

# New Windsor Oil Spill Exercise

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November 12, 2013



**Andrew M. Cuomo**  
Governor



**Joe Martens**  
Commissioner

## **Introduction**

The purpose of the New Windsor Oil Spill Exercise was for the New York State Department of Environmental Conservation (DEC) and its spill response partners at the local, state and federal levels to continue the practice, examination and refinement of our emergency response. The drill presented another valuable opportunity for these groups to work toward the common goals of safeguarding New Yorkers and the state's natural resources in the unfortunate event of a major oil spill.

The New Windsor drill clearly demonstrated emergency preparedness on the part of DEC and its partners, affirmed each entity's role in a response situation and identified areas for improvement—in both emergency and drill situations. DEC will continue working with its partners in drill scenarios to enhance emergency training and planning. We will capitalize on the success of the November 2013 and other past drills to promote continuous improvement in our handling of potential spills of crude oil.

## **Background**

In February 2013, the Area Committee of New York and New Jersey decided to hold an oil spill exercise in the lower Hudson Valley, based on a recommendation by DEC. Area Committees were established by the Oil Pollution Act of 1990 (OPA 90) to plan for incidents related to releases of petroleum. The Area Committee of New York and New Jersey consists principally of the United States Coast Guard, the United States Environmental Protection Agency, The National Oceanic and Atmospheric Administration (NOAA), the New York State Department of Environmental Conservation, and the New Jersey Department of Environmental Protection. The members-at-large group consists of these agencies and any person or group which has an interest in pollution incident planning and response. DEC and the Coast Guard initiated planning for this event.

In the spring of 2013, DEC obtained the agreement of Global Companies, LLC to participate in a drill to be held at its facility in New Windsor, Orange County. This drill would fulfill Global's requirement for a periodic drill under the OPA 90. Global hosted the drill and provided funding for the exercise and to pay Global's contractors to participate.

DEC staff contacted the Orange County Office of Emergency Management, which in turn made contacts in the New Windsor Fire Department and Orange County Hazardous Materials Team. CSX Transportation was also contacted to participate in the drill. CSX offered to provide training simulator tank cars and training staff to participate.

In the early summer, DEC held initial planning meetings with several prospective participants for the drill. The meetings included:

NYSDEC  
United States Coast Guard  
Global Companies, LLC  
Orange County Emergency Services  
New Windsor Fire Department  
National Oceanic and Atmospheric Administration (NOAA)  
Miller Environmental (contractor to Global and NYSDEC)  
Dutchess County Emergency Services

The drill was split into three distinct portions. Two of those portions would be active “hands on” exercises that would simulate actual response measures. The three portions were:

- 1) A simulated rail car accident, in which a tank car would be leaking
- 2) Deployment of a containment boom in the Hudson River, in accordance with the Facility Response Plan for the Global Major Oil Storage facility (MOSF)
- 3) A tabletop exercise for the involved response agencies

The Orange County HazMat Team, with assistance from the Dutchess County HazMat Team, would carry out the train car accident portion under the guidance and oversight of CSX Emergency Response Staff. This incident simulation would take place at a remote site away from the main facility, where a rail siding was available and safely accessible.

Global’s contractor, Miller Environmental, would deploy a boom in the Hudson River using spill response equipment located at the Global facility and nearby. The deployment would be carried out in accordance with Global’s Facility Response Plan and be overseen by Miller. After the initial deployment, Miller would deploy further equipment and assets, including boats, skimmers and oil collection and storage equipment.

The tabletop portion of the drill was designed to test the local, state, and federal response to a large incident at the Global facility. The scenario developed included the simulated failure of the largest tank at Global’s facility, a tank of approximately 5 million gallons, which normally contained No. 2 Fuel Oil. The scenario called for the majority of the spilled petroleum to be contained within the secondary containment for the tank, but with a release of 50,000 gallons into the Hudson River. In the simulation, the CSX Railroad line was also assumed to be damaged, causing tank cars to fail. Initial discussions called for using Bakken Crude Oil as the substance spilled, but this was changed by the planning group to No. 2 Fuel Oil. This was primarily because the facility did not store crude oil in the affected tank but most commonly had stored fuel oil in it. Since the properties of Bakken Crude Oil and No. 2 Fuel Oil are similar,

except on matters of volatility<sup>1</sup>, this change did not significantly affect the simulated response actions because the drill was not designed to simulate a fire. NOAA offered to provide preliminary computer models of the possible trajectory of the spill to simulate the release and the resulting movement of petroleum in the Hudson River over the time period simulated by the drill. All of the resulting activity in the tabletop portion of the drill was designed to be in response to this scenario.

