)															
8A. p-chloro-m-cresol (59-50-7)															
9A. penta-chlorophenol (87-86-5)															
10A. phenol (108-95-2)															

Table 6-C Continued... OUTFALL NO: _____

Pollutants and CAS No. (if available)	Mark "X"			Effluent						Units		Intake (optional)			
	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – ACID COMPOUNDS cont.															
11A. 2,4,6-trichlorophenol (88-05-2)															
GC/MS FRACTION – BASE/NEUTRAL															
1B. acenaphthene (83-32-9)															
2B. acenaphthylene (208-96-8)															
3B. anthracene (120-12-7)															
4B. benzidine (92-87-5)															
5B. benzo(a)anthracene (56-55-3)															
6B. benzo(a)pyrene (50-32-8)															
7B. 3,4-benzofluoranthene (205-99-2)															
8B. benzo(ghi)perylene (191-24-2)															
9B. benzo(k)fluoranthene (207-08-9)															
10B. bis(2-chloroethoxy)-methane (111-91-1)															
11B. bis(2-chloroethyl)ether (111-44-4)															
12B. bis(2-chloroisopropyl)-ether (102-80-1)															
13B. bis(2-ethylhexyl)-phthalate (117-81-7)															
Table 6-C Continued... OUTFALL NO: _____															

Pollutants and CAS No. (if available)	Mark "X"			Effluent								Units		Intake (optional)	
	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – BASE/NEUTRAL cont.															
14B. 4-bromophenyl phenyl ether (101-55-3)															
15B. butylbenzyl phthalate (85-68-7)															
16B. 2-chloronaphthalene (91-58-7)															
17B. 4-chlorophenyl phenyl ether (7005-72-3)															
18B. chrysene (218-01-9)															
19B. dibenzo(a,h)-anthracene (53-70-3)															
20B. 1,2-dichlorobenzene (95-50-1)															
21B. 1,3-dichlorobenzene (541-73-1)															
22B. 1,4-dichlorobenzene (106-46-7)															
23B. 3,3'-dichlorobenzidine (91-94-1)															
24B. diethyl phthalate (84-66-2)															
25B. dimethyl phthalate (131-11-3)															
26B. di-n-butyl phthalate (84-74-2)															
27B. 2,4-dinitrotoluene (121-14-2)															
Table 6-C Continued... OUTFALL NO: _____															
Pollutants and	Mark "X"			Effluent								Units		Intake (optional)	

CAS No. (if available)	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – BASE/NEUTRAL cont.															
28B. 2,6-dinitrotoluene (606-20-2)															
29B. di-n-octyl phthalate (117-84-0)															
30B. 1,2-diphenylhydrazine (as azobenzene) (122-66-7)															
31B. fluororanthene (206-44-0)															
32B. fluorene (86-73-7)															
33B. hexachlorobenzene (118-74-1)															
34B. hexachlorobutadiene (87-68-3)															
35B. hexachlorocyclopentadiene (77-47-4)															
36B hexachloroethane (67-72-1)															
37B. indeno(1,2,3-cd)pyrene (193-39-5)															
38B. isophorone (78-59-1)															
39B. naphthalene (91-20-3)															
40B. nitrobenzene (98-95-3)															

Table 6-C Continued... OUTFALL NO: _____				
Pollutants and	Mark "X"	Effluent	Units	Intake (optional)

CAS No. (if available)	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – BASE/NEUTRAL cont.															
41B. N-nitrosodimethylamine (62-75-9)															
42B. N-nitrosodipropylamine (621-64-7)															
43B. N-nitrosodiphenylamine (86-30-6)															
44B. phenanthrene (85-01-8)															
45B. pyrene (129-00-0)															
46B. 1,2,4-trichlorobenzene (120-82-1)															
GC/MS FRACTION – PESTICIDES															
1P. aldrin (309-00-2)															
2P. alpha-BHC (319-84-6)															
3P. beta-BHC (319-85-7)															
4P. gamma-BHC (58-89-9)															
5P. delta-BHC (319-86-8)															
6P. chlordane (57-74-9)															
7P. 4,4'-DDT (50-29-3)															
8P. 4,4'-DDE (72-55-9)															
9P. 4,4'-DDD (72-54-8)															
Table 6-C Continued... OUTFALL NO: _____															
Pollutants and	Mark "X"			Effluent						Units		Intake (optional)			

