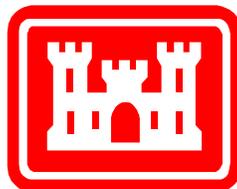


PUBLIC WORKS TECHNICAL BULLETIN 200-01-13
31 MARCH 2001

**SOURCE INFORMATION FOR PETROLEUM,
OIL, AND LUBRICANT (POL) SPILL
CONTAINMENT AND CLEANUP MATERIALS**



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SOURCE INFORMATION FOR PETROLEUM, OIL, AND
LUBRICANT (POL) SPILL CONTAINMENT AND
CLEANUP MATERIALS

1. Purpose. The purpose of this Public Works Technical Bulletin (PWTB) is to provide easy access to U.S. Environmental Protection Agency (USEPA) oil spill regulations and to provide information on items that might be included in oil spill cleanup kits for use in Army POL storage areas.
2. Applicability. This PWTB applies to all U.S. Army facilities engineering activities.
3. References.
 - a. AR 200-1, Environmental Protection and Enhancement
 - b. 40 CFR Part 109, "Criteria for State, Local and Regional Oil Removal Contingency Plans."
 - c. 40 CFR Part 110, "Discharge of Oil."
 - d. 40 CFR Part 112, "Oil Spill Prevention & Response."
 - e. Environmental Protection Agency, "Oil Spill Program"
4. Discussion.
 - a. AR 200-1, paragraphs 4-2 and 4-3, contains policy for Army military and civil works activities that handle, use, or store hazardous material. It requires activities to apply best management practices throughout the life cycle of procurement, production, use, handling, storage, and disposition of hazardous materials.
 - b. 40 CFR Part 109, "Criteria for State, Local and Regional Oil Removal Contingency Plans," establishes minimum criteria for the development and implementation of state, local and regional oil removal contingency plans.
 - c. 40 CFR Part 110, "Discharge of Oil," defines and prohibits discharges of "harmful" quantities of oil, as required by section 311 (b)(3;4) of the CWA.
 - d. 40 CFR Part 112, "Oil Spill Prevention." This part establishes procedures, methods, and equipment and other requirements for equipment to prevent the discharge of oil from nontransportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

e. EPA's Oil Spill Program.

i. The EPA Oil Spill Program is a website that contains the following elements:

- Overview
- Reporting spills
- Preventing spills
- Preparing for spills
- Responding to spills
- Laws and regulations
- Publications
- Regional pages
- Learning center
- SPCC guides and survey
- Oil-related websites

ii. It also has links to information on:

- Freshwater Spills Symposium 2000
- NCP product, schedule and notebook
- What's new
- Y2K

f. All Army facilities that store and dispense oil and waste oil are required to comply with the applicable parts of 40 CFR 112, Oil Spill Prevention. Also, all Army facilities that store oil in quantities exceeding the thresholds defined in 40 CFR 112 are required to prepare a Spill Prevention Control and Countermeasure (SPCC) Plan.

g. However, an analyses done by the Construction Engineering Research Laboratory (CERL) of Army Environmental Compliance Assessment System (ECAS) data for the Active Army for FY 1994 through FY 1997 (8,387 findings) found that a primary area of environmental noncompliance for the Army was POL storage areas had access to inadequate (or no) spill containment and cleanup materials. This has been shown to be a repeat finding.

h. This PWTB is meant to provide Army environmental personnel with information about the equipment, materials, and technology needed to address this problem.

i. This document is intended for the user with access to a personal computer (PC) with an Internet connection so that the background USEPA documents on oil spills can be accessed.

j. Appendix A to this PWTB lists relevant electronic sources (URLs) for web sites with detailed information on Oil Spill Prevention & Response, and the SPCC Plan Rule of the Clean Water Act.

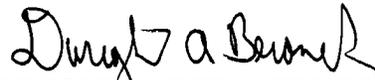
k. Appendix B outlines required materials and general procedures for dealing with spills.

l. Appendix C lists Internet URLs for selected commercial vendors of Spill Cleanup Kits.

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5. Points of Contact. HQUSACE is the proponent for this document. The POC at HQUSACE is Bob Fenlason, CEMP-RI, (202)761-8801206, or e-mail: bob.w.fenlason@usace.army.mil. Questions and/or comments regarding this subject should be directed to the technical POC: U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory, at 1(800) USA-CERL, for Mr. Bernard Donahue (e-mail: bernard.a.donahue@erdc.usace.army.mil).

