



**SHIELDALLOY METALLURGICAL CORPORATION
AND
U. S. NUCLEAR REGULATORY COMMISSION
MEETING ON DECOMMISSIONING ISSUES AND OPTIONS**

April 16, 2003

SMC Participants

Joe Diegel, Vice President and General Manager, SMC
David Smith, Radiation Safety Officer, SMC
Carol Berger, Consultant, IEM

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TOPICS TO BE PRESENTED

Possession-Only License Option

Summary of Available Environmental Reports

Action Plan to Address Deficiencies

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POSSESSION-ONLY LICENSE OPTION

SMC submitted a Decommissioning Plan on August 28, 2002

Preferred approach in the Plan was *in-situ* disposal
of residual radioactivity and license termination
with restricted release of the site

Preferred approach was selected over alternatives
(i.e., unrestricted release of the site) on the basis of cost and risk.

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ISSUES ASSOCIATED WITH PREFERRED OPTION

USNRC guidance on restricted release pending

Third-party ownership of the site by a Federal
or State agency (durable institutional controls)

Legal issues/ramifications associated with
land use restrictions over time

Community acceptance of restricted release

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SUGGESTED SOLUTION

Confine residual radioactivity from unauthorized access to a single location (the Storage Yard) and restrict unauthorized access

Release the remainder of the property for unrestricted use (25 mrem/year dose basis)

Amend License No. SMB-743 for "storage only" of materials in the single restricted area

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ADVANTAGES OF "STORAGE-ONLY LICENSE"

There is a legally-responsible entity for ensuring radiation safety and restricting disruptive future uses of the single restricted area

Funding for long-term maintenance, control, surveillance and reporting is required by the license

USNRC maintains a continuous awareness of the property status via license correspondence and inspections, which is assured via 10 CFR 40.41 (terms and conditions of licenses) and 10 CFR 40.46 (inalienability of licenses)

Facilitates possible beneficial re-use of materials from the restricted area at a later date.

Permits beneficial use of remainder of property

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ADVANTAGES OF "STORAGE-ONLY LICENSE" (contd.)

Property cannot be sold without USNRC authorization (10 CFR 40.41 and 40.46)

Radiation safety requirements of 10 CFR 20, as applicable, remain in force

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SMC'S PROPOSED ACTION PLAN (Order of actions TBD after discussion with USNRC)

- 1) Perform an ALARA Analysis comparing restricted release and storage only license.
- 2) Perform ALARA Analysis for proposed conditions in restricted area.
- 3) Remedial actions implemented, as necessary, to ensure:
 - Dose rate in any unrestricted area does not exceed two (2) mR/hr
 - Residual radioactivity is secured from unauthorized access
 - Visual impacts of the restricted area are minimized (i.e., conservation buffer).

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PROPOSED ACTION PLAN (contd.)

5) Remainder of the property remediated and final status survey performed to secure release for unrestricted use.

6) Submit "Storage Only" license application to address:

Description and location of restricted area

Description of access controls

Listing of individuals responsible for ensuring compliance with applicable USNRC requirements

Description of surveillance methods

Description of reports (what, to whom, and when)

Contents of annual report on physical and radiological status of the restricted area (confirm < 2mR/hr and posting/access controls are in place)

7) Amend decommissioning funding plan and financial assurance instruments to reflect storage-only license provisions

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AVAILABLE/APPLICABLE ENVIRONMENTAL REPORTS

U. S. Nuclear Regulatory Commission, NUREG-1543, "Environmental Impact Statement, Decommissioning of the Shieldalloy Metallurgical Corporation Cambridge, Ohio Facility", July, 1996

PTI Environmental Services, "Remedial Investigation and Feasibility Study at the Shieldalloy Metallurgical Corporation Site in Cambridge, Ohio", September, 1996.

IT Corporation, "Assessment of Environmental Radiological Conditions at the Newfield Facility", IT Corporation Report No. IT/NS-92-106, April 1, 1992

Oak Ridge Associated Universities, "Radiological Survey of the Shieldalloy Metallurgical Corporation, Newfield, New Jersey", Report No. ORAU 88/G-79, July, 1988.

Integrated Environmental Management, Inc., Report No. 94005/G-17172, "Final Status Survey of Haul Road", October 1998

Integrated Environmental Management, Inc., Report No. 94005/G-20187, "Demolition and Final Survey of the AAF Baghouse", November 2000.

Integrated Environmental Management, Inc. Report No. 94005/G-16171, "Final Status Survey of G-Warehouse", November 2000.

