Print All Pages

Print Form Only

United States
Environmental Protection Agency

Office of Water
Washington, D.C.

EPA Form 3510-2F
Revised March 2019

Water Permits Division

Application Form 2F

Stormwater Discharges Associated with Industrial Activity

NPDES Permitting Program

Note: Complete this form ***and*** Form 1 if you are a new or existing facility whose discharge is composed entirely of stormwater associated with industrial activity, excluding discharges from construction activity under 40 CFR 122.26(b)(14)(x) or (b)(15). If your discharge is composed of stormwater *and* non-stormwater, you must complete Forms 1 and 2F, *and* you must complete Form 2C, 2D, or 2E, as appropriate. See the "Instructions" inside for further details.

Paperwork Reduction Act Notice

The U.S. Environmental Protection Agency estimates the average burden to collect and complete Form 2F to be 28.1 hours. The estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments about the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

FORM 2F—INSTRUCTIONS

General Instructions

Who Must Complete Form 2F?

You must complete Form 2F if you answered "Yes" to Item 1.2.5 on Form 1—that is, you are a new or existing facility and your discharge is composed entirely of stormwater associated with industrial activity (excluding discharges from construction activity under 40 CFR 122.26(b)(14)(x) or (b)(15)) *or* composed of stormwater and non-stormwater and are seeking coverage under an *individual* National Pollutant Discharge Elimination System (NPDES) permit. Note that applicants in the latter category must also complete Forms 2C, 2D, or 2E, as applicable. See inset below.

Notes

- Form 2F must be completed by any operator of a facility that discharges stormwater associated with industrial activity or the operator of any stormwater discharger that EPA is evaluating for designation as a significant contributor of pollutants to waters of the United States, or as contributing to a violation of a water quality standard.
- For discharges composed entirely of stormwater, the operator must complete Form 2F in conjunction with Form 1.
- For discharges of stormwater combined with process wastewater, the operator must complete and submit Form 2F, Form 1, and Form 2C. Process wastewater is water that comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, waste product, or wastewater.
- For discharges of stormwater combined with nonprocess wastewater, the operator must complete Form 2F, Form 1, and Form 2E. Nonprocess wastewater includes noncontact cooling water and sanitary wastes that are not regulated by effluent guidelines, except discharges by educational, medical, or commercial chemical laboratories.
- For new discharges of stormwater associated with industrial activity that will be combined with other new non-stormwater discharges, the operator must submit Form 2F, Form 1, and Form 2D.

Where to File Your Completed Form

Submit your completed application package (Forms 1 and 2F plus any other applicable forms) to your NPDES permitting authority. Consult Exhibit 1–1 of Form 1's "General Instructions" to identify your NPDES permitting authority.

Public Availability of Submitted Information

The U.S. Environmental Protection Agency (EPA) will make information from NPDES permit application forms available to the public for inspection and copying upon request. You may not claim any information on Form 2F (or related attachments) as confidential.

You may make a claim of confidentiality for any information that you submit to EPA that goes beyond the information required by Form 2F. Note that NPDES permitting authorities will deny claims for treating any effluent data (estimated or actual) as confidential. If you do not assert a claim of confidentiality at the time you submit your information to the NPDES permitting authority, EPA may make the information available to the public without further notice to you. EPA will handle claims of confidentiality in accordance with the Agency's business confidentiality regulations in Part 2 of Title 40 of the *Code of Federal Regulations* (CFR).

Completion of Forms

Print or type in the specified areas only. If you do not have enough space on the form to answer a question, you may continue on additional sheets, as necessary, using a format consistent with the form.

Provide your EPA Identification Number from the Facility Registry Service, NPDES permit number, and facility name at the top of each page of Form 2F and any attachments. If your facility is new (i.e., not yet constructed), write or type "New Facility" in the space provided for the EPA Identification Number an NPDES permit number. If you do not know your EPA Identification Number, contact your NPDES permitting authority. See Exhibit 1–1 of Form 1's "General Instructions" for contact information. Additionally, for Tables A through D, provide the applicable outfall number at the top of each page.

Do not leave any response areas blank unless the form directs you to skip them. If the form directs you to respond to an item that does not apply to your facility or activity, enter "NA" for "not applicable" to show that you considered the item and determined a response was not necessary for your facility.

The NPDES permitting authority will consider your application complete when it and any supplementary material are received and completed according to the authority's satisfaction. The NPDES permitting authority will judge the completeness of any application independently of the status of any other permit application or permit for the same facility or activity.

Definitions

The legal definitions of all key terms used in these instructions and Form 2F are in the "Glossary" at the end of the "General Instructions" in Form 1.

Line-by-Line Instructions

Section 1. Outfall Location

Item 1.1. Identify each of the facility's outfalls by number. For each outfall, specify the latitude and longitude to the nearest 15 seconds and name of the receiving water. Latitude and longitude coordinates may be obtained in a variety of ways, including use of hand held devices (e.g., a GPS enabled smartphone), internet mapping tools (e.g., https://mynasadata.larc.nasa.gov/latitudelongitude-finder/), geographic information systems (e.g., ArcView), or paper maps from trusted sources (e.g., U.S. Geological Survey or USGS). The location of each outfall (i.e., where the coordinates are collected) shall be the location where collected and concentrated stormwater flows are discharged from the facility such that the first receiving water body into which the discharge flows, either directly or through a separate storm sewer system, is a water of the United States. If you need further guidance in responding to Item 1.1, refer to http://www.epa.gov/geospatial/latitudelongitude-data-standard.

Note: In EPA's stormwater permits, "outfalls" are referred to as "discharge points."

Note that space has been provided on the form for six outfalls. If you have more than this number, type your information on a separate sheet of paper in a format similar to that of the form. Make sure you note the EPA Identification Number, NPDES permit number, and facility name at the top of the page and indicate the specific item of the form to which you are responding—Item 1.1 in this case. In other sections of the form, you will be asked to provide information by outfall number (Sections 2, 4, 5, and 7).

Section 2. Improvements

Item 2.1. Indicate if you are required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application. The requirements include, but are not limited to, permit conditions, administrative enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. If yes, continue to Item 2.2. If no, skip to Section 3.

