

**BOROUGH OF CATASAUQUA WASTEWATER TREATMENT PLANT**  
118 BRIDGE STREET, CATASAUQUA, PA 18032  
ATTN: PRETREATMENT COORDINATOR

**PART II - WATERSHED PROTECTION PERMIT APPLICATION (PAGE 1 OF 9)**

(Date Sent or Hand Delivered : \_\_\_\_\_)

SEWER USER \_\_\_\_\_

ADDRESS \_\_\_\_\_

SITE CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_

TITLE \_\_\_\_\_ FAX \_\_\_\_\_

E-MAIL \_\_\_\_\_

**POLLUTION PREVENTION** – The Borough encourages the use of pollution prevention technology based on source control to reduce or eliminate non-domestic discharges as an alternate compliance strategy. When pollutants are no longer generated, there are no toxic effects, no disposal costs and no liability for future environmental damage or remediation work. Applicants interested in this approach should contact the Pretreatment Coordinator and free or low cost technical assistance may be available.

**COMPLIANCE ASSISTANCE** - Because of the complexity and wide scope of the regulations, this application may include many more requirements than are actually necessary for a proposed discharge. And some of them may be waived if the information presented indicates that they are not relevant. Therefore, if requested, The Borough will review drafts of the information to be submitted for completeness prior to final submission; and will assist the applicant with interpreting the application's requirements with respect to site-specific factors. All review and assistance will be provided only if it does not interfere with or compromise the Borough's regulatory responsibilities and enforcement authority. Please call the Borough Office (610-264-0571) and leave a message for the Pretreatment Coordinator.

**EPA REVIEW** – In instances where there are questions about the applicability of federal regulations or compliance related issues, the Borough may contact the Environmental Protection Agency for technical assistance. The EPA also periodically conducts detailed inspections and audits of the Borough's Pretreatment Program which also can include visits to permitted sites. Therefore this permit application and all material submitted may be discussed with and/or be reviewed by the EPA.

**INSTRUCTIONS** – The applicant must prepare an Effluent Composition Report which provides accurate information on the materials used or stored on site and on the volume and composition of the wastewater that will be generated. And on the actions that will be taken to prevent materials used or stored on site from accidentally entering the sewer. The mass in lb/day and the concentration in mg/l of each material in the proposed effluent must be listed in reports. Worksheets for discharge parameters are on pages 6 & 8 and can be attached or the data can be listed in the report. Visits to the site for discussions and inspections may be required as part of the application process.

**PART II - WATERSHED PROTECTION PERMIT APPLICATION - (Page 2 of 9)**

**INSTRUCTIONS (Cont'd)** –The format for the Effluent Composition Report is flexible to allow it to be adapted to the applicant’s site specific conditions and a “Description of Material to Be Discharged” (page 5) must be attached to the “Report” for each material in the proposed discharge. Materials used for boiler and/or cooling water treatment or any other non-process uses that will also be discharged, must also be included. The “Description” must also include the wastes generated and any by-products arising from their use must be listed under “Other Information”. For example, in a metal cleaning operation the composition of the substances removed such as oil, grease, and particulate and/or dissolved metals must be listed. If there is a process where chemical or biological reactions occur, any products or by-products produced must also be listed.

For organic compounds without sufficient aquatic toxicity information, a PBT (Persistent, Bio-Accumulative and Toxic) Profiler work sheet is required. This information can be obtained at [www.pbtprofiler.net](http://www.pbtprofiler.net). by entering the CAS Number or the structure of the material. Copies of each PBT worksheet must be attached.

Materials without an acceptable “Description of Material to Be Discharged” will not be considered for sewer discharge. Copies of any MSDS not submitted in the Part I Application must be included. Usually additional information, not included in the MSDS, is necessary to complete the “Description of Material to Be Discharged”. The applicant has the responsibility for obtaining this additional information and it is suggested that the material supplier be requested to assist

Any material not listed in the application can not be legally discharged unless a new application or a request for permit amendment is submitted and approved. The applicant has the flexibility to prepare the report in the simplest manner possible as it applies to the site specific discharge factors as long as it contains the required information. The Effluent Composition Report should be sent to the Pretreatment Coordinator at the address above.

