



# Spill and Slug Plans

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# Purpose of a Spill/Slug Plan

## #1 focus - Prevention

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To reduce the risk of harm to workers, community, environment, and the POTW including the wastewater treatment plant by providing general guidelines for appropriate spill prevention and response measures.



# Similar Plan Names and Acronyms



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**SSCP:** Spill/Slug Control plan

**SPCC:** Spill prevention, control & countermeasure

**SWPPP:** Stormwater Pollution Prevention Plan

**BMP:** Best Management Plan (Practices)



# Regulations regarding a Spill/Slug Plan



**EPA Definition of Slug Discharge:** Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause interference or pass through, or in any other way violate the POTW's ordinances, local limits or permit conditions.

**EPA** 40 CFR 403.8(f)(2)(vi) – Requirement by POTW to evaluate all SIUs for the need of a Spill/Slug Control Plan.

**Regulations:** 40 CFR 403.8(f)(1)(iii)(B)(6) – If determined to be necessary by the POTW, the SIU Permit must have language for the control of Slug Discharges.

40 CFR 403.12(f) – Reporting / Notification requirements for a slug.

40 CFR 403.16 – Upset Provision.

40 CFR 403.17 – Bypass.

**\* MOST STATE AND LOCAL LANGUAGE ARE THE SAME OR VERY SIMILAR**

2005 EPA STREAMLINING RULE - Fact Sheet 8.0: Slug Control Plans

[https://www.epa.gov/system/files/documents/2021-07/pretreatment\\_streamlining\\_8.0.pdf](https://www.epa.gov/system/files/documents/2021-07/pretreatment_streamlining_8.0.pdf)



# SUO Language for Spill/Slugs



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## **Sewer Use Ordinance (SUO) - Prohibited Discharge Standards:**

(a) *General prohibitions.* No user shall contribute or cause to be contributed into POTW, directly or indirectly, any pollutant or wastewater which causes interference or pass through. These general prohibitions apply to all users of a POTW whether or not the user is a significant industrial user or subject to any national, state, or local pretreatment standards or requirements.

(c) *Storage of prohibited wastes.* Pollutants, substances, wastewater, or other wastes prohibited by the *Specific prohibitions* section shall not be processed or stored in such a manner that they could be discharged to the municipal wastewater system. All floor drains located in process or materials storage areas may be required to discharge to the industrial user's pretreatment facility before connecting with the system.

**The SUO includes** Definitions, Permit language requirements regarding plans, Specific plan requirements, and Spill/Slug Notification requirements.



# Permit Language for Spill/Slugs



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## **General conditions in Discharge Permits that may reference slug/spill language:**

- Duty to Mitigate - Prevention of Adverse Impact
- Facilities Operation, By-Pass
- Upset Conditions
- Reports of Changed Conditions
- Reports of Potential Problems – Notification
- Slug/Spill Control Measures



# Spill/Slug Control plan (SSCP) Evaluation

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All SIUs must be evaluated at least once for the need for a slug control plan, then:

- ❑ Conduct follow-up evaluations for facilities not required to develop a slug control plan or take other actions as necessary.
  - SIUs are required to notify the POTW immediately of any changes that can affect the potential for a slug discharge.
- ❑ Inspect each SIU annually to determine the adequacy of and compliance with existing procedures and control measures.

2005 EPA streamline rule removed the required minimum frequency of every 2 years, but some SUOs might still have a minimum frequency listed.



# Spill/Slug Control plan (SSCP)



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**EPA Requirement** - The plan shall contain, at a minimum, the following elements:

- (A) Description of discharge practices, including non-routine batch Discharges;
- (B) Description of stored chemicals;
- (C) Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition under [§ 403.5\(b\)](#) with procedures for follow-up written notification within five days;
- (D) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

**\* LOCAL SUO OR PERMITS MAY INCLUDE MORE REQUIREMENTS**



# Spill/Slug Control plan (SSCP)



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**NC DEQ Guidance**: The plan should include the following elements:

- (A) General Information: Industry name, address, contact(s), and **discharge practices**.
- (B) Facility Layout Diagrams: **General layout** including mapping of manufacturing, storage, transportation, and disposal areas.
- (C) **Material Inventory**: Chemical / trade names, location, volumes, and container types.
- (D) **Spill prevention** equipment, operations, and maintenance procedures: List of equipment to be used and procedures to prevent / cleanup a spill.
- (E) Spill / Slug Reporting: Description of **procedures for notifying** POTW's wastewater treatment plant.
- (F) **Training Program**: Assurances that the plan is implemented by providing for employee training.

