



SHIELDALLOY METALLURGICAL CORPORATION

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January 30, 1991

RE: Environmental Technical Review Meeting

Ladies/Gentlemen:

Please find enclosed minutes of the Environmental Technical Review Meeting held at Shieldalloy Metallurgical Corporation (SMC), Newfield, N.J. on December 19, 1990.

The next meeting is scheduled for Thursday, February 7, 1991 at 10:00 AM in the Link Conference Room at SMC, Newfield, N.J.

Preliminary data from the Remedial Investigation Field Work will be discussed. Review of data from samples split with NJDEP and TRC will be available. Discussions will begin to develop sampling plans for the second round of well samples for the RI/FS and a status report on the RI/FS schedule will be provided. The evaluation of Groundwater Pumping Effectiveness Report will also be discussed.

Please do not hesitate to contact me at (609)692-4200 for further information.

Sincerely,

James P. Valenti
Environmental Manager

JPV:lms

Enclosures

- Dist: Robert Smith, TRC
- Roberta Hoy, DRAI
- Ken Siet, DRAI
- Donna Gaffigan, NJDEP
- Yawar H. Faraz, USNRC
- Laura Lombardo, USEPA
- Paul Horner
- David R. Smith, SMC
- Damon G. Kenyon, SMC

- CC: Newfield Mayor & Council, Newfield Borough Hall
- W. Fergus Porter, SMC
- Michael A. Finn, SMC
- Richard D. Way, SMC
- Charles L. Harp, Jr., Esq., Archer & Greiner

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MINUTES OF ENVIRONMENTAL TECHNICAL REVIEW MEETING

December 19, 1990

Shieldalloy Metallurgical Corporation
Newfield, NJ

TRC Project No. 7650-N51-01

Technical Review Meeting

A Technical Review Meeting was conducted in the Link Conference Room at the Shieldalloy Metallurgical Corporation (SMC), Newfield New Jersey facility to discuss technical issues relative to several ongoing projects currently underway including the following:

- Remedial Investigation/Feasibility Study - project status, preliminary data.
- Ground Water Sampling - Revised well sampling plans (Ref. NJDEP letter of 10/10/90 and comments).
- Schedule for future work.

A list of attendees is provided on Attachment "A".

Introduction and Welcome

D. Smith, SMC, provided an introduction and opening remarks relative to the purpose and goals of the periodic technical meetings to be conducted during environmental studies being performed at SMC's Newfield facility.

Basically the meetings will facilitate the flow of technical information, report on project status and gain input from regulators and thus involve local community representatives. Copies of the meeting minutes will be distributed to all "interested parties" and pertinent information will be available in the Administrative Record. The information depository is NJDEP responsibility and will be updated as appropriate.

Remedial Investigation/Feasibility Study

R. Smith and J. Smith, TRC Environmental Consultants, Inc. (TRC), provided a status report on the field investigations (RI) now underway and very preliminary information regarding initial findings.

Background information regarding the proposed RI/FS being conducted by TRC was presented. On October 5, 1988 an Administrative Consent Order was signed by SMC and NJDEP. A RI/FS Plan was developed to fully investigate the on-site sources and to delineate the existing plume. The DRAFT and FINAL RI/FS Work Plans were submitted to NJDEP. After FINAL comments on the RI/FS work plan were received by SMC, a meeting with NJDEP was conducted to discuss the

state's review. On September 21, 1990, the RI/FIS work plan was approved. Mobilization efforts were initiated and the field investigations began on October 29, 1990. Ground water sampling began on December 17, 1990.

Comments for Information

- All sampling activities were subject to audit and review by NJDEP to ensure strict compliance with the Work Plan.
- Split sampling with NJDEP:
 - Surface soils
 - Subsurface soils
 - Ground water samples
- NJDEP conducted a site visit on November 13, 1990 (all field revisions approved by NJDEP in writing November 15, 1990).
- Additional wells were suggested by NJDEP during the Field Investigations to better define the potential plume. SMC agreed to all requested additional sampling points.

Update and Status of RI Field Investigations

J. Smith provided update and status of RI Field Investigations:

- 1) Extensive surface soil sampling - performed primarily for risk assessment data:
 - Analyzed primarily for TAL, CN, B, Sr, Ti Zr, Cr⁺⁶
 - The locations were placed on a 200'x200' grid to provide overall coverage in undeveloped plant area
 - 3 background samples for control
- 2) Test pitting - along existing culvert where former drainage ditch for Man-Pro degreaser was located:
 - 5 pits, 100 ft long, 10-12 ft deep
 - To determine if this is a possible source of VOC contamination (VOC, TAL, B, Nb, Sr, Ti, Cr⁺⁶)
- 3) Soil gas survey and sampling - to aid in the location of borings (in old drum storage locations that had metal degreased with VOC (TCE, TCA, etc.)):
 - 2 areas - 12 locations in each area on a 50-foot grid.