**Surcharge Information** - The Borough has enacted a revised Surcharge Ordinance and the effects of these requirements on proposed discharges should be considered.

Parameter	Surcharge Level (mg/l)	Action Level (mg/l)	Prohibited Level (mg/l)
TSS	200	600	850
BOD	200	600	850
COD	600	1,200	2,500
NH3-N	30	120	200
TKN	75	600	1,000

Surcharges apply for each parameter over the Surcharge (Threshold) Level. Discharges over the Action Level require special authorization and will only be allowed if it can be demonstrated that they will cause no treatability or toxicity problems. Enforcement action may be taken for unauthorized discharges over the action level.

**PART II - WATERSHED PROTECTION PERMIT APPLICATION - (Page 3 of 9)**

**Surcharge Information (cont'd)** - Surcharges double for authorized discharges over the action level. Discharges over the Prohibited Level are not allowed at any time. Sewer users must immediately cease any such discharges until compliance can be assured and the Borough gives written authorization. Enforcement action may be taken for violations of the Prohibited Level and an eight times surcharge may also be imposed. Fixed rate single event surcharges may also apply.

**OPERATING PROCEDURES AND PROCESS CONTROL** – Please describe, in the report, the operating and process control procedures that will be used to assure compliance with the applicable limits and conditions. Also include information on the procedures that will be used to avoid spills or other accidental releases such as those from equipment malfunction. Any other information that would help the Borough make a permitting decision such as pretreatment or pollution prevention measures planned should also be included. Pollution prevention (source reduction) as described on page 1 is encouraged.

**DETERMINATION OF EFFLUENT COMPOSITION** – This can be done by using available information and/or by actual testing of the raw materials and/or process effluent. If any testing is necessary, the applicant must hire a qualified contract lab which is NELAC certified for wastewater. Discharge limits are on page 7 and analytical methods and detection limits for wastewater and sludge are on page 9.

In some instances it may be necessary to make bench scale mixtures of products and/or raw materials at proposed effluent levels and then run screening tests for the specific parameters. Please note that any chemicals used for boiler and/or cooling water treatment or any other non-process uses must also be included. When effluent testing is required, it is recommended that screening be done initially for BOD, COD, TSS, Oil & Grease, NH-3N & TKN and Silver. If each parameter (except pH) is under 75 % of the applicable limits, then any additional screening required can be conducted. If any parameter is found to be at or over 75% of the limit (or over the surcharge action level) sewer discharge will not be allowed. And the Pretreatment Coordinator must be contacted to determine the next step, such as pretreatment including flow equalization, zero discharge or off site disposal. Please see Page 9 for test methods and reporting limits.

**PERMIT CONDITIONS WHEN A PROPOSED DISCHARGE IS AUTHORIZED** – A qualified contract lab must be hired to perform any periodic effluent sampling and analysis required. Since random unannounced sampling will be conducted a sampling manhole outside the building allowing 24-hour 7 day unrestricted access will be required before discharge can begin. No open floor drains are allowed in process or storage areas. For non-continuous or batch discharges or large volume discharges, flow equalization may be required. Full strength products, raw materials and all other materials not specifically listed in the Effluent Composition Report are not allowed in the sewer. This means that while a diluted solution of material X may be authorized, material X in the concentrated form is not allowed to be discharge.

All new sampling point installations must be pre-approved by the Borough and the municipality in which the facility is located. The sampling point must be secure to prevent tampering and the Borough must be given a key or combination. There must also be a provision for the Borough to lock the enclosure when sampling.

**PART II - WATERSHED PROTECTION PERMIT APPLICATION - (Page 4 of 9)**

**CONFIDENTIAL INFORMATION** – Please circle the applicable areas in the application with a red pen and mark as “Confidential Business Information”. If desired the Effluent Composition Report can be marked “Confidential Business Information”. However all information on effluent composition is public information.

**SIGNATURE STATEMENT** - The following paragraph must be inserted at the end of the Effluent Composition Report, signed by the owner, executive or manager with the overall responsibility for the facilities operation. (Applications without this paragraph properly signed in the Effluent Composition Report signed will be returned).

I (Signature) \_\_\_\_\_

(Name & Title Printed) \_\_\_\_\_

on (Date)\_\_\_\_\_ verify that the statements made in this document are true and correct to the best of my knowledge, information and belief and I fully understand that false statements made within are subject the penalties of 18 PA.C.S.A. relating to un-sworn falsification to authorities.

