

Mr. William Kutash  
Florida Department of Environmental Protection  
Waste Management Division  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637-0926

Subject:  
Final Incident Corrective Action Report  
Lockheed Martin Tallevast Site (Former American Beryllium Company Site)  
OGC #08-2254  
Tallevast, Manatee County, Florida

Dear Mr. Kutash:

Lockheed Martin Corporation (Lockheed Martin) has completed the construction of corrective actions described in the October 28, 2008 Corrective Action Plan for the Interim Groundwater Treatment System and is submitting this Final Incident Corrective Action Report to document this milestone. As required by the Consent Order, this report includes the final Operation, Maintenance, and Monitoring (OMM) Manual, record drawings of the as-built system (Appendix A of the OMM Manual), and the final Contingency Plan for the interim groundwater treatment system.

### **Corrective Action Construction**

The modifications constructed and documented in the record drawings are intended to improve the reliability of the system in response to the on-site release that occurred on August 3, 2008. The modifications include those described in the October 28, 2008 Corrective Action Plan as well as some additional improvements that Lockheed Martin identified during the construction process. Specifically, the following elements were constructed and are shown on the record drawings:

#### *Corrective Action Plan Improvements*

- Replacement of the existing influent tank/containment dike system with a double-wall tank.
- Use of triple redundant level switches/alarms for monitoring the primary tank level as well as the interstitial space between the inner and outer tanks, and

ARCADIS  
14055 Riveredge Drive  
Suite 400  
Tampa  
Florida 33637  
Tel 813.933.0697/3125  
Fax 813.903.3129  
[www.arcadis-us.com](http://www.arcadis-us.com)

CONSTRUCTION

Date:  
January 29, 2009

Contact:  
James M. Bedessem, P.E.

Phone:  
813.903.3125

Email:  
[jim.bedessem@arcadis-us.com](mailto:jim.bedessem@arcadis-us.com)

Our ref:  
B0038055

#### **Florida License Numbers**

**Engineering**  
EB00007917

**Geology**  
GB310

**Landscape Architecture**  
LC26000269

**Surveying**  
LB7062

shutting down the entire system in the event of a high level in the primary tank or a detection of liquid in the interstitial space.

- Wiring or programming these level control switches and other critical controls to fail on loss of continuity (fail open) so that the system will shut down on a loss of signal from any of the control switches.
- Implementation of a redundant interlock system so that the system will shut down even if the existing programmable logic controller (PLC) system fails.
- Relocation of the aeration recirculation equipment and valves to a secure, controlled area inside the treatment building rather than at the influent tank inside a containment dike.
- Use of 316L Schedule 40 welded stainless steel for the aeration recirculation piping, influent groundwater piping inside the building, building sump transfer piping, and all process piping between the building and influent tank. This piping has a pressure rating in excess of 2000 pounds per square inch (psi) and is more resistant to damage from external forces than the PVC or the hose that was previously used.
- Dual containment of the stainless steel piping between the building and the double-wall influent tank using clear PVC pipe for observation of leaks. Instrumentation was also installed to monitor for liquid collecting in the containment piping.
- Use of lockable valves.
- Installation of two aerators in parallel so that one can be removed for cleaning while the system remains operable.
- Use of a centrifugal pump capable of producing a recirculation flow rate of 15 gpm at an estimated 101 feet of total dynamic head (TDH). The pump shutoff head is approximately 140 feet TDH or 60 psi.

- Replacement of the metal curbing at the north roll-up door with concrete curbing for improved containment within the building.
- Improvements to the building, equipment, and electrical system surge suppression and grounding network.

#### *Additional Improvements*

- Replacement of the existing 10-well influent manifold that was constructed of Schedule 80 PVC and included flexible hose connections between the buried influent piping and the PVC manifold. This manifold was reconstructed using Schedule 40 welded stainless steel piping, valves, and braided stainless steel flexible fittings to be consistent with the other new piping in the treatment facility.
- Replacement of the influent flow meters during reconstruction of the influent manifold. The replacement flow meters are constructed with stainless steel bodies, were sized for the anticipated flows from the recovery wells, and are powered by a 24 volt power supply.
- Replacement of the existing pressure gauges (local, manual readout only) on the influent manifold with pressure indicating transmitters that provide both local pressure readings and also transmit that information to the PLC.
- Installation of dedicated drain lines from select process equipment to the building sump to facilitate equipment maintenance.

#### **OMM Manual and Contingency Plan**

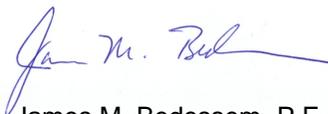
Concurrent with the construction of the modifications described above, the OMM Manual and Contingency Plan for the system have been reviewed and revised to address comments by the FDEP and to be consistent with the system as constructed. Furthermore, the standard operating procedures included in the OMM Manual have been reformatted and supplemented with greater detail. These changes were designed to provide the system operations staff with detailed step-by-step instructions on routine operations activities and include sign-off verification spaces to document the procedures are being followed.

**Conclusions**

The modifications proposed in the October 28, 2008 Corrective Action Plan have been completed and the system is now ready for operation upon approval of the Florida Department of Environmental Protection to restart the system. If you have any questions or need additional information regarding the proposed modifications, please contact me directly at 813.903.3125, or jim.bedessem@arcadis-us.com.

Sincerely,

ARCADIS U.S., Inc.

A handwritten signature in blue ink, appearing to read "Jim M. Bedessem".

James M. Bedessem, P.E.  
Associate Vice President  
Florida P.E. License No. 55694