METROPOLITAN ST. LOUIS SEWER DISTRICT
DIVISION OF ENVIRONMENTAL COMPLIANCE

INSTRUCTIONS FOR
INDUSTRIAL USER QUESTIONNAIRE

GENERAL INSTRUCTIONS

These instructions are designed to assist you in completing the Metropolitan St. Louis Sewer District's eight-page Industrial User Questionnaire. If you are required, pursuant to District ordinances, to have a discharge permit, this questionnaire also serves as your permit application. Examples have been provided which should answer most questions concerning the information required.

Please make certain all blanks, except those answer blanks you are instructed to skip, are filled in even though the answer to a particular item may be "zero" or "none."

If additional space is required to provide complete information for a particular item, please attach additional sheets keyed to the Section and Item Number and write "continued on additional sheets" adjacent to the question.

Keep the yellow copy or a photocopy for your files. Return the original to our office.

If there is a question concerning the requirements stated herein, please contact a representative of our office for clarification and assistance.

Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, Missouri 63147
(314) 436-8710

ITEM BY ITEM INSTRUCTIONS

Section A. GENERAL INFORMATION

1. Company Name: The name used for official transactions or as appears on company stationery.

2. Mailing Address: The address where all correspondence pertaining to the Industrial User Questionnaire or other MSD business should be sent.

3. Premise Address: The primary street address of the plant or facility for which the Industrial User Questionnaire is being submitted. This questionnaire should cover all activities which occur on contiguous portions of the premise at this address. Contiguous portions of the same premise include buildings or grounds separated only by public streets or alleys.

   If the company operates plants or facilities at other locations, questionnaires may be required for those locations. The company should have been mailed an Industrial User Questionnaire for each premise for which submittal is required. However, if you are aware of other facilities for which a questionnaire may be required but has not yet been sent, please contact us.

4. Person Authorized to Sign Reporting Documents: Often a person within the company, such as a plant manager, is assigned the responsibility of dealing with environmental matters for the company. Provide the name, title, and phone number, including extension, of the person authorized to sign all reporting documents for this premise. The person must meet the requirements found under instructions for Section H.2.d.

5. Existing or Proposed Discharge: Check the appropriate box. If the questionnaire is for a proposed discharge, indicate the date you anticipate the discharge will begin, and complete the questionnaire using best professional estimates.

6. Shift Information: Consider each shift on the basis of normal starting time with three shifts possible per 24 hour day. Only the periods of production, process or service activity or process clean-up activity, are to be considered as shift work. The number of employees per shift should include all office workers, executives and watchmen whose hours generally coincide with the times of these shifts.

SECTION B. PRODUCT OR SERVICE INFORMATION

1. Primary Activities: These descriptions of primary activities should convey a general idea of the type of manufacturing or service activities which take place at the premise address.

For example, if you manufacture "Dairy Products" your primary operations might be:

   a. Bottling Milk
   b. Making Ice Cream

c. Making Cheese
d. Making Butter

The Standard Industrial Classification Number or SIC Number means the number assigned to industrial activities by the Executive Office of the President, Office of Management and Budget and published periodically in the Standard Industrial Classification Manual.

In this manual, industrial processes are classified into general major groups. Each group is designated by a 2 digit number. Each of these major groups is then further subdivided into specific 4 digit subheadings. For example: Food and Kindred Products = Major Group 20; Ice Cream and Frozen Desserts = 2024. The SIC Number(s) reported should be the 4 digit numbers which best describe the various products or services provided.

2. Batch or Continuous Operation: Check the appropriate box for the type of process which your primary activities generally employ.

3. Principal Raw Materials: List the principal raw materials used in making your product. For example, if you are engaged in the production of phosphates, your raw materials may be:

    a. Potassium Hydroxide (Caustic Potash)
    b. Phosphoric Acid
    c. Sodium Carbonate (Soda Ash)
    d. Lime

4. Principal Products: List the principal products produced at your premise such as toothpaste, soap, or some other salable product. If you are a service type industry indicate the type of service provided.

5. Additional Activities: Check all activities which are conducted at your premise in addition to the primary manufacturing or service activities described in Section B.1 above. List the applicable SIC Number(s), if known.