## Drill

On November 12, 2013, the drill took place on various portions of Global's property on the Hudson River in the Town of New Windsor (see attached map and photos on page). As indicated, the drill simulated a tank failure, resulting in damage to the CSX Railroad line and a release of 50,000 gallons of fuel oil to the Hudson River. Global activated its response plan, and Miller Environmental placed a containment boom in the river adjacent to Global's facility. Miller also deployed oil skimming boats and equipment. Dutchess and Orange County HazMat teams made an entry onto CSX training railcars to practice efforts to evaluate and control these leaking containers.

In the tabletop exercise to test the local and regional plans for oil spill response, the various local, state, and federal partners identified below worked with Global facility operators on a simulated response to the incident.

The participating groups and agencies included the following:

- Global Companies, LLC
- CSX Transportation
- United States Coast Guard
- New York State DEC
- New York State DOH
- NOAA – US Department of Commerce
- New Windsor Fire Department
- Orange County Office of Emergency Management (OEM) and Police
- Ulster County OEM
- Orange County Hazardous Materials Team
- Dutchess County Hazardous Materials Team
- United States EPA
- Miller Environmental (a contractor serving as an Oil Spill Response Organization or OSRO<sup>2</sup>)
- National Response Corporation (OSRO)
- Conklin Services (OSRO)
- Tri-State Environmental (OSRO)

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<sup>1</sup>The Office of Fire Prevention and Control conducts drills on handling flammable liquids. A flammable liquids fire simulator is used to support the training of local fire departments and hazardous materials teams.

<sup>2</sup>Oil Spill Response Organizations are private contractors certified to respond to and clean up hazardous materials spills.

The following groups were present as observers at the drill:

- American Petroleum
- Vaz-Co
- Environmental Products and Services
- Tappan Zee Constructors
- Hudson Riverkeeper
- Cablevision
- Capital New York
- *Journal News*
- *Albany Times Union*
- Northeast Public Radio
- News 12 Hudson Valley
- Al-Jazeera Television

## **Post Drill**

On November 14, 2013, participants held a review of the drill (called a “hotwash,” following the terminology of federal emergency response agencies). Reviews of drills take place shortly after the drills are held in order for the participants to have a fresh recollection of the drill and identification of measures they would like to capture to improve future exercises and responses. Hotwash documents are working documents assembled from comments made during the review and are offered to all participants of the drill as aids to improvement.

Most of the groups that participated in the drill were present for the review. A member of the Orange County Emergency Management Team captured the comments, and they are included as an appendix to this report.

The comments were focused on three general areas:

- 1) The active hands-on portions of the drill (i.e., the train incident and the boom deployment)
- 2) The tabletop simulation
- 3) The structure of the overall exercise

## **Hands-On Activities**

The comments in the hotwash centered on the initial challenges during the first part of the drill and the subsequent organization that occurred, which is a process common both in exercises and actual events. The responders and their leaders used their training and experience to ascertain what was required to resolve the issues identified and then made decisions that allowed the group to complete their tasks. There were comments that, although the deployment of the boom and equipment went well, there was a need for better communication between the field crews and Unified Command to ensure that Command was informed of progress and effectiveness.

Communication between the Unified Command and staff at the tank car scene needed improvement. Some aspects of the hands-on portion of the drill would have been improved if information had been provided by a “controller” or facilitator. Several areas for improvement were identified for use in future drills and during active response.

## **Tabletop Simulation**

The tabletop portion of the drill was intended to provide the many groups that cooperate during an incident an opportunity to work together in a commonly recognized organization to accomplish an effective response. This drill was unusual in that there were “real life” actions taking place (tank car entry and boom deployment) requiring attention of the participants in the tabletop simulation. The Incident Command System (ICS) is both the accepted system of organization during an emergency incident and the requirement of several federal regulations. The ICS, which all of the participants were familiar with, allows coordination challenges that exist when so many groups come together to be resolved effectively and efficiently. There were several aspects of the ICS that could have been more fully applied if the drill planning had been developed in more detail. In fact, the ICS resulted in better organization, which could have been accomplished more quickly if dedicated staff had been available to serve as public information officers to provide information.