Integrated Environmental Management, Inc. Report No. 94005/G-16171, "Final Status Survey Report for 'A' Warehouse", October 1998.

Integrated Environmental Management, Inc., IEM Report No. 94005/G-18198, "Soil Sampling/Survey of Storage Yard After Remediation", January 2000

TRC Environmental Corporation, Closure Report, Surface Impoundments BB1, B2, B3, B5, B11 and B12, Liner and Contaminated Soil Removal and Disposal, dated April 1996 (revised August 2000).

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TRC Environmental Corporation, Closure Report, Surface Impoundments B6, B7 and B8, Liner and Contaminated Soil Removal and Disposal, April 1999

Remedial Investigation Technical Report", TRC Environmental Consultants, Inc., 1992; "Flood Insurance Rate Map and Street Index, Borough of Newfield, New Jersey", FEMA, 1982.

"Remedial Investigation Technical Report", TRC Environmental Consultants, Inc., 1992; Draft Final Feasibility Study Report, TRC Environmental Corporation, April 1995.

"Evaluation of Fate and Transport of Chromium and Total Dissolved Solids in the Hudson Branch-Burnt Mill Branch Tributaries to Maurice River", Environmental Resources Management, Inc., November 6, 1995

"Modification of Surface Water Discharge Permit", Dan Raviv Associates, Inc., August 1988.

"Evaluation of Fate and Transport of Chromium and Total Dissolved Solids in the Hudson Branch - Burnt Mill Branch Tributaries to Maurice River", Environmental Resources Management, Inc., November 1995

"Ground Water Remedial Alternatives", Dan Raviv Associates, Inc., 1988; "Remedial Investigation Technical Report", TRC Environmental Consultants, Inc., 1992.

Woodward-Moorhouse & Associates, Inc., "Preliminary Report Groundwater Contamination Study Phase II", September 12, 1974

Roy F. Weston, Inc., "Hydrogeologic Investigation of Ground Water Contamination" Interim Report, February 1972.

"Evaluation of Remediation Alternatives", Dan Raviv Associates, Inc., January 1988; "Remedial Investigation Technical Report", TRC Environmental Consultants, Inc., 1992.

"Quarterly Radiochemical Ground Water Sampling," reports from 1988 - 1990, Dan Raviv Associates, Inc.

Shieldalloy Metallurgical Corporation, License Amendment Application to remove D203A (known as "A-Warehouse") from listing of permanent restricted areas, submitted on January 28, 1999. Amendment issued on July 20, 1999

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Shieldalloy Metallurgical Corporation, "License Amendment Application to Remove Bldg. D203(G), also known as "G-Warehouse" from the listing of permanent restricted areas, submitted March 30, 2001.

Shieldalloy Metallurgical Corporation, "License Amendment Application to Remove AAF Baghouse from the listing of permanent restricted areas, submitted January 30, 2000.

"Baseline Radiological Risk Assessment for the Hudson's Branch Watershed", IT Corporation Report No. IT/NS-92-116, submitted to Shieldalloy Metallurgical Corporation, Newfield, New Jersey, November 3, 1992.

Berger, C. D., A. Chance, K. Wiggins and H. Pritchard, "Assessment of Environmental Radiological Conditions at the Newfield Facility", IT Corporation Report No. IT/NS-92-106, submitted to Shieldalloy Metallurgical Corporation, Newfield, New Jersey, April 1, 1992

Teledyne Isotopes, "Report of Leachability Studies for Shieldalloy Metallurgical Corporation", Teledyne Isotopes, Westwood, New Jersey, 1992.

TRC Environmental Consultants, Inc., "Remedial Investigation Technical Report", Project No. 7650-N51, Windsor Connecticut, April, 1992

PTI Environmental Services, "Remedial Investigation and Feasibility Study at the Shieldalloy Metallurgical Corporation Site in Cambridge, Ohio", September, 1996.

Integrated Environmental Management, Inc., Report No. 94005/G-9194 (Rev. 2), "Decommissioning Funding Plan for the Newfield, New Jersey Facility", submitted to Shieldalloy Metallurgical Corporation, September 10, 2001

Integrated Environmental Management, Inc., Report No. 94005/G-5197, "Report of Radiation Safety Surveillance for Quarter 4, 1999", January 24, 2000. (There are 31 additional quarterly surveillance reports available for review)

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DISCUSSION OF USNRC STAFF COMMENTS
ON DECOMMISSIONING PLAN

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