6. Seasonal Variations: During summer months a plant may make antifreeze for sale during the fall and winter. During winter months, the same plant may manufacture charcoal lighter fluid. Such operations would be considered seasonal. If your facility has seasonal variations in operations, itemize the products or services and the months of peak operations for those activities.

SECTION C. WATER CONSUMPTION AND WASTEWATER DISCHARGES

1. Raw Water Source: Check the appropriate box for the agency or company from which the premise purchases raw water. If other sources are utilized totally or in part, indicate those sources and clarify by explanation if necessary. The other sources should be identified in the space provided.

2. Water Bill Addressee: The name the premise water bill is mailed to.

3. Water Service Account Number: The account number which appears on the premise water bill. List all water service account numbers for the premise covered by the questionnaire.

4. Previous 12 Months Water Usage: For the previous twelve month period, enter the beginning and ending date for each quarter and enter the total volume of water consumed in each quarter. Enter these volumes as Ccf (hundred cubic feet). If the premise water consumption records are in gallons, divide the number of gallons by 748 to obtain Ccf, For example, if the premise consumed 50,000 gallons of water during a quarter, 50,000/748 = 66.84 Ccf.

   If there is more than one water service account number for the premise, the water consumption figures entered must be the arithmetic sum of the water consumption for all of the accounts during each quarter.

   If the premise also obtains water from another source, such as a well or a hauler, enter the volume obtained from such sources in the "Other Sources" column.

   The total 12 month volume from both Water Bills and Other Sources should then be summed and entered in the first Total spot as Ccf. Multiply that total by 748, and then divide by the number of days the readings span (eg. 365 days if it was exactly 12 months) to determine the gallons per calendar day (GPD-calendar). To determine the gallons per workday (GPD-work), multiply the GPD-calendar by 7 and then divide by the number of workdays per week (from Section A.6a). For example, if you operate 5 days per week: [7,250 GPD-calendar] x 7/5 = 10,150 GPD-work.

5. Raw Water Treatment/Conditioning: Describe any equipment or process used to prepare raw water received at the premise for process application, cooling, boiler makeup, or other use. Examples are: filters, ion exchange units, coagulation and precipitation units. The volume of any regeneration wastewaters discharged from these water treatment and conditioning processes should be included later in Sections C.6h and E.1h.

6. Water Uses: For each of the listed uses, provide a measured or estimated average daily volume of water used per workday. Each figure should be an average daily flow, generally averaged over a year's period. The total should equal the total gallons per workday from Section C.4 If usage is zero for some categories, then fill in zero for those categories.

   a. Sanitary: Water used for domestic type activities, such as water for showers, toilets, cafeteria, and drinking fountains.

   b. Irrigation & Lawn Watering: Water used for irrigating lawns or flower beds.

c. Non-Contact Cooling Water: For example, cooling water which flows through a heat exchanger or machinery and never contacts raw materials or products.

d. Contact Cooling Water: For example, water which touches the product or raw materials during cooling operations.

e. Process Water: Water used in process operations at the premise, including water which remains as part of the final product.

f. Plant & Equipment Washdown: For example, water used for washing down floors and equipment, cleaning process vessels, etc.

g. Boiler Feed: Water used for boiler make-up (i.e., feed water) and other heating systems.

h. Regeneration/reject water: Waters discharged from water treatment and conditioning processes identified in Section C.5.

i. Other Uses: Water used for activities other than those listed above. Identify any such uses.

j. Total of Uses: Total the average volume of water for items a through i above. This total must equal the total at 7f in the next section.

7. Water Losses and Discharges: All of the water which is used at the premise must leave the premise in some way. The total volume of water used and the total volume of water lost or discharged must be in balance.

Much of the water is discharged to a municipal sewer. Some water may leave through other means such as evaporation, shipping out in product or hauling off for special disposal. Some water may end up in a ditch or watercourse and may require an NPDES permit from the Missouri Department of Natural Resources. Cooling water overflow may be an example of the latter, since it could ultimately be discharged from a building sewer into a natural watercourse.