Item 2.2. Briefly identify and describe each applicable project (e.g., consent decree, enforcement order, or permit condition). For each condition, specify the affected outfall number(s), the source(s) of the discharge, the required final compliance date, and the projected final compliance date.

Item 2.3. OPTIONAL ITEM. Indicate if you have attached any sheets describing any additional water pollution control programs (or other environmental projects that could affect your discharges) that you may now have underway or planned. If you attach additional sheets, indicate in the attachment whether each program is actually underway or is planned, and indicate your actual or planned schedule for construction. Be sure to note your EPA Identification Number, NPDES permit number, and facility name at the top of any attached pages.

Section 3. Site Drainage Map

Item 3.1 Attach a site drainage map showing the topography of the facility. If a topographic map is unavailable, you may provide an outline of drainage areas served by the outfall(s) covered in the application. The site map must include the following information:

- Each of its drainage and discharge structures.
- The drainage area of each stormwater outfall.
- Paved areas and buildings within the drainage area of each stormwater outfall; each past or present area used for outdoor storage or disposal of significant materials; each existing structural control measure to reduce pollutants in stormwater runoff; materials loading and access areas; and areas where pesticides, herbicides, soil conditioners, and fertilizers are applied.
- Each hazardous waste treatment, storage, or disposal facility (including each area not required to have a Resource Conservation and Recovery Act permit and is used for accumulating hazardous waste for less than 90 days under 40 CFR 262.34).
- Each well where fluids from the facility are injected underground.
- Springs and other surface water bodies that receive stormwater discharges from the facility.

When you have completed and attached your site map to Form 2F, answer "Yes" to Item 3.1.

Section 4. Pollutant Sources

Item 4.1. List all outfalls discharging stormwater. Provide an estimate of the impervious surface area drained by the outfall. Specify units of measure. (Impervious surfaces are surfaces where stormwater runs off at rates significantly higher than background rates—e.g., predevelopment levels. They include paved areas, building roofs, parking lots, and roadways.)

Provide an estimate of the total surface area (impervious and pervious areas) drained by each outfall (within a mile radius of the facility). You may use the site map developed under Item 3.1 to estimate the total area drained by each outfall. For areas under 5 acres, consult your NPDES permitting authority to determine whether the area should be reported to the nearest tenth of an acre or nearest quarter of an acre.

Item 4.2. Provide a narrative description of the following:

- Significant materials that in three years prior to the submittal of this application have been treated, stored, or disposed of in a manner to allow exposure to stormwater.
- Method of treatment, storage, or disposal of such materials.
- Materials management practices employed, in the three years prior to the submittal of this application, to minimize contact by these materials with stormwater runoff.
- Materials loading and access areas.
- The location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

You should identify your significant materials by chemical name,

form (e.g., powder, liquid, etc.), and type of container or treatment unit. Indicate any materials treated, stored, or disposed of together. The term "significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act; any chemical the facility is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act; and fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with stormwater discharges.

Item 4.3. For each outfall, list the location and type of existing structural and non-structural control measure(s) to reduce pollutants in stormwater runoff. Structural controls include structures that enclose materials handling or storage areas; structures that cover materials; and berms, dikes, or diversion ditches around manufacturing, production, storage, or treatment units and retention ponds. Spill prevention plans, employee training, visual inspections, preventive maintenance, and housekeeping measures are examples of non-structural controls.

Describe the treatment, including the schedule and type of maintenance activities performed, and the ultimate disposal of any solid or fluid wastes other than by discharge. For each structural control identified, indicate the type of treatment the stormwater receives using the codes in Exhibit 2F–1, at the end of the instructions. For each non-structural control identified, indicate "Not Applicable" in the "Codes from Exhibit 2F–1" column.

Section 5. Non-Stormwater Discharges

Item 5.1. Provide a certification that all outfalls that should contain stormwater discharges associated with industrial activity have been tested or evaluated for the presence of non-stormwater discharges. Tests for such non-stormwater discharges can include smoke tests, fluorometric dye tests, analysis of accurate schematics, and others.

Item 5.2. Include a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test used to support the certification in Item 5.1. All non-stormwater discharges must be identified in a Form 2C, 2D, or 2E. See "Who Must Complete Form 2F?" above for more information.

Section 6. Significant Leaks or Spills

Item 6.1. Describe any significant leaks or spills of toxic or hazardous pollutants at the facility within the three years prior to the submittal of this application. Include the approximate date and location of the spill or leak and the type and amount of material released.

Section 7. Discharge Information

Item 7.1. Answer whether you are a new source or new discharge. Contact your NPDES permitting authority to determine if you are a new source or new discharge.

Tables A, B, C, and D

Items 7.2 to 7.17. These items require you to collect and report data in Tables A through D, at the end of Form 2F, for the parameters and pollutants listed in Exhibits 2F–2, 2F–3, and 2F–4 (at the end of the instructions). The instructions for completing Tables A through D are table-specific, as are the criteria for determining who should complete them.

Important note: Read the "General Instructions for Reporting, Sampling, and Analysis" below before completing Items 7.2 to 7.17.

Item 7.2 and Table A. All applicants must complete Table A. If the discharge is an existing discharge and your discharge is composed exclusively of stormwater (i.e., no process or nonprocess wastewater) then you only need to provide monitoring data for oil and grease, total phosphorus, total Kjeldahl nitrogen, and total nitrogen. Indicate "NA" for "not applicable" in the columns for all other parameters. Answer "Yes" to Item 7.2 once you have completed this task.

Item 7.3 and Table B. Indicate whether the facility is subject to an effluent limitations guideline (ELG) (see 40 CFR Subchapter N to determine which pollutants are limited in ELGs) or if the facility is subject to effluent limitations in an NPDES permit for its process wastewater or stormwater (if the facility is operating under an existing NPDES permit). If yes, continue to Item 7.4. If no, skip to Item 7.5.

