

# METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

## Elements of a Slug Control Plan

### I. General Information

#### A. Company Name, Address and Telephone Number

#### B. Emergency Contact Personnel

1. Primary Emergency Coordinator
  - a. Name
  - b. Title
  - c. Work Telephone Number
  - d. 24-Hour Emergency Telephone Number
  - e. Employee Email Address

#### C. Description of Business

1. Standard Industrial Classification Code (SIC Code)
2. North American Industry Classification System Code (NAICS Code)
3. Applicable Federal Categorical Pretreatment Standard(s) (40 CFR 403, etc.)
4. Days/Shifts/Hours of Operation
5. Number of Employees
6. Description of Operations
7. Description of Pretreatment Practices

#### D. Discharge Practices

1. Average Daily Discharge (gpd)
2. Chemical Constituents of Discharge
3. Nature of Discharge
  - a. Continuous
    - (1) Daily Discharge Volume
    - (2) Constituents of Discharge
  - b. Batch
    - (1) Frequency of Batch Discharge
    - (2) Volume of Batch Discharge
    - (3) Constituents of Batch Discharge

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### II. Plant Layout/Flow Diagrams

#### A. General Plant Layout

1. Property Boundaries
2. Entrances/Exits
3. Manufacturing Area
4. Loading/Unloading Area
5. Hazardous Material Storage Area
6. Pretreatment Facilities
7. Waste Handling/Storage Area
8. Security or Warning System Signs

#### B. Flow Drainage Diagram

1. Identification and location of all floor drains, drainage pipes and channels and their direction of flow (See Item No. IV, B, 1 for drainage prohibitions)
2. Identification and location of all sanitary sewer manholes including end-of-process, end-of-pipe final discharge points, storm drains, sumps, and storage tanks, as applicable
3. Direction of flow for all sanitary/storm sewers
4. Direction of above ground run-off from:
  - a. Manufacturing Area
  - b. Chemical Storage Area
  - c. Pretreatment Facilities
  - d. Waste Handling Area
  - e. Facility Exterior

### III. Material Inventory

- A. Description and location of stored chemicals, production residues and sludges
- B. Maximum quantity of stored chemicals, production residues and sludge at the facility
- C. Description of storage containers, container attachments and transfer equipment
- D. Chemical compatibility of stored material with storage containers and other materials stored in the immediate vicinity and surrounding environment

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### IV. Spill and Leak Prevention

#### A. Procedures and Equipment to Prevent and Detect Spills

(e.g. holding tanks, pumping equipment, underground seepage protection, cathodic protection of underground tanks, liquid level sensing devices, drip pans, overflow alarms, pH excursion alarms, ORP alarms, collision protection structures, explosion and fire prevention provisions, etc.)

#### B. Equipment to Contain Spills - Drainage and Secondary Containment (Absolute Requirements)

1. No floor drains or other direct bypass to the sewer system may exist in wet manufacturing areas, wastewater pretreatment areas, or raw chemical/sludge storage areas which in the event of run-off spillage would result in a violation of any criteria of the Sewage and Waste Control Ordinance.
2. Under those situations when floor drains are required by specific building codes or when the elimination of floor drains is not feasible, a detailed explanation of the prohibitive factors along with an acceptable alternative plan to prevent run-off spillage from entering the sewer system must be provided.
3. Adequate secondary containment, such as but not limited to impervious diking, must be provided for all manufacturing, pretreatment operations and raw chemical/sludge storage areas identified by Item No. IV, B, 1.
4. Impervious flooring with no direct drainage to the sewer system must be provided for all secondary containment areas.
5. A minimum secondary containment capacity of 100% of the volume of the largest above ground process tank located in wet manufacturing areas which, in the event of run-off spillage, would result in a violation of any criteria of the Sewage and Waste Control Ordinance must be provided.
6. A minimum secondary containment capacity of 100% of the volume of the largest above ground wastewater pretreatment system process tank which, in the event of run-off spillage, would result in a violation of any criteria of the Sewage and Waste Control Ordinance must be provided.
7. A minimum secondary containment capacity of 100% of the maximum volume of each of the following: (a) stored chemicals, (b) production residues, (c) pretreatment sludge must be provided. Outside storage facilities must be covered to prevent stormwater from entering secondary containment areas.