FOR THE COMMANDER :



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Appendix A
Internet URLs to Sites Related to Spill Prevention,
and SPCC Plan Rule of the Clean Water Act

1. Oil Spill Prevention & Response.
 - a. History of Oil Spill Prevention & Response.
<http://www.epa.gov/region09/waste/sfund/oilpp/history.html>
 - b. Facility Response Plan (FRP).
<http://www.epa.gov/region09/waste/sfund/oilpp/frp.html>
 - c. Oil Spill Training. <http://www.epa.gov/oilspill/oiltrain.htm>
2. 40 CFR Part 112 Oil Spill Prevention
 - a. Sec.112.1 General applicability.
<http://www.epa.gov/region09/waste/sfund/oilpp/spcc/1121.html>
 - b. Sec.112.2 Definitions.
<http://www.epa.gov/region09/waste/sfund/oilpp/spcc/1122.html>
 - c. Sec.112.3 Requirements.
<http://www.epa.gov/region09/waste/sfund/oilpp/spcc/1123.html>
 - d. Sec.112.4 Amendments to SPCC by RA.
<http://www.epa.gov/region09/waste/sfund/oilpp/spcc/1124.html>
 - e. Sec.112.5 Amendments by Owners or Operators.
<http://www.epa.gov/region09/waste/sfund/oilpp/spcc/1125.html>
 - f. Sec.112.7 Guidelines for SPCC.
<http://www.epa.gov/region09/waste/sfund/oilpp/spcc/1127.html>
 - g. What to Expect During an SPCC Inspection.
<http://www.epa.gov/region09/waste/sfund/oilpp/inspect.html>
3. EPA Oil Spill Program.
<http://www.epa.gov/oilspill/index.htm>

Appendix B Dealing With Spills

1. General.

a. All equipment identified in a response plan must be designed to operate in the conditions expected at the facility's geographic area (i.e., operating environment). These conditions vary widely based on location and season. Therefore, it is difficult to identify a single stockpile of response equipment that will function effectively in each geographic location. Likewise it is difficult to identify the conditions that exist at each oil use/storage activity. It makes a big difference in cleanup procedures if the oil is spilled on soil or pavement or if it goes down a drain. The cleanup materials and disposal methods will be different for each type of substrate. It is important that the spill be contained and stopped and prevented from entering any drainage systems that may exist in the area.

b. It is critical that the existing SPCC plan(s) include a standing equipment inventory that is subject to periodic inspection and replenishment. This requirement could easily be addressed in the annual refresher/training required by 40 CFR Part 112.7(e)(10).

2. Small Spills.

a. At Army installations, the greatest potential for spills, leaks and drips comes from portable containers located throughout vehicle maintenance facilities. Hydrocarbon contamination caused by spills, leaks, and drips can often be avoided through simple housekeeping and maintenance programs and pollution prevention initiatives. Despite an installation's best prevention efforts, unfortunately accidents and human error still occur. Coordinated planning by installations and the local and Federal governments can help to minimize adverse effects on the environment, wildlife and communities impacted by a spill.

b. Spill cleanup is always a task that must be accomplished immediately after a spill has occurred to avoid infiltration and migration of the spilled material. Spill kits for cleaning up small spills likely to occur at Army motor pools should be assembled ahead of time and located where spills are likely to occur. Each spill incident is unique. The site-specific conditions that exist will dictate the cleanup procedures one must use.

c. Fort Campbell has done considerable research on the types of materials and items that should be in a spill kit for use by soldiers in a field environment. Table A-1 lists the items included in the Fort Campbell oil spill kit. The costs and quantities of items in this kit are site specific for Fort Campbell.

Table B-1. Equipment List and Equipment Prices for Oil Spill Kit for Small Spills.

Item	Price	Qty/ 30gal kit	Qty/ 55gal kit
Shovel, non-sparking	\$36.50	N/A	1
Gloves, rubber	\$1.99	3	3
Drum, 30 gal	\$35.00	1	N/A
Goggles, splash proof	\$2.15	2	3
Spill label, 3x5in	\$0.75	1	2
Spill label, 3x12in	\$1.50	2	2
Absorbent, peat (16lb bag)	\$20.57	1	2
Absorbent socks, 2x10in, (peat based)	\$11.28	3	6
Disposal bags	\$0.27	5	10
Absorbent pads (petroleum products only)	\$0.14	25	100
Dust pan	\$1.97	1	N/A
Total Price Per Kit (at Fort Campbell)		\$108.25	\$178.94
Note: Although the Fort Campbell spill kit does not include it, a simple impervious drain stopper (pad or plug) should be part of any oil spill cleanup kit.			

