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**APPENDIX A**

**FORT JACKSON SPILL PROTECTION PLAN**

## **Spill Prevention Control and Countermeasure (SPCC) Requirements for Construction Sites**

If you are using, consuming, storing, transferring, or otherwise handling oils at your construction site you will need to comply with EPA's Spill Prevention Control and Countermeasures Plan (SPCC Plan) requirements which were developed under authority of Section 311 of the Clean Water Act (CWA). On July 16, 2002, EPA promulgated a revised final SPCC Regulation that became effective August 17, 2002. EPA subsequently extended the regulatory compliance schedule included in the new SPCC rule. The regulatory text discussing this program (40 CFR Part 112) can be found at <http://ecfr.gpoaccess.gov> under "Title 40 - Protection of the Environment."

A construction project must meet SPCC regulatory requirements if it meets the following two criteria:

1. It stores, uses, transfers, or otherwise handles oil;
2. It has a maximum aboveground storage capacity greater than 1,320 gallons of oil (which includes both bulk and operational storage volumes).

When calculating storage capacity use the maximum volume of the storage container used to store oil, not the actual amount of product stored in the container. Calculate the total aboveground storage capacity by adding together the storage capacity of all storage tanks as well as the fuel and fluid tanks on all mobile and operational equipment. In this calculation, include only those tanks that have more than 55 gallons of storage capacity. You must include the capacity of the fuel (e.g., fuel tanks on bulldozers, cranes, backhoes of greater than 55 gallons) and fluid tanks (e.g., hydraulic fluid) on mobile and operational equipment. Underground storage tanks are prohibited at construction sites on Fort Jackson. All above ground storage tanks must be double walled tanks.

The SPCC regulations require the owners and operators of facilities to prepare and implement spill prevention plans to avoid oil spills into navigable waters or adjoining shorelines of the United States. The plan must identify operating procedures in place and control measures installed to prevent oil spills, and countermeasures to contain and clean up any spills. The plan must be updated as conditions change at the construction site. Specific items in the SPCC Plan may include, but are not limited to, the following:

1. Professional Engineer certification;
2. Site diagram, identifying the location and contents of each container
3. For each container, the type of oil stored and the storage capacity;
4. Discharge prevention measures, including procedures for oil handling;
5. Predictions of direction, rate of flow, and total quantity of oil that could be discharged from the site as a result of a major equipment failure;
6. Site drainage;
7. Site inspections;
8. Site security;
9. Five-year plan review (if construction lasts five years);
10. Management approval;

11. Requirements for mobile portable containers (e.g., totes, drums, or fueling vehicles that remain on facility grounds);
12. Appropriate secondary containment or diversionary structures;
13. Secondary containment for fuel transfer;
14. Personnel training and oil spill prevention briefings;
15. Tank integrity testing;
16. Bulk storage container compliance; and
17. Transfer procedures and equipment (including piping).

If a spill occurs, you must follow the spill response procedures outlined in the SPCC plan. These procedures should include identifying the spilled material, restricting the flow of any remaining material within the original container, confining the spill area with absorbent materials or dikes, beginning remediation and decontamination of the affected areas, and notifying all of the appropriate parties. The following groups should be notified in the event of a spill:

1. The Fort Jackson Fire Department at 911 (tell the operator the emergency is on Fort Jackson)
2. The (contractor's) on-site Emergency Coordinator;
3. The National Response Center at 1-800-424-8802 for spills that trigger the "sheen rule".

If you are the responsible party to an oil spill, you may be required to pay for any damages and cleanup costs resulting from that oil spill. Administrative penalties can reach \$157,500 and civil penalties imposed in a judicial proceeding can reach \$32,500 per violation per day, or \$1,100 per barrel of oil spilled if the oil reaches waters of the United States or adjoining shorelines. The fine for failing to notify the appropriate federal agency of an oil spill can reach a maximum of \$250,000 for an individual or \$500,000 for an organization. The maximum prison term is five years. The criminal penalties for violations have a maximum fine of \$250,000 and 15 years in prison.