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8. Supporting documentation pursuant to Item Nos. IV, B, 1 through 7 must be submitted. Said documentation must include written narratives, sketches, and engineering computations on tank sizing, worst-case scenario spill volumes and secondary containment capacities. Further, said documentation must be prepared by a professional engineer registered in the state of Illinois and must certify that the design and capacities of the secondary containment facilities will satisfy District requirements and provide adequate protection to prevent run-off spillage from entering the sewer system or waters under the jurisdiction of the District.

### C. Preventive Maintenance Procedures and Schedules

### D. Inventory of Pretreatment System Spare Parts

(e.g. valves, pumps, gaskets, valve packing material, sensor probes, filters, etc.)

## V. Emergency Response Equipment and Procedures

### A. Emergency Response Equipment

(e.g. alarm and communication systems, sewer plugs, absorbent materials, fire extinguishers, ventilation and breathing equipment, protective clothing, first aid kits, spilled material containers, decontamination equipment, etc.)

### B. Emergency Response Procedures

1. Notification to in-house emergency response coordinator on a 24-hour basis
2. Designated chain of command listing names, titles, telephone numbers and email address for contact on a 24-hour basis
3. Evacuation procedures with a map of evacuation routes and description of signals used to begin and conduct evacuations.
4. Posted listing of spill/emergency response agencies with telephone numbers and applicable notification procedures
5. Procedures for stopping all discharge from your facility from entering the sewer system or waters under the jurisdiction of the District to prevent or mitigate slug discharges  
(e.g. shutting off water supply, shutting off pumps, closing influent/effluent valves, plugging outlets, etc.)
6. Description of site remediation procedures
  - a. Provide general cleanup, treatment and disposal procedures for spilled materials
  - b. If cleanup is contracted to an outside party, list names and phone numbers of all contractors and consultants as well as names and night and daytime telephone numbers of company

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personnel with the authority to commit the company to financial participation in cleanup and remediation

### VI. Spill and Slug Reporting Procedures

- A. Describe procedures for reporting and documenting spills and slug discharges to the sewer system or waters under the jurisdiction of the District
  - 1. Reporting procedures must conform with Article V, Sections 4 and 15 of the Sewage and Waste Control Ordinance of the Metropolitan Water Reclamation District of Greater Chicago
- B. Provide listing of all agencies to be notified in the event of a spill or slug discharge, include telephone numbers
- C. Summary of all reported spills and slug discharges to the sewer system or waters under the jurisdiction of the District and corresponding corrective actions

### VII. Employee Training Program

- A. Outline of employee training program
  - 1. Plant Processes
  - 2. Hazardous material usage
  - 3. Potential safety hazards
  - 4. Practices for preventing spills/slug discharges
  - 5. Procedures for responding to spills/slug discharges
- B. Schedule for employee training
- C. Maintain records on all employee training

### VIII. Slug Control Plan Certification

- A. A professional engineer registered in the state of Illinois must certify that the Slug Control Plan and containment facilities conform to all applicable federal, state and local regulations and will provide adequate protection from spills and slug discharges when used and maintained properly.
- B. An officer of the company must certify that the Slug Control Plan has been fully implemented.

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## Elements of a Slug Control Plan

Permits are required for construction of sewers and sewer facilities within the territorial boundaries of the District, whether such construction is on private or public property. A permit is also required for existing buildings when the use of the building changes to a use for which a permit is required. Any sewer construction, replacement or rehabilitation activity must comply with the District's Watershed Management Ordinance (WMO). A copy of the WMO is available on the District's web site at [www.mwr.org](http://www.mwr.org). Questions regarding the WMO should be directed to the District's Engineering Department at (312) 751-3260.