



UNION CARBIDE CORPORATION
P.O. BOX 8361, SOUTH CHARLESTON, WV 25303

January 30, 1997

Mr. Clayton Pittiglio
Nuclear Regulatory Commission Headquarters
Washington, DC 20555
TWF7F27

RE: 1996 Status report for Elkem Metals Building 78 SDMP Site.

Dear Mr. Pittiglio:

Attached is a report prepared by Union Carbide Corporation regarding the activities in 1996 related to the radioactive materials found at the Elkem Metals facility in Marietta, Ohio.

In the past year, Union Carbide has vigorously sought to resolve the difficult issues at this site. We have pursued several options for the disposal of the wastes resulting from the clean-up. We have undertaken field work in advance of agency approval of the work plans, in an effort to expedite the schedule. Expenditures by Union Carbide on this site in 1996 totaled \$184,000. Expenditures since 1992 totaled \$1,500,000.

We are hopeful that through a clear understanding of issues and everyone's cooperation that notable accomplishments will be evident at the conclusion of year ahead.

Very truly yours,

S. G. Gilbert, P. E.
Program Manager

SGG:dvc

enclosure: Status Report 1996 Activities

cc: Ms. Donna Moser (NRC)
Mr. Richard Melvin, Elkem Metals
Mr. Sean Norris, Norris Environmental
Mr. Frank Talbot, Ohio Department of Health
Mr. John House, NRC Region III

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Status Report
1996 Activities

Elkem Metals Building 78 SDMP Site

Prepared by Union Carbide Corporation

Introduction

This is a status report for the Union Carbide low level radioactive contaminant site located at the Elkem Metals facility, in Marietta Ohio. The site is in the Site Decommissioning Management Plan (SDMP) of the Nuclear Regulatory Commission.

Summary

UCC and the NRC have been through several review cycles for the site closure plan. Approval of the plan has not yet been attained. UCC has proceeded, without an approved plan, with survey of the concrete ore pad, the soil at the perimeter of the ore pad, the two Quonset huts, and a remediated area within Building 78. Results of these surveys are being compiled for submittal.

UCC completed remediation of an area within Building 78; all identified areas within Building 78 are now remediated. Evaluation of the roof of Building 78 is continuing; a methodology for evaluation of the remaining contamination has been identified.

UCC has characterized the waste for classification by the requirements under the Resource Conservation and Recovery Act. The waste is non-hazardous and a letter requesting concurrence from Ohio EPA has been requested.

The disposal of the wastes generated by this remedial effort continues to be a problem. Hopes rose and then vanished for the disposal of this material at a UCC-owned site in Wyoming. Other privately-owned options are being pursued. A quotation from Chem-Nuclear for disposal at their Barnwell, South Carolina site indicates that the cost would exceed \$3.7 million.

Site Closure Plan

In the early part of the year, UCC and NRC were responding to concerns from Eveready Battery Company (EBC) about waste and residual contamination which was on their property. The residual soils contamination were collected and containerized. The containerized materials were moved into Building 78, and off Eveready property.

Survey results indicate that release of the area around the concrete ore pad and EBC property appears appropriate. During this period, a Closure Plan was formulated to address all of the remaining issues which were preventing release of the site. NRC questioned the number of verification soil samples which had been collected around the concrete ore pad. NRC also had concerns about residual contamination in the building and on the surface of the concrete ore pad. While the revisions to the Closure Plan were being completed to address the NRC concerns, numerous conference calls were held to resolve the outstanding issues.

In June, a site meeting was held so NRC staff could see first hand the issues of concern and have direct conversations with all the parties involved. Following the site meeting, a schedule

of completion was established. Based on the technical discussions at the site meeting and subsequent phone conversations, the Closure Plan was revised and resubmitted in August.

While awaiting NRC approval or comments on the revised Closure Plan, UCC conducted the efforts outlined in the plan for characterization of the concrete ore pad and the Quonset huts. In November, UCC collected verification soil samples and conducted remedial action on the building floor grid Q12. This area of the building was surveyed again, and the data is being reduced for presentation.

Waste Disposal

Union Carbide met with representatives of the State of Wyoming in June to determine the feasibility of disposal of the materials stored at Elkem with a very large mine tailings disposal site in Gas Hills, Wyoming. This site is owned by Umetco, a subsidiary of UCC. Union Carbide representatives left the meeting with the impression that this disposal alternative was feasible. However, when contact with Wyoming representatives was reestablished in early December, it was learned that they are now strongly opposed to the importation of the Marietta wastes to Wyoming.

