



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

July 15, 2010

Docket No. 030-03759
Control No. 572999

License No. 06-00221-08

Jayanata K. Nag
Radiation Safety Officer
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749-0001

SUBJECT: CHEMTURA CORPORATION, REQUEST FOR ADDITIONAL INFORMATION CONCERNING APPLICATION FOR AMENDMENT TO LICENSE, CONTROL NO. 572999

Dear Mr. Nag:

This is in reference to your letter dated June 15, 2010 requesting to amend Nuclear Regulatory Commission License No. 06-00221-08. In order to continue our review, we need the following additional information:

1. Section 3, Purpose, states that if contamination is found during the final status sampling, additional remediation followed by additional sampling will be undertaken.
 - a. state the investigational level of contamination that would require further remediation.
 - b. If additional sampling will occur, describe if you plan to establish a new final status survey. Alternately, if you plan for double-sampling or two-stage sampling, the double sampling plan or the two-stage sampling plan must be established as part of the FSSP.
2. Section 4 "Proposed Sampling Plan for Final Radiological Status", Part C, "Reference Area" indicates that you plan to use one background reference area to determine your background of carbon-14.
 - a. Provide a comparison of the soil type and other features of your chosen background reference area (physical, chemical biological, geological, etc.) to the four areas that were used for carbon-14 studies.
 - b. Discuss how your background reference area compares to the "Corral Area" and the "Peach Tree" site, both of which have been remediated so that surveys of these areas will be of soils that were previously not surface soils.
 - c. NUREG-1757, Volume 2, Revision 1, Section A.3 contains additional discussion of the use of multiple background reference areas in areas where they may be

wider variability in the background. State if you expect carbon-14 in your background to be sufficiently variable to require this type of background reference determination.

3. Your FSSP does not indicate if you consider the four areas that were used for carbon-14 studies to be Class 1, Class 2, or Class 3 areas. Based on the information you provided, it appears that you consider them to be Class 2 areas. Please specify the Class for each area.
4. Your FSSP does not describe the instrumentation you plan to use for performing surveys. Please describe the instrumentation you plan to use for each type of survey that will be performed; the sensitivity of the instrumentation, including the expected minimum detectable activity; and the calibration and operational checks that will be required for use of the instrumentation. If scanning surveys and/or direct surveys will be performed, provide the calculations of the minimum detectable activity and all assumptions used in the calculations.
5. Your FSSP does not describe the laboratory analyses that will be performed to determine the carbon-14 concentration in soil samples. Describe the type(s) of analyses to be performed, the sensitivity of the analysis, and the minimum requirements of the laboratory that will perform the analyses of samples. In addition, discuss your program for quality assurance (QA) and/or quality control (QC) related to sample analysis.
6. Your FSSP does not describe the process for collection, handling, and control of samples to be sent for analysis. Please describe the samples size you expect to collect, the procedures and equipment use to collect the samples, any treatment of samples in the field prior to sealing the sample container for shipment, and the chain-of-custody for samples. Specify if any duplicate samples or judgmental samples will be collected, in addition to the grid samples.
7. Confirm that you will perform the Wilcoxon Rank Sum (WRS) statistical test for the results of the surveys performed, and that results of samples analyses (and any other surveys) will contain "less than" values. (that is, if a sample result has a negative value after the background value is subtracted, the negative value will be reported and used in the WRS test). The results of your WRS tests should be included in the Final Status Survey Report provided to the NRC.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Regulations, Guidance, and Communications**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 7:00 a.m. to 6:30 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. 572999. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5040.

J. Nag

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If we do not receive a reply from you within 30 calendar days from the date of this letter, we will assume that you do not wish to pursue your application.

Sincerely,

Original signed by Elizabeth Ullrich

Betsy Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

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