



September 5, 2014

Ms. Stacy Ladner
Unit Manager
Division of Oil & Hazardous Waste Facility Regulation
Bureau of Remediation and Waste Management
Maine Department of Environmental Protection
17 State House Station
Augusta ME 04333

**Subject: Monthly Progress Report – August 2014
Orrington Remediation Site
Orrington, Maine**

Dear Ms. Ladner:

This Monthly Progress Report is submitted to Maine Department of Environmental Protection (MEDEP) in compliance with reporting requirements in the Board of Environmental Protection (BEP) Order (Order) effective April 3, 2014 for the Orrington Remediation Site (Site) in Orrington, Maine, which incorporates, with modifications, the Compliance Order issued by the MEDEP dated November 24, 2008. This Report covers the period from **August 1 – 31, 2014**, and is submitted on behalf of Mallinckrodt US LLC.

If you have any questions or comments regarding this report please don't hesitate to contact me at 314-281-5947.

Sincerely,

A handwritten signature in blue ink that reads "Kathy Zeigler".

Kathy Zeigler
Director, Environmental Remediation

cc: Patricia Duft – Mallinckrodt US LLC
Melanie Loyzim - Maine Department of Environmental Protection
Paul White – Town of Orrington
Audrey Snowden – Orrington Town Library

**MONTHLY PROGRESS REPORT
ORRINGTON REMEDIATION SITE
Orrington, Maine
August 2014**

Report Date: September 5, 2014

This Monthly Progress Report is submitted to the Maine Department of Environmental Protection (MEDEP) documenting the activities completed by Mallinckrodt US LLC (Mallinckrodt) and/or its representatives at the Orrington Remediation Site (the Site) along with a description of upcoming activities.

1. A discussion of all tasks and actions completed during the reporting period toward achieving compliance with the Order

- Held monthly conference call with MEDEP on August 6, 2014 to discuss activities associated with the Order.
- Facility Dismantling Plan
 - Received MEDEP's approval of the Phase 7 HASP (August 6, 2014) and Work Plan, Air Monitoring Plan and QAPP (August 8, 2014).
 - Discussed a revised approach to Leach Field #1 with MEDEP. An addendum to the Phase 7 Work Plan will be submitted to remove the leach field and stockpile soils within the fenced area for off site disposal characterization. Confirmatory samples will be collected from the excavation and temporary wells will be installed in the area. MEDEP agreed to this approach (subject to Addendum approval) and the previously submitted Leach Field #1 Characterization Work Plan is no longer applicable.
- Groundwater
 - SME submitted back-up QC documentation to MEDEP on August 19, 2014 for the bromide and chloride data referenced in the Draft Interim Extraction Wells Work Plan.
 - Met with a Maine Test Boring representative to review the Landfill 1 Area and discuss access issues and logistics for the proposed interim groundwater extraction wells.
 - Performed in situ slug tests in select wells screened in glacial till and bedrock to obtain hydraulic conductivity data the week of August 20, 2014.
 - Prepared an interpretive shallow bedrock groundwater potentiometric surface map based on the 2012 synoptic water level monitoring rounds.
 - Revised the site groundwater model and presented results to John Beane (MEDEP) and Milovan Beljin (MEDEP consultant) at a meeting on August 26, 2014.
- Landfill Ridge Area
 - Continued development of the Landfill Ridge Area Pre-Design Study Work Plan. While the project timeline previously submitted to MEDEP showed submittal of this plan on August 15, 2014 this date is not specified in the Order. MEDEP was informed the newly selected Remedial Project Management (RPM) team would be preparing this Work Plan therefore submittal would be slightly delayed.
- Comprehensive Monitoring Plan
 - Finalized the draft 2nd Quarter 2014 groundwater sampling report for review.
 - Completed annual pavement sweeping and catch basin insert inspection field activities the week of August 18, 2014 including submittal of sweepings samples to Katahdin for analysis. No catch basin inserts required replacement.

