

SLUG CONTROL/SPILL PREVENTION PLAN
GREAT LAKES WATER AUTHORITY
INDUSTRIAL WASTE CONTROL DIVISION

GUIDELINES FOR PREPARATION: SLUG CONTROL/SPILL PREVENTION PLAN

LEGAL AUTHORITY

The General Pretreatment Regulation 40 CFR 403.8(f)(2)(v) provides authority to the Publicly Owned Treatment Works (POTW), in this case the Wastewater Treatment Plant - Great Lakes Water Authority (GLWA), to request any Industrial User (IU) to develop a Slug Control Spill Prevention Plan in order to protect the sewer from slug and/or accidental discharges.

City of Detroit Ordinance No. 08-05 Chapter 56 Section 56-3-59.1(g) declares that each IU discharging into the GLWA sewerage collection and treatment system shall provide protection from the accidental discharges of prohibited materials and other substances regulated by the Ordinance. Further, the Ordinance adds that facilities and measures to prevent and abate accidental discharges should be provided and maintained at the owner's or IU's cost or expenses.

DEFINITIONS

Slug Discharge is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge at a flow rate and/or concentration, which will cause interference or pass through at POTW.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with the categorical pretreatment standards, or local pretreatment standards, because of factors beyond the reasonable control of the IU. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset shall constitute an affirmative defense to an action brought for noncompliance with limits imposed under the permit if the following requirements are met:

- I. An IU who wishes to establish the affirmative defense shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and IU can identify the specific cause(s) of the upset;
 - b. The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures;
 - c. The IU has submitted the information on the upset to the Department, orally or in writing, within twenty-four (24) hours of becoming aware of the upset (if this information is provided orally, a written submission must be made within five (5) calendar days).

2. In any enforcement proceeding, the IU seeking to establish the occurrence of an upset shall have the burden of proof;
3. The IU shall control production of all discharges to the extent necessary to maintain compliance with this ordinance upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

Bypass means the intentional diversion of wastestreams from any portion of an IU's treatment facility.

Bypass is prohibited, and the Department may take enforcement action against an IU for a bypass, unless:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage,
2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
3. The IU submitted notices as required.

MATERIALS PROHIBITED FROM REACHING THE SEWER

GENERAL PROHIBITIONS:

An IU shall not introduce into a POTW any pollutant(s) which cause pass through or interference.

A list of EPA priority pollutants and Michigan critical materials is attached for your reference/use.

SPECIFIC PROIBITIONS:

1. Pollutants which create a fire or explosion hazard in the POTW;
2. Pollutants which will cause corrosive structural damage to the POTW;
3. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW result in interference;
4. Any pollutant, including Oxygen Demanding Pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

5. Heat in amounts which will inhibit biological activity in the POTW resulting in interference;
6. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
7. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
8. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

CONTENTS OF THE PLAN

Facility Identification

- i) Process description and schematic of wastewater flow
- ii) Inventory of materials stored, raw materials, liquid wastes, by-products/products, solvents, and/or oils.
- iii) Procedures for slug control/spill prevention and response
- iv) Method of disposal
- v) Notification requirements
- vi) Slughistory
- vii) Inspection procedure
- viii) Employee training
- ix) Implementation date
- x) Certification of the plan

- xi) The nature and volume of information to be provided under each section as described in the subsequent "Guidelines for Preparation" followed by a blank form for your use and/or reference.

GUIDELINES FOR PREPARATION

I) Facility Identification:

This section contains general information and is self-explanatory

II) Process Description and Schematic of Wastewater Flow:

This section should contain the following information related to the facility identified in Section 1 above.

1. Product or Service Operation details;
2. Description of discharges including non-routine batch discharges;
3. Number of shifts per day, shift hours, the number of employees in each shift, and number of working days per week;
4. A drawing of appropriate size showing the following details; facility layout, property boundaries, entrance and exit routes to facility, areas occupied by manufacturing service or commercial activities, storage area of hazardous or prohibited or listed materials, solvents and oils, loading and unloading facilities, waste or wastewater handling, storage and treatment facilities, direction of drainage from storage areas, waste handling, process storage and

treatment areas, floor drains, pipes and channels which lead away from potential spill areas identifying where the drains connect to sanitary sewer/holding tank, flow directions with flow rates, tank capacities, treatment system, GLWA and company sampling points and outlet connection to the street sewer.

III) Inventory of Materials Stored in the Facility:

A list of hazardous/listed/prohibited materials, by-products or products, liquid wastes, solvents and oils or any other materials such as large quantities of non-contact cooling water and/or wastewater containing non-toxic organics, solids, and nutrients stored inside the facility and their approximate average and maximum quantities with concentrations stored in the facility should be provided. Also show their respective locations on the drawing explained in Section II above. Only materials which are in a form which could readily be carried into the wastewater treatment plant and which constitute a concentration of 5% or greater on a dry weight basis in the raw materials, chemical solutions or waste material are required to be reported.

