

POLREP 67  
NanoChemonics Site  
4 Magnox Drive  
Pulaski, Pulaski County, Virginia 24301

Lat: N 37.04718  
Long: W 80.79146

ATTN: EPA R3 RRC  
VADEM -Tolbert  
VADEQ - Lohman  
EPA - G. Heston

I. SITUATION (March 14, 2014 to September 25, 2014)

EVENT: Site Cleanup Operations

- A. Refer to previous Polreps for site background information.
- B. STNP, the owner of the NanoChemonics property, is conducting a response action and cleanup of the Site under an EPA order. The Administrative Settlement and Order was signed on April 8, 2011, and response actions continue. In brief, the response action involves the removal of hazardous substances from the Site and included the removal of such substances found in the debris created during demolition of the buildings at the Site. The action also includes the management of wash waters and storm waters at the Site that migrate towards lagoons and then into nearby Peak Creek.
- C. The response actions related to the lagoons and drying bed began on September 25, 2013. Sludge was removed from the four lagoons and placed into the drying bed for dewatering and drying. The closure of the four lagoons was deemed to be complete by EPA during an inspection conducted on March 13, 2014. The closure of the drying bed remains to be completed.

II. ACTIONS

- A. On March 26, 2014, EPA sent a letter to STNP indicating agreement that the sludge had been satisfactorily removed from the 4 lagoons and placed into the drying bed for drying. The letter also requested a schedule to complete actions at the Site inclusive of cover and grading of dried sludge, restoration of lagoon area, removal of remaining ferrous sulfate tank, removal of pipe racks in the waste water treatment area, disposal of remaining debris, and removal of remaining PCB-contamination in the MO area.
- B. STNP proposed new procedures for the sludge drying bed and removal of PCBs (PCB-contaminated caulk) in the MO area. EPA review and agreed on revised procedures.
- C. STNP contractors mobilized to the Site the week of August 4, 2014 to commence operations intending to address the remaining action items on the creek side (a.k.a., wet side) of the Site and the MO pad. The OSC met with STNP contractors Mid

- Atlantic Associates (MAA) and ARG at the Site on August 4, 2014. During the site visit, the STNP contractors excavated test pits in the drying bed to evaluate the drying progress of sludge and clay. It was determined that the sludge and clay had dried sufficiently to allow for the final closure activities to begin. MAA also collected additional samples of caulk from across the MO pad to verify which areas had PCB-containing caulk that would need to be removed. MAA collected seven caulk samples from the MO pad and sent the samples to an MAA-procured laboratory to be analyzed for PCBs (aroclor). Five of the seven samples had PCB concentrations that exceeded the 50 mg/kg regulatory level to be classified as PCB waste, with concentrations ranging from 680 to 12,000 mg/kg. These results were used to identify additional areas of the MO pad that would require removal of PCB-containing caulk.
- D. STNP contractor ARG continued cleanup operations the week of August 11, 2014. STNP contractors completed the following: demolished steel tanks (404 and 327); demolished fiberglass tanks (9 and 10); dismantled the pipe rack above Tank Nos. 327 and 404; and transported inert debris piles (three located adjacent to the MO pad and one located on the creek side of the site) offsite to be disposed in the New River Resource Authority (NRRA) landfill located in Dublin, VA. The steel tanks and pipes were cut up and transported off site to be recycled. An NRRA representative also came onsite to evaluate additional waste material that STNP planned to dispose of in the landfill. Fiberglass tank debris, insulation, and other debris were also transported offsite to be disposed in the NRRA landfill. STNP contractors demobilized from the Site on August 15<sup>th</sup>. The EPA START contractor was onsite during the week to document site activities.
- E. ARG remobilized to the Site to continue work on August 18, 2014. The EPA START also mobilized to the Site to document site cleanup activities. ARG demolished the copperas (ferrous sulfate) tank and loaded the tank remnants/debris and the ferrous sulfate residuals into trucks to be transported off site to the NRRA landfill for disposal. Due to a steady rainfall on the 18<sup>th</sup>, ARG could not begin caulk removal on the MO pad. Rain was forecast for much of the remainder of the week; therefore, ARG demobilized on August 18<sup>th</sup> and planned to return the following week.
- F. MAA was also onsite on August 18<sup>th</sup> and collected five samples of caulk from the concrete building pads on the creek side of the Site. The samples were shipped to an MAA-procured laboratory to be analyzed for PCBs. MAA reported that only low concentrations of PCBs were detected in the samples, with the concentrations ranging from 1.4 to 4.0 mg/kg. These concentrations were well below the regulatory levels and it was determined that the caulk on the Creek side of the facility would not require removal.
- G. ARG re-mobilized to the Site on August 25, 2014 to begin removing PCB-containing caulk from the MO pad and to pick up debris from the creek side of the Site. From August 25<sup>th</sup> to September 25, 2014, ARG finished cleanup activities on the creek side of the Site and removed PCB-containing caulk from the MO pad in areas identified from recent sampling results. The caulk removal operations involved the following: removal of caulk using a combination of a backhoe with a special tool welded to the bucket and hand tools (originally proposed concrete saw with a HEPA vac attachment was not effective in controlling dust/debris dispersion); vacuuming

residuals/dust with HEPA vacuum; and pressure washing the pad. PCB-containing caulk and residuals removed from the MO pad were stored in a lined roll off box onsite until disposal arrangements could be arranged. After the caulk was removed and the MO pad was cleaned, a self-leveling sealer was used to seal the seams in the concrete pad where caulk had been removed. MAA reported that the pad-sealing operations were completed on September 25, 2014. Additionally, one truckload of non-PCB debris generated from cleanup activities was transported off site to the NRRRA landfill. The EPA START contractor conducted frequent on-site documentation of cleanup activities throughout this period. The OSC also conducted periodic site visits to inspect the progress of the work.

- H. EPA has established a public repository of site documents at the local library in Pulaski. EPA will also provide public information updates for the site on the EPA site website at: [www.epaosc.org/nanochemonics](http://www.epaosc.org/nanochemonics).

### III. FUTURE ACTIONS

- A. Final activities relating to the sludge in the drying bed are scheduled to begin in late October 2014. Final activities will include layering of dried sludge and other materials throughout the drying bed, compaction, installment of a soil cover, restoration of the lagoon/drying bed area, and removal of the silt fence.
- B. Additional storm water sampling will be conducted by STNP to evaluate the effectiveness of additional cleanup activities and caulk removal on the MO pad.
- C. EPA will continue providing on-site oversight of remediation activities conducted by STNP.

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Michael Towle  
On-Scene Coordinator  
EPA Region III  
Philadelphia, PA