## **Overall Exercise Structure**

A number of the participants noted that the drill objectives may have been too extensive to be carried out by the personnel available at the two distinct sites. Participants suggested that a hands-on exercise be separated from the tabletop simulation to enable the limited staff available to cover the necessary actions in each. Participants also noted in several comments that an exercise planner was needed who would have the time to develop the details of each scenario and answer the questions that were posed by the exercise players.

Members of the press who attended the drill were looking for information in order to make a deadline. Additional staff available to provide the press with the information they needed would have allowed the participants to concentrate on the exercise. Participants also suggested that an exercise facilitator would have been useful to make sure that the tools of the ICS were available for the use of the players. The same staff could have helped to ensure that the data gaps and questions posed were given quick replies in order to make the exercise flow toward its goals. All those involved agreed that a drill of this magnitude requires more planning and support to better accomplish all of the goals of the exercise.

## Recommendations

- 1) For a future drill of this scope and complexity, professional planners and facilitators should be used. This would help to address the logistical challenges faced during the drill and help participants to focus more on emergency response decision-making and actions.
- 2) Steps must be taken to ensure that lines of communication between Incident Command System sections are clear.
- 3) All field staff should use interoperable communications (e.g., radios) that can all be on the same frequency.
- 4) Hands-on drill activities should be separated from tabletop activities to allow each group to concentrate on its assignment.
- 5) DEC and private, state, and federal response should schedule additional exercises.
- 6) For drills with media presence, there should be dedicated staff to serve as Public Information Officers to provide information and better coordinate responses to the many questions that arise.

## Summary

This exercise allowed the groups who are involved in oil spill response at the local, state, and federal levels in the lower Hudson Valley to come together and work toward the common goals of limiting human health and environmental damage. It provided a platform for each group to recognize its role in this important effort, and it identified several areas where the actions and relationships of the participants could be strengthened and improved. On the whole, it demonstrated preparedness and readiness for spills of this nature.

These exercises should be repeated and supported in the areas of New York State that have seen increased transportation of petroleum. An overview of this drill was provided to and discussed with the Regional Response Team of EPA Region 2 in April 2014. At that meeting, several government and private exercise planners and facilitators came forward to offer their services in future exercises.

## Photos of the November 2013 New Windsor Spill Response Drill



Figure 1: Rail Car Entry



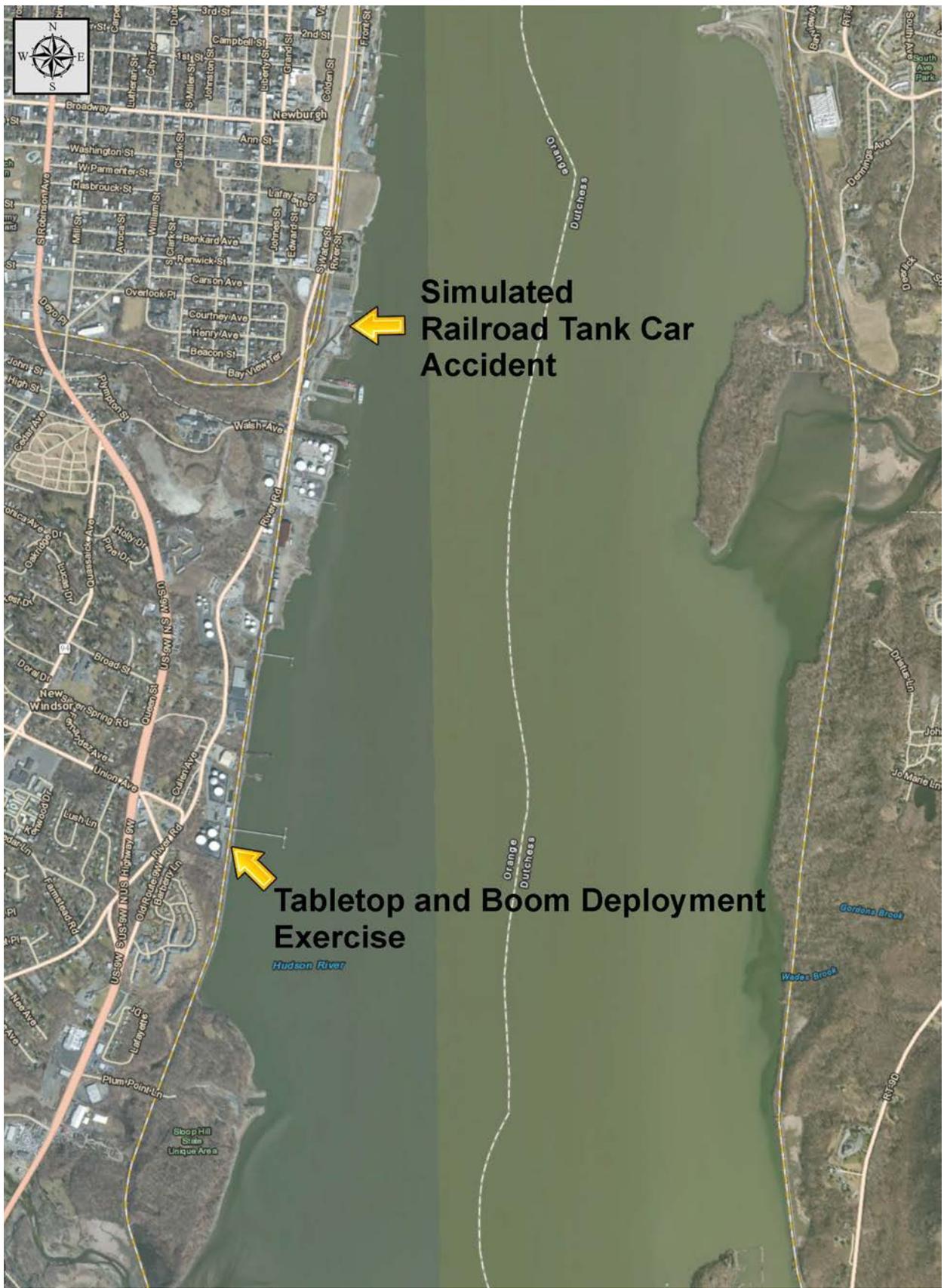
Figure 2: Briefing at Table Top Exercise