IV) Procedures for Slug Control/Spill Prevention and Response:

Details of measures and installations required to protect the sewer system from slug/spill discharges should be explained.

a) Equipment:

Identify the type of equipment and structure used in slug prevention and response activities and their location in the facility (dikes, berms, sealed drains, alarms, leak detection equipment, diversionary structures, sumps, protective equipment, decontamination equipment, ventilation equipment, absorbents, etc.)

b) Procedures:

Provide procedures to prevent adverse impact on the GLWA sewer system from slug discharges, including handling and transferring of materials, loading and unloading operation, a control of plant site-run off, etc.

V) Method of Disposal:

Briefly describe the procedures for disposing of or treating spilled materials in your facility.

VI) Notification and Report Requirements:

This section should contain a list of the federal, state, local agencies, contractors, consultants, etc., who will be informed during slug discharge. The following is the procedure required for notifying the GLWA on slug incidents.

Notification to GLWA

Slug Loading/Accidental Discharge:

Within one (1) hour of becoming aware of a discharge entering into the sewer, the company shall telephone the GLWA System Control Center, twenty-four (24) hour phone number at (313) 267-6000, and inform the Authority about the details of the discharge.

Upset at the IU's Pretreatment Facility:

Within twenty-four (24) hours of becoming aware of an upset, the company shall telephone the GLWA at the System Control Center (313) 267- 6000 and inform the Authority about the details of the upset and discharge.

Unanticipated Bypass of W's Pretreatment Facility:

Within twenty-four (24) hours of becoming aware of the bypass, the company shall telephone the GLWA at the System Control Center (24 hr. phone no.) inform the Authority about the details of the discharge.

All these notifications shall include the name of the caller, location, and time of discharge, type of wastewater, estimated concentration and volume.

Submission of Report:

For the above mentioned three (3) incident, a written report shall be submitted within five (5) calendar days of becoming aware of the incident This report shall contain the following:

- i) A description of the discharge and the cause of the incident;
- ii) The duration of the incident including exact dates and times or, if not corrected, the anticipated time the incident is expected to continue;
- iii) Steps being taken and/or planned to reduce, eliminate, and prevent similar future occurrences of the incident

Anticipated Bypass:

If an IU anticipates the need for a bypass, it shall submit a prior notice to the Department, if possible at least ten (10) days before the date of the bypass. The report shall be accompanied by the analytical data, which shows the characteristics of the material to be bypassed. Upon evaluation, the Authority provides the IU with its determination on the bypass.

Details Of The Reports For Specific Incidents

SPILL: Causes and details of the discharge, and the measures to be taken to prevent similar future occurrences.

UPSET: A description of the discharge and cause of noncompliance; the period of noncompliance including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; steps being taken and/or planned to reduce, eliminate and prevent recurrence if the noncompliance.

BYPASS:

- i) Anticipated -prior notice, with the sample analysis of the material that is going to be bypassed, for the department's approval to bypass.
- ii) Unanticipated -description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue, and steps Taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

NONCOMPLIANCE: The user shall repeat the sampling and analysis and submit the results of the repeat analysis.

All these reports shall be submitted to the attention of the inspector concerned.

NOTIFICATION & REPORTING REQUIREMENTS FOR SPECIFIC INCIDENTS/IDENTS

INCIDENT	DEFINITION	NOTIFICATION	REPORT	CONTACT	TEL. NO
Spill 40 CFR 403.12f	Accidental discharge to the City sewer system	Shall call within (1) hour of becoming aware of the spill	Shall submit within (5) days of the spill	William Ware GLWA System Control	(313) 297-5894 24 hr. no. (313) 267-6000
Upset 40 CFR 403.16	Pretreatment System upset Causing noncompliance	Shall call within (24) hours of becoming aware of the upset	Shall submit within (5) days of the upset	Akshay Chauhan GLWA System Control Center	(313) 297-5826 24 hours no. (313) 267-6000
Bypass 40 CFR 403.17	Intentional diversion of waste streams from the pretreatment facility i) Anticipated Bypass ii) Unanticipated Bypass	Shall call within (24) hours of becoming aware of bypass	Shall submit sample reports of material to be bypassed, 10 days prior to the by pass Shall submit within (5) days of bypass	GLWA System Control Center	24 hr. no. (313) 267-6000
Noncompliance 40CFR 403.12g	Violation of any regulated parameters of wastewater to the sewer, identified while self-monitoring	Shall call within (24) hours of becoming aware of the violation	Shall submit in (30) days of the violation	Akshay Chauhan GLWA System Control Center	(313) 297-5826 24 hr. no. (3313)267-6000

See back of the page for the details about the individual report –Days denotes calendars days

All reports shall be submitted to the following address:

The Emergency Response Coordinator
Great Lakes Water Authority
Industrial Waste Control Division
303 S. Livernois Avenue
Detroit, Michigan 48209

A notice shall be permanently posted on the company's bulletin board or other prominent place(s) advising employees to contact GLWA System Control Center (24 hr. phone no.) in the event of a potential excessive discharge to the sewer system.

