



Storm Water Pollution Prevention Training





What is Storm Water?

- Storm water is water flowing over the land during and immediately after a rain storm.

- Storm water does not flow into a wastewater treatment system, it flows into our surface waters

Storm water systems consist of gutters, storm drains, underground pipes, open channels, culverts, and creeks.

- What we do on the land affects the water quality and the habitat of our creeks and rivers. It also affects our quality of life, our fisheries, and our recreation.

A vertical strip on the left side of the slide shows a topographic map of a river valley. The map features contour lines, a river channel, and various land use patterns. The background of the entire slide is a light blue gradient with faint, white contour lines.

Why do we have to do something to improve our storm water discharges?

- In 1972, Congress passed the Clean Water Act and focused on point source pollution discharges to surface waters. Most point sources have been eliminated, others are permitted.
- In 1990, the EPA began the National Pollutant Discharge Elimination System (NPDES) Permitting process to address non-point sources of pollution.
- Industries have to have an NPDES Permit for their storm water discharges. The permit requires that industrial facilities have a Storm Water Pollution Prevention Plan (SWPPP), observe their discharges (some also have to sample) and work to implement Best Management Practices (BMPs) to minimize pollutants from leaving their facility.

What is the goal of training employees about storm water?

To emphasize the importance of being **AWARE** of and **ALERT** to conditions that could result in the discharge of pollutants to storm water!

To improve communication employees and supervisors.



Employee training and improved communication could have helped here:



Why is this a storm water problem?



What's wrong here?



...and here...



What needs to happen here?



...and what has already happened?

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TRAINING TOPICS

- Vehicle Washing and Fueling
- Fuel and Chemical Storage Activities
- Sand/Soil Piles
- Vehicle Parking Lots
- Waste Containers and Drum Management
- Outdoor Storage
- Good Housekeeping
- Preventive Maintenance
- Spill Prevention and Response



Non-storm water discharges should go to sanitary sewer only!



This means no washing vehicles outside!



Fuel and Chemical Storage Activities





Fuel and Chemical Transfer Activities

- Consider how fuels and chemicals are transferred day to day to the fleet
- Evaluate and institute transfer procedures for fuels and chemicals
- Report Spills
- Clean Up Spills

What BMPs would have helped prevent the pollution leaving this site?



Cover sand and soil piles to prevent pollution!!



Drums must be sealed
with covers and bungs



And preferably inside a secondary containment area!!

Waste products must be stored in covered drums and staged in an assigned area with secondary containment.



Outdoor Storage Areas



ANYTHING STORED OUTSIDE MUST BE FREE OF CHEMICAL RESIDUES, PROPERLY CONTAINED, AND WE SHOULD TO CONSIDER WHY WE ARE KEEPING IT, FIGURE OUT HOW TO DISPOSE OF IT OR PROPERLY STORE IT.

Good Housekeeping Prevents Pollution



Minimize exposure, inspect/report, cleanup spills and leaks promptly

Absorbent material placed on a spill...



...will end up at the outfall if not swept up!