*Figure 3: Deployment of River Boom*



*Figure 4: Oil Spill Response Equipment at the Global Major Oil Storage Facility*



**Simulated  
Railroad Tank Car  
Accident**

**Tabletop and Boom Deployment  
Exercise**

## APPENDIX

### GLOBAL / CSX SPILL DRILL, HAZ-MAT TRAINING EXERCISE: Hot Wash

*November 13, 2013*

Two elements were conducted on 12 Nov 2013: one was a “train derailment” /Haz-Mat exercise caused by a “catastrophic tank failure” of No. 2 oil at the Global Petroleum site.

#### **HAZ MAT TRAIN INCIDENT:**

CSX brought their training train to use as a Haz-Mat exercise. Both Dutchess and Orange Count HM teams were initially available- but OC was called out to a real incident.

#### **POSITIVE**

- CSX good transfer of information between Hazmat teams
- De-con was set up prior to entry
- Communication between Dutchess and Orange County good: teams focused with back-up team paying attention
- Initial confusion did not last long as organization/training kicked in

#### **AREAS FOR IMPROVEMENT**

- Hazmat Teams:
  - o Bring wrenches and equipment with on initial recon entry. There is a lot you can address to help minimize even on 1<sup>st</sup> entry.
  - o Onsite medical clearance slowed process on selection of the final three teams, some changes had to be made but decisions were made quickly
  - o Communication within the team also ensures cross training needs for teams in areas outside their normal scope of responsibility.
- Confusion on information – should have gone straight to CSX rep for specific info
- Identify a controller via colored vest: this allows personnel in the area to identify who to obtain specific and accurate information from.
- Questionable communication between Unified Command and teams at the rail car. Issues identified with the use of different radio frequencies, but was quickly resolved
- Each individual group needs to speak up when there is information needed between groups
- Rehab location needed for on scene personnel / OC Sheriff's office
- No clear safety officer on scene

#### **COMMENTS**

- Used training consistent with and distributed to all known entities
- Pre-identified chemicals in use
- Briefing at fire station for Hazmat teams (Orange County had to leave for real world event / Dutchess County stepped in).
- 204 completed
- Questions observed on site: where should we be / stand -off distances / took time to clear personnel for medical entry
- SUGGESTION: bring wrenches and equipment with on initial recon entry. There is a lot you can address to help minimize incident even on 1<sup>st</sup> entry (sheared off nozzle, etc). Do not just need metering equipment to determine environment (8-10% LEL)
- Team conducted a freeze patch on cars with slow drip
- Upwind / uphill approach with potential fire environment will always go bunker gear / gloves rather than over dress an entry team. Sometimes turn out gear can absorb some materials and complicate the situation. Make sure the entry team is comfortable (avoid over-heating etc)
- Dress up / position switching to be able to make entry and switch teams around as scene progressed