The results of the survey were inconclusive. The area by T-12 and SC-11S was not performed due to reworked soil (made probe insertion impossible). The other area by W-8 showed no elevated VOC readings. Boring locations were, therefore, picked in the 2 areas to provide overall coverage with no bias based on soil-gas survey.

- 4) Sediment/surface water sampling - to determine if metals had migrated from on-site to off-site:
- 5 sample locations - from start of East Branch to the beginning of Burnt Mill Pond. Samples analyzed for VOC, CN, TAL, Cr⁺⁶, F and SO₄

- 5) Soil boring sampling - designed to investigate numerous areas of concern at the SMC facility:
- Underground storage tanks
 - Lagoons
 - Old Man-Pro area - degreasing
 - Building 106 (former chrome oxide facility)
 - Manufacturing area
 - Spill area around T-12
 - NRC area

In total 83 borings will be completed. Eight borings in and around the lagoons will be drilled during the lagoon closure (Phase II). Analyses varies throughout the area. Samples for metals analysed were taken at depth intervals of 0-2 ft and 6-8 ft (if this interval was above the water table). The depth at which samples were analyzed for volatile organics was determined by field screening of samples using a Century 125 Organic Vapor Analyzer (OVA).

- 6) Monitoring well program - to delineate extent of Cr⁺⁶ plume and general ground water quality:
- installed additional monitoring wells (7 deep and 11 shallow wells)

Plan is to sample a total of 53 new wells plus selected existing wells. This sampling is now underway. Monitoring wells SC-23S, SC-24S and SC-5S were added to the sampling plan while IW-3 and the Mohan wells were deleted.

- 7) Air monitoring program - developed to determine the amount of metal contamination (particulates) that are potentially wind-driven off-site from the lime pile, slag pile and the surface soils on-site:
- 5 air sampling stations - pump
 - 1 duplicate air sampling stations - pump
 - 1 meteorological station - wind direction/speed and rainfall

- 8) Borings are programmed for the Phase II work effort at lagoons.

- 9) Summary of all available previous investigations will be prepared by TRC (i.e., Dan Raviv, ENSR, Woodard-Clyde).

It was noted that, based on NJDEP request during Remedial Investigation field work, two additional shallow wells (SC-24S and SC-5S) were installed by TRC. SMC also added one shallow well (SC-23S) to investigate ground water quality downgradient of an underground storage tank (UST) and a possible chromium source.

Sampling for these wells will be consistent with the long-term sampling analyses for pH, Cr⁺⁶, Cr Total, Sulfate and Sodium, conducted by SMC.

In addition, well IW-4 was closed in accordance with a NJDEP request.

RI Work Plan Changes

Changes to the RI Work Plan were made under agreement between NJDEP, SMC and TRC on October 26 and November 13, 1990 based on field observations and documented by a NJDEP letter (dated 15 November 1990). A brief summary was provided as follows:

- 1) Upon field reconnaissance, surface soil samples RA-41 and RA-44 were found to be located under the ferrovanadium slag pile and, therefore inaccessible. Both samples were relocated to the western portion of the by-product storage area. RA-41 was relocated in a former drum storage area near the ferrocolumbium high purity slag pile. RA-44 was relocated adjacent to the lime pile where visible runoff of the material was observed.
- 2) Upon field reconnaissance, surface soil sample RA-42 was found to be located under the ferrocolumbium standard grade slag pile and, therefore, inaccessible. The sample was relocated to the western portion of the by-product storage area. RA-42 was relocated in an area of stained soil where drums had formerly been stored.
- 3) Because of the wetland conditions observed, surface soil sample RA-12 and RA-13 were relocated approximately 50 and 100 feet north of the original locations, respectively.
- 4) Because surface soil samples RA-25 and RA-36 were located in the middle of the ponded area of Hudson Branch, they were relocated to the northern edge of the pond.
- 5) The samples and parameters that were to be split with the Department were modified. The modifications, in part, resulted in deleting analysis for TCL+30 in RA-9 and adding it to RA-34.
- 6) Upon field reconnaissance, soil boring SB-81 was found to be located under the ferrocolumbium standard grade pile and, therefore, inaccessible. The boring location was relocated slightly west of the original location.
- 7) Because of overhead power lines, soil boring SB-46 was relocated in front of the small shed just south of D-107.
- 8) The air monitoring stations in the by-product storage area were relocated to the "four corners" to ensure adequate coverage and to address electrical constraints.