WMX Technologies, acting as an agent for Union Carbide, obtained a quotation for the disposal of this material at the Chem-Nuclear Systems, Inc. site in Barnwell, South Carolina. Their estimate of the cost is \$3,730,000. There would be significant additional costs for on-site support during preparation of the materials for shipment. The unit cost for disposal of this waste at this site is \$10,000 per cubic yard; this is extremely expensive.

WMX Technologies is also making inquiries to determine if the wastes would be accepted by U.S. Ecology, at their location in Washington state. Disposal costs at U.S. Ecology would be much lower than at the Barnwell site. Work is under way to determine if the waste classification is compatible with the site.

After learning of the disappointing news regarding the Wyoming disposal site, Union Carbide reevaluated other options for disposal at other privately owned low level radioactive sites. An alternative has been identified, and is being vigorously pursued.

Agency Site Inspection

NRC Region III and Ohio Dept. of Health conducted a site inspection in December. The federal and Ohio inspection reports show no findings of violations.

RCRA Waste Classification

In September 1996, Union Carbide submitted a letter to Ohio EPA requesting concurrence that the materials stored and awaiting disposal are not RCRA hazardous waste. Ohio EPA replied in October with five questions. During the time when the responses were being prepared for Ohio EPA (but while addressing another issue) we learned from a former site worker that methyl isobutyl ketone may have been used in this process. A file search further indicated that this was very likely. Union Carbide then requested that the analytical data from samples be retrieved at the laboratory, and the laboratory determined that no MIBK was present in the samples selected for analysis, in the protocol used. In January 1997, Union Carbide responded

to Ohio EPA with a lengthy letter responding to Ohio EPA's questions and reaffirmed the statement that the materials are not RCRA hazardous.

1996 Chronology

The following is a summary of the primary activities as they occurred during the year.

- January: UCC received NRC's Draft 2nd round of comments on the Final Status Report. The draft comments were based on UCC response to NRC's 1st round of comments.
- February: Conducted telephone conferences to resolve questions on NRC draft 2nd round comments.
- March: Submittal of a Closure Plan for site to address all issues from NRC's 2nd comments.
- April: UCC conducts remediation of soils around concrete ore pad on Eveready Battery Company (EBC) and Elkem property that were identified in late 1995.
- May: Continued conversations with NRC to resolve Closure Plan and NRC's draft comments. Continued conversations with NRC to resolve Closure Plan and NRC's draft comments.
- June: Meet with NRC, Elkem Metals Company (EMC), EBC, UCC, Umetco Minerals Corporation, Norris Environmental at Elkem Metals Co., to tour site and discuss issues.
- July: Telephone conferences with NRC on plan revisions.
Plan revisions based on June meeting and on-going phone conversations.
- August: Submittal of revised Closure Plan.
- September: Conducted characterization surveys of concrete ore pad and quonset huts as per the Closure Plan while awaiting NRC approval.
Received NRC comments on March Closure Plan submittal, dated August 27, 1996.
Estimates of waste activity prepared for Barnwell cost estimate request.
- October: Planning for sampling event.
- November: UCC response to NRC's August 27th comments on Closure Plan.
UCC conducts remediation of Bldg. 78 floor grid Q12.
UCC collects verification soil samples from affected and unaffected outdoor areas.

December: NRC Region III and Ohio Dept. of Health site inspection.
 Collected data and review records for waste classification for submittal to the Ohio.
 Environmental Protection Agency.
 Awaiting NRC response to November submittal. Expected January 22nd, 1997.

Work Plans and Schedule

The following table shows the revisions in the project schedule beginning with the "Best Case Scenario" prepared on July 3rd, by Mr. Rick Melvin of EMC following the June site meeting. The middle columns show the revised schedule from Norris September 3rd and the dates of completion for efforts. The last column is a current projection for the project schedule and uncompleted efforts.

Activity	"Best Case Scenario" 7/3/96	Revised Schedule 9/3/96	Completion Date	Projected Completion Date
UCC submit Closure Plan	7/10/96	8/6/96	8/6/96	-
NRC Response/approval Start ORISE process	8/10/96	9/10/96	Received response 9/10/96	Approval 1/22/97
UCC response to NRC		10/1/96	11/5/96	-
Begin field efforts UCC	9/1/96	10/21/96	11/9/96	-
Begin field efforts ORISE	9/1/96	?	?	?
Data from Labs (UCC)	11/1/96	12/27/96	12/19/96	-
UCC Closure Plan to NRC	12/1/96	2/1/97	?	3/1/97
UCC Final Status Report to NRC				?
ORISE report to NRC	12/1/96	?	?	?
Preliminary NRC site clearance	2/1/97	4/1/97	?	?
Final NRC site release	3/1/97	5/1/97	?	?

? Denotes dates that UCC cannot estimate, as significant parts of the supporting actions are outside the control of UCC.