- **Railroad and other entities move too quick for ICS process** – often required to work under other federal safety rules which limits staff
- Planning personnel will immediately begin to look for lodging / accommodation's for workers and work site

### **SPILL DRILL**

Organized to meet objectives of communications / cooperation between

- IC and contractors (spill )
- IC and Hazmat (rail)

“Spill” table-top began 8 hours after tank failure

### **POSITIVE**

- Public perception was good – there is a plan; teams doing their job
- Initial confusion took a while to clear, but at end started to work
- Great deal of coordination between multiple agencies for two different / simultaneous events

### **IMPROVEMENT NEEDED**

Entire exercise too big (or was it?) as many participants were not focused on task at hand. Issues being:

- MEDIA – not enough control over where/when they were allowed for both Haz-Mat and spill. Need to have been “handled” better with ONE information office to facilitate flow. Some media not on list showed up at gate – distraction for Global IC
- Observers v Participants: too many observers that distracted participants from doing their job in Sections and IC. The two groups did not remain separate to allow table top to proceed with some order.
- Organizers objectives (above) were different from Observers. Observer objectives appeared to be introductions between agencies, familiarization, capabilities assessment sharing. They felt there could have done a much better job of exercise planning, sharing information, facilitation, etc
  - o Would have helped to have had a Facilitator to serve as intermediary
- Unified Command OK but still a very real need for ONE Incident Commander for entire operation
- Serious need for better communication among sections and IC (see comments below)
- Lack of use and communication to other onsite contractors other than the OSRO; these are contractors NYS would have also mobilized to have equipment & personnel on scene sooner
- Total exercise WAS a real world possibility; indicates after initial bumps that agencies can work together; willingness of all participants to work toward common goal

### **COMMENTS**

- Agency staffs appeared to learn a lot and absorbed information well
- Lack of communications occurred between sections:
  - o Example: Planning Section with Operations and Logistics. Planning had no information on current equipment deployment etc to plan next operational period.
  - o Section leaders need to talk to their group, to IC/UC and to other section leaders
  - o Lack of utilizing other onsite/near-by contractors. NYS contractors could have had equipment on scene sooner but were not utilized at all.
- Tabletop may have needed to be a separate exercise from practical exercise
- Communication issues to be addressed to make systems more inter-operable (H-M radio frequency issue above)
- Need to clear lines on communication – who to get info from (i.e. go directly to Mike (CSX) for info on train, or IC for spill)
- Did have smooth transitions between Command being established and being utilized between Asst Chief to IC – Global (sitting next to NWFD Chief in UC)
- Cold affected the event (?) Did participants expect a spill to be inside? Initial response would have been under these conditions
- Multiple levels of experience present – contractors, equipment etc – need coordination to best utilize what was there

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## PROCEDURE ISSUES

- Initial person was not able to attend, responsibilities handed off to another person - points to need for cross-training/ ability to inter-change of staff
- Liked the initial briefing at New Windsor
- ICS Form 215 worked well
- Spill briefing (Initial 201) was disjointed; not clear and had too much input from too many sources, portions were incomplete. Too many people talking instead should have been 1 person
- No real IAP, unable to use or print to hand out forms to participants
- Initial layout of UC didn't work but was addressed on the spot (moved the tables)
- Resource Unit leader never identified / multiple Planning Section Chiefs
- Two plans that were exercised: Area contingency area / Facility response plans
- Use of resources not on scene
- New arrivals on scene:
  - o No clear check in / sign in spot
  - o No real incident commander – no IAP, a few 201's, no one to brief new arrivals to the scene
  - o No t-cards / no times posted for next meetings
- Needed a real world strategy as if this drill was real needed to touch on longer term planning (OPS center etc) – look to use old shopping plazas for staging, need hotel facilities etc.

## SECTIONS

- Planning Section not in the loop with other sections.
  - o Attempted to obtain information but was told “that's for tomorrow”. Were not able to meet needs for today vs. future planning
- Vests were available but not passed out - no clear idea who was who was in charge of each section – who belonged to which group
- Exercise planning needed a more central construct with an overall plan.
- Developed too haphazardly. No injects, central planning.
- Did identify sensitive areas (physical / environmental) include boom strategies, questions about sensitive information should not be distributed.
- Facilitators needed for each section (not just for exercises but can be used in real world events as well)
  - o Lead facilitator for each section plus one for Incident Command
  - o Needed rumor control for each sections
  - o Not having controllers and facilitators in place added to confusion between all parties both in Command tent and on scene.