For information on the SPCC requirements, go to EPA's Oil Spill Program web site, <http://www.epa.gov/oilspill/>. For more specific details on SPCC requirements, you can refer to [http://www.epa.gov/oem/content/spcc/spcc\\_guidance.htm](http://www.epa.gov/oem/content/spcc/spcc_guidance.htm). For information specific to the construction industry go to: <http://www.epa.gov/compliance/resources/publications/assistance/sectors/constructmyer/myerguide.pdf>

# Spill Response Plan

The goal of the spill response plan is to reduce safety, health, and environmental risks associated with a hazardous substance incident. In the event of a spill, the following actions should be implemented:

**SECURE AND EVACUATE THE AREA** - Keep unauthorized persons out of the area.

**REPORT THE SPILL** - All spills >5 gallons must be immediately reported to the Fire Department at 911. (If calling from a cell phone or non-Fort Jackson telephone, the call will go to the Columbia 911 call center. Instruct them to transfer your call to Fort Jackson 911 call center) Spills that are ≤5 gallons must be reported if the spill enters a storm drain, creek, lake, or other body of water, or cannot be safely contained and cleaned up by organization personnel.

Provide any pertinent information, including:

- Substance spilled.
- Location of spill.
- Nature and extent of injuries.
- Extent to which spill traveled.
- Estimated amount spilled.
- Time spill occurred.

**PROTECT YOURSELF** - Extinguish smoking material and ignition sources. Identify the substance spilled and obtain appropriate personal protective equipment, such as:

- Protective Goggles.
- Protective Apron.
- Rubber Overboots.
- Compatible Rubber Gloves.
- Respirators.

**STOP THE FLOW** - Stop or slow flow of hazardous substance if it can be done safely.

- Plug or patch punctured container(s).
- Upright overturned or tipped container(s).
- Close appropriate valve(s).

**CONTAIN THE SPILL** - The spilled substance should be contained within the immediate area. Prevent flow to drains, drainage ditches, and sewer systems if it can be done safely.

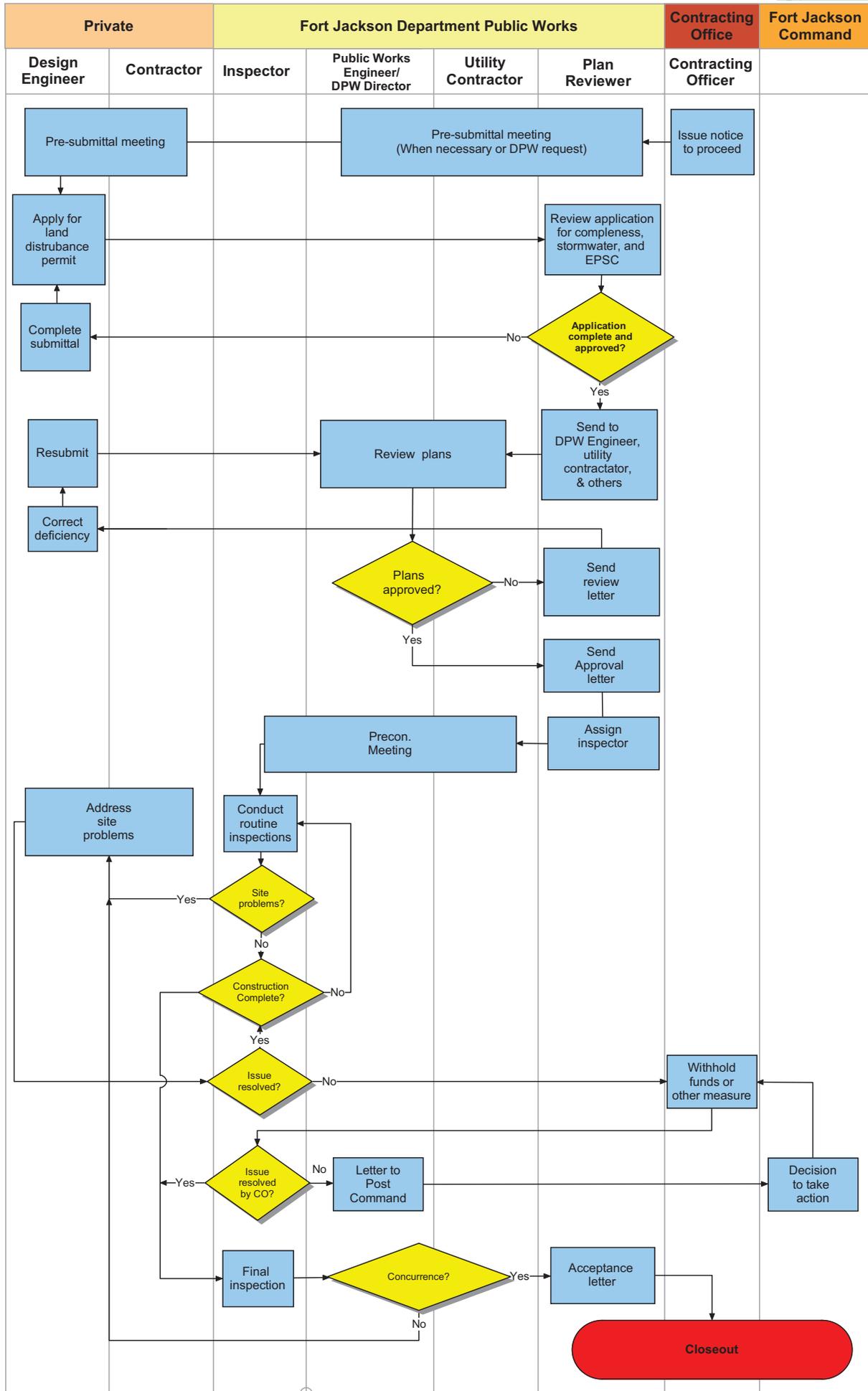
- Place nonreactive absorbent material such as sand, earth, straw, vermiculite, absorbent pillows or booms on the spill.
- Block the spill from entering storm drains or sewers by constructing a dike around all points of entry.
- If the spill is on the ground, clean it up immediately by digging up the contaminated soil, placing it in proper containers, and disposing of it properly.