VII) Company's Slug History:

This section should contain the details of the slug discharges that occurred in the facility during the past three (3) years. It should also contain the dates, and volumes of wastewater/chemicals discharged into the sewer, names of pollutants and their respective concentrations, authorities informed and remedial measures instituted.

VIII) Inspection Procedure:

This section should contain details of inspection schedules established to check the conditions of the IU's facilities, equipment's, tools, supplies, etc., to detect and correct the potential sources of slug discharges and related containment activities. It should also contain the skill level of the person, performing inspection, periodicity of inspection, areas covered, records maintained, and the follow up procedures of inspection report.

IX) Employee Training:

This section should contain the skill types of the IU's employees and the number of employees who were formally instructed or trained periodically to act during the incidents of slug discharges. List the formal classroom lectures and demonstrations the operators attended. Also list the ongoing training classes conducted periodically for this purpose.

X) Implementation Date:

This information is required to determine the time period from when the protection against slug discharges has been provided. List the date, month and the year on which the Slug Control/Spill Prevention Plan being submitted to the GLWA took effect.

XI) Certification of Implementation:

The Slug Control/Spill Prevention Plan submitted by your company shall be signed by an authorized representative. The Certification statement shall read as follows:
"I certify that the information provided in this Slug Control/Spill Prevention Plan is accurate and true to the best of my knowledge and that the incidental slug control/spill prevention measures described in this plan will be implemented as described". Print the name of the certifying officer, title, and the date of certification.

X) This Slug Control/Spill Prevention Plan shall be reviewed and Immediately amended, if necessary, whenever:

- The facility permit is reviewed (only the IU's with Wastewater Discharge Permit);
- The plan fails in an emergency;
- The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for slug/accidental discharges to the sewer;
- The list of emergency coordinators or facility contacts persons change.

INDUSTRIAL USER SLUG/CONTROL SPILL PREVENTION PLAN

1) **FACILITY NOTIFICATION :** **PERMIT NO.:** _____

Facility Name: _____

Facility Address: _____

Mailing Address: _____

Facility Contact Person: _____ Title: _____

Phone No. (Work): _____

Facility Spill Coordinator: _____ Title: _____

Phone No. (Work): _____ Phone No. (Cell): (____) _____

Other Emergency Coordinator: _____ Title: _____

Phone No.(Work): (____) _____ Phone No. (Cell): (____) _____

PROCESS DESCRIPTION AND SCHEMATIC: 1)

1) Type of Business/Manufacturer:

2) Description of discharges (including non-routine batch discharges):

Operating Schedule:

Number of Employees: 1st Shift _____ 2nd Shift _____ 3rd Shift _____

4) Attach Schematics or Drawings:

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III) **INVENTORY OF MATERIALS STORED IN THE FACILITY:**

Material Name*	Quantity** gallons (Otherwise specify)	Location in the facility	Container Type and Capacity
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* Attach Material Safety Sheet (MSDS), if the chemical name is commercial

** Yearly/Daily Average

INVENTORY OF MATERIALS STORED IN THE FACILITY:

Material Name*	Quantity** gallons (Otherwise specify)	Location in the facility	Container Type and Capacity
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* Attach Material Safety Sheet (MSDS), if the chemical name is commercial

** Yearly/Daily Average

IV) PROCEDURES FOR SLUG CONTROL/SPILL PREVENTION AND RESPONSE:

a) Equipment:

b) Procedures:

V) METHOD OF DISPOSAL:

VI) NOTIFICATION & REPORTING PROCEDURE:

VII) PREVIOUS SPILL EVENTS:

Description of Incident	Quantity	Date	Remedial Action
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VIII) INSPECTION PROCEDURES:

XI) TRAINING PROGRAM:

X) Implementation Date:

Date: _____

XI) Certification:

I certify that the information provided in this document is to the best of my knowledge, accurate and true, and that the slug control/accidental spill measures described in this document will be implemented as described.

An Authorized Representative of the company whom is responsible for the Slug Control/Spill Prevention Plan, please sign below:

Name (Print)

Signature

Title

Date

