



Title	ES-301-2.05 Cleaning/Washing – Indoor Industrial Surfaces
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1) Activity Description:

The cleaning and washing of indoor industrial surfaces (e.g., floors, walls) in places such as maintenance areas, etc., and management of materials associated with the activity, including proper storage, handling, and disposal. Wastewater pretreatment regulations prohibit discharges from Heating, Ventilation, and Air-conditioning systems that contain molybdenum. In addition, these regulations limit discharges containing pH of less than 5 or greater than 9.

2) Potential Environmental Risks

- A. The following environmental concerns are associated with these activities:
 - i) Improper or inappropriate disposal of cleaning/washing fluids.
 - ii) Odors
 - iii) Improper or inappropriate discharge of contaminants in washing/cleaning fluids.

- B. Potential consequences from performing the activity incorrectly:
 - i) Property damage, personal injury or damage to the environment
 - ii) Noncompliance, Notices of Violation from Regulators, and related [financial & non-financial] penalties

3) Critical Operating Requirements

- A. Prohibited Activities
 - i) Discharge of cleaning/washing water from indoor industrial surfaces to the stormwater system is prohibited. These discharges must go to the sanitary sewer, after going through a pretreatment device whenever possible.
 - ii) Do not wash any solids/greases/oils/etc. into any drain. Cleanup all spills before discharging any wash water into the sanitary. The floor and sink drains typically discharge to a wastewater pretreatment device, avoid discharges of chemicals and excessive solids, oils, and grease, etc. to this system. (Not all pretreatment systems are intended to collect these types of contaminants; they may bypass or pass through the pretreatment systems.)
 - iii) Disposal of hazardous waste or special waste in the municipal solid waste dumpsters, see ES-301-6.04 Management of Hazardous Waste or ES-301-6.06 Management of Special Waste.

- B. General Considerations
 - i) Each operator and tenant conducting cleaning/washing activities is responsible for understanding the applicable regulations and managing their activities accordingly; this Environmental Guideline is meant as guidance only and does not supersede any regulations.
 - ii) Ensure proper disposal of materials generated.

- C. Training Requirements
 - i) All employees engaged in cleaning activities must be aware of the proper techniques, requirements, and pollution prevention aspects of washing/cleaning of indoor industrial areas.

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- D. Storage and Materials Management Requirements
 - i) Store chemicals and other cleaning products in appropriate containers in good condition (i.e. original containers that are labeled and don't pose risk to leakage) and utilize secondary containment when appropriate.
 - o For proper storage techniques of petroleum products, refer to ES-301-1.07 Storage of Vehicles and Equipment Containing Chemicals

4) Planning Requirements

- A. Use only cleaning solutions that comply with Metro Wastewater Reclamation District and Denver Wastewater regulations. Contact DEN Environmental Services for confirmation. If practicable, environmentally friendly cleaning products are encouraged. See ES-310-2.06 Maintenance- Janitorial "Request For Change or Addition of Chemical"
- B. Maintain adequate supplies of spill response equipment and materials in locations where spills are likely to occur.
- C. A dry method of cleaning floors is preferred (e.g., vacuuming or sweeping) and should always be used prior to any wet methods.
- D. Confirm that the drains connect to the sanitary sewer system prior to allowing the discharge.
- E. Fluids generated in the cleaning and washing of indoor industrial surfaces should drain into a pretreatment device (such as an oil/water separator and/or sand filter), or be collected for transfer to a pretreatment device, prior to discharge to the sanitary sewer system.
- F. Good housekeeping procedures should be followed to keep the washing area clean and free of debris.

5) Critical Tasks

- A. In the event that granular absorbent is used to remove bulk liquid materials from floor prior to cleaning. Remove all other residue using vacuum or sweeping methods before cleaning with liquids. Dispose of granular absorbents, based on what liquid is being absorbed, in accordance with all federal, state and local regulations.
 - i) Reference ES-301-6.04 and ES-301-6.06 Management of Hazardous Waste and Special Waste respectively, if applicable.

6) Emergency Response

- A. If a spill occurs, refer to Environmental Guideline ES-301-5.02 Spill Response.
 - i) Call DEN Communications Center immediately at 303-342-4200 for all spills.
- B. Control spills to minimize property damage and eliminate imminent risk to human health and the environment.
- C. Spills of any kind shall not be washed into any sewer or waterway, or onto any soils.

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- D. Containerize all collected wastes and evaluate for labeling, storage, and disposal. It is the generators responsibility to characterize the waste, and then dispose in accordance with all federal, state and local regulations.

7) Inspection and Maintenance Requirements

- A. Pretreatment devices and sumps should be included in a routine inspection and maintenance program.
 - i) Reference ES-301-2.07 Maintenance of Pretreatment Devices

8) Expected Records and Outputs

- A. Waste management records (profiles, manifests, sample results, etc.)
 - i) Based on the disposal profile, manifests and related forms may be required. Manifests & profile forms can be obtained from the disposal facility for off-site disposal activities (manifests **are required** for hazardous, special and universal waste).
 - ii) Operator must maintain waste management records at the facility for a minimum of 3 years.
- B. Evidence of training
 - i) While formal certifications are not always necessary, some “proof of training” (such as sign-in sheets and handouts) is expected and should be maintained on file by the operator.

9) References

- A. Phone Numbers
 - i) DEN Communications Center (for spill reporting) (303) 342-4200
 - ii) Craig Schillinger (DEN Environmental Services) (303) 342-2834
 - iii) Keith Pass (DEN Environmental Services) (303) 342-268
- B. Guidance Materials (list is not limited to the following)
 - i) Metro Wastewater Contribution Permit
 - ii) Building and site drainage design [as-built drawings]
- C. Training Materials (list is not limited to the following)
 - i) Operational procedures training (including On-the-Job)
- D. Related Environmental Documents (list is not limited to the following)
 - i) ES-301-1.07 Storage of Vehicles and Equipment Containing Chemicals
 - ii) ES-301-5.02 Spill Response
 - iii) ES-301-6.01 General Waste Management
 - iv) ES-301-2.06 Maintenance - Janitorial
- E. Applicable Regulations (list is not limited to the following)
 - i) 40 CFR 110.3 Discharge of Oil
 - ii) 40 CFR 117.3 Determination of Reportable Quantities for a Hazardous Substance

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- iii) 40 CFR 122-124 NPDES Regulations for Storm Water Discharges
- iv) 40 CFR 401 Effluent Limitation Guidelines
- v) Denver Wastewater Management Division rules & Regulations
- vi) Metro Wastewater Reclamation District Rules and Regulations
- vii) DEN Rules and Regulations

F. Other Documents (list is not limited to the following)

- i) N/A