



Knoxville Utilities Board

INSTRUCTIONS

**INDUSTRIAL WASTE
SURVEY AND PERMIT
APPLICATION FORM**

Instructions—Completing The Knoxville Utilities Board Industrial Waste Discharge Permit Application

Statement of Purpose

The purpose of this permit application is to provide the Knoxville Utilities Board (KUB) with accurate information concerning the nature of the waste discharge of the applicant. This information will enable KUB to take appropriate actions to protect the integrity of its wastewater treatment facilities, to guide in the design and implementation of emergency procedures, to protect the public health and welfare, and to assess the adequacy of present facilities. It also provides a method of maintaining an up-to-date inventory of industrial discharges to the system. The accuracy of the information is vital, since it will be used to determine what, if any, steps must be taken to adequately treat the proposed waste discharges of the applicant.

Introduction

KUB operates and maintains the wastewater treatment and interceptor sewer system. These treatment facilities provide both primary and secondary treatment for the removal of contaminants. Numerous processes are employed to properly treat all the wastes entering the plants from the collection system. These processes include sedimentation and biological treatment (activated sludge) to remove pollutant components, chlorination for disinfection, and dewatering of excess solids for ultimate disposal.

The activated sludge process used for secondary treatment employs bacteria and other microorganisms, which utilize waste materials as food, thereby converting pollutants to carbon dioxide, water, and new microorganisms (known as bio-mass or sludge). Because the treatment process involves living organisms, precautions must be taken to insure effective continuous operation. The organisms in the biological treatment process can generally adjust to many materials passed into the treatment facilities. This adjustment, however, is not instantaneous and requires a buildup of suitable microbial populations. Under normal conditions, this population will adjust to furnish maximum degradation of usable food sources, effectively removing waste material from the incoming sewage and producing a high quality effluent. If through the loss of necessary organisms, secondary treatment is interrupted; many days are required to generate a new biomass. During this period, the plant effluent will not meet current state and federal water quality standards. Therefore, it is imperative that the secondary treatment system be protected from toxic or damaging wastes entering the treatment plant.

Accurate responses to the application are essential for assessing treatment plant loading, providing information for operational adjustment at the plant, and allowing maximization of the services provided to industrial users. The inventory of materials on site is of particular importance. In the case of emergencies such as fires, explosions, transportation accidents, etc., there is a high probability that large quantities of these materials will enter the sewage system. These materials may settle in the sewers, and may also create explosive and corrosive conditions within the sewers. More importantly, materials carried to the treatment plant have the potential of creating explosive conditions and fire hazards, upsetting treatment processes, especially biological processes, or passing through the treatment facility untreated, thus violating state and federal regulations. Some materials may even pose a health threat to employees working in the sewer or at the treatment facilities.

This application has been designed for obtaining information to be used by KUB to plan for efficient operation of its treatment facilities. It will be most valuable if the responder makes every effort to accurately complete all sections. No items should be left blank – enter “Not Applicable” to show that items were considered but determined not to be pertinent to a particular facility. Forms with blanks will either be returned to the industry to be completed or a KUB representative will conduct an onsite visit to ensure the form is filled out completely and accurately.

General Instructions

A separate application form should be completed for EACH company location if more than one facility exists in the KUB wastewater service area. If you need additional forms, or have any questions regarding the application, contact:

Knoxville Utilities Board
Industrial Pretreatment Program (JK-16)
Attn. Leslie Glover
P. O. Box 59017
Knoxville, Tennessee 37950-9017
(865) 594-8367

Certain questions require specific information, which will have to be calculated from company operating records. Please read each question carefully and verify all calculations. Please answer all questions and place the required information in the designated areas. DO NOT leave any items blank, "Not Applicable" should be used to show an item was considered but determined not to be pertinent to your facility. If more space is required, please attach additional sheets to this application or request additional forms. Identify responses on supplemental sheets by question number.

Specific Instructions

Section A – General Information

- A.1 The Company Name should be that name which is used for official transactions. The Mailing Address should be the address where all correspondence pertaining to the application or business should be sent.
- A.2 The Premise Address should be the address of the plant or the facility for which this application is being submitted. A separate application is required for each facility.
- A.3 The Signing Official should be an official of the company with the authority to sign for the company and certify accuracy of the information provided on an official document. After reviewing the completed application, the signing official should sign and date the application in the space provided in Section A.5.
- A.4 The Contact Official is the person such as the plant manager who has the responsibility for, or knowledge of, the waste discharges from the facility.
- A.5 Identify the type of business conducted. Please read the responsibility statement closely, then date and sign.
- A.6 Describe the manufacturing operations used or services provided by your facility.
- A.7 NAICS numbers can be found in the most recent printing of the North American Industrial Classification System (NAICS) by Bernan Press as prepared by the Statistical Policy Division, Office of Management and Budget, Washington, D. C. A copy of the full publication can be found in most public libraries or the web site is <http://www.ntis.gov/naics>. Please list as many of the NAICS codes as necessary to describe your operation. More than one number may apply. In this case, list these numbers in order of decreasing importance based on production volume.
- A.8 List all other environmental permits held by this facility that are issued by any local, state, or federal authority – air, stormwater, NPDES, etc.