Note: Stormwater discharges from certain industrial sources or activities have specific ELGs for which they must comply. These *stormwater-specific* ELGs include:

Regulated Discharge	40 CFR Section
Discharges resulting from spraydown or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, byproducts or waste products (SIC 2874)	Part 418, Subpart A
Runoff from asphalt emulsion facilities	Part 443, Subpart A
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, and D
Runoff from hazardous waste and non-hazardous waste landfills	Part 445, Subparts A and B
Runoff from coal storage piles at steam electric generating facilities	Part 423
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449

Item 7.4. In Table B, list all pollutants that are limited in an ELG to which the facility is subject and all pollutants listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit) and provide quantitative data for each pollutant (provide actual data for existing dischargers and estimated data for new sources and new dischargers). If a pollutant in Exhibits 2F–2 or 2F–3 is indirectly limited by an ELG through an indicator (e.g., use of total suspended solids as an indicator to control the discharge of iron and aluminum), you must provide data for the pollutant in Table B. Complete one table for each outfall. Answer "Yes" to Item 7.4 once you have completed this task.

Item 7.5 and Table C. Table C requires you to address the pollutants in Exhibits 2F–2, 2F–3, and 2F–4 for each outfall. Pollutants in each of these exhibits are addressed differently.

Indicate whether you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge. If yes, continue to Item 7.6. If no, skip to Item 7.7.

Item 7.6. For each outfall, list all pollutants in Exhibit 2F–2 that you know or have reason to believe are present in the discharge in Table C (except pollutants previously listed in Table B that are limited directly or indirectly by an ELG) and either report quantitative data or briefly describe the reasons the pollutant is expected to be discharged. Answer "Yes" to Item 7.6 once you have completed this task.

Item 7.7. This item asks if you qualify as a "small business." If so, you are exempt from the reporting requirements for the organic toxic pollutants listed in Exhibit 2F–3.

You can qualify as a small business in two ways: (1) If your facility is a coal mine and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR 795.14(c)) instead of conducting analyses for the organic toxic pollutants; (2) If your facility is not a coal mine and if your gross total annual sales for the most recent three years average less than $100,000 per year (in second quarter 1980 dollars), you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants. The production or sales data must be for the facility that is the source of the discharge. The data should not be limited to production or sales for the process or processes that contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intra-corporate transfer of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980 = 100). This index is available online from the U.S. Department of Commerce, Bureau of Economic Analysis at http://www.bea.gov/national/pdf/SNTables.pdf.

If you qualify as a small business according to the criteria above, answer "Yes" to Item 7.7 and skip to Item 7.18. Otherwise, answer "No" and continue to Item 7.8.

Item 7.8. Indicate whether you know or have reason to believe any pollutants in Exhibit 2F–3 are present in the discharge. If yes, continue to Item 7.9. If no, skip to Item 7.10.

Item 7.9. For each outfall, list all pollutants in Exhibit 2F–3 that you know or have reason to believe are present in the discharge in Table C (except pollutants previously listed in Table B). Answer "Yes" to Item 7.9 once you have completed this task.

Item 7.10. Indicate whether you expect any of the pollutants from Exhibit 2F–3 to be discharged in concentrations of 10 parts per billion (ppb) or greater. If yes, continue to Item 7.11. If no, skip to Item 7.12.

Item 7.11. Provide quantitative data in Table C for those pollutants in Exhibit 2F–3 that you expect to be discharged in concentrations of 10 ppb or greater (provide actual data for existing dischargers and estimated data for new sources and new dischargers). Answer "Yes" to Item 7.11 once you have completed this task.

Item 7.12. Indicate whether you expect acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol to be discharged in concentrations of 100 ppb or greater. If yes, continue to Item 7.13. If no, skip to Item 7.14.

Item 7.13. Provide quantitative data in Table C for the pollutants identified in Item 7.12 that you expect to be discharged in concentrations of 100 ppb or greater (provide actual data for existing dischargers and estimated data for new sources and new dischargers). Answer "Yes" to Item 7.13 once you have completed this task.

Item 7.14. For any pollutants you expect to be present in the discharge at concentrations less than 10 ppb (or less than 100 ppb for the above four pollutants), either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged in Table C. Answer "Yes" to Item 7.14 once you have completed this task.

Item 7.15. Indicate whether you know or have reason to believe any pollutants in Exhibit 2F–4 are present in the discharge. If yes, continue to Item 7.16. If no, skip to Item 7.17.

Item 7.16. For each outfall, list any pollutant in Exhibit 2F–4 that you know or believe to be present in the discharge in Table C and explain why you believe it to be present. No analysis is required, but if you have analytical data, you must report it. Answer "Yes" to Item 7.16 once you have completed this task.

Note: Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances (listed in Exhibit 2F-5) may be exempted from the requirements of CWA Section 311, which establishes reporting requirements, civil penalties, and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance can be exempted if the origin, source, and amount of the discharged substances are identified in the NPDES permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. If you would like to apply for an exemption from the requirements of CWA Section 311, attach additional sheets of paper to your application, setting forth the following information:

1. The substance and the amount of each substance that might be discharged.
2. The origin and source of the discharge of the substance.
3. The treatment 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 that 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) or contact your NPDES permitting authority for further information on exclusions from CWA Section 311.

Item 7.17 and Table D. Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow weighted composite sample in Table D. If sampling is conducted during more than one storm event, you only need to report the information

requested on Table D for the storm event(s) that resulted in any maximum pollutant concentration reported on Tables A through C.

Provide flow measurements or estimates of the flow rate, as well as the total amount of discharge for the storm event(s) sampled, the method of flow measurement, or estimation. Provide the data and duration of the storm event(s) sampled, rainfall measurements, or estimates of the storm event that generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event. Answer "Yes" to Item 7.17 once you have completed this task.

Used or Manufactured Toxics

Item 7.18. Review Exhibits 2F–2 through 2F–4 and determine if you currently use or manufacture any of the pollutants listed as intermediate or final products or byproducts. If so, answer "Yes." You should also answer "Yes" if you know or have reason to believe that 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD) is discharged or if you use or manufacture 2,4,5-trichlorphenoxy acetic acid (2,4,5-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorphenyl) phosphorothioate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophene (HCP). If your answer to Item 7.18 is "No," skip to Section 8.

Item 7.19. List all of the toxic pollutants identified under Item 7.18, including TCDD. Note that the NPDES permitting authority may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and the NPDES permitting authority has adequate information to issue your permit. You may not claim any information submitted in response to Item 7.18 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

Item 8.1. Answer whether you know of or have reason to believe that biological toxicity testing has been conducted of your wastewater treatment, including engineering reports or pilot plant studies. If no, skip to Section 9. Otherwise, continue.