The quantities leaving the premise by various means can often be determined from facility operational logs. Sometimes actual measurements using various types of metering devices are necessary. Average daily water consumption figures from raw water source meters can be used to check overall discharge quantity. Flow measurements or calculated estimates should extend over a sufficient period of time to insure that typical or representative flows are reported. Be sure to include in the average any slug discharges from batch reactor clean-up and other such fluctuating discharges.

For each listed loss/discharge, provide a measured or estimated average daily volume of water per workday lost or discharged. Each figure should be an average daily flow, generally averaged over a year's period. Use the same procedure as in Section C.6

above, based on work days per week, to calculate the averages. If loss/discharge is zero for any category, then fill in zero for that category.

a. Municipal Sewer: This includes all wastewaters, whether treated or untreated, process or sanitary, boiler or cooling water, that flow from the premise and enter a public sanitary or combined sewer.

b. Watercourse, Storm Drain or Ground: This includes all wastewaters, whether treated or untreated, that flow from the premise and enter a watercourse, storm drain or ground water. Any irrigation or lawn watering water should be included on this line. Non-contact cooling water is sometimes discharged in this manner.

c. Haulers: This includes all wastewaters that are removed from the premise by waste haulers in your employment or under contract.

d. Evaporation: Water lost by evaporation during processing, heating or cooling.

e. Contained in Product: Water contained in your products.

f. Total of Losses/Discharges: Total the average volume of water for items a through e. This total must equal the total at 6j above.

8. Water Usage for Primary and Additional Activities: Repeat here each of the activities identified in Sections B.1 and B.5 and, for each one, include a brief description of the activity. Check the type of wastewater discharge (Continuous, Batch or None), list the estimated average daily water used for the activity and list the average daily water discharged from the activity. For each activity indicate the month and year when the activity first commenced at the premise.

SECTION D. SEWER CONNECTION INFORMATION

1. Scale Drawing: Attach a scale drawing of the premise which shows:

a. All buildings, structures, alleys, streets and other pertinent features. Show the street address for each building on the drawing. Identify street names. Show a north arrow.

b. All sewers and drains. All sewer inlets, manholes, vents and other access or control structures. Be sure to show all points of connection to the public sewer. Identify each premise sewer as sanitary, storm or combined and indicate its size.

c. Identify a sampling point for each connection to the public sewer.

d. Identify a sampling point for each discharge from a categorical process. A categorical process is any process for which pollutant discharge limits or requirements have been promulgated by the EPA at 40 CFR Chapter One,

Subchapter N, Parts 405 through 471, in accordance with Section 307(b) and (c) of the Clean water Act and which apply to a specific category of industrial user.

For permit renewal applications, highlight any changes that have occurred since the last application was submitted.

2. Sampling/Connection Point Descriptions: For each sampling point or connection shown in the drawing for Section D.1:

Assign a sequential reference number, starting with No. 1 (shown in the left hand column).

In the second column, list the size of the premise sewer at the connection or sampling point.

In the third column, for connections with sampling points, completely describe the location and nature of the point. For example, 8" vent in sidewalk 30' south of northeast corner of building #4. Typical sampling points include manholes, vents, straight T's, process tank overflows, discharge valves, etc. For connections without sampling points, describe the location of the connection. In general, a sampling point is required for each connection to the public sewer, for each discharge from a categorical operation and for each discharge to a separate storm sewer or watercourse. The company may be required to install sampling points for any locations where none can be identified at this time.

Next, indicate if the sampling point is upstream to another listed sampling point, and list the other sampling point. Normally only categorical process sampling points, as described in Section D.1d above, would discharge upstream to another sampling point. This is so that the process discharge can be sampled prior to combining with other diluting wastewaters.

In the last column, list the average daily flow per workday in gallons for each point or connection.

SECTION E. WASTEWATER INFORMATION

1. Wastewater Discharges: The types of wastewater from each use listed in Section C.6 and are shown in the left hand column. C.6b is not included, since irrigation & lawn watering water is absorbed by the ground. For each sewer reference point identified in Section D.2 above, list the volume of wastewater discharge corresponding to each of these water usages. The total for each sewer reference point must be the same as the total in the right hand column of Section D.2.

Blank lines are provided for process wastes (item e) so you can fill in the specific "process" activities identified in Section C.8. NOTE: If the premise has categorical process operations (See D.1d above), the wastewater from such operations will flow through a categorical sampling point. This same wastewater may then combine with non-categorical wastes and flow through another sampling point into the public sewer.

