



Environmental Compliance Monitoring on Wind Farm Construction Projects

AWEA WindPower 2012

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Environmental Compliance

What will be covered:

- **Spill Prevention, Control, and Countermeasure (SPCC)**
- **Hazardous Materials**
- **Stormwater Control**
- **Project Communication**
- **Cost Optimization**

Spill Prevention, Control, and Countermeasure (SPCC)

Regulated by 40 CFR Part 112, referred to as the SPCC Rule

- **Requires an SPCC Plan if containers with cumulative capacity to store greater than 1320 gallons of oil are located at the facility**
 - Containers with 55 gallon or greater capacity are counted

- **Wind farm construction can include:**
 - Diesel fuel tanks
 - Gasoline tanks
 - Transformer oil
 - Waste oil storage
 - Other miscellaneous oils



(Diesel fuel tank in containment box)

What does the SPCC Rule Trigger?

- **Requires sized secondary containment for bulk storage tanks**
- **Requires general secondary containment for oil-filled operational equipment**
- **Development of spill prevention procedures**
 - Inspections
 - Training
- **Development of spill response procedures**
 - Emergency contacts
 - Spill kits
 - Spill notification

SPCC – Wind Farm Recommendations

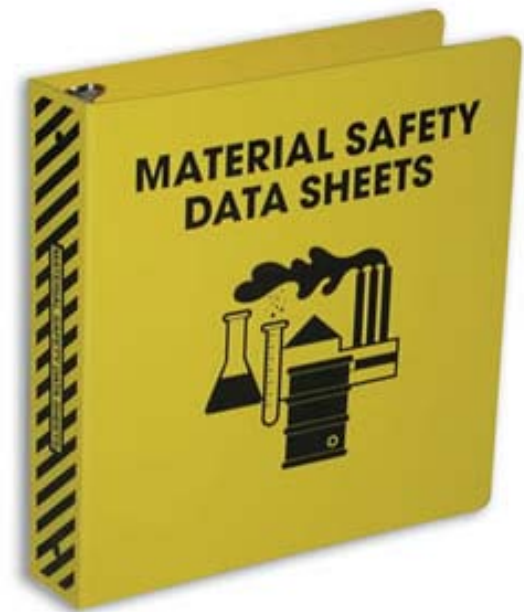
- Designated storage area in laydown yard with containment berm
- Maintain supply of spill control materials on-site
 - Spill kit in each contractor vehicle
 - Dedicated spill kit at storage area(s)
- Each contractor should assign spill control responsibilities and provide EHS Manager with emergency contact information



Material Safety Data Sheet (MSDS)

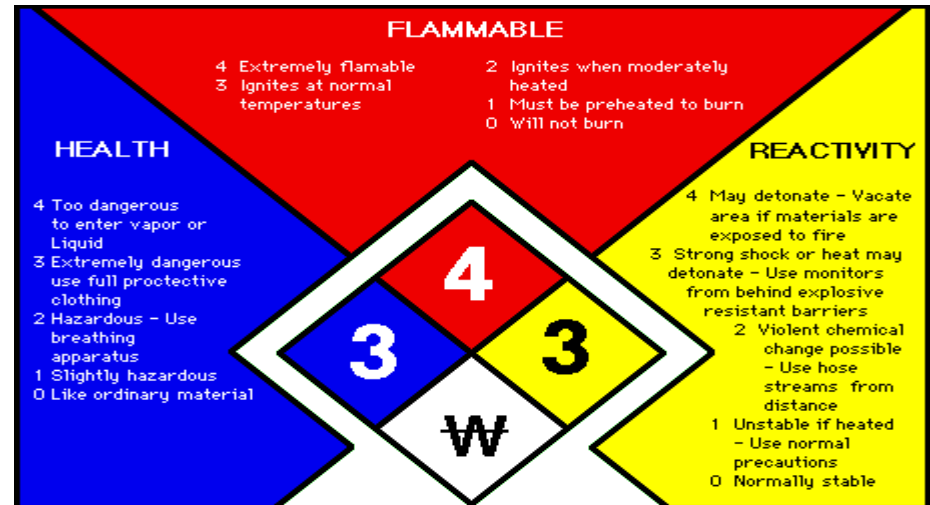
A MSDS is needed for all potentially harmful substances that will be on-site

- Identifies hazards
- Informs personnel on-site how to work safely with products
- Identifies what to do in an emergency



MSDS Key Point

- Fire and Explosion
- Health Hazards
- Protective Equipment and Other Control Measures
- Additional Precautions



Hazardous Materials

- Store bulk hazardous material (>10 lbs) in a designated area
- Provide MSDS to EHS Manager
- Notify EHS Manager of any and all spills of a petroleum product or hazardous liquid, regardless of volume. Call 911 if spill poses a threat to public health or environment.

Stormwater Control

- Limit disturbed areas during design and construction
- Erosion control BMPs
 - Silt fence
 - Filter sock
 - Construction rock entrance
- Route stormwater around/through project



Stormwater Control

- **Proper maintenance and repair**
 - Report damaged BMPs
 - Inspect at least weekly
 - Repair/replace when half full of sediment or capacity reduced by ½
- **Establish vegetation and/or stabilize as soon as disturbance activities are complete**



Project Communication

- **Training**
 - All workers receive training from his/her employer prior to working on the project.
 - All workers receive re-training if chemical or process changes are involved.
- **Material Safety Data Sheets (MSDS)**
 - Copies of MSDSs available on site.
 - Contactors are to provide copies of MSDS to EHS Manager.
- **Labeling**
 - All containers shall be labeled.
 - Any product transferred from its original container shall be labeled using an approved Hazardous Material Identification System.

Project Communication

- **Communicate that EVERYONE involved in the project is responsible for compliance**
- **Facilitate good communication between:**
 - Owner
 - Consultant
 - Contractor
 - Monitors
 - Agencies
- **Ensure applicable team members thoroughly understand the compliance procedures**
- **Facilitate a clear understanding of roles and responsibilities**

Project Communication – Interaction with On-Site Monitors

- **Monitors are part of the team**
- **Work together; not against each other**
- **Report issues without fear of retribution**
- **Communicate, Communicate, Communicate**

Cost Optimization

- **Develop templates**
 - Daily/weekly monitoring report
 - Permit variance request form
 - Noncompliance form
 - Management of change form
 - Incident form
- **Dual roles/shared responsibilities**
- **Invest in appropriate compliance management and facilitate teamwork**

Items Often Overlooked

- **SPCC**
 - “Potential” storage counts toward the 1320 gallon threshold
 - Subcontractors must communicate storage needs prior to work starting
 - Plan MUST be stamped by a PE, update as needed, changes must be verified by PE
 - Unless SPCC Plan is “self-certified”
 - Inspections must be properly documented
 - Document communication of the Plan and conduct a mock spill exercise
 - Must also follow state-specific spill reporting requirements
- **BMPs**
 - Choose material wisely (Wind Farms are built there for a reason)
- **Communication**
 - Integrate environmental awareness training with site-specific safety orientation, prior to work being conducted onsite.



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