Item 8.2. List any tests of which you are aware and their purposes.

Section 9. Contract Analysis Information

Item 9.1. Indicate if any of the analyses performed in Section 7 were performed by a contract laboratory or consulting firm. If no, skip to Section 10. If yes, continue to Item 9.2.

Item 9.2. Provide the name, address, phone number, and pollutants analyzed by the laboratory or consulting firm(s) in the spaces provided.

Section 10. Checklist and Certification Statement

Item 10.1. Review the checklist provided on the application. In Column 1, mark the sections of Form 2F that you have completed and are submitting with your application. For each section in Column 2, indicate whether you are submitting attachments.

Item 10.2. The Clean Water Act (CWA) provides 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 material statement, representation, or certification in any application, …shall upon conviction be punished by a fine of not more than $10,000 or by imprisonment for not more than six months or both."

FEDERAL REGULATIONS AT 40 CFR 122.22 REQUIRE THIS APPLICATION TO BE SIGNED AS FOLLOWS:

A. For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) 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 (2) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which 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 laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

B. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.

C. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, 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).

END

Submit your completed Form 1, Form 2F, and all associated attachments (and any other required NPDES application forms) to your NPDES permitting authority.

General Instructions for Reporting, Sampling, and Analysis

Important note: Read these instructions before completing Tables A through C and Section 7 of Form 2F.

General Items

Complete the applicable tables for each outfall at your facility. Be sure to note the EPA Identification Number, NPDES permit number, facility name, and applicable outfall number at the top of each table page and any associated attachments.

You may report some or all of the required data by attaching separate sheets of paper instead of completing Tables A through C for each of your outfalls so long as the sheets contain all of the required information and are similar in format to Tables A through C. For example, you may be able to print a report in a compatible format from the data system used in your gas chromatography/ mass spectrometry (GC/MS) analysis completed under Table B.

If you are an existing discharger, you are required to report *actual* quantitative data. See "Use of Historic Data" below for use of historic data. If you are a new source or discharge, you may supply *estimated* data along with the source of each estimate. If you have quantitative data available, however, you must provide it. Base estimates on available, in-house or contractor engineering reports, or any other studies performed on the proposed facility. Use the following codes to report your source information in the "Source of Information" column:

Data Source	Code
Engineering reports	1
Actual data from pilot plants	1
Estimates from other engineering reports	2
Data from other similar plants	3
Best professional estimates	4
Others	5 and specify on the table

No later than 24 months after your facility commences to discharge, you must complete and submit sampling and analysis data for the pollutants and parameters in Tables A through C. However, you need not report results for tests you have already performed and reported under the discharge monitoring requirements of your NPDES permit.

Table A requires you to report at least one analysis for each pollutant listed. Tables B and C require you to report analytical data in two ways. For some pollutants addressed in Tables B and C, if you know or have reason to know that the pollutant is present in your discharge, you may be required to list the pollutant and test (sample and analyze) and report the levels of the pollutants in your discharge. For all other pollutants addressed in Tables B and C, you must list the pollutant if you know or have reason to know that the pollutant is present in the discharge, and either report quantitative data for the pollutant or briefly describe the reasons the pollutant is expected to be discharged. (See Items 7.2 through 7.17 of the instructions for completing Tables A through C.). Base your determination that a pollutant is/will be present in your discharge on your knowledge of the facility's raw materials, material management practices, maintenance chemicals, history of spills and releases, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or similar effluent.

Sampling

The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater or stormwater discharges. You may contact your NPDES permitting authority for detailed guidance on sampling techniques and for answers to specific questions. See Exhibit 1–1 of Form 1 for contact information. Any specific requirements in the analytical methods—for example, sample containers, sample preservation, holding times, and the collection of duplicate samples—must be followed.

The time when you sample should be representative of your normal operation, to the extent feasible, with all processes that contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Collect samples from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present NPDES permit, or at any site adequate for the collection of a representative sample.

Grab samples must be taken in the first 30 minutes of discharge (or as soon thereafter as practicable) for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*) and enterococci (previously known as fecal streptococcus at 40 CFR 122.26(d)(2)(iii)(A)(3)), and volatile organic compounds. You are not required to analyze a flow-weighted composite for these parameters.

For all other pollutants, both a grab sample collected during the first 30 minutes (or as soon thereafter as practicable) of the discharge and a flow-weighted composite sample must be analyzed. 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.

All samples must be collected from the discharge resulting from a storm event that is greater than 0.1 inches and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area.

A grab sample must be taken during the first 30 minutes of the discharge (or as soon thereafter as practicable), and a flow-weighted composite must be taken for the entire event or for the first three hours of the event.

Grab and composite samples are defined as follows:

Grab sample: An individual sample of at least 100 milliliters collected during the first 30 minutes (or as soon thereafter as practicable) of the discharge. This sample is to be analyzed separately from the composite sample.

Flow-weighted composite sample: A flow-weighted composite sample may be taken with a continuous sampler that proportions the amount of sample collected with the flow rate or as a combination of a minimum of three sample aliquots taken in each hour of discharge

for the entire event or for the first three hours of the event, with each aliquot being at least 100 milliliters and collected with a minimum period of 15 minutes between aliquot collections. The composite must be flow proportional; the time interval between either each aliquot or the volume of each aliquot must be proportional to either the stream (effluent) flow at the time of sampling or the total stream (effluent) flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. Where GC/MS volatile organic analysis is required, aliquots must be combined in the laboratory immediately before analysis. Only one analysis for the composite sample is required.

Use of Historical Data

Existing data may be used, if available, in lieu of sampling conducted solely for the purposes of this application, provided it is representative of the present discharge and was collected within 3 years of the application due date. If you sample for a listed pollutant on a monthly or more frequent basis, summarize the data collected within one year of the application for the pollutant(s) at issue.

Among the factors that would cause the data to be unrepresentative are significant changes in production level; changes in raw materials, processes, or final products; and changes in stormwater treatment. The NPDES permitting authority may request additional information, including current quantitative data, if they determine it to be necessary to assess your discharges. The NPDES permitting authority may allow or establish appropriate site-specific sampling procedures or requirements including sampling locations, the season in which the sampling takes place, the minimum duration between the previous measurable storm event and the storm event sampled, the minimum or maximum level of precipitation required for an appropriate storm event, the form of precipitation sampled (snow melt or rainfall), protocols for collecting samples under 40 CFR 136, and additional time for submitting data on a case-by-case basis.

