

Doe Run Backgrounder

Metals Division – Herculaneum Refinery, Alloying and Casting (Formerly the Herculaneum Smelting Division or Primary Lead Smelter)

The Doe Run Company's (Doe Run) Herculaneum, Missouri, primary lead smelter transformed lead concentrate into some of the world's purest lead. The smelter began operating in 1892 and served U.S. companies and manufacturers with the lead needed for car batteries, radiation protection, backup power sources and other uses. Doe Run closed its Herculaneum primary smelting operations in 2013. Today, Doe Run is preparing the site for future uses.

HISTORY

In the late 1800s, the need for lead in the United States surged and New York-based St. Joseph Lead Company entered the booming Missouri Lead Belt as the premier investor. The company acquired a 540-acre tract of land on the Mississippi River and construction began in 1890 on what became Doe Run's Herculaneum primary lead smelter.

After lead ore was mined and milled into lead concentrate, it was shipped to Herculaneum for smelting. There, lead concentrates were smelted into molten lead, then refined and cast into 99.99 percent pure metal. Other metals could be added to produce alloys tailored to the needs of customers. In its last year of operation in 2013, Herculaneum produced 124,900 tons of finished lead metal and alloys.

The facility reached various safety milestones over the years, including 500,000 employee hours worked and one full year worked without a lost-time accident. The facility maintains ISO 9001:2008 for quality management systems.

THE END OF AN ERA

In October 2008, the EPA adopted a new National Ambient Air Quality Standard (NAAQS) for lead, lowering the acceptable level of lead in ambient air to 0.15 micrograms of lead per cubic meter of air ($\mu\text{g}/\text{m}^3$) and stipulating that measurements be reported as a rolling, three-month average. Doe Run spent millions of dollars on upgrades, engineering and administration control

measures to improve the smelter's environmental performance, and as of October 2012, had reduced air emissions, measured at its five ambient air monitors, to be between .01 and 0.51 $\mu\text{g}/\text{m}^3$.

Continuing to upgrade the aging smelter to attempt to meet the increasingly stringent environmental regulations within the strict timeline imposed on primary lead smelters was not economically feasible. In 2010, Doe Run reached a comprehensive settlement with the EPA and the state of Missouri, agreeing to cease its smelting operations in Herculaneum at the end of 2013 because it could not comply with the new stipulation in time.

SITE REMEDIATION AND REPURPOSING

From a state-of-the-art port on the Mississippi River to an all-abilities playground in Herculaneum, Doe Run remediation work embraces a responsibility to bring new opportunities to the sites and communities once occupied by the smelter site. Doe Run is working to remediate and prepare the smelter site in a responsible manner for future business use. Just 25 miles south of St. Louis, the smelter's strategic location on the Mississippi River allows for rail, highway and river transportation. In March 2012, Riverview Commerce Park LLC (RCP) announced intentions to develop portions of the site. RCP began Phase 1 with the development of a shipping port in 2013, modifying the existing rail and barge loading facilities. RCP partnered with the Jefferson County Port Authority to add a barge fleeting area on the Mississippi River near the port in

early 2015, which makes loading and unloading more efficient. In 2016, Doe Run sold 18 acres of the previously leased riverfront property to RCP, securing a long-term commitment to Herculaneum. RCP also increased shipping capacity in Herculaneum by opening a second loading dock.

All remediation work is done with oversight from regulatory agencies. In 2016, crews removed 5,000 tons of lead-bearing materials from the plant for recycling. Other work included moving slag (a glassy, sand-like material leftover from smelting) on the property to a new slag storage area, and the next step will be to cap it with soil. Doe Run continues to remove portions of the plant, and public buildings located immediately next to the smelter property.

COMMUNITY COMMITMENT

Doe Run and its predecessor, St. Joseph Lead Company, were a big contributor to the Herculaneum community. In recent years, Doe Run has donated land and resources for projects like an all-abilities playground and the M.R. & B.T. Railway Memorial Bridge. Doe Run also teamed up with Microgrid Solar in 2013 to provide solar canopies, roof-top arrays, lighting changes, and HVAC upgrades for Herculaneum High School, which are working to reduce operating costs and improve the school's energy efficiency. The company also awarded grants to seven Jefferson County school districts to retrofit diesel-powered school bus engines to reduce exhaust emission.

CONTACT INFORMATION

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