**PART II - WATERSHED PROTECTION PERMIT APPLICATION (Page 5 of 9)**

**DESCRIPTION OF MATERIAL TO BE DISCHARGED**  
***(REQUIRED FOR EACH MATERIAL TO BE DISCHARGED)***

Name of Material:

Source or Manufacturer:

Active Ingredients and Amount (as wt/wt % or wt/vol %):

Inert Ingredients and Amount (as wt/wt % or wt/vol %):

Amount Purchased Annually:

Amount Used Daily:

List Hazardous Properties (Flammable, Corrosive, Reactive etc.):

Flash Point of Material:

pH of Material:

Is Material diluted for use: Yes or No (please circle)

If Yes, Material Used For Dilution:

Dilution Ratio:

Flash Point At Use Dilution:

pH At Use Dilution:

Summary Of Human Health Hazards:

Summary Of Environmental Hazards Including Aquatic Toxicity: (For each organic compound listed above where little or no aquatic toxicity data is available, please go to [www.pbtprofiler.net](http://www.pbtprofiler.net) and print out a worksheet for the material):

List any other information pertaining to the use and discharge of this material that could impact the permitting decision (including any additional pollutants generated by the action of this substances in the specific operations on-site) attaching other sheets as necessary:

**PART II - WATERSHED PROTECTION PERMIT APPLICATION (Page 6 of 9)**

**WASTEWATER DISCHARGE INFORMATION**

Type Of Proposed Discharge : Batch, Continuous Or Both (please circle)

If Batch, List Number Of Batches Per Day, Per Week Or Per Month And Estimated Average Volume Of Each:

Average Daily Process Flow (gpd):

Average Daily Non-Contact Cooling Water (gpd):

Other Flows ( Boiler Blowdown, etc in gpd):

Average Daily Domestic Flow (gpd):

Average Daily Combined Flow (gpd):

List Any Other Discharges (gpd):

Total Of All Above Flows (gpd):

Percent Process Flow \_\_\_\_\_ =  $\frac{\text{Total Daily Process Flow} \times 100}{\text{Total Of All Daily Flows}}$

MAXIMUM DAILY FLOW RATE \_\_\_\_\_ gallons per minute

If short duration high volume loadings will be discharged, please list the type(s) of high rate wastestreams:

Flows must be measured as accurately as possible using water meter data as available.

**WASTEWATER SAMPLING INFORMATION**

Location of Existing Or Proposed Sampling Point:

Is This An Existing Sampling Point Or Will It Have To Be Installed?

Type Of Wastewater Sampled. Process & Domestic    Process Only (please circle)

**PART II - WATERSHED PROTECTION PERMIT APPLICATION (Page 7 of 9)**

**DISCHARGE LIMITATIONS**

<b>POLLUTANT</b>	<b>DAILY MAXIMUM CONCENTRATION (mg/l)</b>	<b>EFFLUENT CONC. IN MG/L (See Note A)</b>
Biological Oxygen Demand (BOD)*	850 (600)	
Total Suspended Solids (TSS)*	850 (600)	
pH	6 to 9 S.U.	
Oil & Grease	100	
Silver	0.70	
Silver Monthly Average	0.44	
Cyanide	1.0	
Color	750 Units	
Chemical Oxygen Demand (COD)*	2500 (1200)	
Ammonia Nitrogen (NH <sub>3</sub> N)*	200 (120)	
Total Kjeldahl Nitrogen (TKN)*	1000 (600)	
Total Dissolved Solids (TDS)	Monitor	
Chlorine Demand (Cl-D)	Monitor	
Flash Point (Closed Cup)	No Flash Point	
Zinc**	1.25	
Chromium**	0.7	
Copper**	0.42	
Nickel**	0.15	
Selenium**	0.1	
Lead**	0.07	
Molybdenum**	0.06	
Arsenic**	0.03	
Cadmium**	0.012	
Mercury**	,0.007	
Reactive Cyanide**	> 250	
Reactive Sulfide**	> 500	
Whole Effluent Toxicity	Non-Toxic	
Priority Pollutants	Meets EPA/DEP Requirements	
Other Organic Compounds	Meets EPA/DEP Requirements	

\* Indicates a surcharge parameter with the action level in (\_\_\_). Discharges over the action level may not be allowed. Information on Surcharges is on page 2. Surcharges will be calculated for both BOD & COD and the highest surcharge will apply. The same will be done for NH<sub>3</sub>-N & TKN. \*\* Sludge Protection Requirements

Note A - The effluent concentration for the parameters above that will be discharged can be estimated as shown on page 7 or determined by the analysis of a simulated effluent sample or from relevant technical information.