Reporting

Report sampling results for all pollutants in Tables A through C as concentration *and* mass, with the exception of flow, temperature, pH, color, and fecal coliform organisms.

Flow, temperature, pH, color, and fecal coliform organisms must be reported as million gallons per day (mgd), degrees Celsius (°C), standard units, color units, and most probable number per 100 milliliters (MPN/100 mL), respectively. Use the following abbreviations in the columns requiring "units" in Tables A through C.

Concentration	Mass
ppm = parts per million	lbs = pounds
mg/L = milligrams per liter	ton = tons (English tons)
ppb = parts per billion	mg = milligrams
µg/L = micrograms per liter	g = grams
MPN = most probable number per 100 milliliters	kg = kilograms
	T = tonnes (metric tons)

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

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

If you measure only one grab sample and one flow-weighted composite sample for a given outfall, complete only the "Maximum Daily Discharge" columns in the tables and enter "1" in the "Number of Storm Events Sampled" column. The NPDES permitting authority may require you to conduct additional analyses to further characterize your discharges.

If you measure more than one value for a grab sample or a flow-weighted composite sample for a given outfall and those values are representative of your discharge, you must report them. You must describe your method of testing and analysis.

The "Average Daily Discharge" column on Tables A to C is *not* compulsory but should be filled out if data are available. To complete the "Average Daily Discharge" column, determine the average of all values within the last year and report the concentration and mass. Report the total number of storm events sampled under the "Number of Storm Events Sampled" column.

Substantially Identical Outfalls

If you have two or more substantially identical outfalls, you may request permission from your NPDES permitting authority to sample and analyze only one outfall and submit the results of the analysis for all substantially identical outfalls. If your request is granted, submit the following information on a separate sheet attached to the application form: the identity of the outfall you did test and an explanation of how it is substantially identical to the outfall(s) that you did not test.

Analysis

Except as specified below, all required quantitative data shall be collected in accordance with sufficiently sensitive analytical methods approved under 40 CFR 136 or required under 40 CFR chapter I, subchapter N or O. A method is "sufficiently sensitive" when:

- The method minimum level (ML) is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter.
- The method ML is above the water quality criterion, but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge.

General Instructions for Reporting, Sampling, and Analysis Continued	
• The method has the lowest ML of the analytical methods approved under 40 CFR 136 or required under 40 CFR chapter I, subchapter N or O, for the measured pollutant or pollutant parameter. Consistent with 40 CFR 136, you may provide matrix- or sample-specific MLs rather than the published levels. Further, where you can demonstrate that, despite a good faith effort to use a method that would otherwise meet the definition of "sufficiently sensitive," the analytical results are not consistent with the quality assurance (QA)/quality control (QC) specifications for that method, then the NPDES permitting authority may determine that the method is not performing adequately and the NPDES permitting authority should	select a different method from the remaining EPA-approved methods that is sufficiently sensitive consistent with 40 CFR 122.21(e)(3)(i). Where no other EPA-approved methods exist, you must select a method consistent with 40 CFR 122.21(e)(3)(ii). When there is no analytical method that has been approved under 40 CFR 136; required under 40 CFR chapter I, subchapter N or O, and is not otherwise required by the NPDES permitting authority, you may use any suitable method but shall provide a description of the method. When selecting a suitable method, other factors such as a method's precision, accuracy, or resolution, may be considered when assessing the performance of the method.

Exhibit 2F–1. Codes for Treatment Units and Disposal of Wastes Not Discharged

1. PHYSICAL TREATMENT PROCESSES

1–A.....Ammonia stripping
1–B.....Dialysis
1–C .....Diatomaceous earth filtration
1–D .....Distillation
1–E.....Electrodialysis
1–F.....Evaporation
1–G .....Flocculation
1–H .....Flotation
1–I .....Foam fractionation
1–J .....Freezing
1–K.....Gas-phase separation
1–L .....Grinding (*comminutors*)
1–M.....Grit removal
1–N .....Microstraining
1–O.....Mixing
1–P .....Moving bed filters
1–Q.....Multimedia filtration
1–R .....Rapid sand filtration
1–S .....Reverse osmosis (*hyperfiltration*)
1–T .....Screening
1–U .....Sedimentation (*settling*)
1–V .....Slow sand filtration
1–W .....Solvent extraction
1–X .....Sorption

2. CHEMICAL TREATMENT PROCESSES

2–A.....Carbon adsorption
2–B.....Chemical oxidation
2–C .....Chemical precipitation
2–D .....Coagulation
2–E.....Dechlorination
2–F.....Disinfection (*chlorine*)
2–G.....Disinfection (*ozone*)
2–H .....Disinfection (*other*)
2–I.....Electrochemical treatment
2–J.....Ion exchange
2–K .....Neutralization
2–L.....Reduction

3. BIOLOGICAL TREATMENT PROCESSES

3–A.....Activated sludge
3–B.....Aerated lagoons
3–C .....Anaerobic treatment
3–D .....Nitrification–denitrification
3–E .....Pre-aeration
3–F .....Spray irrigation/land application
3–G.....Stabilization ponds
3–H .....Trickling filtration

4. WASTEWATER DISPOSAL PROCESSES

4–A.....Discharge to surface Water
4–B.....Ocean discharge through outfall
4–C .....Reuse/recycle of treated effluent
4–D .....Underground injection

5. SLUDGE TREATMENT AND DISPOSAL PROCESSES

5–A.....Aerobic digestion
5–B.....Anaerobic digestion
5–C .....Belt filtration
5–D .....Centrifugation
5–E.....Chemical conditioning
5–F.....Chlorine treatment
5–G .....Composting
5–H .....Drying beds
5–I .....Elutriation
5–J .....Flotation thickening
5–K.....Freezing
5–L .....Gravity thickening
5–M.....Heat drying
5–N .....Heat treatment
5–O.....Incineration
5–P .....Land application
5–Q.....Landfill
5–R .....Pressure filtration
5–S .....Pyrolysis
5–T .....Sludge lagoons
5–U .....Vacuum filtration
5–V .....Vibration
5–W .....Wet oxidation