Section B – Facility Operation Characteristics

- B.1 Indicate the hours of operation, number of days per week, and number of shifts worked each 24-hour day. Also indicate the average number of employees per shift and the hours of each shift.
- B.2 Indicate the principal product(s) manufactured at your facility.
- B.3 List the major raw materials and process additives that are used at your facility. If you have a prepared list of raw materials, this may be submitted with the application in lieu of completing the table. If the space provided is insufficient, additional sheets may be attached to this application. In either case, indicate in the table that this information is provided on supplemental sheets.
- B.4 List any solvents that are used in the production process.
- B.5 Describe storage practices for all chemicals and solvents listed in B.4 and B.5.
- B.6 Describe all routine or intermittent (regardless of infrequency) cleaning of equipment or facility. Also include volume of water used in each event, type of cleaning chemicals used, and how and where that water is disposed of. Be sure to list any automatically metered cleaning chemicals or additives. Use extra pages if space provided is insufficient.
- B.7 Indicate if production varies seasonally or if there are known peak periods associated with production. If yes, provide a detailed explanation indicating the maximum and minimum waste flow in gallons per day and the months of the year during which these variations occur.
- B.8 Indicate if there are any process changes being planned during the next three years. If yes, provide a detailed explanation.
- B.9 Indicate if you have prepared a Spill Prevention Control and Countermeasure Plan for this facility. If yes, submit the current version with this application. Also indicate if this facility has a Solvent Management Plan or Toxic Organic Management Plan. If yes, submit current version with application.

Section C – Wastewater Information

- C.1 Is this facility subject to any of the listed Federal Categorical Pretreatment Standards or other business activity that is not subject to Federal standards? You may refer to each 40 CFR Part to determine inclusion.
- C.2 Check any wastewater or sludge treatment process used in your plant.
- C.3 Describe process control testing you use to monitor the operation of pretreatment equipment and processes – pH meter calibration, Hach testing, etc.
- C.4 Indicate if there are any planned installations of or upgrades to pretreatment equipment at the facility. If yes, provide a specific time schedule for completion.
- C.5 Referring to the abbreviations listed, mark all items that are used or disposed of by the facility. Items may have more than one marking if used in more than one process.
 - (U) Item is used at this location
 - (DT) Disposed of, after treatment, to the sanitary sewer system
 - (DW) Disposed of, without treatment, to the sanitary sewer system
 - (DO) Disposed of off site after being used and/or generated, such as sludge or liquid
 - (TU) Item is totally used in production, therefore no waste product is left
 - (VU) Item is vaporized in use, and therefore no waste product is left

*An item may have several different markings depending on the use, treatment, and disposal of each by your facility.

Section D – Water Usage and Discharge Information

- D.1 Indicate all water sources and volumes.
- D.2 List average volumes of wastewater discharged to each discharge point.
- D.3 Provide details for how each process and contact cooling wastestream is generated.
- D.4 Indicate if the facility is currently recycling any water. If yes, please explain.
- D.5 Indicate if the discharge to the sewer is from batch or continuous process operation. If both, indicate the percentage of each. If operations are primarily batch, indicate the average number of batches discharged per 24-hour, the average volume, and the maximum volume.
- D.6 Provide a schematic of the facility showing production lines, process flow, locations of floor drains, sanitary lines, cooling streams, etc. and the point of entry for each into the sanitary sewer. Also provide a schematic of the process flow through the pretreatment system. Facility schematic should indicate the location of the pretreatment equipment and where effluent samples are collected. If application is for a new facility, provide preliminary drawings for process, proposed pretreatment equipment, and sampling location.
- D.7 Indicate if facility has automatic sampling equipment or continuous wastewater flow metering.

Section E – Other Wastes

- E.1 Indicate if any chemicals, solvents, sludges, hazardous materials, or other wastes are disposed of by the facility.
- E.2 If yes, specify waste type, volume, and composition of the waste.
- E.3 For all wastes noted in E.2, indicate how the wastes are stored or what disposal practices are used.
- E.4 If a private hauler is used to haul wastes/sludges offsite, provide the name of the company and the ultimate disposal location.
- E.5 Indicate if copies of hauled waste manifests are retained for wastes hauled offsite.

Section F – Wastewater Characteristics

- F.1 If any wastewater analyses have been performed on the wastewater discharge(s) from your facilities, attach a copy of the most recent data to this questionnaire. Be sure to include a copy of the lab analysis.
- F.2 For new permittees – include a full scan of all priority pollutants and any other acids, oils, caustics, fats, grease, or other chemical not listed in Section C believed to be present will be required for new discharge permits unless exempted by KUB. The sample must be a 24-hour composite taken during normal production activity and/or representing typical wastewater flows.
- F.3 Provide a description of the location(s) from which sample(s) were taken (attach sketches, plans, etc., as necessary) and the exact procedure used to collect the sample(s)