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**APPENDIX B**

**CURRENT CONSTRUCTION PROJECT REVIEW  
& ENFORCEMENT PROCEDURES**

# Current Construction Project Review & Enforcement Procedures



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**APPENDIX C**

**FORT JACKSON SOIL MAP**

# Fort Jackson

## Soils Codes and Hydrologic Soil Groupings



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## APPENDIX D

### USGS REGRESSION EQUATIONS FOR CENTRAL SOUTH CAROLINA

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# USGS Regression Equations for Rural and Urban Areas in South Carolina

## Rural

$$Q_{R,2} = 25 * A^{0.74}, \quad \text{Equation 1}$$

$$Q_{R,5} = 44 * A^{0.72}, \quad \text{Equation 2}$$

$$Q_{R,10} = 59 * A^{0.71}, \quad \text{Equation 3}$$

$$Q_{R,25} = 80 * A^{0.70}, \quad \text{Equation 4}$$

$$Q_{R,50} = 97 * A^{0.70}, \quad \text{Equation 5}$$

$$Q_{R,100} = 116 * A^{0.69}, \text{ and} \quad \text{Equation 6}$$

$$Q_{R,500} = 179 * A^{0.66}, \quad \text{Equation 7}$$

where

$Q_{R,N}$  = peak discharge resulting from a storm event with a recurrence interval of N from rural area and

A = contributing area in square miles.

The above equations are valid only in the Upper Coastal Plains of South Carolina. Fort Jackson is considered to lie entirely within this region of the state.

## Urban

$$Q_{I,2} = 1.36 * A^{0.554} * IA^{1.24} * Q_{R2}^{0.323}, \quad \text{Equation 8}$$

$$Q_{I,5} = 2.58 * A^{0.544} * IA^{1.170} * Q_{R5}^{0.299}, \quad \text{Equation 9}$$

$$Q_{I,10} = 3.77 * A^{0.536} * IA^{1.115} * Q_{R10}^{0.291}, \quad \text{Equation 10}$$

$$Q_{I,25} = 5.84 * A^{0.524} * IA^{1.041} * Q_{R25}^{0.284}, \quad \text{Equation 11}$$

$$Q_{I,50} = 7.76 * A^{0.514} * IA^{0.987} * Q_{R50}^{0.283}, \quad \text{Equation 12}$$

$$Q_{I,100} = 10.4 * A^{0.506} * IA^{0.932} * Q_{R100}^{0.28}, \text{ and} \quad \text{Equation 13}$$

$$Q_{I,500} = 18.8 * A^{0.484} * IA^{0.800} * Q_{R500}^{0.281}, \quad \text{Equation 14}$$

where

$Q_{I,N}$  = peak discharge resulting from a storm event with a recurrence interval of N from urban areas,

A = contributing area in square miles,

IA = impervious area in square miles, and

$Q_{R,N}$  = peak discharge resulting from a storm event with a recurrence interval of N from rural areas using the rural equations (equations 1 – 7).