Exhibit 2F–2. Conventional and Nonconventional Pollutants (40 CFR 122.21, Appendix D, Table IV)

Bromide
Chlorine, total residual
Color
Fecal coliform
Fluoride
Nitrate-nitrite
Nitrogen, total organic (as N)
Oil and grease
Phosphorus (as P), total
Radioactivity (as alpha, total; beta, total; radium, total; and radium 226, total)
Sulfate (as SO_4)
Sulfide (as S)
Sulfite (as SO_3)
Surfactants
Aluminum, total
Barium, total
Boron, total
Cobalt, total
Iron, total
Magnesium, total
Molybdenum, total
Manganese, total
Tin, total
Titanium, total

Exhibit 2F–3. Toxic Pollutants (40 CFR 122.21, Appendix D, Tables II and III)

Toxic Pollutants and Total Phenol

Antimony, total	Copper, total	Silver, total
Arsenic, total	Lead, total	Thallium, total
Beryllium, total	Mercury, total	Zinc, total
Cadmium, total	Nickel, total	Cyanide, total
Chromium, total	Selenium, total	Phenols, total

GC/MS Fraction—Volatile Compounds

Acrolein	Dichlorobromomethane	1,1,2,2-tetrachloroethane
Acrylonitrile	1,1-dichloroethane	Tetrachloroethylene
Benzene	1,2-dichloroethane	Toluene
Bromoform	1,1-dichloroethylene	1,2-trans-dichloroethylene
Carbon tetrachloride	1,2-dichloropropane	1,1,1-trichloroethane
Chlorobenzene	1,3-dichloropropylene	1,1,2-trichloroethane
Chlorodibromomethane	Ethylbenzene	Trichloroethylene
Chloroethane	Methyl bromide	Vinyl chloride
2-Chloroethylvinyl ether	Methyl chloride	
Chloroform	Methylene chloride	

GC/MS Fraction—Acid Compounds

2-chlorophenol	2,4-dinitrophenol	Pentachlorophenol
2,4-dichlorophenol	2-nitrophenol	Phenol
2,4-dimethylphenol	4-nitrophenol	2,4,6-trichlorophenol
4,6-dinitro-o-cresol	P-chloro-m-cresol	

GC/MS Fraction—Base/Neutral Compounds

Acenaphthene	4-chlorophenyl phenyl ether	Hexachlorobenzene
Acenaphthylene	Chrysene	Hexachlorobutadiene
Anthracene	Dibenzo (a,h) anthracene	Hexachlorocyclopentadiene
Benzidine	1,2-dichlorobenzene	Hexachloroethane
Benzo (a) anthracene	1,3-dichlorobenzene	Indeno (1,2,3-cd) pyrene
Benzo (a) pyrene	1,4-dichlorobenzene	Isophorone
3,4-benzofluoranthene	3,3-dichlorobenzidine	Naphthalene
Benzo (ghi) perylene	Diethyl phthalate	Nitrobenzene
Benzo (k) fluoranthene	Dimethyl phthalate	N-nitrosodimethylamine
Bis (2-chloroethoxy) methane	Di-n-butyl phthalate	N-nitrosodi-n-propylamine
Bis (2-chloroethyl) ether	2,4-dinitrotoluene	N-nitrosodiphenylamine
Bis (2-chloroisopropyl) ether	2,6-dinitrotoluene	Phenanthrene
Bis (2-ethylhexyl) phthalate	Di-n-octyl phthalate	Pyrene
4-bromophenyl phenyl ether	1,2-diphenylhydrazine (as azobenzene)	1,2,4-trichlorobenzene
Butyl benzyl phthalate	Fluoranthene	
2-chloronaphthalene	Fluorene	

GC/MS Fraction—Pesticides

Aldrin	Dieldrin	PCB-1254
α-BHC	α-endosulfan	PCB-1221
β-BHC	β-endosulfan	PCB-1232
γ-BHC	Endosulfan sulfate	PCB-1248
δ-BHC	Endrin	PCB-1260
Chlordane	Endrin aldehyde	PCB-1016
4,4'-DDT	Heptachlor	Toxaphene
4,4'-DDE	Heptachlor epoxide	
4,4'-DDD	PCB-1242	

Exhibit 2F–4. Certain Hazardous Substances and Asbestos (40 CFR 122.21, Appendix D, Table V)

Toxic Pollutant

Asbestos

Hazardous Substances

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

Exhibit 2F–5. Hazardous Substances

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

Exhibit 2F–5. Hazardous Substances

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

EPA Identification Number	NPDES Permit Number	Facility Name
110064642445	NM0030759	Los Alamos Nat'l Lab Industria

Form Approved 03/05/19
OMB No. 2040-0004

Form 2F NPDES

U.S Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

SECTION 1. OUTFALL LOCATION (40 CFR 122.21(g)(1))

Outfall Location

1.1 Provide information on each of the facility's outfalls in the table below

Outfall Number	Receiving Water Name	Latitude	Longitude
See SECTION I, TABLE I-1, VOLUME 2			

SECTION 2. IMPROVEMENTS (40 CFR 122.21(g)(6))

Improvements

2.1 Are you presently required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application?

☑ Yes ☐ No ➔ SKIP to Section 3.

2.2 Briefly identify each applicable project in the table below.

Brief Identification and Description of Project	Affected Outfalls (list outfall numbers)	Source(s) of Discharge	Final Compliance Dates	
			Required	Projected
See SECTION II, TABLE II-1, VOLUME 2				

2.3 Have you attached sheets describing any additional water pollution control programs (or other environmental projects that may affect your discharges) that you now have underway or planned? (Optional Item)

☐ Yes ☑ No

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
110064642445	NM0030759	Los Alamos Nat'l Lab Industria	

SECTION 3. SITE DRAINAGE MAP (40 CFR 122.26(c)(1)(i)(A))

Site Drainage Map

3.1 Have you attached a site drainage map containing all required information to this application? (See instructions for specific guidance.)

