January 27, 1997

Mr. S. G. Gilbert, PE
Project Manager
Union Carbide Corporation
P.O Box 8361
South Charleston, WV 25303

30-19272

SUBJECT: NUCLEAR REGULATORY COMMISSION'S COMMENTS ON THE CLOSURE PLAN FOR THE ELKEM METALS BUILDING 78 SITE DECOMMISSIONING MANAGEMENT PLAN SITE AT ELKEM METALS COMPANY, MARIETTA, OHIO

Dear Mr. Gilbert:

We have completed our review of your November 5, 1996, submittal entitled, "Response to NRC Comment on the Closure Plan for the Elkem Metals Building 78 Site Decommissioning Management Plan Site (SDMP) at Elkem Metals Company, Marietta, Ohio." As discussed in our telephone conversations with you and Shawn Norris, the response to our comments regarding the Closure Plan satisfies most of the outstanding issues regarding survey and closure activities for final release of the site. The remaining issues include: (1) the appropriateness of direct measurements of building surfaces with a large area probe; and (2) proposed dose assessment for potentially elevated level of contamination on the roof. These issues are discussed in detail in the enclosed statement. As discussed previously, final release of the site is contingent upon removal of the remediated waste containers currently being stored in Building 78.

We will coordinate a telephone conference with all interested parties to discuss what is necessary to resolve these issues and expedite final release of the site.

If you have any questions, please contact me at (301) 415-6702.

Sincerely,

[ORIGINAL SIGNED BY:]

NRC FILE CENTER COPY

Clayton L. Pittiglio, Project Manager
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management
Nuclear Material Safety
and Safeguards

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Enclosure: As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 27, 1997

Mr. S. G. Gilbert, PE
Project Manager
Union Carbide Corporation
P.O Box 8361
South Charleston, WV 25303

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Enclosure: As stated

U.S. NUCLEAR REGULATORY COMMISSION'S COMMENTS
ON THE CLOSURE PLAN FOR THE ELKEM METALS BUILDING 78 SDMP SITE

1. In response to NRC comment #2, it was discovered that direct measurements for building surface contamination were conducted using a large area floor monitor. Large area floor monitors are used to semi-quantify surface contamination during surface scan surveys but are not conducive in demonstrating compliance with a 100 cm^2 area. NRC does not consider large area probes (i.e., $\geq$ 100 cm^2) acceptable for direct measurements unless an investigative action level is imposed at "1/A" the average surface contamination limit where A is the area of the probe in centimeters. Conducting direct measurements with large area probes, may reduce or "dilute" the activity measured per 100 cm^2. Since all floor measurements were collected with a 425 cm^2 probe, NRC staff cannot conclude with certainty that the surface contamination of building 78 comply with the surface contamination release limits established in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source or Special Nuclear Materials." Additional survey measurements will need to be conducted to confirm compliance with the release criteria. Since the floor of Building 78 will need to be re-survey after the remediated waste containers have been removed, additional survey measurements can be collected at this time to demonstrate compliance with the release criteria.

2. The TEDE conversion factor reference in response comment #5 is invalid. This conversion factor was obtained from an outdated NUREG/CR-5512 document titled "Residual Radioactive Contamination from Decommissioning, Technical Basis for translating Contamination Levels to Annual Dose, Draft Report for Comment." The conversion factors referenced from this document should not be used since they are currently being revised. If a different release criteria is needed to justify release of contamination on the roof, it should be based on the dose methodology given in the final report of NUREG-5512, which has been supplied to Mr. Norris.

Enclosure