CAS No. (if available)	testing required	believed present	believed absent	Maximum Daily Value		Maximum 30 Day Value (if available)		Long Term Average Value (if available)		No. of Analyses	Concentration	Mass	Long Term Average Value		No. of Analyses
				Concentration	Mass	Concentration	Mass	Concentration	Mass				Concentration	Mass	
GC/MS FRACTION – PESTICIDES cont.															
10P. dieldrin (60-57-1)															
11P. alpha-endosulfan (115-29-7)															
12P. beta-endosulfan (115-29-7)															
13P. endosulfan sulfate (1031-07-8)															
14P. endrin (72-20-8)															
15P. endrin aldehyde (7421-93-4)															
16P. heptachlor (76-44-8)															
17P. heptachlor epoxide (1024-57-3)															
18P. PCB-1242 (53469-21-9)															
19P. PCB-1254 (11097-69-1)															
20P. PCB-1221 (11104-28-2)															
21P. PCB-1232 (11141-16-5)															
22P. PCB-1248 (12672-29-6)															
23P. PCB-1260 (11096-82-5)															
24P. PCB-1016 (12674-11-2)															
25P. toxaphene (8001-35-2)															

TABLE 2C-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 (<i>Hyperfiltration</i>)
1-H	Flotation	1-T	Screening
1-I	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	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-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 2C-2. TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS BY INDUSTRY CATEGORY¹

INDUSTRY CATEGORY	GC/MS FRACTION ²			
	Volatile	Acid	Neutral	Pesticide
Adhesives and sealants	X	X	X	-
Aluminum forming	X	X	X	-
Auto and other laundries	X	X	X	X
Battery manufacturing	X	-	X	-
Coal mining	-	-	-	-
Coil coating	X	X	X	-
Copper forming	X	X	X	-
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	-
Explosives manufacturing	-	X	X	-
Foundries	X	X	X	-
Gum and wood chemicals ³	X	X	X	X
Gum and wood chemicals ⁴	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	-
Iron and steel manufacturing	X	X	X	-
Leather tanning and finishing	X	X	X	-
Mechanical products manufacturing	X	X	X	-
Nonferrous metals manufacturing	X	X	X	X
Ore mining (Aluminum Ore only)	-	X	-	-
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	-
Pesticides	X	X	X	X
Petroleum refining	X	-	-	-
Pharmaceutical preparations	X	X	X	-
Photographic equipment and supplies	X	X	X	-
Plastic and synthetic materials manufacturing	X	X	X	X
Plastic processing	X	-	-	-
Porcelain enameling	-	-	-	-
Printing and publishing ⁵	*	X	*	X
Printing and publishing ⁶	*	X	*	*
Printing and publishing ⁷	X	X	*	X
Printing and publishing ⁸	X	X	*	*
Printing and publishing ⁹	X	X	X	*
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	-
Soap and detergent manufacturing	X	X	X	-
Steam electric power plants	X	X	-	-
Textile mills (except 40 C.F.R. Part 410 Subpart C)	X	X	X	-
Timber products processing	X	X	X	X

¹ See Note 1 in 40 CFR Part 122, Appendix D, adopted by reference at 18 AAC 83.010(b)(9), for an explanation of the effect of suspensions on testing requirements for certain industrial categories.

² The pollutants in each fraction are listed in Table 6-C.

