

**U.S. Environmental Protection Agency**  
**Region 3**  
December 2006



## **Marjol Battery Investigation Update**

### Mine Fire Hazard Investigation

At the recommendation of the EPA National Ombudsman, the Marjol Battery site owner, Gould Electronics, conducted a field investigation during September and October 2006. The purpose of the investigation was to further evaluate the potential for a mine fire to impact a proposed waste containment project at the Marjol Battery site. The Ombudsman recommended additional investigation of two specific coal seams: the Top Four Foot Coal Seam and the Top Split Top Four Foot Coal Seam.

### **Background**

In December 2000, EPA issued a Final Decision for a waste containment remedy at the Marjol Battery site, located in Throop, PA. The remedy was selected after a thorough investigation, including subsurface borings to evaluate coal seams beneath the site. The project evaluation included a review of mine subsidence potential and mine fire hazard by the Pennsylvania Department of Environmental Protection (PADEP) Bureau of Abandoned Mine Reclamation. As a result, the Five Foot Coal Seam was determined to be the only coal seam to pose a subsidence or mine fire hazard to a waste containment remedy.

EPA's cleanup remedy requires the owner to consolidate all lead contaminated waste and soil (above 500 mg/kg) into a waste containment area, and to construct an impermeable cover to isolate the waste. The EPA decision also requires the isolation of the waste material from the Five Foot Coal Seam to eliminate any subsidence or mine fire hazard.

### **Scope of the Additional Investigation**

Since the Ombudsman's recommendation, Region 3 led discussions with PADEP, Gould, Throop Borough, and Gannett Fleming to develop a consensus on the scope of work for the additional mine fire investigation. Gannett Fleming participated in the process at the request of Throop Borough council members.

During these discussions, all parties agreed that coal seams that meet at least one of the following conditions do not pose a hazard:

- Very thin coal deposits
- Coal isolated by non-combustible material
- Unmined coal seam.

The scope of work for the additional investigation was approved by EPA/PADEP on 3/21/05. It proposed 13 additional borings, 7 of which would further evaluate the coal seams at the site.

### **Investigation Results and Conclusions**

In September and October 2006, the 7 borings proposed in the work plan and 2 additional borings were drilled to investigate the coal seams.

All field work was observed by US Army Corps of Engineers geologists, representing EPA, and Gannett Fleming/Skelly & Loy geologists, representing PADEP. PADEP contracted with Gannett Fleming for the field oversight at the request of Throop Borough Council members.

The investigation report, prepared by AGC for Gould, summarizes the field work and data collected, and presents the following conclusions:

- The Top Four Foot Coal Seam and the Top Split Top Four Foot Coal Seam ***do not*** pose a mine fire hazard to the waste containment area proposed for the site.
- A waste containment area may be designed with adequate isolation from the Five Foot coal seam.

The EPA and PADEP technical review teams have evaluated the new and previously existing data related to the coal seams. All review parties, including the Gannett Fleming oversight team, agree with these conclusions.

### **Next Steps**

Comments by EPA, PADEP, and Gannett Fleming were sent to Gould on December 18, 2006.

EPA and PADEP will share the results of the investigation and their review of the coal seam information with Throop Borough representatives at a time that is convenient to the Borough representatives.

EPA and PADEP will evaluate options to isolate the Five Foot Coal Seam from the proposed containment area to assure that the coal seam is properly isolated.

### **Contact Information**

Anyone with questions about this investigation should contact:

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