☑ Yes ☐ No See SECTION III, VOLUME 2

SECTION 4. POLLUTANT SOURCES (40 CFR 122.26(c)(1)(i)(B))

Pollutant Sources

4.1 Provide information on the facility's pollutant sources in the table below.

Outfall Number	Impervious Surface Area (within a mile radius of the facility)		Total Surface Area Drained (within a mile radius of the facility)	
		specify units		*specify units*
		specify units		*specify units*
	See SECTION IV, PART A, TABLE IV-1, VOLUME 3			*specify units*
				specify units
		specify units		*specify units*
		specify units		*specify units*

4.2 Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)

See SECTION IV, PART B, VOLUME 3

4.3 Provide the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff. (See instructions for specific guidance.)

Stormwater Treatment		
Outfall Number	**Control Measures and Treatment**	**Codes from Exhibit 2F–1** (list)
	See SECTION IV, PART C, TABLE IV-2, VOLUME 3	

EPA Identification Number	NPDES Permit Number	Facility Name
110064642445	NM0030759	Los Alamos Nat'l Lab Industria

Form Approved 03/05/19
OMB No. 2040-0004

SECTION 5. NON STORMWATER DISCHARGES (40 CFR 122.26(c)(1)(i)(C))

Non-Stormwater Discharges

5.1 *I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges. Moreover, I certify that the outfalls identified as having non-stormwater discharges are described in either an accompanying NPDES Form 2C, 2D, or 2E application.*

Name (print or type first and last name)	Official title
Glenn Morgan Douglas Hintze	N3B President EM-LA Manager
Signature G. F. Morgan Douglas E. Hintze	Date signed 10/10/19 10 OCT 2019

5.2 Provide the testing information requested in the table below.

Outfall Number	Description of Testing Method Used	Date(s) of Testing	Onsite Drainage Points Directly Observed During Test
	See SECTION V, TABLE V-1, VOLUME 3		

SECTION 6. SIGNIFICANT LEAKS OR SPILLS (40 CFR 122.26(c)(1)(i)(D))

Significant Leaks or Spills

6.1 Describe any significant leaks or spills of toxic or hazardous pollutants in the last three years.

See SECTION VI, TABLE VI-1, VOLUME 3

SECTION 7. DISCHARGE INFORMATION (40 CFR 122.26(c)(1)(i)(E))

Discharge Information

See the instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must complete. Not all applicants need to complete each table.

7.1 Is this a new source or new discharge?

☐ Yes ➔ See instructions regarding submission of *estimated* data. ☑ No ➔ See instructions regarding submission of *actual* data.

Tables A, B, C, and D

7.2 Have you completed Table A for each outfall?

☐ Yes ☑ No

Discharge Information Continued	7.3	Is the facility subject to an effluent limitation guideline (ELG) or effluent limitations in an NPDES permit for its process wastewater? ☐ Yes ☑ No ➔ SKIP to Item 7.5.
	7.4	Have you completed Table B by providing quantitative data for those pollutants that are (1) limited either directly or indirectly in an ELG and/or (2) subject to effluent limitations in an NPDES permit for the facility's process wastewater? ☐ Yes ☐ No
	7.5	Do you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge? ☑ Yes ☐ No ➔ SKIP to Item 7.7.
	7.6	Have you listed all pollutants in Exhibit 2F–2 that you know or have reason to believe are present in the discharge and provided quantitative data or an explanation for those pollutants in Table C? ☑ Yes ☐ No
	7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? ☐ Yes ➔SKIP to Item 7.18. ☑ No
	7.8	Do you know or have reason to believe any pollutants in Exhibit 2F–3 are present in the discharge? ☑ Yes ☐ No ➔ SKIP to Item 7.10.
	7.9	Have you listed all pollutants in Exhibit 2F–3 that you know or have reason to believe are present in the discharge in Table C? ☑ Yes ☐ No
	7.10	Do you expect any of the pollutants in Exhibit 2F–3 to be discharged in concentrations of 10 ppb or greater? ☑ Yes ☐ No ➔ SKIP to Item 7.12.
	7.11	Have you provided quantitative data in Table C for those pollutants in Exhibit 2F–3 that you expect to be discharged in concentrations of 10 ppb or greater? ☑ Yes ☐ No
	7.12	Do you expect acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol to be discharged in concentrations of 100 ppb or greater? ☐ Yes ☑ No ➔ SKIP to Item 7.14.
	7.13	Have you provided quantitative data in Table C for the pollutants identified in Item 7.12 that you expect to be discharged in concentrations of 100 ppb or greater? ☐ Yes ☐ No
	7.14	Have you provided quantitative data or an explanation in Table C for pollutants you expect to be present in the discharge at concentrations less than 10 ppb (or less than 100 ppb for the pollutants identified in Item 7.12)? ☑ Yes ☐ No
	7.15	Do you know or have reason to believe any pollutants in Exhibit 2F–4 are present in the discharge? ☑ Yes ☐ No ➔ SKIP to Item 7.17.
	7.16	Have you listed pollutants in Exhibit 2F–4 that you know or believe to be present in the discharge and provided an explanation in Table C? ☑ Yes ☐ No
	7.17	Have you provided information for the storm event(s) sampled in Table D? ☐ Yes ☑ No

Discharge Information Continued

Used or Manufactured Toxics

7.18 Is any pollutant listed on Exhibits 2F–2 through 2F–4 a substance or a component of a substance used or manufactured as an intermediate or final product or byproduct?

☑ Yes ☐ No ➔ SKIP to Section 8.

7.19 List the pollutants below, including TCDD if applicable.

1. 4. 7.

2. See SECTION VII, TABLES VII-1 through VII-9 VOLUME 3

3. 6. 9.

SECTION 8. BIOLOGICAL TOXICITY TESTING DATA (40 CFR 122.21(g)(11))

Biological Toxicity Testing Data

8.1 Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last three years?

☐ Yes ☑ No ➔ SKIP to Section 9.

8.2 Identify the tests and their purposes below.

Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?	Date Submitted
See Section VIII, INTRODUCTION, VOLUME 3, for additional information		☐ Yes ☐ No	
		☐ Yes ☐ No	
		☐ Yes ☐ No	

SECTION 9. CONTRACT ANALYSIS INFORMATION (40 CFR 122.21(g)(12))

Contract Analysis Information

9.1 Were any of the analyses reported in Section 7 (on Tables A through C) performed by a contract laboratory or consulting firm?