Be sure the volume of such wastes is included under both sample point reference numbers.

In the "Facility Total" column provide the sum of each type of wastewater from all sampling points or connections. NOTE: If you have wastes which flow through a categorical point and then through a second point, as described in the previous paragraph, only count the volume of that waste once in arriving at the "facility total" figure.

2. Discharges to a Watercourse: If any of the above points discharge to a watercourse or a separate storm sewer, list the NPDES outfall number and NPDES Permit Number applicable to the discharge.

3. Stormwater Discharges: For each point, indicate whether or not it also conveys stormwater. This might include street or area runoff, drainage from roof downspouts, etc.

4. Pretreatment: For each point, indicate whether or not the wastewater receives pretreatment.

5. Pretreatment Description: Describe the type of wastewater pretreatment employed at each point for which "Yes" was marked above. This should include any equipment or process used to remove or reduce solids, grease, dissolved materials or other material prior to discharge to the sewer system. Examples are: oil/grease interceptors, filters, settling tanks, neutralization systems, or chemical precipitation of metals.

6. Pollution Control/Prevention Plans:

   a. Indicate if the premise has a written Spill Prevention Control and Countermeasure Plan or other Spill Control Plans.

   b. Indicate if the premise has a written plan in effect to reduce the volume and toxicity of waste generated to the extent that reduction is economically practical.

   c. Indicate if the premise has a written plan which identifies the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures to ensure toxic organics do not routinely spill or leak into the wastewater system.

   d. Indicate if the premise has a written plan to control slug discharges. A slug discharge means a discharge of a non-routine nature of any pollutant released at a flow rate and/or concentration which may cause interference with the District's operations. A discharge from a batch operation could be a slug discharge.

A company may have a written plan that addresses more than one item above. If so, check all the items above that it covers. However, the plan must address all the item components listed above for that item to be checked.

7. Wastewater Analytical Data: Any recent data concerning wastewater characteristics for discharges from the premise should be attached. Questionnaires submitted for permit renewal applications, only, may skip this item.

8. Priority Pollutant Information: This list of 126 Priority Pollutants has been prepared by the U.S. Environmental Protection Agency to comply with the requirements of Section 307 (a)(1) of the Clean Water Act of 1977. The original list of 129 pollutants was amended to 126 in 1981. Some of the pollutants in this list are known by other names. Appendix A of these instructions lists in alphabetical order those pollutants indicated by an asterisk (*) which have synonymous names.

   To complete this section, a knowledge of the materials and chemicals used or generated in premise manufacturing or service activities is needed. Ingredients of materials in common use often include many of the priority pollutants. A careful review of labels or Material Safety Data Sheets (MSDS) may be helpful to determine their presence or absence.

   When using proprietary products for cleaning or other purposes, it may be necessary to consult suppliers for assistance in determining whether or not a priority pollutant is present.

   For each Priority Pollutant you need only indicate if it is: Suspected Absent, Known Absent, Suspected Present, or Known Present on the premise. Be sure to mark one of the four boxes for each one of the listed pollutants.

   NOTE: You are not required to perform a laboratory analysis to make the determination of presence or absence.

9. Priority Pollutant Use and Loss: For those priority pollutants identified as "Known Present", provide information on how they are used, the annual usage in pounds and the estimated quantity in pounds lost to the sewer. Use the item numbers and pollutant names from Section E.8.

   To determine the quantity of priority pollutants used annually, it may be necessary to review production records, purchase orders; bills of lading or other records. To arrive at a reasonable estimate of pounds of material lost to the sewer, you may have to analyze production records, spill incidents, material balance sheets, recovery rates, spent batch concentrations, drum residuals, or other sources. NOTE: The quantities lost may surprise you and emphasize the need for closer control and development of one or more of the plans listed in Section E.6.

   For those priority pollutants identified as "Suspected Present", provide information on why they are suspected to be present on your premise.

SECTION F. NON-SEWERED WASTES

1. If any liquid wastes or sludges are generated at the premise, but are not disposed in the sewer system, mark "Yes" and complete items 2 and 3 below. If "No", skip remainder of this section. Be certain you include wastewater listed in Section C.7c.

