

SHIELDALLOY'S NEWFIELD, NEW JERSEY PLANT

FACT SHEET

- ◆ Shieldalloy employs 208 people at the plant.
- ◆ The plant is a high-tech metallurgical facility producing ferroalloys and aluminum alloys - specialty alloys for technical and defense applications.
- ◆ One of those alloys is ferrocolumbium, an important addition to high-grade steels. Although ferrocolumbium is non-radioactive, one of the raw materials used to produce it, columbium ore, is slightly radioactive. The ferrocolumbium production process generates slightly radioactive slag and baghouse dust which are stored on site in a controlled area known as the storage yard.
- ◆ The slag is in the form of a vitrified or rock-like solid. The baghouse dust, while originally loose, sets up like cement when it becomes damp.
- ◆ Although only slightly radioactive, and in no way a threat to nearby residents, the materials are regulated by the Nuclear Regulatory Commission (NRC) because of the presence of natural uranium and thorium contained in the slag.
- ◆ The NRC, in its 1993 Updated Report on Site Decommissioning Management Plan, says that "the site poses no immediate threat to public health and safety" (Page A-202).
- ◆ Shieldalloy has a license from the NRC to process the columbium ore and to possess the mildly radioactive material in the slag and baghouse dust. If ever ferrocolumbium production ceases the NRC will require Shieldalloy to decommission the site. To achieve that goal, Shieldalloy plans to stabilize the material in the storage yard with the NRC's approval, to cover it with a multi-media cover, re-vegetate the site, institute long-term surveillance, and to arrange for some permanent restrictions on future use of the site.
- ◆ Once the site is decommissioned in that fashion, the maximum exposure a member of the general public could receive from it is calculated to be less than one millirem per year above background, using very conservative assumptions. By way of comparison, every person in the United States receives, on average, a radiation level of 360 millirem every year from normal background radiation. The average background level in Denver, Colorado is 410 millirem per year due primarily to that city's greater altitude. One would receive a fifty times greater excess radiation level by moving to Denver, Colorado than by moving directly on top of the capped storage yard.

- ◆ As a result of downward price pressures in its primary metals markets, and for other financial reasons, Shieldalloy filed for protection from its creditors under Chapter 11 of the Bankruptcy Code on September 2, 1993. Shieldalloy must present a viable Business Plan in order to restructure its finances and emerge from Chapter 11. However, Shieldalloy must be able to estimate the cost of decommissioning the site in order to determine if reorganization is feasible, a fact that Shieldalloy has communicated to the NRC and the NRC has acknowledged.
- ◆ Shieldalloy has determined that operations with columbium ore can continue at the current rate until at least the year 2430. At that time the slag and baghouse dust could be safely decommissioned on site and still remain well below the NRC's decommissioning objective of "10 millirem per year above background" as stated in the 1993 Updated Report.
- ◆ The NRC is preparing an Environmental Impact Statement to evaluate the effects of the proposed decommissioning option, as well as all other possible alternatives, on public health and the environment in light of the costs associated with each alternative. The NRC expects to publish its draft Environmental Impact Statement at the end of 1994 and to publish it in final form at the end of 1995.
- ◆ Off-site disposal was considered by Shieldalloy for its Cambridge, Ohio plant which is facing similar decommissioning questions. That alternative was rejected because it was more dangerous than the on-site plan now being proposed. Because there are many tons slag at the Newfield plant, to dispose of it off-site would mean putting thousands of trucks on the road and would present clean-up workers and members of the community with a many thousands of times greater chance of fatality than if the slag were left right where it is. That is due, primarily, to the added risk of transportation and construction injuries. Off-site disposal would also be prohibitively expensive. Cost estimates for two such alternative plans at the Cambridge site are \$135 million and \$467 million, neither of which Shieldalloy could afford. Similar estimates are likely for the Newfield plant.
- ◆ Carol D. Berger, a Certified Health Physicist, and Shieldalloy's technical consultant, has studied this site extensively. She has submitted her evaluation to the NRC which concluded that the low levels of radioactive materials in the storage yard at the site now, and as projected into the future, pose no significant risk to public health. The evaluation also shows that there will be negligible risk to the community over the long term if Shieldalloy is permitted to decommission the site as planned.
- ◆ Shieldalloy's intention is to protect the environment and the people in the vicinity of the plant and to implement the safest, most effective closure possible. Shieldalloy will continue cooperating with the Nuclear Regulatory Commission and arrange for the permanent disposition of the materials on the site.