Long-Term Stewardship Assessment Report

Century Aluminum of West Virginia

EPA ID #: WVR000016469

Ravenswood, West Virginia 26164

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Introduction: Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e, ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

Site Background: Kaiser Aluminum and Chemical Company originally developed the site in Ravenswood, WV as an integrated aluminum production facility in the 1950's. In 1989, Ravenswood Aluminum Corporation purchased the entire Kaiser plant, except for two separate parcels (Spent Potliner Pile and Spent Potliner Vault).

Ravenswood Aluminum Corporation became Century Aluminum of West Virginia (CAWV or Facility) in 1997. CAWV sold the cast house and fabrication portion of the plant to Pechiney in 1999 and is now owned by Constellium Rolled Products. CAWV maintained the aluminum plant and continued to produce aluminum until it was shut down in 2009.

In the 1970s, to prevent cyanides from migrating to the Ohio River, Kaiser developed a "blocking well" system to control site groundwater from reaching the Ohio River. There were a total of six blocking wells. Extracted groundwater was discharged to the Ohio River in accordance with NPDES (Permit No. WV0000779) issued to Century Aluminum.

CAWV constructed a perimeter fence with warning signs around Area 13, Solid Pitch Unloading and Carbon Plant Storage Drainage Area, in 2001 to prevent exposure to solid pitch residues, fragments of solid coal tar at the unloading area and PAHs in soil. CAWV installed a synthetic and vegetative cover over the Area 7, Outfall 001 Conveyance, in 2002 to protect against PAHs in sediment.

EPA issued a Final Decision and Response to Comments (FDRTC) for CAWV in November 2011.

The Corrective Measures Implementation Plan (CMIP) dated October 2013 was approved by EPA in November 2013. The CMIP contains the Materials Management Plan component of the FDRTC.

Current Site Status: The EPA is the lead agency that provides oversight of RCRA Corrective Action activities at the Century Aluminum of West Virginia site located in Ravenswood. In March 2013, EPA signed an Administrative Order on Consent (AOC) with Century Aluminum for implementation of the selected remedy. The Order requires a Groundwater Monitoring Plan, a Materials Management Plan, and maintenance of engineering controls (security fence and cover). The Facility is currently shutdown due to the recently reduced prices on aluminum. CAVW is actively seeking to sell the property.

Long-term Stewardship Site Visit: On May 24, 2016, EPA conducted a long-term stewardship site visit with representatives from all three parties at the Ravenswood facility (TRC, Century Aluminum & Constellium) and contractors to discuss and assess the status of the implemented remedies at the site. The attendees were:

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Institutional Controls (ICs) Status: Institutional controls described in the FDRTC include: 1) restrict the use of groundwater for potable purposes; 2) restrict well drilling without prior EPA approval; 3) restrict use of property for any purpose other than industrial; 4) restrict earth moving activities; 5) restrict any activities than may damage the existing synthetic and vegetative cover over Area 7.

EPA confirmed that CAWV was in compliance with all institutional controls listed above. CAWV receives its potable water from the City of Ripley, West Virginia, about 10 miles south of the Facility. Groundwater use at the site is limited to groundwater monitoring as required under EPA or WVDEP. EPA explored the former aluminum facility, including the former pot-lines buildings, and found that the property is inactive. Area 7 is unused by CAWV and the vegetative cover was in good condition. There were no new wells or on-going earth moving activities at the time of the site visit. CAWV is required to report on compliance with and effectiveness of ICs and ECs annually.

Area 1 (Bottomlands), Area 2 (Potliner Loadout), Area 3 (Potliner Pile Perimeter), Area 5a (Anode Burnoff Pile), Area 7 (001 Outfall Conveyance) and Area 13 (Solid Pitch Unloading and Carbon Plant Storage Drainage Area) have a Materials Management Plan (Section 3.3 of the CMIP) in place to detail

how soil and groundwater will be managed during any future subsurface activities. The Materials Management Plan includes a Health and Safety Plan, Sampling and Analysis Plan and Quality Assurance Project Plan.

Engineering Controls (ECs) Status: The FDRTC requires operation and maintenance of existing engineering controls. The security fences around CAWV and Area 13 were intact. There were also warning signs along the railroad tracks within Area 13. Area 7's synthetic and vegetative cover was properly maintained with minimal disturbance. Since the Facility is inactive, a "skeleton" work force provides security and upkeep.

CAWV is also required to follow the EPA approved groundwater monitoring plan. Monitored Natural Attenuation was selected as the remedy for groundwater in the FDRTC. This goal is to restore groundwater to drinking water standards. Until these standards are met, CAWV will monitor the natural attenuation process of contaminants in groundwater at the following well locations:

Well	Constituents	Frequency
MW-9	Fluoride	Annual
SPL-1, SPL-2, SPL-3, SPL-4, SPL-5	Fluoride, WAD Cyanide	Semiannual
LF-3	Fluoride	Annual

Financial Assurance: Financial Assurance is not required at the Facility

Reporting Requirements/Compliance: Compliance with and effectiveness of institutional controls implemented shall be evaluated on an annual basis and reported to EPA/WVDEP. Semiannual progress reports must be submitted to EPA throughout the period that the Administrative Order on Consent is effective.

Mapping: The EPA Facility website figure is accurate and will include a geospatial PDF showing the use restriction boundaries. The draft geospatial map was field-verified and no issues were noted. The geospatial PDF will be uploaded once the UECA is finalized with a legal survey of use restricted areas.

Follow-up Activities: CAWV is currently developing an Environmental Covenant (UECA) and expects to be finished within the next few months. UECA will be used as an enforcement mechanism to implement current ICs and maintain existing ECs.

Blocking well F-1 was shut down on July 17 to begin evaluating whether post-shutdown groundwater elevations and flow directions in the alluvial aquifer are consistent with those demonstrated during the Blocking Well Shutdown evaluation in 2008.

Conclusion: The engineering controls selected are implemented and remain intact and undamaged. Also, no EC/IC deficiencies have been identified. The current EC/ICs have been implemented and are functional and maintained as required.

Attachments

Picture 1: Synthetic and vegetative cover

Picture 2: Former pot-lines building

Picture 3: Former pot-lines

Picture 4: Former pot-lines (2)

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