- 9) Because of the steepness of the berms surrounding Basin B-8, the locations of soil borings SB-62, SB-63 and SB-64 required modification. SB-63 was installed approximately half-way up the berm instead of at the top as proposed. SB-62 and SB-64 were installed using hand augers instead of drill rigs.
- 10) Soil borings SB-58 and SB-65 through SB-71 will be installed during Phase II of the RI.
- 11) Because SB-11 is located in a low-lying wet area, it is inappropriate to install a boring here. Instead, SB-11 was relocated southwest of the original location, on SMC's property, beyond the fence-line.

Paul Horner, City of Vineland, noted that the municipal well #10 located near West Arbor Avenue and Delsea Drive (beyond SMC plume) contained 2-6 ppb TCE and a treatment facility (Air Stripper) will be constructed for the well. The following standards apply for TCE:

Maximum content level (MCL)	5 ppb
NJDEP (Proposed)	1 ppb

Dan Reviv Associates (DRA) - Roberta Hoy and Kenneth Siet - status:

DRA is working on confirming capture zone at the toe of plume.

A report summarizing water level measurements and hydraulic analyses will be presented to SMC and NJDEP in the near future.

The water level measurements of all wells within the hydraulic influence of the recovery system are being recorded. The data NJDEP has requested includes:

- water level elevations
- date/time measurements
- screened interval of wells
- ground water contour maps (deep zone and shallow zone)
- effective capture zone

SMC has proposed to reduce the long-term sampling frequencies for selected monitoring wells from monthly to quarterly. For the majority of wells, this request does not appear unreasonable. It is, however, paramount to the success of remedial program to confidently document the actual capture zone of each recovery well and to be able to detect migration of the contaminant plume beyond the hydraulic control of SMC's recovery system. Monthly sampling of wells in the vicinity of the toe of the plume is, therefore, required.

All new wells installed for either the Phase I Remedial Investigation or contaminant plume delineation shall be incorporated into the site-wide monitoring plan.

Pumping frequency and pumping rates are of concern to NJDEP and are also being evaluated by DRA and SMC.

Open Discussion - Technical Issues

- SC-3D - Low concentration of Cr⁺⁶ was found during the first week of November 1990. Well was re-developed and sampled by TRC on November 13 and no Cr⁺⁶ was detected in the sample. SMC sampled the well on December 6 and Cr⁺⁶ was detected. SMC modified their sampling methodology and collected the sample near the screen interval of the well and no Cr⁺⁶ was detected. Well replacement and sampling procedures will be evaluated in the future regarding potential cross-contamination.
- NJDEP to develop questionnaire for well restriction zone to determine constant/intermittent pumping of industrial/farm wells in area.
- Mohan Domestic Wells
 - Deep - tap in house (no well information)
 - Shallow - hand-pump in basement (no well information)

Quality assurance and quality control may be an issue; however, samples were previously obtained from the Mohan's and collected in sample containers supplied by SMC.

- Lagoon Closure - SMC is waiting for the necessary permits and authorization from the state.
- Other PRPs - NJDEP will provide update at future Technical Meetings. At present, all previously noted PRPs are being re-evaluated.
- TRC/DRA will cooperate to provide new data (especially SC-24S and SC-5S) to help further evaluate the plume.

Studies Underway

Radiological characterization study is scheduled to begin in the near future. As results become available the NRC and ENSR will be invited to future Technical Review Meetings.

Pre-treatment evaluations are underway for the ion-exchange ground water treatment system. Options being evaluated include microfiltration and/or an electro-chemical cell.

Next Meeting

The next Environmental Technical Review Meeting was tentatively set for early February.

ATTACHMENT "A"

ENVIRONMENTAL TECHNICAL REVIEW MEETING

December 19, 1990

Dave Smith	SMC	(609) 692-4200
Jim Valenti	SMC	(609) 692-4200
Roberta Hoy	DRA	(201) 564-6006
Kenneth Siet	DRA	(201) 564-6006
Paul Horner	City of Vineland	(609) 794-4056
Jeffrey Smith	TRC	(203) 289-8631
Robert Smith	TRC	(203) 289-8631
George Nicholas	NJDEP	(609) 292-8477