



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 21, 2005

Docket No. 03006652  
Control No. 137481

License No. 47-00260-02

J. L. Blatt  
WV Operations Responsible Care Leader  
Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company  
3200 Kanawha Turnpike  
South Charleston, WV 25303-2544

SUBJECT: UNION CARBIDE CORPORATION, REQUEST FOR ADDITIONAL  
INFORMATION CONCERNING APPLICATION FOR RENEWAL OF LICENSE,  
CONTROL NO. 137481

Dear Mr. Blatt:

This is in reference to your letter dated August 10, 2005 requesting to renew Nuclear Regulatory Commission License No. 47-00260-02. In order to continue our review, we need the following additional information:

1. Radium 226 is not byproduct material as defined in 10 CFR 30.4 and is not subject to licensing by the NRC. Therefore, you may procure and use it without amendment to your NRC material license. However, you should contact your State regulatory authorities to determine the State licensing or registration requirements for use of this radionuclide.
2. Your application did not contain manufacturer and model numbers for your sealed sources. 10 CFR 30.32(g) requires that an application for a specific license to use byproduct material in the form of a sealed source or in a device that contains a sealed source must either identify the source or device by manufacturer and model number as registered with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State; or contain the information identified in 10 CFR 32.210(c). Please provide this information for the sealed source(s) requested in your application.
3. Item 5 of your application listed static meters containing tritium. However, you did not list a use for these instruments. Please state the use for these instruments or state if they are in storage only, pending disposal.
4. Your license established in amendment 49 a large reduction in the amount and type of radioactive materials. Based upon the amount of radionuclides currently licenced, financial assurance would no longer be required. However no documentation was submitted demonstrating that there is no residual carbon 14 or tritium below the release screening levels at the facilities. In order to remove the financial assurance requirements please confirm that all unsealed <sup>14</sup>C or <sup>3</sup>H has been removed and submit surveys demonstrating that the areas of radioactive material usage is below the NRC

screening criteria. Guidance on performance of the survey and criteria can be found in NUREG-1757, Volume 2, Characterization, Survey, and Determination of Radiological Criteria.

5. Item 9 of your application, states that the Radiation Room is in Building 747. However, it does not state at which plant Building 747 is located. Please state which facility contains Building 747.
6. The "WVO Sealed Source Radiation Safety Program" submitted with your application refers to fixed gauges. However, there were no fixed gages listed in the requested list of radioactive material. Please describe any fixed gauge you may possess. If they are required to be possessed under a specific license, provide the manufacture name, model, type, amount, and quantity of radioactive sources. If these gauges are possessed under a general license or are exempt from licensing, then make that statement.
7. Please confirm that no repair or maintenance will be performed on your sealed source devices or alternately state that the written procedures provided by the device manufacturer will be followed for each such operation requested.
8. The "WVO Sealed Source Radiation Protection Program" states that sources shipment to the Institute site must be coordinated with Bayer. It appears to indicate that your location of use at the Institute Plant may be controlled by an entity other than yourself. If so, please provide documentation of a clear contractual agreement concerning access to your location of use for the purpose of decontamination or removal of licensed material from the location of use in the event of disharmony between you and the owner entity. This documentation should consist of signed certification from both parties.

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, industrial, and academic uses of nuclear material**; then **toolkit index page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 137481. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5308.

J. Blatt  
Union Carbide Corporation

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In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

Sincerely,

***Original signed by Elizabeth Ullrich***

Todd J. Jackson, CHP  
Senior Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

cc:  
Michael Boyd, Radiation Safety Officer

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**SISP Review Complete: DRL1**

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