2. Indicate the types of waste generated. For each type, indicate the estimated quantity disposed per year and mark the appropriate columns (On-site storage, On-site disposal, Off-site disposal).

3. Indicate the USEPA and MDNR Hazardous Waste generator numbers for the premise.

SECTION G. INDUSTRIAL WASTE SURCHARGE INFORMATION

1. If the premise consumes 80 Ccf or more of water within one month (1,995 gallons or more per calendar day), you must complete this section. Any user who consumes such a volume may be subject to surcharge for treatment of wastes exceeding the strength of "normal wastewater". Normal wastewater is defined by MSD Ordinance as wastewater which has a five-day BOD not greater than 300 milligrams per liter, TSS not greater than 300 milligrams per liter and COD not greater than 600 milligrams per liter. Questionnaires submitted for permit renewal applications, only, may skip this item.

   Sampling and analyses required:

   The wastewater in each sewer listed in Section D.2, if containing industrial process wastewaters, is to be analyzed for the listed parameters and the analytical results reported here. Also report a measured or estimated flow for each point on the day of sampling.

   The data reported will be used to calculate a surcharge, if applicable, for wastewaters discharged from the premise. Analytical data for sewers listed in Section D.2, which receive only sanitary sewage or uncontaminated cooling water, may also be submitted. If no data is submitted for these non-process related sewers, "normal wastewater" concentrations for BOD, COD and TSS will be used for calculating the total high strength surcharge for the premise.

   Analytical data will be considered current for each subsequent billing period until such data are reported inaccurate and replaced by updated certified data. Your company is responsible for supplying updated information as often as you consider necessary. The results of routine sampling and analyses by the District may be used in lieu of data reported by the company if such data are found to be not current or in error.

   All samples collected must be representative of normal operational conditions and should be collected over a sufficient period to obtain average values. Flow proportional samples may be required in order to obtain accurate data.

   Sample handling information:

For each point, list the sample date, sample start and end times and type of sample. Type of sample will be either grab or composite. The date recorded for a composite sample should be the date corresponding to the end of the compositing period.

If your operations are such that periodic grab samples will provide representative wastewater information, then such sample collection will be acceptable. The basis for using grab samples should be documented in an attachment to the questionnaire.

Samples may be collected and analyzed by qualified personnel within your organization or by third-party consultants or laboratories. The collection of samples and measurement of flows should be conducted according to recognized acceptable procedures. All sampling and analyses are to be conducted in accordance with the techniques prescribed in 40 CFR 136 unless other techniques are prescribed for specific parameters or specific circumstances. Most procedures outlined in the latest edition of "Standard Methods for the Examination of Water and Wastewater" are acceptable.

Provide the name and address of the organization which collected the samples. This could be a department within the company or an outside consultant.

Provide the name and address of the organization which analyzed the samples. This could be a department within the company or an outside laboratory.

SECTION H. CERTIFICATION AND SIGNATURE

1. Contact Person: Provide the name, title and telephone number, including extension, of the person to be contacted regarding the information contained in this questionnaire.

2. Certification: Print your name, title and telephone number, including extension. Be certain you fully understand the certification statement. Sign and date in the spaces provided. This certification must be signed by an individual described as follows:

   a. A responsible corporate officer if the user is a corporation.

   b. A general partner if the user is a partnership.

   c. The proprietor if the user is a sole proprietorship.

   d. A duly authorized representative of the individual designated in 2a through c, if that individual submits a written authorization which specifies a person or position within the company, having responsibility for the overall operation of the facility from which the discharge originates, such as a plant manager, or overall responsibility for environmental matters at the company.

ATTACHMENTS: List any attachments you are sending with the questionnaire. (These should include any maps, drawings, plans, laboratory reports, other documents or any other information which supplements the information on the questionnaire form. Note the requirements of Sections D.1 and E.7.)

We hope these instructions have helped you in completing the Industrial User Questionnaire. If you have any questions regarding the information requested, please call us.