☑ Yes ☐ No ➔ SKIP to Section 10.

9.2 Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm	General Engineering Laboratories	Cape Fear Analytical	
Laboratory address	2040 Savage Road Charleston, SC 2940	3306 Kitty Hawk Dr. Suite 120 Wilmington, NC 28405	
Phone number	(843) 556-8171	(910) 795-0421	
Pollutant(s) analyzed	Radioactivities, Metals, Cyanide, Semi-volatile Compounds, Pesticides, and High Explosives	PCBs, Dioxin	

EPA Identification Number	NPDES Permit Number	Facility Name
110064642445	NM0030759	Los Alamos Nat'l Lab Industria

Form Approved 03/05/19
OMB No. 2040-0004

SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

10.1 In Column 1 below, mark the sections of Form 2F that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or provide attachments.

Column 1	Column 2
☑ Section 1	☑ w/ attachments (e.g., responses for additional outfalls)
☑ Section 2	☑ w/ attachments
☑ Section 3	☑ w/ site drainage map
☑ Section 4	☑ w/ attachments
☑ Section 5	☑ w/ attachments
☑ Section 6	☑ w/ attachments
☑ Section 7	☐ Table A ☐ w/ small business exemption request ☐ Table B ☐ w/ analytical results as an attachment ☑ Table C ☐ Table D
☑ Section 8	☑ w/attachments
☑ Section 9	☐ w/attachments (e.g., responses for additional contact laboratories or firms)
☑ Section 10	☑

10.2 **Certification Statement**

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.

Name (print or type first and last name)	Official title
Glenn Morgan Douglas Hintze	N3B President EM-LA Manager
Signature: G Morgan 9/30/19 Douglas E Hintze	Date signed: 9/30/19 10 OCT 2019

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
110064642445	NM0030759	Los Alamos Nat'l Lab Industria	

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease						
2.	Biochemical oxygen demand (BOD_5)						
3.	Chemical oxygen demand (COD)						
4.	Total suspended solids (TSS)						
5.	Total phosphorus						
6.	Total Kjeldahl nitrogen (TKN)						
7.	Total nitrogen (as N)						
8.	pH (minimum)						
	pH (maximum)						

Flow-weighted composite samples are neither required nor collected under the 2010 IP. Analysis of the parameters in Part A is not required for grab samples collected under the 2010 IP.

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
110064642445	NM0030759	Los Alamos Nat'l Lab Industria	

Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Table B is not applicable.						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
110064642445	NM0030759	Los Alamos Nat'l Lab Industria	

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
See SECTION VII, TABLES VII-1 through VII-9, VOLUME 3						

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

This page intentionally left blank.

EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
110064642445	NM0030759	Los Alamos Nat'l Lab Industria	

Form Approved 03/05/19
OMB No. 2040-0004

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
	Part D is not applicable. Flow-weighted composite samples are neither required nor collected under the 2010 IP.				

Provide a description of the method of flow measurement or estimate.

Part D is not applicable. Flow-weighted composite samples are neither required nor collected under the 2010 IP.

Click to go back to the beginning of Form

NPDES FORM 2F SECTION VII – DISCHARGE INFORMATION

INTRODUCTION

NPDES Form 2F Section VII requires the co-Permittees to collect and report water quality data on the POCs discharged in storm water from each regulated location. The 2010 IP specifies sampling and analytical requirements that are tailored to this unique permit. As a result, several of the requirements in Section VII of Form 2F do not apply to sampling performed under the IP and the Form 2F default data tables are not well suited. Consequently, more efficient, alternative data tables are being provided as described below using formats that were pre-approved by EPA Region staff in October 2018. The data are reported for each applicable SMA according to the 2010 IP and are also being provided in Microsoft Excel electronic format (Attachment 4).

Table A

Flow-weighted composite samples are neither required nor collected under the 2010 IP. Analysis of the parameters in Part A is not required for grab samples collected under the 2010 IP.

Table B

Table B is not applicable.

Table C

Part B requests a list of each POC that the facility is subject to monitoring under its current NPDES permit. The 2010 IP (Part I.C) lists a total of 37 POCs, grouped as radionuclides (2), metals (16), cyanide, dioxin, semivolatile compounds (3), pesticides (11), total PCBs, and high explosives (2). Because the Sites regulated by the 2010 IP are monitored by SMA, the storm water data are listed by SMA. Flow-weighted composite samples are neither required nor collected under the 2010 IP and so only SMA grab sample data are being provided. The SMAs and corresponding Sites for which no sample has been collected to date are listed in Table VII-1. Through 2018, the Permittees have not been able to collect a sample because of lack of discharge at a total of 79 SMAs.

Concentrations of constituents present in the grab samples collected at SMAs during the first 30 min of storm water runoff events are reported in Tables VII-2 through VII-7. The sources of pollutants are described in Section IV, Part B, Site Narratives. The Tables VII-2 through VII-7 are based on the following:

1. The tables are grouped by POCs and SMAs for which the 2010 IP Appendix B required the specific POC analyses.
2. Data are provided for the entire 8-yr period of record since the 2010 IP became effective (i.e., from 2011 through the 2018 monitoring season).
3. Data are limited to compliance samples (EIM Sample Usage Code = COMP). Investigational samples (EIM Sample Usage Code = INV) and/or POCs not required to be analyzed by the 2010 IP but that were collected with compliance samples are provided in the data tables described in the next section.

4. Data are limited to corrective action phase samples, or baseline control measure phase sample results if corrective action phase samples have not been collected.

5. Consistent with the 2010 IP (Part II.D), the geometric mean value is reported as the average value, and nondetected results have either been replaced with a value of zero where all results for an SMA are nondetected, or have been replaced with a value equal to one-half the detection limit if one or more results were detected.

In addition to the data tables described above for this Form 2F, Section VII, the Permittees are also providing another sets of data tables subject to the same basis described above except as follows: Tables VII-8 and VII-9 provide data for investigative samples (EIM Sample Usage Code = INV) for POCs required by the 2010 IP. These samples were collected for supplemental investigations to the 2010 IP.

Table D

Part D is not applicable. Flow-weighted composite samples are neither required nor collected under the 2010 IP.