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- Groundwater Treatment Plant (GWTP) Operation
 - Submitted July eDMR to MEDEP on August 13, 2014.
 - Continued to collect mercury compliance samples from Outfall 001 (3x/week with analysis per USEPA Method 1631) and Outfall 002 (one sample per discharge day with analysis per USEPA Method 245.1) for analysis by Katahdin Analytical Labs.
 - Continued to collect monthly compliance samples from Outfall 001 (chloropicrin, carbon tetrachloride and hexachloroethane) for analyses by Katahdin Analytical Labs. Samples were collected on August 5, 2014.
 - Continued to collect weekly samples from Outfall 003 and Southerly Stream for transport to Katahdin Analytical Labs for mercury analysis using USEPA Method 245.1. Analytical results ≤ 200 ng/L will be re-analyzed using USEPA Method 1631.
 - Continued work to dismantle the MW-601 shed and replace it with a smaller structure that encompasses and protects the well
 - Per the Site's MEPDES Permit, continued annual review and update, as necessary, of the GWTP O&M Manual. If necessary, the updated plan will be submitted to MEDEP in September 2014
 - Completed required DOT training (required once every three years) and annual Hazardous Waste training for Site personnel associated with the GWTP operations.
 - Other Site Activities
 - Completed second round of summer mowing of landfill areas.
 - Installed a new water line to the Administration Building the week of August 11, 2014 and capped the old line.
 - Collected weather station data.
 - Completed routine maintenance activities.
2. **A detailed summary of all results of sampling, tests, shipments from the Site and other data received by Mallinckrodt in the prior (previous month) reporting period pursuant to this Order**
- Routine operational data (to be reported with the DMR).
3. **A discussion of all tasks and actions that are scheduled for the coming reporting period including the date for initiating and completing such activities including percent completion where applicable.**
- Hold monthly conference call with MEDEP on September 3, 2014 to discuss activities associated with the Order.
 - Hold meeting on September 15, 2014 with Mallinckrodt, MEDEP and new RPM team.
 - Respond to any questions from MEDEP concerning the pending draft framework documents (HASP (May 2014), QAPP (May 2014), Air Monitoring Plan (June 2014)).
 - Facility Dismantling
 - Implement Phase 7 dismantling work in accordance with approved Work Plans. The work is expected to be completed before the end of 2014.
 - Submit a Phase 7 Addendum to remove the Leach Field #1.

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- Groundwater
 - Submit the 2nd Quarter 2014 groundwater sampling report to MEDEP.
 - Based on discussions during the August 26, 2014 groundwater modeling meeting, map streams at the Site within the groundwater model boundary and continue revising the groundwater model.
 - Receive MEDEP's comments on the Draft Interim Extraction Wells Work Plan and submit a revised Final Draft Work Plan to MEDEP.
 - Obtain a quote from the drilling company to install the interim groundwater extraction wells proposed in the revised Final Draft Work Plan.
 - Comprehensive Monitoring Plan (CMP)
 - Conduct the 3rd quarter groundwater sampling event the week of September 22, 2014.
 - Respond to any questions from MEDEP concerning the Draft CMP Framework (June 2014) or the Revised Sediment Prevention Plan (July 2014).
 - Complete annual pavement sweeping and catch basin insert report upon receipt of data.
 - Landfill Ridge Area
 - Submit the Draft Landfill Ridge Area Pre-Design Study Work Plan to MEDEP.
 - Groundwater Treatment Plant (GWTP) Operation
 - Continue compliance sampling as described above.
 - Submit July 2014 DMR to MEDEP.
 - Continue with MW-601 Shed replacement activities
 - Complete O&M Manual updates and submit to MEDEP as necessary.
 - Other Site Activities
 - Continue work to dismantle the MW-601 shed and replace it with a smaller structure.
 - Complete routine maintenance activities.
 - Collect weather station data.
- 4. Tasks not completed as required, original and revised completion dates, reasons for delay, actions taken to minimize the delay and any other problems or anticipated problems**
- See references to Landfill Ridge Pre-Design Work Plan above.
- 5. The quantity of waste shipped to the various disposal locations**
- Shipped 5.5 cubic yards of sludge generated during GWTP operations to EQ's disposal facility in Michigan.
- 6. Additional information regarding the progress of the work**
- None this reporting period.