

Floor Drain Best Management Practices



Shop Floor Drains

Most shops on JBER have floor drains to transport wash water and incidental water (rain or snow melt) out of shop so workers can operate in a safe and clean environment. Shops with higher potential for spills and drips may have an oil/water separator (OWS) connected to the floor drains as an added precaution.

All shops with floor drains shall be operated according to the best management practices (BMP) listed here, regardless if they have an OWS. Some specialty shops may have additional BMPs to follow specific to their shop.

JBER
ENVIRONMENTAL

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BMPs

1. Store dry or liquid chemicals, hazardous materials and hazardous waste only at approved locations.
2. Chemicals containers used in wash bays should be capped when not in use to prevent spills and minimize evaporation of chemicals. If bulk container has a dispenser pump the container should be strapped to the wall to prevent spills.
3. Use dry cleanup (Oil Dri or absorbent pads) on spills as soon as possible.
4. Practice spill prevention periodically to familiarize staff with equipment and floor drain shut off mechanisms (if applicable).
5. Place labeled drip pans or containment device under all drips and leaks.
6. Drain fluids into pans or containment devices and dispose of fluid into properly labeled containers (i.e. used oil or off spec fuel)
7. Sweep up large debris and material to prevent it from being tracked around the shop and clogging drains.
8. Clean floors with garden hose or pressure washer water, brush and squeegee. If a cleaner is needed for spot cleaning use only JBER approved cleaners.
9. Use high pressure low volume hot wash water whenever possible to get things cleaner with less water. If a cleaner is needed use only JBER approved cleaners at the recommended concentration (see flip side).
10. Only wash equipment over drains that can handle the material removed and only wash oily/greasy equipment over drains connected to an OWS.
11. If your OWS is being used and has not had an inspection by a service contractor in more than four months please call the Wastewater Compliance Manager or service contractors listed on the inspection sheet or log book.
12. If your OWS alarm goes off or has a problem please call the service contractor listed on the OWS or inspection sheet so the OWS can be fixed.
13. If fluids other than wash water and storm water enter the floor drains call 911. Depending on the size and type of discharge or spill, the sewer system operator may have to be notified.

Facts

- Dumping oil, fuel, solvents and chemicals down the drain is illegal and can cost JBER in fines and additional monitoring and disposal costs.
- Mixing hazardous waste with other wastes can more than double the cost of waste disposal.
- Using hot water (120° to 140° F) for rinsing is much more efficient and is known to reduce man-hours by approximately 20%. (TO 1-1-691)
- Using high pressure hot water where possible can decrease cleaner use by 80% (DOD OWS Guidance)
- Using cleaners at the recommended dilution ratio cleans better and saves time and money. Using cleaners at a concentration higher than recommended does not clean any better and is wasteful. In fact, if too much cleaner is used, the solution merely forms a slippery film, preventing the washing pad from loosening the grime and making cleaning and rinsing more difficult. (TO 1-1-691)

JBER APPROVED CLEANERS—Contact Program Manager if a product is not listed that you would like to use or are required to use (i.e., TO)

The cleaners listed below are approved to be used in JBER shops where the wash water is discharged to the drain. These cleaners are for use on equipment that does not have a Technical Order (TO) specifying the specific cleaner or military preference, unless the cleaner meets the order or preference. All the cleaners below can be purchased through HAZMART or the GSA store.

Name	Description of quick release cleaner
Multipurpose	
Envirogard-1 by Hotsy *	A quick-release detergent for use with Recycle Systems. This phosphate-free, biodegradable liquid contains a new generation of surfactants that are readily destroyed by chlorine or bleach, thereby preventing residual build-up. Oils and greases are rapidly released, maximizing oil-water separation.
K-CHEM 500 PLUS by K-chem	It effectively removes tough soils such as oil, grease and grime by temporarily emulsifying them, then rinses quickly and completely. Enhances removal of oil and grease and promotes separation of the oil and water with subsequent treatment in a containment vessel. Materials can be rinsed free leaving no alkaline residue even in very hard water.
Green Oger by GMS Industrial Supply	Environmental friendly super duty degreaser with non-ionic surfactant designed as a quick release detergent.
Vehicle wash	
Environ by Landa*	Environ is ideal for cars, trucks, machinery, exterior walls, heavy equipment, RVs, drilling rigs, mining equipment, buses, and other equipment. Ideal for use with water recycling systems or oil-water separator.
Split Vehicle Wash by Zep	A heavy-duty truck and trailer wash with unique detergents that effectively remove soils from surfaces, then releases them from the water into an oil/water separation system prior to discharge or water reuse.
Red Split by Zep	A premium car and truck wash designed for efficient use in brush, pressure spray, and manual applications. Composed of detergents, soil emulsifiers, wetting agents, water softeners, and alkaline builders to enhance compatibility with oil/water separators. Rinses completely with no streaking.
Degreaser	
MA 102 by Jad Chemical*	QPL TO MIL-C-85570-B, TYPE II, no VOC, biodegradable, non ods, non-photochemically reactive, the new cleaner setting high standards to be measured by. It has been designed to break rapidly and completely, leaving clean oil free water for wastewater treatment/recycling units for quick release, not to emulsify oil.
Formula P-98 By Veteran	MIL-D-16791, concentrated water soluble oil stripper that was formulated to clean equipment, bilges, trucks, buses, ships, fuel storage tanks, barges, lines and spills. It strips grease, heavy fuel oils, and fractions from hard surfaces and frees them to float to the surface for easy collection by skimmers, filters, coalescers, or simple gravity separation.
Split Equipment Cleaner by Zep	Recommended for oil water separators; a liquid detergent formulated for use through pressure washers to clean industrial equipment, engines and construction equipment.
CleanSafe X278 by Cleansafe	A super-concentrated product designed for general parts and equipment cleaning and degreasing. Contains no solvents, terpenes, d-limonene, caustics or acid and is biodegradable.
Military Aircraft Cleaners	
CEE-BEE R-681 by McGean	MIL-PRF-85570D, Type I(QPL). A cleaner for military aircraft. Dilutable with water.

Please help JBER save money by maintaining clean and safe shops by following the guidance of this document. If you have any questions or concerns about this guidance or would like to make a recommendation please email the Wastewater Compliance Manager,

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