3. Larger spills.

a. Spills involving large mobile tanks on skids, trailers and trucks used on site would need most of the items in Table A-1 plus many of the following items:

- (1) 1,000-gal port-a-tank
- (2) Fuel pump or vacuum to collect liquid product
- (3) Hatch-cone kit
- (4) Hose and connectors
- (5) Sorbent booms (at least 200 ft)
- (6) Sweeps (one roll)
- (7) Pads (five bales)
- (8) Shovels
- (9) Rakes.

b. Spills entering waterways or spills likely to enter waterways are a much more serious matter. They require much more

equipment and expertise to be managed effectively and frequently require a contractor specializing in this sort of operation. Spill response equipment for watercourse spills or spills likely to enter watercourses could include the following:

- (1) River boom (100 ft)
- (2) Sorbent boom (4-in. diameter x 200 ft)
- (3) Wringer for pads with open top drum
- (4) Re-bar (12 stakes)
- (5) Rope (1/4-in. diameter x 300 ft)
- (6) Rope (1-in. diameter x 150 ft)
- (7) Long handled rakes
- (8) Two 55-gal drums with lids
- (9) River boat, skiff, or other available vessel
- (10) Life jackets for people working on boats
- (11) Insulated neoprene boots for shoreline work
- (12) Flex pipe (for under-drain weirs)
- (13) 20 empty sand bags
- (14) 3 culvert pipes (8-in. diameter x 12 ft)

c. Supplemental equipment. General equipment that may be needed for the containment and cleanup of any size spill is as follows:

- (1) Explosive gas meter
- (2) Drill
- (3) Bullhorn
- (4) Rain gear
- (5) Hard hats
- (6) Sledgehammer
- (7) Axe
- (8) Fire extinguisher ABC
- (9) Tool kit
- (10) Tie wire
- (11) Wrecking bar
- (12) First aid kits
- (13) Chain saw
- (14) Rubber boots.
- (15) "Drum Ring" wrench
- (16) Visqueen

4. Oil spill cleanup is a dirty and hazardous business. There is no standard way to clean up an oil spill. One should begin cleaning up a spill after the source of the spill is located and stopped. All drains should then be blocked before the actual cleanup begins. The usual method of cleaning up a small spill is to absorb the spilled oil into some medium so that it is stabilized and can be handled as a semi-solid. Oil spill cleanup procedures are quite simple, but not always the same. (no single "standard" procedure will cover all cases. However, a general, logical sequence of step is as follows:

a. Immediately stop the source of the spill. Do whatever it takes at the point of the leakage to stop the flow of oil.

b. Put on safety goggles and gloves. Safety equipment is very important for your own protection.

c. Prevent the spill from going down any drains. Use drain pads or plugs from the spill cleanup kit.

d. Vacuum or pump the spilled oil if there is too much to be absorbed by the materials in your cleanup kit. Be sure to:

- (1) Use spark free liquid vacuum or pump.
- (2) Transfer oil into drum.
- (3) Label drum.

e. Absorb spilled oil that can not be vacuumed up. When using sorbents:

(1) Use loose peat or absorbent pads or socks as appropriate.

(2) Use shovel or dust pan to transfer material into bags.

(3) Put bags into drum.

(4) Label drum.

f. Dig up absorbed oil and oil-contaminated soil. To excavate:

- (1) Use shovel or dustpan.
- (2) Put material into bags.
- (3) Put bags into drum.
- (4) Label drum.
- (5) Arrange for proper disposal.
- (6) Replace contaminated soil.

g. Decontaminate hardstand by cleaning it with detergent. Collect wash water and arrange for proper disposal.

h. Analyze the situation that caused the oil spill to occur in the first place and take measures to prevent future spills.

4. Spill Reporting. To report an oil spill or hazardous substance release, call the National Response Center at (800)424-8802.

Appendix C
Commercial Vendors of Spill Cleanup Kits

1. Spill Kit Vendors. Spill kits can be assembled by purchasing selected individual components as indicated above and keeping them on hand to clean up any spill that may occur. Many vendors have assembled spill kits that already have many of the items needed to clean up small spills. Vendor spill cleanup kits always have the basic absorbents, gloves, etc. and are usually contained in a neat compact package that can be stored at the work site or in a vehicle.

2. A partial list of spill kit and absorbent vendors follows:

- a. FOSS Environmental Services:
<http://www.fossenv.com>
- b. Chemical.net:
<http://www.chemical.net>
- c. DAWG ("Doing Away With Grime")-The Spill Control People:
<http://www.dawginc.com>
- d. GT Supplies.Inc
<http://www.gtsupplietheworld.com>
- e. Versatech Products, Inc., "Oil Spill Containment and Recovery Technology":
<http://www.versatech.com>
- f. Containment Corporation:
<http://www.containmentcorp.com>
- g. The ARK Enterprises, "Environmentally friendly Super Absorbents"
<http://www.arkent.com>
- h. USA Absorbents:
<http://www.usasorb.com>
- i. GSA Advantage:
<http://www.gsaadvantage.gov/cgi-bin/advwel>

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