Zirconium Product Building Demolition Report

Surety Offset Requested: Unburdened $ 77,435 Burdened $ 133,769

This report summarizes the Mill Facility Removal demolition of the Zirconium Product Building. This demolition activity commenced in May 2011 and was completed in early June 2011 and was completed in accordance with all applicable legal and regulatory requirements. The project goals of safe work and using the ALARA philosophy to minimize dose to workers and the public were achieved.

1. History - This section was constructed in 2001 to precipitate and filter zirconium compounds as an addition to the milling facility constructed in the late 1970's that commenced operation in 1979. The 1979 milling facility was constructed to the West of the original 1957 milling facility.

2. Pre-demolition activities – A certified Asbestos Building Inspector inspected/performed sampling in the facilities described above, provided instructions for removal and disposition of asbestos materials and provided the documentation required to apply for demolition permits from the Colorado Department of Public Health and Environment Air Pollution Control Division. One Colorado demolition permit was received and used to obtain a Fremont County demolition permit from the Fremont County Building Department.

	Zirconium Product
Colorado Demolition Permit #	11SU1530D
Fremont County Demolition Permit #	D11-009

All soil transport activities were conducted under the Airs 71 sitewide air permit.

Run-in/run-off berms were constructed prior to the commencement of demolition activities. Process lines were emptied at circuit shutdown and during a prior hazard reduction process. Oil was drained and collected from all gearboxes and devices.

Utilities were disconnected prior to demolition activities. The utility disconnect verification signoff sheet with an attached diagram of the area to be signed off was completed prior to starting demolition.

3. Demolition work controls were included in the Zirconium Product Building Work Plan. Radiation, Industrial Safety and project specific training on the Zirconium Product

Building Demolition Work Plan was conducted on 5-16-11 for all contractor employees and Cotter personnel involved with the demolition. Ongoing training was provided for new individuals entering the project. .

4. Demolition Activities – The equipment and structures were removed utilizing track mounted excavators equipped with shears, buckets, grappling thumbs and rock breakers to demolish, size and then load the demolition materials into trucks for transport to the disposal area. Wheel mounted loaders and backhoes were also used to load trucks. Water spray was used to control dust. Fire water and mill water systems as well as a water truck with a remote control operated water cannon were utilized for demolition area dust control. Water trucks with spray bars and/or the water cannon were used for dust control on transport areas and laydown areas. The demolition materials were placed in the Primary Impoundment and the material was covered with random soil fill. Large pipes or vessels were crushed or filled with soil, sand or cement to minimize void spaces prior to placement.

   The total constructed volume of the materials removed from this area was 14,138 ft^3. Soils were removed to a nominal level of 60 uR for ALARA purposes.

5. ALARA – Demolition activities were reported on and discussed during daily meetings attended by the RSO and/or the ARSO and The Health and Safety Supervisor. Environmental and occupational monitoring results are evaluated during the monthly ALARA review meeting. Environmental Monitoring at the perimeter site boundaries is part of the routine monitoring program. Since the Old Mill Electric Shop demolition in April 2009 and initiation of interim closure of the Secondary Impoundment in the Third Quarter of 2009 through the 2011 demolition of the Rubber Shop/Sulfation, Demonstration Plant/Boiler Building, Grind & Leach, Zirc Product/Secondary Crusher and Fine Ore Bins, environmental air particulate data as judged by weekly dust loading, weekly gross alpha and quarterly composite for individual uranium series radionuclides have demonstrated compliance with standards and results within historical limits for the past 30 years of record. Typical results are that most radionuclides are less than 10% of the standard. For radon, additional measuring stations were added for the Secondary Impoundment project in 3rd quarter 2009 and all monitoring stations have been in compliance with the standards. This monitoring information and detailed evaluation is presented in the semiannual effluent report as well as the annual report. The Zirconium Product Building project was similar in nature to the Secondary Crusher Building project. The occupational and environmental sampling summary for the Zirconium Product Building and Secondary Crusher projects is shown below.

Occupational and Environmental Sampling Results

GENERAL AIR SAMPLES BY DEMOLITION PROJECT	1st sample	Last Sample	Number of samples
Zirconium Product/Secondary Crusher	04/06/11	06/26/11	30

BREATHING ZONE SAMPLES BY DEMOLITION PROJECT	1st sample	Last Sample	Number of samples
Zirconium Product/Secondary Crusher	04/18/11	06/23/11	51

GENERAL AIR SAMPLES BY DEMOLITION PROJECT	MAX % DAC sample	AVG % DAC for project
Zirconium Product/Secondary Crusher	7.2	0.6

BREATHING ZONE SAMPLES BY DEMOLITION PROJECT	MAX DAC HR sample	AVG DAC HRS for project
Zirconium Product/Secondary Crusher	.8	0.2

6. The AIRS 71 permit, the demolition permits, environmental monitoring data, personnel exposure data, dust condition reports and the constructed materials volume calculations associated with this report will be archived in the decommissioning records area with a copy of this report.

   Page 5 is a pre-demolition view with page 6 showing a post-demolition view of the Zirconium Product Building.

PRE-DEMOLITION

POST DEMOLITION