³ Pertaining to 40 C.F.R. Part 454 Subpart A, "Char and Charcoal Briquets," Subpart B, "Gum Rosin and Turpentine," Subpart C, "Wood Rosin, Turpentine and Pine Oil," and Subpart E, "Essential Oils"

⁴ Pertaining to 40 C.F.R. Part 454 Subpart D, "Tall Oil Rosin, Pitch and Fatty Acids" and Subpart F, "Rosin-Based Derivatives"

⁵ Pertaining to 40 C.F.R. Part 430 Subpart A, "Dissolving Kraft"

⁶ Pertaining to 40 C.F.R. Part 430 Subpart B, "Bleached Papergrade Kraft and Soda", Subpart C, "Unbleached Kraft," Subpart D, "Dissolving Sulfite," and Subpart R, "?"

⁷ Pertaining to 40 C.F.R. Part 430 Subpart E, "Papergrade Sulfite," Subpart Q, "?," Subpart S, "?," and Subpart T, "?"

⁸ Pertaining to 40 C.F.R. Part 430 Subpart F, "Semi-Chemical," Subpart G, "Mechanical Pulp," Subpart H, "Non-Wood Chemical Pulp," Subpart I, "Secondary Fiber Deink," Subpart K, "Fine and Lightweight Papers From Purchased Pulp," Subpart L, "Tissue, Filter, Non-Woven, and Paperboard From Purchased Pulp," Subpart M, "?," Subpart N, "?," Subpart O, "?," and Subpart P, "?"

⁹ Pertaining to 40 C.F.R. Part 430 Subpart J, "Secondary Fiber Deink" and Subpart K, "?"

X = Testing required

- = Testing not required

* = Do not test unless "reason to believe" it is discharged

**TABLE 2C-3. TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES
REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT**

TOXIC POLLUTANT	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Asbestos	Dichlorvos	Naled
	Diethyl amine	Napthenic acid
HAZARDOUS SUBSTANCES	Dimethyl amine	Nitrotoluene
	Dintrobenzene	Parathion
Acetaldehyde	Diquat	Phenolsulfonate
Allyl alcohol	Disulfoton	Phosgene
Allyl chloride	Diuron	Propargite
Amyl acetate	Epichlorohydrin	Propylene oxide
Aniline	Ethion	Pyrethrins
Benzonitrile	Ethylene diamine	Quinoline
Benzyl chloride	Ethylene dibromide	Resorcinol
Butyl acetate	Formaldehyde	Strontium
Butylamine	Furfural	Strychnine
Captan	Guthion	Styrene
Carbaryl	Isoprene	2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
Carbofuran	Isopropanolamine	TDE (Tetrachlorodiphenylethane)
Carbon disulfide	Dodecylbenzenesulfonate	2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Chlorpyrifos	Kelthane	Trichlorofon
Coumaphos	Kepone	Triethanolamine dodecylbenzenesulfonate
Cresol	Malathion	Triethylamine
Crotonaldehyde	Mercaptodimethur	Trimethylamine
Cyclohexane	Methoxychlor	Uranium
2,4-D (2,4-Dichlorophenoxy acetic acid)	Methyl mercaptan	Vanadium
Diazinon	Methyl methacrylate	Vinyl acetate
Dicamba	Methyl parathion	Xylene
Dichlobenil	Mevinphos	Xylenol
Dichlone	Mexacarbate	Zirconium
2,2-Dichloropropionic acid	Monoethyl amine	
	Monomethyl amine	

