

# Changing Times at BWSC

Compiled by Lisa Alexander

Everywhere lately, the theme is “change,” and so too, there are transitions here at MassDEP. In light of the New Year, a new Administration in Washington, changes at BWSC and some new (and old) challenges, we selected “Changing” as the common theme linking the sites selected for presentation in the first 2009 Audits, Compliance & Enforcement survey. For this first issue, we thought it might be helpful to present a survey of cases across the BWSC spectrum that typify the emerging values and changes we’ve been seeing – both at MassDEP, and in society generally, as we all come to place higher value on a clean environment and accessible open space. We selected only one higher level enforcement case for detailed discussion here this time, and one Notice of Audit Finding (NOAF) with a Notice of Noncompliance that embodies some of the problems we see most often. We also selected to give a “shout out” for one NOAF that outlines the kind of conscientious work we like to see.

## Challenges in a Changing Economy

A recent BWP case involved someone opting to pay “a guy in a bar” \$500 to illegally dispose 12 drums of hazardous waste (after getting a prior estimate of \$1600 to *legally* dispose them). With identifying information found on the drums, the penalties and restoration charges were well over \$14,000. It’s not exactly *A Civil Action*, but it was a reminder that in tough times, there can be different challenges. A couple cases in our files include:

### **9/29/2009, Boston, Gasoline Release to Storm Drain Due to Vandalism/Theft (NERO):**

MassDEP Emergency Response personnel responded to a report of approximately 100 gallons of gasoline at a U-Haul facility impacting the storm drains along Massachusetts Avenue in Boston. Vandals or thieves had drilled the gasoline tanks on 8 rental trucks, presumably to steal the fuel. In the process, a large volume of gasoline was released to the parking lot and flowed to Massachusetts Avenue where it impacted several catch basins and hundreds of feet of drain lines. Gasoline vapors migrating from the drain line impacted one commercial property.

### **10/25, Dighton, Drum Dumping (SERO):**

SERO ER responded to a call from the Dighton Fire Department to find several 55-gallon steel drums illegally dumped along the side of a road. Examination of the drums revealed that each drum was deliberately punctured to release the epoxy from the drums onto the surrounding soil. A total of 5 drums were removed from the site under manifest for disposal.

## Changing Appreciation of a Clean Environment

**10/21/2009, Chelsea/Revere, Natural Resource Damages Assessment, (NERO):** BWSC and the AG reached a settlement in Suffolk Superior Court for \$312,500 with two oil companies responsible for a 2006 spill of about 18,000 gallons of fuel oil into the Chelsea River and Mill Creek in Revere and Chelsea. Previously, during maintenance work on 3/8/2006, contractors hired by one of the companies removed at least one check-valve, leaving an uncapped pipeline.

Personnel from the other oil company then attempted to transfer fuel oil through the open pipeline, spilling about 20,000 gallons of oil, approximately 18,000 of which flowed into the Chelsea River and Mill Creek.

The Commonwealth held both companies responsible for the unpermitted release under the Massachusetts Clean Waters Act. The complaint also alleges that neither company took the steps required under the M.G.L. c. 21E, MCP to assess whether further remediation of the impacts of the spill was required. The first company had filed an unsupported report that concluded no further action at the site was required, and the second ratified and adopted their conclusions.

Penalties were assessed as follows: \$50,000 civil penalty was assessed for the unpermitted release; \$50,000 civil penalty for the Parties' failure to perform the appropriate required assessment; \$12,500 additional civil penalty was assessed for damage to natural resources; and lastly, a Supplemental Environmental Project (SEP) was imposed which directs the Parties to pay into the Natural Resource Damages Trust an additional sum of \$200,000 to help mitigate the environmental impacts of spills at and around the site. In addition to the penalty, the Parties must comply with the MCP and submit a revised Response Action Outcome for the Site. [RTN 3-25720]

**10/29/2009, Peabody - Brownfields to Open Space (NERO):** BWSC staff met with officials from Peabody to discuss several Brownfields sites located within a proposed easement for a river project. The City proposes to widen the river for flood mitigation and to create green space with the construction of community parks and a river walk. This area of Peabody was historically operated by tanneries, dating back to the 1800s. BWSC provided information on typical contaminants of concern related to tanneries and the status of existing disposal sites. Three sites within the target area have Notices of Activity and Use Limitations recorded, restricting residential or park reuse unless further remediation is completed. The City is using EPA grants to conduct assessments on several parcels within the project area. Representatives from EPA and MassDevelopment were also there to provide guidance and information related to funding, including the EPA grant application due in November.

**12/24/2009, Medford – Notification of Imminent Hazard in Indoor Air Downgradient from Former Dry Cleaner (NERO):** On December 24 at about 12:30 PM MassDEP Emergency Response (MassDEP-ER) received notification from an LSP reporting an Imminent Hazard condition of perchloroethylene (PCE) in the indoor air of a small office within a commercial building. Groundwater monitoring wells installed in the area discovered high concentrations of PCE in shallow groundwater upgradient of the office and downgradient of a former dry cleaner located within 75 feet. The owner of the office building is currently sealing the open sump inside the basement and other areas to reduce volatilization of PCE to indoor air. This is a densely populated area with other potential receptors. MassDEP-ER arranged to immediately collect additional indoor air samples of other buildings in the vicinity for analysis in the NERO lab. [RTN 3-28237]

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Changing – Sometimes, Not So Much...

