



UNION CARBIDE CORPORATION
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To	Clayton P. Pittiglio	From	Jerry Gilbert		
Co./Dept.		Co.	UCC		
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February 19, 1997

Mr. Clayton L. Pittiglio, Project Manager
Low-Level Waste and Decommissioning Projects Branch
Division of Waste Management; Nuclear Material Safety and Safeguards
Nuclear Regulatory Commission Headquarters
Washington, D. C. 20555
TWF7F27

Re. Closure Plan for the Elkem Metals Building 78 SDMP Site, Marietta, Ohio

Dear Mr. Pittiglio,

I have received your letter of January 27, 1997 regarding two comments on the subject plan. Union Carbide plans to complete the site closure in the manner requested in your letter, as described below.

1. **Building 78 Floor Survey:** As requested by NRC, the re-survey of the floor of Building 78 after removal of the waste containers will be performed with a 100 cm² probe.

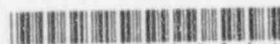
It is my opinion that the data already collected with the 425 cm² probe is of value and can be used. The radiological contamination at this site is the result of processing and handling of slightly radioactive materials over a long period of time. The distribution of radioactive contamination is in broad areas of relatively uniform concentration. The measurements of radionuclides were normalized for probe area, so for broadly distributed contamination the results of a survey would be about the same, regardless of the probe measurement area. Furthermore, the risk to personnel from exposure to radionuclides would be the overall average contamination of areas of the floor much larger than any single probe measurement.

Note that two corrections were made to the methodology provided by the NRC in the January 27 in Comment #1. The probe area should read >>100 cm². The investigation action level should be based on "100/A". These corrections were transmitted to Sean Norris from the NRC by Internet message.

2. **Release Criteria for Building 78.** The release criteria for the roof of Building 78 will be developed using the methodology given in the final report of NUREG-5512, using the beta version of the comparison software.

Please note that there may be difficulties using the prescribed software. The beta release is known to have bugs in the program. The defects make generation of reports difficult. It is our understanding that the algorithms in the software have been tested and shown to be correct. We have contacted several major radiological cleanup engineering

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firms to obtain assistance and save time in the running of this model. None of those firms contacted have a copy of the software.

Submittal of Revised Work Plan

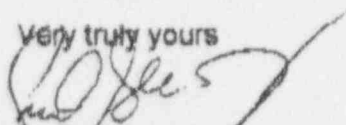
Union Carbide will revise the Closure Plan, to incorporate the changes discussed in the following correspondence:

August 9, 1996 replacement page from Sean Norris
November 5, 1996 responses transmitted by S. G. Gilbert
January 27, 1997 letter from Clayton Pittiglio

The revised Work Plan will be submitted to NRC. We will proceed with the preparation of the Final Closure report as described in this submission with an important exception. Division of the site into two parts will allow release of outdoor areas before the removal of the packaged wastes now located inside Building 78. We envision submitting two Final Closure reports, one for each of these divisions.

Should you have questions regarding this activity, please contact me at (301)717-5326.

Very truly yours



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

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
Mr. Thomas Houser, Eveready Battery

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Agenda

Telephone Conference Call with the
Nuclear Regulatory Commission
Regarding the Elkem Marietta SDMP Site
Marietta, Ohio

Recommended Participants

Clayton Pittiglio, Donna Moser, Jerry Gilbert, Sean Norris

Agenda Items

UCC response to NRC letter of January 27.

UCC will perform the floor resurvey of Building 78 with the required 100 cm² probe, after removal of the containerized wastes. UCC is developing an analysis of roof exposure, using the NUREG 5512 D and D model. UCC will revise and submit the Closure Plan per the NRC comments and responses.

Discussion is needed about the status of the model that NRC has directed UCC to use for personnel exposure from the roof.

Status of Execution of Closure Plan.

UCC has completed all field work, with one exception. The roof of Building 78 has not been resurveyed, since it may not be necessary if the roof is shown to be acceptable, as is, with the D and D model.

Radiological surveying of the soils surrounding the Ore Pad, the Quonset Huts, and floor grid Q-12 is complete. The data are being compiled.

Early analysis of the data from the radiological survey indicates that the Ore Pad, North Quonset Hut, and floor grid Q-12 is ready for verification survey and release. The South Quonset Hut has elevated readings on the floor, and a 100% survey is needed.

Results have been received for analysis of soil samples collected around the Ore Pad. The analyses were for radionuclides.

Discussion of the findings of the field surveys will keep NRC staff informed, and help UCC focus its efforts on the most meaningful activities.

Release of the Site.

Release of the site in two stages is recommended. Outdoor areas should be treated as one stage, and the indoor areas as a second stage.

Verification of outdoor areas and subsequent release would lessen impacts on other parties (Elkem and Eveready).

Verification of indoor areas could be completed later, after removal of the wastes from the site.

Discussion is needed on the Closure Status report format.

Waste Disposal.

UCC recovered composite samples of containerized waste that had been archived at the site. The recovered samples were submitted for gamma spectroscopy analysis to determine radionuclide content. These analyses are needed for characterization of the wastes in preparation for disposal. Results will be available in mid-March.

Discussion of plans for movement of the wastes to an approved storage and/or disposal site would be helpful.

February 19, 1996
S G Gilbert