TABLE 2C-4. HAZARDOUS SUBSTANCES

1. Acetaldehyde	74. Carbaryl	142. Ferrous ammonium sulfate
2. Acetic acid	75. Carbofuran	143. Ferrous chloride
3. Acetic anhydride	76. Carbon disulfide	144. Ferrous sulfate
4. Acetone cyanohydrin	77. Carbon tetrachloride	145. Formaldehyde
5. Acetyl bromide	78. Chlordane	146. Formic acid
6. Acetyl chloride	79. Chlorine	147. Fumaric acid
7. Acrolein	80. Chlorobenzene	148. Furfural
8. Acrylonitrile	81. Chloroform	149. Guthion
9. Adipic acid	82. Chloropyrifos	150. Heptachlor
10. Aldrin	83. Chlorosulfonic acid	151. Hexachlorocyclopentadiene
11. Allyl alcohol	84. Chromic acetate	152. Hydrochloric acid
12. Allyl chloride	85. Chromic acid	153. Hydrofluoric acid
13. Aluminum sulfate	86. Chromic sulfate	154. Hydrogen cyanide
14. Ammonia	87. Chromous chloride	155. Hydrogen sulfide
15. Ammonium acetate	88. Cobaltous bromide	156. Isoprene
16. Ammonium benzoate	89. Cobaltous formate	157. Isopropanolamine
17. Ammonium bicarbonate	90. Cobaltous sulfamate	dodecylbenzenesulfonate
18. Ammonium bichromate	91. Coumaphos	158. Kelthane
19. Ammonium bifluoride	92. Cresol	159. Kepone
20. Ammonium bisulfite	93. Crotonaldehyde	160. Lead acetate
21. Ammonium carbamate	94. Cupric acetate	161. Lead arsenate
22. Ammonium carbonate	95. Cupric acetoarsenite	162. Lead chloride
23. Ammonium chloride	96. Cupric chloride	163. Lead fluoroborate
24. Ammonium chromate	97. Cupric nitrate	164. Lead flourite
25. Ammonium citrate	98. Cupric oxalate	165. Lead iodide
26. Ammonium fluoroborate	99. Cupric sulfate	166. Lead nitrate
27. Ammonium fluoride	100. Cupric sulfate ammoniated	167. Lead stearate
28. Ammonium hydroxide	101. Cupric tartrate	168. Lead sulfate
29. Ammonium oxalate	102. Cyanogen chloride	169. Lead sulfide
30. Ammonium silicofluoride	103. Cyclohexane	170. Lead thiocyanate
31. Ammonium sulfamate	104. 2,4-D acid (2,4- Dichlorophenoxyacetic acid)	171. Lindane
32. Ammonium sulfide	105. 2,4-D esters (2,4- Dichlorophenoxyacetic acid esters)	172. Lithium chromate
33. Ammonium sulfite	106. DDT	173. Malathion
34. Ammonium tartrate	107. Diazinon	174. Maleic acid
35. Ammonium thiocyanate	108. Dicamba	175. Maleic anhydride
36. Ammonium thiosulfate	109. Dichlobenil	176. Mercaptodimethur
37. Amyl acetate	110. Dichlone	177. Mercuric cyanide
38. Aniline	111. Dichlorobenzene	178. Mercuric nitrate
39. Antimony pentachloride	112. Dichloropropane	179. Mercuric sulfate
40. Antimony potassium tartrate	113. Dichloropropene	180. Mercuric thiocyanate
41. Antimony tribromide	114. Dichloropropene-dichloropropane mix	181. Mercurous nitrate
42. Antimony trichloride	115. 2,2-Dichloropropionic acid	182. Methoxychlor
43. Antimony trifluoride	116. Dichlorvos	183. Methyl mercaptan
44. Antimony trioxide	117. Dieldrin	184. Methyl methacrylate
45. Arsenic disulfide	118. Diethylamine	185. Methyl parathion
46. Arsenic pentoxide	119. Dimethylamine	186. Mevinphos
47. Arsenic trichloride	120. Dinitrobenzene	187. Mexacarbate
48. Arsenic trioxide	121. Dinitrophenol	188. Monoethylamine
49. Arsenic trisulfide	122. Dinitrotoluene	189. Monomethylamine
50. Barium cyanide	123. Diquat	190. Naled
51. Benzene	124. Disulfoton	191. Naphthalene
52. Benzoic acid	125. Diuron	192. Naphthenic acid
53. Benzointrile	126. Dodecylbenzenesulfonic acid	193. Nickel ammonium sulfate
54. Benzoyl chloride	127. Endosulfan	194. Nickel chloride
55. Benzyl chloride	128. Endrin	195. Nickel hydroxide
56. Beryllium chloride	129. Epichlorohydrin	196. Nickel nitrate
57. Beryllium fluoride	130. Ethion	197. Nickel sulfate
58. Beryllium nitrate	131. Ethylbenzene	198. Nitric acid
59. Butylacetate	132. Ethylenediamine	199. Nitrobenzene
60. n-Butylphthalate	133. Ethylene dibromide	200. Nitrogen dioxide
61. Butylamine	134. Ethylene dichloride	201. Nitrophenol
62. Butyric acid	135. Ethylene diaminetetracetic acid (EDTA)	202. Nitrotoluene
63. Cadmium acetate	136. Ferric ammonium citrate	203. Paraformaldehyde
64. Cadmium bromide	137. Ferric ammonium oxalate	204. Parathion
65. Cadmium chloride	138. Ferric chloride	205. Pentachlorophenol
66. Calcium arsenate	139. Ferric fluoride	206. Phenol
67. Calcium arsenite	140. Ferric nitrate	207. Phosgene
69. Calcium carbide	141. Ferric sulfate	208. Phosphoric acid
69. Calcium chromate		209. Phosphorus
70. Calcium cyanide		210. Phosphorus oxychloride
71. Calcium dodecylbenzenesulfonate		211. Phosphorus pentasulfide
72. Calcium hypochlorite		212. Phosphorus trichloride
73. Captan		213. Polychlorinated biphenyls (PCB)