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This is a good example of the need to heed 310 CMR 40.0441(3)(a) and (b) “The scope and complexity of a Release Abatement Measures shall be commensurate with the amount of information known about, and the degrees of risk associated with release and disposal site conditions... and shall not be implemented without a level of understanding of disposal site conditions and surrounding receptors to support the actions taken [nor] be continued at a disposal site where [...conditions] are substantially different than those anticipated.”

## NOAF/NON, Residential Site with a Fuel Oil Release,

The work began as a Release Abatement Measure (RAM) to remove a limited area (approximately 2 cubic yards) of fuel oil contaminated soil at a residence where there had been an above ground fuel oil storage tank. The RAM Plan was submitted in January 2004, and indicated, among other things, that there were municipal water supply wells about 770 feet from the site/residence, that the residence was supplied by municipal water, and that there were no private water supply wells in the vicinity of the site. The RAM included a proposal to add hydrogen peroxide to the subsurface soils and groundwater to assist in the breakdown of oils left in soil. DEP subsequently approved the Plan based on the description of the site conditions.

In December 2005, a RAM Status report was submitted, noting that a water sample had been collected from a potable water supply well at the residence. This well had not been previously discussed or identified. No description of the use of this well was included (e.g., lawn irrigation, gardening or drinking water) and no evaluation was made as to whether there might be a cross connection to the municipal supply line or not. Additionally, the construction of the well, and location of the well relative to the release area were not discussed. Additionally, the hydrogen peroxide, not having been field tested before proposed, was stopped after 5 gallons had been added after being deemed not to work as needed as it did not sufficiently penetrate the soils to be effective.

The Audit also included a review of the RAM Completion Statement, the Class A-2 Response Action Outcome Statement, Tier Classification Submittal, several RAM Status reports and a Phase II Comprehensive Site Assessment and Risk Characterization.

Samples were collected from soil, groundwater and indoor air. Some of the post-excavation samples exhibited various petroleum concentrations were still above relevant clean up standards. Later, some of the field screening results were discarded as “incorrect” since they were not replicated in the laboratory analysis. Some other samples were improperly averaged to calculate Exposure Point Concentrations, and would have exceeded Method 1 Clean up standards if this had not been done. Some air samples were also eliminated from the risk assessment and therefore did not provide a conservative estimate of the average concentration for indoor receptors.

Violations noted in the NOAF/NON include: 310 CMR 40.0560(2)(b), failure to submit a timely Phase II Comprehensive Site Assessment within the appropriate deadline. (The document was submitted approximately two months after the due date.)

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- 310 CMR 40.0442(1) (a) implementation of the RAM plan without the level of understanding of the disposal site conditions and surrounding receptors sufficient to

support the actions taken and then (b) continued at the disposal site ... after exposure routes (i.e., the private well) are substantially different than those anticipated and (c) conducted in a manner likely to result in the exposure of surrounding human or ecological receptors. The existence of the well was not discussed in the initial RAM plan, and was not fully evaluated as a potential exposure pathway after detected and noted in one of the Status reports. Had the existence of the well been disclosed earlier, DEP might not have approved the RAM Plan.

- 310 CMR 40.1004(1) failure to support the Response Action Outcome by assessments of sufficient scope, detail and level of effort to characterize the risk of harm to health, safety, public welfare and the environment posed by the disposal site. Several areas were noted. Soils were left in place with exceedences of the S-1 clean up standards and additional soil samples were not taken to fully identify the full extent of the contamination nor was technical justification provided to support their omission. Groundwater: the impact of the private well and other site structures on groundwater flows, the omission of groundwater samples from areas of high soil contamination were the key points noted. Indoor Air while indoor air samples were taken, the soils from the first floor were considered skewed to the high side due to the occupation of the resident(s) and eliminated from the risk assessment. The documentation was not provided to demonstrate whether the samples were taken under conditions to reflect the worst case scenario for a conservative exposure concentration.
- 310 CMR 40.0926(3)(b)1. failure to identify a conservative estimate of the Exposure Point Concentrations. Basing the EPC calculations on the omissions mentioned above led to conclusions that were not conservative estimates of the risk

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The NOAF/NON required additional work to support the original conclusions, or a retraction of the existing RAO and continuation of response actions under the Tier Classification Permit.

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## Changing Enforcement in a Maturing Program

For additional information on Enforcement cases at Mass DEP, see the DEP webpage at: <http://www.mass.gov/dep/public/press/enforce.htm>

Changing – Acknowledging the Good Works Sometimes, it's nice to acknowledge a site where we noticed an Audit outlining the steps taken toward good site assessment and evaluation. Of course, it's one of many.

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