Boom Deployment Drill
December 11, 2018

Emergency Action Plan - Oil Release to Waters of the State

Dickerson Generating Station
21200 Martinsburg Road
Dickerson Maryland 20842
Dickerson Generating Station

Three coal-fired steam units:
- Unit 1 - 179 MW (net), 1959
- Unit 2 - 179 MW (net), 1960
- Unit 3 - 179 MW (net), 1962

Two Gas/Oil-fired GE 7F CTs
- H1 CT - 147/167 MW (net), 1992
- H2 CT - 147/167 MW (net), 1993

One Oil-fired Blackstart CT
- D1 CT - 18 MW (net), 1967
Dickerson Sta.
Whites Ferry
Water Intakes
OPA-90 Equipment Deployment Drill

USCG PREP Guidelines

Purpose

The National Preparedness for Response Exercise Program (PREP) was developed to demonstrate the intent of sections of Federal Regulations under:

- Oil Pollution Act of 1990 (OPA 90),
- Federal Water Pollution Control Act (FWPCA),
- Spill response preparedness [33 U.S.C. 1321 (j)]

The PREP satisfies the exercise requirements of:

- US Coast Guard,
- Environmental Protection Agency (EPA),
- Research and Special Programs Administration (RSPA) Office of Pipeline Safety, and
- Minerals Management Service (MMS).
Planning Volumes for Oil:

Maximum Most Probable (USCG) / Medium (EPA) Discharge:

- For EPA-regulated facilities, a discharge greater than 2,100 gallons [50 barrels] and less than or equal to 36,000 gallons [858 barrels] or 10 percent of the capacity of the largest tank at the facility, whichever is less [40 CFR 112.20].

- Dickerson largest oil tank is 10,000,000 * 10% = 1,000,000 gallons
Equipment Deployment Exercises

The requirements for the equipment deployment exercise are:

• Personnel that would normally operate or supervise the operation of the response equipment must participate in the exercise.

• Response equipment must be in good operating condition.

Dickerson has a trailer containing 1200’ of river boom to deploy at Whites Ferry as the primary means of mitigating a release to the river.
OPA-90 Equipment Deployment Drill

Successful Completion of Government-Initiated Unannounced Exercise

The objectives in a government-initiated unannounced exercise for likely discharge include the following:

• Conducting proper notifications;

• Arrival of containment boom as specified in the approved response plan within **one hour** of detection of the discharge and the subsequent successful deployment;

• Arrival of oil recovery devices as specified in the approved response plan within **two hours** of detection of the discharge and the subsequent successful operation/simulated recovery;

*Boom is to be on the water within 1 hr. and vac truck arrival within 2 hrs.*
First a safety meeting.....
OSRO (Triumverate) work in full PPE
Backing boom trailer into position on boat ramp
Unload all boom rather than flake from trailer. If not, any snag may drag trailer into water once ferry begins to pull boom across river.
Take one end to MD anchor point near water’s edge.
Next, bring VA end closest to boat, leaving enough slack to load extra to pull from secured anchor on boat to VA side land anchor.
Ensure no cross overs; cables on top and bottom of boom must remain parallel and not twist once in water.
Chain used to connect boom cable to anchoring points. A come-along used to release boom from boat anchor point, once secured to VA shore anchor.
Loading slack onto ferry deck, and then secure to back of boat. Potential snag with ferry drive mechanism if secured to front of boat.
Chase boat added as precaution to runaway boom or ferry...
Ferry at VA side of river; unable to get boom to VA anchor point. Weight of ferry and water against boom caused concern for ferry cable break.
Strong river current pushed water over boom at bottom of loop. Oil would not be held with this booming strategy.
(left) Anchor point (MD) pulled out of ground, (right) and barely held for lower cable anchor.
Overall a successful deployment drill.

Lessons learned:

A full river crossing is difficult given the strain on a single 1200’ line of boom.

Different boom strategies to be employed based on river currents, as indicated by river height. Ferry operator wants < 4’ average for the 3 closest USGS gauges - Point of Rocks, Edwards Ferry & Little Falls.

On Dec. 11th they were:

Point of Rocks 4’  
Edwards Ferry 6.5’  
Little Falls 1.1’  
AVG 3.9’
Lessons learned: Alternative booming strategies

Use smaller sections of boom above WF in a herringbone arrangement, utilizing WF landing as base of operations and recovery.
Lessons learned:
Use Mason Island to funnel oil and contain on narrow side of river.
Dickerson NPDES Permit Renewal
Effective 9/01/2018

Twice daily visual check at outfall for contaminants

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