214. Potassium arsenate	246. Sodium phosphate (tribasic)	267. Trichlorophenol
215. Potassium arsenite	247. Sodium selenite	268. Triethanolamine
216. Potassium bichromate	248. Strontium chromate	dodecylbenzenesulfonate
217. Potassium chromate	249. Strychnine	269. Triethylamine
218. Potassium cyanide	250. Styrene	270. Trimethylamine
219. Potassium hydroxide	251. Sulfuric acid	271. Uranyl acetate
220. Potassium permanganate	252. Sulfur monochloride	272. Uranyl nitrate
221. Propargite	253. 2,4,5-T acid (2,4,5- Trichlorophenoxyacetic acid)	273. Vanadium pentoxide
222. Propionic acid	254. 2,4,5-T amines (2,4,5- Trichlorophenoxy acetic acid amines)	274. Vanadyl sulfate
223. Propionic anhydride	255. 2,4,5-T esters (2,4,5- Trichlorophenoxy acetic acid esters)	275. Vinyl acetate
224. Propylene oxide	256. 2,4,5-T salts (2,4,5- Trichlorophenoxy acetic acid salts)	276. Vinylidene chloride
225. Pyrethrins	257. 2,4,5-TP acid (2,4,5- Trichlorophenoxy propanoic acid)	277. Xylene
226. Quinoline	258. 2,4,5-TP acid esters (2,4,5- Trichlorophenoxy propanoic acid esters)	278. Xylenol
227. Resorcinol	259. TDE (Tetrachlorodiphenyl ethane)	279. Zinc acetate
228. Selenium oxide	260. Tetraethyl lead	280. Zinc ammonium chloride
229. Silver nitrate	261. Tetraethyl pyrophosphate	281. Zinc borate
230. Sodium	262. Thallium sulfate	282. Zinc bromide
231. Sodium arsenate	263. Toluene	283. Zinc carbonate
232. Sodium arsenite	264. Toxaphene	284. Zinc chloride
233. Sodium bichromate	265. Trichlorofon	285. Zinc cyanide
234. Sodium bifluoride	266. Trichloroethylene	286. Zinc fluoride
235. Sodium bisulfite		287. Zinc formate
236. Sodium chromate		288. Zinc hydrosulfite
237. Sodium cyanide		289. Zinc nitrate
238. Sodium dodecylbenzenesulfonate		290. Zinc phenolsulfonate
239. Sodium fluoride		291. Zinc phosphide
240. Sodium hydrosulfide		292. Zinc silicofluoride
241. Sodium hydroxide		293. Zinc sulfate
242. Sodium hypochlorite		294. Zirconium nitrate
243. Sodium methylate		295. Zirconium potassium flouride
244. Sodium nitrite		296. Zirconium sulfate
245. Sodium phosphate (dibasic)		297. Zirconium tetrachloride

Figure 2C-1. Example Line Drawing

