BIERLEIN

Recently Completed Manufacturing Projects:

<u>Electrolux – Greenville, MI</u>

Bierlein concluded with the demolition of the world's largest refrigerator plant in located in Greenville, Michigan in 2008. In addition to demolition, the project included asbestos and lead abatement, asset recovery, metal and wood recycling, as well as site remediation of the 1.7 million square foot plant. Bierlein recycled over 15,000 tons of ferrous and non-ferrous scrap materials. Nearly 200,000 board feet of century-old white pine lumber was shipped to New England for transformation into coveted 12" white pine plank flooring. Even though this was not a designated LEED project, Bierlein also recycled more that 97% of the plant – a whopping 22% higher than required for USGBC LEED silver certification.

General Electric Aviation Jet Engine Component Manufacturing Plant – Albuquerque, New Mexico

In 2011, General Electric (GE) Aviation demolished its jet engine component manufacturing plant in Albuquerque, New Mexico. The demolition is remarkable because GE Aviation managers wholeheartedly committed to recycling or reusing all usable building materials. GE Aviation's "green demolition" saved 14,280 tons of building and related materials from being sent to local landfills and significantly reduced demolition costs. The green demolition also supported 75 jobs. As a result of the company's leadership, GE Aviation's effort has significantly raised the environmental bar for other companies considering plant demolition in the future.

Bierlein served as the demolition contractor. "As far as the demolition project, it went off without a hitch," said Dana Beaulieu, GE Aviation, Environment Health and Safety Leader, Albuquerque Plant Operations. "It was awesome. We couldn't have expected the project to go any better than it did."

For more than 30 years, GE Aviation operated the 700,000-square-foot manufacturing plant on 33 acres of land until the company decided to close the plant in September 2010. Numerous old jet engine production buildings sat idle and environmental contamination remained in buildings and the underlying ground water. Although ground water cleanup overseen by the EPA's Superfund Program had been underway since 1994, company officials were now faced with the challenge of managing its massive inventory of unused buildings and equipment. GE Aviation first removed all hazardous materials, including chemicals, oils and coolants, and asbestos-containing materials. GE disposed of the materials according to all applicable federal, state and local requirements. Bierlein then removed

universal wastes prior to demolishing buildings and collecting recyclable materials in January 2011, and completed its work four months later.

GE Aviation, EPA and the New Mexico Environment Department thoroughly investigated the project area to ensure that the demolition did not negatively impact the environment while demolition was occurring. Once completed, nearly 85 percent building materials had been set aside for reuse or recycling. Bierlein sold the recyclable materials to local recycling facilities. In addition, Bierlein collected and reused 225,000 gallons of water for dust suppression. After demolition, the only materials that remained were piles containing unusable material, such as insulation, sheet rock and wood framing debris. These materials were properly disposed of in accordance with applicable federal and state waste disposal laws.

When asked why the demolition was such a success, GE Aviation's Beaulieu and Julie Einerson, contract environmental specialist, credited the demolition contractor's expertise: "Bierlein was committed to the environment and being compliant with environmental rules and air permit requirements."

"Outside the Box" thinking on the part of both Bierlein and GE Aviation was essential. GE Aviation partnered closely with Bierlein's project manager throughout the project to meet the "green" demolition goal. Bierlein responded in kind by going to extensive lengths to collect and maximize the value of and all recyclable materials, which included using specialized equipment, such as "a large magnet equipped excavator to collect ferrous materials and an Innov-x XRF Gun to grade scrap materials maximizing the scrap value," said D.J. Diblasi, with Bierlein. This specialized equipment could identify and pull recyclable materials from the demolition piles even after it looked like nothing else could be salvaged.