<https://www.deq.nc.gov/water-quality/surface-water-protection/percs/permit-writing-guidance/spillslugcontrolplan/download>



# Spill/Slug Control plan (SSCP)



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## ADDITIONAL ITEMS THAT MAY BE APPROPRIATE FOR SSCP:

- ❑ Objectives, scope & applicability
- ❑ Roles and responsibilities
  - Roles linked to positions, not individuals. Contact information for the WWTP is correct.
- ❑ Training schedules and logs for all employees
- ❑ Preventative maintenance measures & record retention
- ❑ Operating and Control measures to prevent contaminants from directly entering the POTW
- ❑ Countermeasures to contain, cleanup, and mitigate the effects of a spill
  - Appropriate secondary containment or diversion structures
- ❑ Facility diagram that include drainage routes
- ❑ Loading and unloading procedures



# SSCP Evaluation



Ensure a plan has the minimum requirements AND other items that are necessary for the protection of workers, community, environment, and the wastewater treatment plant.

Utilize a checklist or other method to evaluate the completeness of a plan.

## Slug & Spill Control Plan (SSCP) Review Checklist

This checklist is a guide used to determine the adequacy of an Industrial User's SSCP. Users vary greatly and it may not require that every item have a checkmark. The reviewer should use best judgment in determining the acceptability of a SSCP.

S = satisfactory, U = unsatisfactory, A = need additional information, N/A= not applicable

Required Items:	S	U	A	N/A
Description of discharge practices, including non-routine batch discharges				
Description/general location of all stored chemicals				
Procedure if spill/slug to sewer system, for immediate notification to your assigned Pretreatment Coordinator or the Pretreatment Supervisor at 704-854-6672. If after hours or weekends 704-214-9144. Must also provide written report within 5 days.				
Procedures to prevent adverse impact from accidental spills that include the following:				
<i>May not be applicable for ALL</i>				
- inspection and maintenance of storage areas (containers/tanks)				
- handling/transferring materials and loading and unloading operations				
- spill containment structures or equipment				
- procedures and equipment for emergency response				
- control of plant site run-off				
- employee training				

Additional information that may be helpful/specifcally required:	S	U	A	N/A
Facility Name, Address, Contacts				
General facility layout or flow diagrams				
Description of all floor drain locations and where they drain				
Chemical/Waste container volumes and types				
PPE needed or decontamination equipment				
Spill and slug assessment procedures				
Spill and slug cleanup and disposal procedures				
Procedure if spill is to storm drain, ground or surface water:				
Notify NC Dept. Water Quality at 704-663-1699				

### General Comments and Follow-up Actions Needed:

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Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_



# SSCP Follow-up



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## Assessment during required SIU inspection

- Ask questions regarding spill prevention measures.
- Inspect chemical, raw materials and waste containers for appropriate storage.
- Identify if/how spilled materials can get into sewer (proximity to floor drains).
- Ensure containment is appropriate if there is potential to get into sewer drains.
- Identify staff that ensures the plan and training is adhered to.
- Explain to user the result of a spill into sewer.

## Other opportunities consider prevention concerns

- Observant during sampling events.
- On the lookout during any other site visit.
- Provide general information in a Newsletter or correspondence during holidays or similar.



# Focuses during Inspection



## Areas and items to check during an SIU inspection

- Containers: Location, type, age & condition
- Labeling, hazard markers
- Spill prevention: Spill kits, palates, double-wall, bollards, socks, shut-off valve
- Transportation method of bulk chemicals
- Accurate SDS's for chemicals
- Proper storage of flammables, oxidizers, etc.
- Trench drains and where they go
- Chemicals stored in a way to prevent leaks and spills from getting into the POTW
- Ways to prevent or divert spills from entering the POTW (valves, EQ, berms)
- Fire sprinklers or suppression foam systems
- Storm runoff system and discharge if it becomes contaminated
- Knowledgeable employees – training or signs





# THANK YOU, QUESTIONS??

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