APPENDIX A - PRIORITY POLLUTANT SYNONYM LISTING

PRIORITY POLLUTANT	SYNONYM(S)
benzo(a)anthracene	1,2-benzanthracene
	2,3-benzphenanthrene
benzo(a)pyrene	3,4-benzopyrene
benzo(g,h,i)perylene	1,12-benzoperylene
benzo(k)fluoranthene	11,12-benzofluoranthene
gamma-BHC	lindane
bis(2-chloroethyl)ether	2,2'-dichloroethyl ether
bis(2-chloroethoxy)methane	2,2'-dichloroethoxy methane
bis(2-chloroisopropy)ether	2,2'-dichloroisopropyl ether
bis(chloromethyl)ether	(sym)dichloromethyl ether
bis(2-ethylhexyl)phthalate	2,2'-diethylhexyl phthalate
bromodichloromethanene	dichlorobromomethane
bromoform	tribromomethane
bromomethane	methyl bromide
carbon tetrachloride	tetrachloromethane
4-chloro-3-methylphenol	para-chloro-meta-cresol
chloroethane	ethylchloride
chloroform	trichloromethane
chloromethane	methyl chloride
2-chlorophenol	para-chlorophenol
chrysene	1,2-benzphenanthrene
4,4'-DDD	dichlorodiphenyldichloroethane
	p,p'-TDE
	tetrachlorodiphenylethane
4,4'-DDE	dichlorodiphenyldichloroethylene
	p,p'-DDX
4,4'-DDT	dichlorodiphenyltrichloroethane
dibenzo(a,h)anthracene	1,2,5,6-dibenzanthracene
dibromochloromethane	chlorodibromomethane
1,2-dichlorobenzene	ortho-dichlorobenzene
1,3-dichlorobenzene	meta-dichlorobenzene
1,4-dichlorobenzene	para-dichlorobenzene
dichlorodifluoromethane	difluorodichloromethane
	fluorocarbon-12
1,1-dichloroethane	ethylidene chloride
1,2-dichloroethane	ethylene chloride
	ethylene dichloride
1,1-dichloroethene	1,1-dichloroethylene
(trans)-1,2-dichloroethene	acetylene dichloride
	1,2(trans)-dichloroethylene
1,2 dichloropropane	propylene dichloride

PRIORITY POLLUTANT	SYNONYM(S)
(cis&trans)1,3dichloropropene	(cis & trans)1,3-dichloropropylene
diethyl phthalate	ethyl phthalate
2,4-dimethylphenol	2,4-xylenol
di-n-octyl phthalate	di(2-ethylhexyl)phthalate
4,6-dinitro-2-methylphenol	4,6-dinitro-ortho-cresol
1,2-diphenylhydrazine	hydrazobenzene
endosulfan l	alpha-endosulfan
endosulfan ll	beta-endosulfan
fluorene	(alpha)-diphenylene methane
hexachlorobenzene	perchlorobenzene
hexachlorocyclopentadiene	perchlorocyclopentadiene
hexachloroethane	perchloroethane
ideno(1,3,3-cd)pyrene	2,3-ortho-phenylene pyrene
isophorone	3,5,5-trimethyl-2-cyclohexen-1-one
methylene chloride	dichoromethane
2-nitrophenol	para-nitrophenol
4-nitrophenol	ortho-nitrophenol
N-nitrosodimethylamine	dimethyl-nitrosoamine
N-nitrosodipropylamine	N-nitroso-di-n-propylamine
N-nitrosodiphenylamine	diphenyl-nitrosoamine
PCB-1016	Arochlor-1016
PCB-1221	Arochlor-1221
PCB-1232	Arochlor-1232
PCB-1242	Arochlor-1242
PCB-1248	Arochlor-1248
PCB-1254	Arochlor-1254
PCB-1260	Arochlor-1260
2,3,7,8-tetrachlorodibenzo-p-dioxin	TCDD
1,1,2,2-tetrachloroethane	acetylene tetrachloride
tetrachloroethene	perchloroethylene
	tetrachloroethylene
toluene	methylbenzene
	toluol
1,1,1-trichloroethane	methyl chloroform
1,1,2-trichloroethane	vinyl trichloride
trichloroethene	trichloroethylene
trichlorofluoromethane	fluorocarbon-11
	fluorotrichloromethane
vinyl chloride	chloroethene
	chloroethylene