

WHAT ARE PRESSURE WASHERS AND STEAM CLEANERS?

Pressure washers and steam cleaners are units that spray unheated and/or heated high-pressure water at low volumes (less than 5 gallons per minute). Pressure washers and steam cleaners are used at Freeport-McMoRan Morenci Inc (Morenci) to wash vehicles, equipment, parts, floors etc.

WHY DO WE HAVE TO MANAGE PRESSURE WASHERS AND STEAM CLEANERS?

The Aquifer Protection Permit (APP) Program regulates pressure washers and steam cleaners that are used to wash vehicles and/or equipment. The improper management of these washers could lead to an unpermitted discharge to surface or groundwater. In order to prevent unpermitted discharges to surface or groundwater, facilities must be designed to meet the Best Available Demonstrated Control Technology (BADCT) and must be included in the Freeport-McMoRan Morenci Inc APP permit. Additionally, washing parts contaminated with grease, oil and other hazardous chemicals at un-permitted locations may result in improper disposal of those materials by leaving the residues on the ground.

WHERE CAN I USE PRESSURE WASHERS AND STEAM CLEANERS AND WHAT IS PERMITTED TO BE WASHED?

Established Washracks

All **vehicles and mobile equipment** must be washed at one of the following APP permitted or exempt vehicle washracks:

- RW Garage Washrack (exempt)
- Locomotive Shop Washrack (exempt)
- RW Machine Shop Washrack (exempt)
- RW Fuel Dock Washrack (APP Facility No. 105 - Upper Reduction Works Vehicle Wash)
- Small Mine Washrack (APP Facility No. 102 - Metcalf Mine Shop Vehicle Wash)
- Large Mine Washrack (Truck shop washrack and Shovel and Drill Washrack; APP Facility No. 103 - Metcalf Truck Wash)
- Mine Carpool Washrack (APP Facility No. 107 - Morenci Lube Shop Vehicle Wash)
- SW Energy Washrack (exempt)
- Concentrator Washrack

Under no circumstances should vehicles or mobile equipment be washed in any areas other than the permitted washracks listed above without prior approval from Environmental Services.

Other Pressure Washers and Steam Cleaners

Morenci uses many pressure washers and steam cleaners for various cleaning activities at the branch.

Washing activities that are permitted without special requirements include:

- Washing dirt and mud off a piece of equipment (excluding vehicles) prior to it being worked on.
- Washing tankhouse and tankfarm floors where all solution reports directly to the SX/EW process.
- Cathode and anode washing in the tankhouses
- Washing dirt and mud from building floors and structure where no free liquid other than water are present.
- Washing of insulators on power lines.
- Washing of fuel docks located in the mine where wash water is immediately evacuated from containment following the wash event and deposited into the heavy duty truck shop wash water collection facility; and
- Other activities approved by Environmental Services.

Washing activities that are not permitted at the wash racks include:

- Washing any material other than dirt and mud from equipment to include but not limited to:
 - Concentrate
 - Raffinate
 - Pregnant Leach Solution
 - Electrolyte
 - Lime
 - Chemicals including Hazardous

WHAT ABOUT ITEMS CONTAMINATED WITH OILS, GREASE AND/OR PROCESS RESIDUES THAT ARE TOO LARGE TO TAKE TO A WASHRACK OR JUST CAN'T BE MOVED BECAUSE THEY ARE PERMANENTLY INSTALLED?

Prior to washing a piece of equipment covered in oil and grease, it must be scraped and wiped to remove the bulk of the contaminated materials. Washing grease and oil from equipment that is too large for a permitted washrack must be conducted in a manner so as to prevent any oil and grease from contaminating the soil or surface or groundwater. This can be accomplished by placing absorbent pads designed to shed water and absorb petroleum products beneath the piece of equipment to be washed. Alternatively plastic sheeting can be placed beneath the piece of equipment to be washed. The equipment should be washed in a manner so that all contaminants land on the absorbent pad or plastic sheeting. All contaminated materials must be managed and disposed of according the procedures outlined in **BMP No. 308 – Used Grease**, **BMP No. 316 – Used Absorbents and Rags**, and **BMP No. 323 – Contaminated Soils**.

CAN I USE SOAPS OR OTHER CLEANING AGENTS IN THE PRESSURE WASHERS AND STEAM CLEANERS?

All cleaning agents used in either steam cleaners or pressure washers must be non-hazardous (i.e. biodegradable). For a list of approved cleaning agents refer to the Morenci SDS Database or contact Environmental Services.

WHAT DO I DO WHEN I NEED TO CLEAN OUT THE SUMP?

- Contact Environmental Services prior to cleaning out any wash rack sump.
- Environmental Services must characterize the mud and residues prior to removing from the sump.
- Once characterization has been determined, Environmental Services will provide requesting department with guidance on how to manage the mud and residues.

WHAT IF I NEED A PERMANENT WASH FACILITY AT MY SHOP?

Contact Environmental Services for guidance on the construction and maintenance of permitted wash facilities. Additionally, Plant Engineering must be involved in the design and construction of all permanent wash facilities.

EMPLOYEE TRAINING

All personnel shall receive training or at the least have access to this BMP when dealing with pressure washers and steam cleaners on Morenci property.

The Supervisor and/or Department Environmental Representative must provide this training.

QUESTIONS OR NEED HELP? CONTACT:

Plant Engineering Division Representatives

Enviro Representatives Phone Extensions: Brian Chronowski (water) 865-6257

Enviro Representatives Cell Phones: Brian Chronowski (water) 965-0235

Environmental Services Office: 865-6000