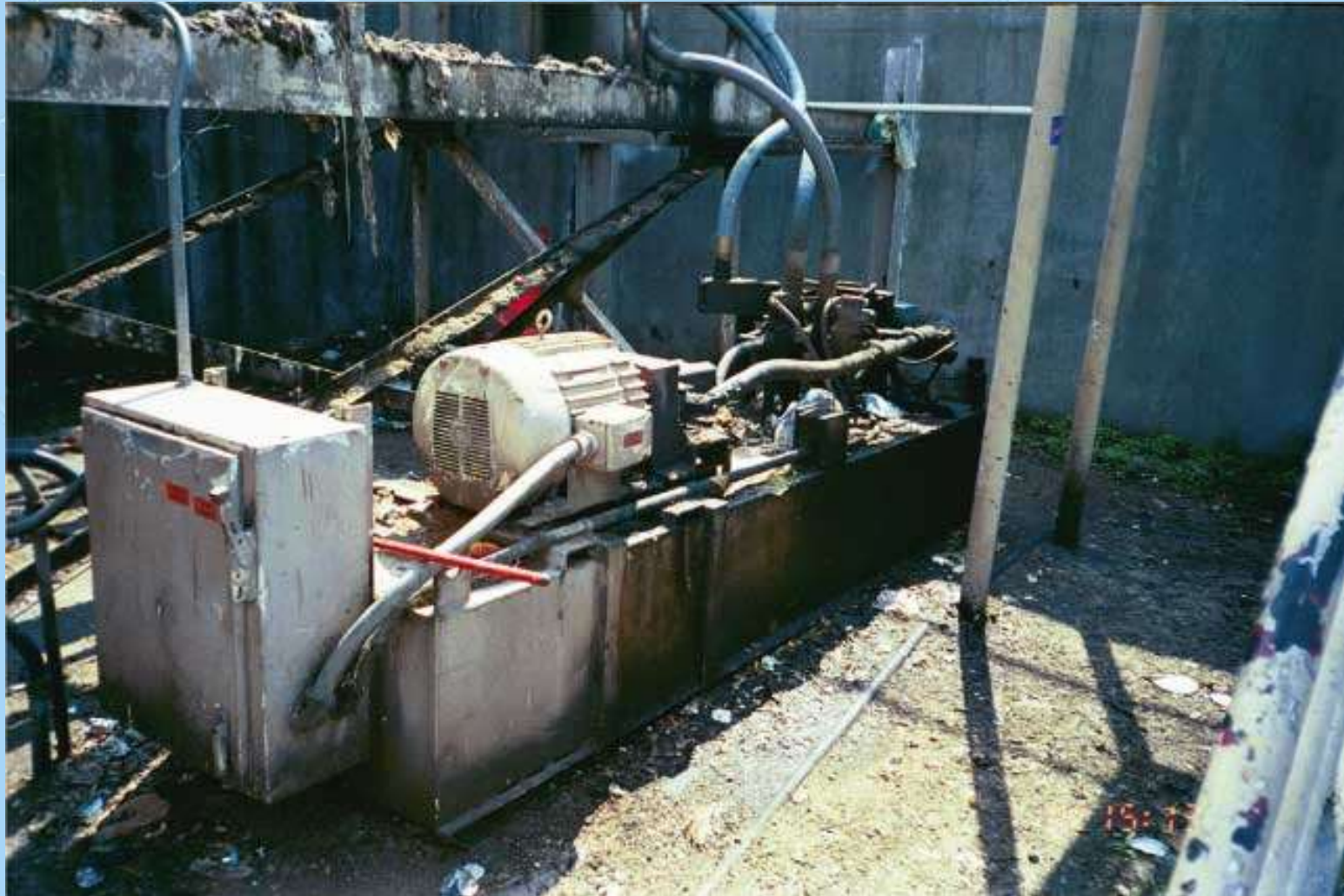
Good Housekeeping Inside Buildings to Prevent Pollution

- Make sure that there are no discharges from the building to storm water through doorways or other pathways
- Make sure that spill response equipment is readily available throughout building to contain leaks and spills
- Clean the floors and do not allow the wash water to discharge outside
- Have a comprehensive chemical storage and management plan, specify co-located areas and accumulation amounts for vendor pick-ups

Vehicle Storage Areas Must Be Properly Cleaned To Prevent Pollution



What needs to happen here?



A vertical strip on the left side of the slide shows a topographic map of a coastline. It features brown contour lines indicating elevation, a yellow line representing a road or path, and a blue area representing the ocean. The map is partially cut off on the left edge.

Preventive Maintenance

- Daily inspections of equipment and storage
- Regular maintenance of equipment
- Routine sediment/debris removal and surface cleaning of storm water management devices such as:
 - oil-water separators, ponds, inlets, ditches, & secondary containment of fuel farm

Different types of outfalls...



...all require
maintenance and
cleaning



Leaking vehicles/equipment stored outside should be drained, and absorbent materials placed to capture releases

A vertical strip on the left side of the slide shows a topographic map of a coastline. It features contour lines, a yellow line representing a road or path, and a yellow 'X' marking a specific location. The map is partially obscured by the blue background of the slide.

Spill Response

- Clean all small fuel spills and leaks, and to report significant fuel spills or leaks to management immediately!
- REMEMBER SPILLS ARE CAUSED, THEY DO NOT JUST HAPPEN!!

Spill Prevention and Response

1. Notify a Supervisor, Chief Engineer or Lead
2. Contain
2. Locate and Stop the Source
3. Clean Up
4. Dispose of Properly
5. Follow Up:
 - Implement changes, if needed
 - Replace spill response equipment used



Again, sweep up the spill absorbent materials!

QUESTIONS