**WORKSHEET FOR ESTIMATING EFFLUENT MASS & CONCENTRATION**

To Estimate the Concentration Discharged If The Mass Is Known

Convert Mass In Pounds Per Day Of Ingredient To Milligrams:

Convert Average Daily Effluent Volume Of Effluent In Gallons To Liters:

Effluent Concentration (mg/l) = mass in milligrams / volume in liters

To Estimate The Mass Discharged If The Effluent Concentration Is Known

Effluent Concentration In mg/l:

Average Daily Volume Of Effluent In Gallons:

Mass (lbs/day) = [Conc. (mg/l)] x [Avg. Flow (gpd) / 1,000.000] x [8.34]

<b>Name Of Material</b>	<b>Name Of Component Ingredient</b>	<b>Chemical Abstracts Number</b>	<b>Effluent Concentration (mg/l)</b>	<b>Effluent Mass (lb/day)</b>
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**PART II - WATERSHED PROTECTION PERMIT APPLICATION (Page 9 of 9)**

**Analytical Methods & Reporting Limits For Wastewater And Sludge**

<u>Abbreviation</u>	<u>Parameter**</u>	<u>Wastewater Monitoring*</u>	
		<u>Method</u>	<u>Reporting Limit (mg/l)***</u>
BOD	Biological Oxygen Demand	EPA 405.1	2.0
COD	Chemical Oxygen Demand	SM 5220C	8.0
TSS	Total Suspended Solids	EPA 160.2	0.2
TDS	Total Dissolved Solids	EPA 160.1	1.0
NH3-N	Ammonia Nitrogen	EPA 350.3	0.10
TKN	Total Kjeldahl Nitrogen	EPA 351.3	0.10
O & G	Oil and Grease	EPA 1664A	5.0
pH	pH	EPA 150.1	n/a
Color	Chrome Cobalt Units	EPA 110.1	10.0
Cl-D	Chlorine Demand	EPA 330.1	1.0
SO-4	Sulfate	EPA 375.1	0.20
S	Sulfide	EPA 376.1	0.20
R-S	Reactive Sulfide	SW846 Ch7.3	0.20****
R-CN	Reactive Cyanide	SW846 Ch7.3	0.004****
Pri Pol	Priority Pollutants	EPA Protocols	n/a
WET	Whole Effluent Toxicity	EPA Protocols	n/a

<u>Chemical Symbol</u>	<u>Parameter</u>		
CN (T)	Cyanide	EPA 335.2	0.004
As (T)	Arsenic	EPA 206.2	0.005
Ba (T)	Barium	EPA 208.1	0.010
Cd (T)	Cadmium	EPA 213.1	0.001
Cr (T)	Chromium	EPA 218.1	0.001
Cu (T)	Copper	EPA 220.1	0.001
Pb (T)	Lead	EPA 239.1	0.005
Hg (T)	Mercury	EPA 245.1	0.0002
Mo (T)	Molybdenum	EPA 246.1	0.010
Ni (T)	Nickel	EPA 249.1	0.001
Se (T)	Selenium	EPA 270.1	0.010
Ag (T)	Silver	EPA 272.1	0.001
Zn (T)	Zinc	EPA 289.1	0.001

\* The parameters listed apply to wastewater and sludge but the methods & limits are only for wastewater unless noted. \*\*These limits should be given to the lab doing the testing for the applicable parameters. Results below these levels are considered non-detects.

\*\*\*These limits are required for reports to US EPA and PA DEP and tests with higher reporting limits will not be acceptable. \*\*\*\*For Sludge Only (in mg/kg)

(T) - Means that the appropriate EPA acid digestion technique must be used to determine the total metal content . All sampling and analysis must be performed in accordance with 40 CFR Part 136.