C.E. Floyd Company, PBC
general contractor / construction manager

HyAxiom
A Doosan Company

Emergency Spill Plan

HyAxiom Fuel Cell Construction Project
600 Iranistan Ave., Bridgeport, CT

Project Description: The project consists of the construction of a 3-story fuel cell facility in Bridgeport, CT. The construction involves multiple contractors and trades, including site work, concrete, structural steel, and mechanical work. Each contractor will use heavy equipment such as dump trucks, crane trucks, concrete trucks, and forklifts (Lulls). Given the nature of the project, there is a risk of hazardous spills, especially from fuel and chemicals used in construction equipment and activities.

1. Identification of Potential Spill Risks:

- **Site Work:**
  - **Equipment:** Heavy machinery, dump trucks
  - **Spill Risks:** Diesel fuel, engine oil, hydraulic fluids, grease
  - **Potential Locations:** Fueling stations, parking and staging areas for equipment, near vehicle traffic paths
- **Concrete:**
  - **Equipment:** Crane trucks, concrete trucks
  - **Spill Risks:** Concrete washout, hydraulic fluids, fuel
  - **Potential Locations:** Concrete truck staging, crane operations area
- **Structural Steel:**
  - **Equipment:** Cranes (for steel erection)
  - **Spill Risks:** Hydraulic fluids, fuel, grease
  - **Potential Locations:** Crane staging areas, fuel storage area, steel storage area
- **Mechanical:**
  - **Equipment:** All-terrain forklift (Lull)

- **Spill Risks:** Fuel, hydraulic fluids, engine oil
- **Potential Locations:** Forklift staging area, fuel storage area, near lifting operations

2. Spill Prevention Measures:

- **Fueling Areas:**
  - Fueling should only take place in designated, controlled areas away from stormwater drains or water sources.
  - Provide containment berms, spill pans, and absorbent materials at fueling stations.
  - Post clear signage around fueling areas to prevent unauthorized refueling or spillage.
- **Drip Pans/Trays:**
  - Ensure drip pans and absorbent materials are placed under heavy equipment while parked or during maintenance.
- **Daily Inspections:**
  - Contractors must inspect equipment daily for leaks or damage. Equipment showing signs of fuel or oil leaks should be repaired immediately.
- **Concrete Washout:**
  - Designate a washout area for concrete trucks away from stormwater inlets and water sources. Provide a proper containment system for concrete washout (e.g., washout pits or portable containers).

3. Spill Response Procedures:

Immediate Response:

- **Stop Work:** Immediately cease operations in the area of the spill. Ensure all personnel are safe and remove any workers from the affected zone if necessary.
- **Alert:** Notify the site supervisor, the safety officer, and the emergency response team. The project manager should be informed immediately.
- **Assess Spill Size:**

- **Small Spill:** (less than 5 gallons) – Contain with absorbent pads or berms and clean up with absorbent materials such as soil or sawdust.
- **Medium Spill:** (5-25 gallons) – Use absorbent booms or socks to contain the spill and prevent it from spreading. Deploy additional cleanup materials to absorb and remove the liquid.
- **Large Spill:** (greater than 25 gallons) – Immediately contact the local emergency response team and hazardous materials contractor for further action. Begin containment with booms and barricades until experts arrive.

Spill Containment:

- **Small Spill:**
  - For petroleum-based spills: Use absorbent socks, pads, or booms. After absorbing the material, collect the waste in a sealed container for proper disposal.
  - For concrete washout: Use a shovel or rake to move the wet concrete into a proper disposal container.
- **Medium/Large Spill:**
  - For petroleum-based spills: Use containment booms and berms to prevent spreading, especially near stormwater drains. Deploy absorbent materials to soak up the remaining spill.
  - For concrete washout: If the spill has spread or cannot be contained manually, use a vacuum system or a specialized pump to remove the excess material.

Notification and Documentation:

Emergency Spill Response Contactor
Enviroshield, Inc.
250 Moffitt St, Stratford, CT 06615
(203) 380-5644

- Contact the National Response Center (1-800-424-8802) for spills that exceed reportable quantities.
- Notify the Connecticut Department of Energy and Environmental Protection (DEEP) at (860) 424-3338.

- Document the spill, containment efforts, and cleanup activities.

4. Emergency Spill Kit:

Each contractor should have an emergency spill kit tailored to their specific risks:

- **Site Work:** Heavy-duty absorbent pads, booms, spill containment kits for fuel spills.
- **Concrete:** Containment for concrete washout, absorbent materials for hydraulic fluids or fuel spills.
- **Structural Steel:** Absorbent materials for hydraulic fluids and fuel, containment materials.
- **Mechanical:** Absorbent materials for engine oils, fuel, and hydraulic fluid.

5. Emergency Personnel and Responsibilities:

- **Project Manager:** Overall coordination and communication of the spill plan. Ensure compliance with regulations.
- **Safety Officer:** In charge of spill response training, proper use of spill kits, and ensuring emergency contact information is available at all times.
- **Contractor Foremen:** Immediate identification and containment of spills within their respective areas, ensuring all workers are aware of proper response procedures.
- **Emergency Response Team:** Trained hazardous material responders will be called for large spills or if additional assistance is required.

6. Training and Drills:

- All site workers, including contractors and subcontractors, must be trained on spill prevention and emergency response procedures. The training should include:
    - **Spill identification and prevention**
    - **Proper use of emergency spill kits**
    - **Evacuation procedures if necessary**
    - **Communication protocols**
- Conduct monthly spill response drills to ensure preparedness and response times are effective.

7. Post-Incident Evaluation and Reporting:

- After any spill, a thorough investigation should be conducted to determine the cause and prevent recurrence.
- Submit an incident report to the project manager, including spill size, materials involved, response actions taken, and any impact on the environment.

Conclusion: This spill plan ensures a structured and effective response to spills during the construction of the fuel cell facility in Bridgeport, CT. By identifying risks, establishing preventive measures, and training all personnel in spill response, the project will minimize its environmental impact and maintain safety on-site.