



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

August 5, 2013

Jim Richards, Ph.D.
Executive Manager Biology Research
Novus International, Inc.
#20 Research Park Drive
St. Charles, Missouri 63304

**SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING NOVUS
INTERNATIONAL, INC. NRC LICENSE NO. 24-26450-01 TERMINATION
REQUEST (MAIL CONTROL NO. 581013)**

Dear Dr. Richards:

This acknowledges receipt of a letter signed by your Radiation Safety Officer dated May 31, 2013 (ML13157A101) regarding Novus International, Inc. U.S. Nuclear Regulatory Commission (NRC) License No. 24-26450-01. In that letter, you requested the NRC to terminate your license because radioactive materials were no longer being used at the facility listed on the license.

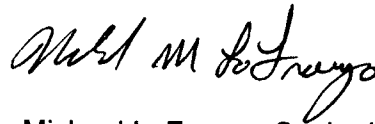
Based on a review of the documents you submitted, the NRC staff has determined that additional information is required to complete the license termination process. The enclosure to this letter contains a detailed list of the requests for additional information necessary to evaluate the license termination request.

The NRC staff requests that Novus International, Inc. provide a response to this request for additional information within 30 days of the date of this letter, so that the license termination request can be completed in a timely manner.

In accordance with Title 10 Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

If you have any questions concerning the enclosed information, please contact Michael LaFranzo at (630) 829-9865.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael M. LaFranzo". The signature is written in a cursive style with a large initial "M".

Michael LaFranzo, Senior Health Physicist
Materials Control, ISFSI, and Decommissioning
Branch
Division of Nuclear Materials Safety

Docket No. 030-32936
License No. 24-26450-01
Mail Control No. 581013

cc: Robert M. Wester, Radiation Safety Officer

Enclosure:
As stated

**REQUEST FOR ADDITIONAL INFORMATION FOR REVIEW OF LICENSE TERMINATION
REQUEST FOR NOVUS INTERNATIONAL, INC.
LICENSE NO. 24-26450-01**

1. Through a review of the licensee's termination request package (ML13157A101), the reviewer noted that fume hoods and sinks are located in areas where licensed material was used. However, the licensee did not address whether they were used for the release of licensed material as authorized by 10 CFR Part 20.

10 CFR 30.36(j) requires licensees to conduct radiological surveys where licensed activities were carried out and submit a report of the results of the surveys, or to demonstrate in some other manner that the premises are suitable for release in accordance with the criteria for decommissioning in 10 CFR Part 20, Subpart E. If radiological surveys are conducted, 10 CFR 20.1501(a)(2) requires, in part, that they be reasonable under the circumstances to evaluate the concentrations or quantities of residual radioactivity.

The licensee is requested to provide information associated with any and all fume hood use and sink disposal of licensed material to include, but not limited to, any and all vents, ducts and piping (accessible and inaccessible) and identify whether such material should be considered for additional radiological surveys and/or remediation to ensure compliance with NRC release criteria and why the licensee came to that conclusion.

2. Through review of the licensee's termination package, the reviewer noted that the licensee did not address any past spills or other unusual occurrences that could have involved the spread of radiological contamination in and around the facility, equipment or site.

10 CFR 30.35(g) states, in part, that a licensee shall keep records of information important to the decommissioning of a facility until the site is release for unrestricted use. 10 CFR 30.35(g) and 30.35(g)(1) states, in part, that records of spill or other unusual occurrences involving the spread of contamination in and around the facility, equipment or site are important to decommissioning.

The licensee is requested to provide any and all information associated with spills or other unusual occurrences that could have involved the spread of radiological contamination in and around the facility, equipment or site. In addition, the licensee should make a determination whether spills or other unusual occurrences could have an effect on the radiological characterization of the facility and why the licensee came to that conclusion.

3. Through a review of the licensee's termination package, the reviewer noted that records as associated with NRC regulations found in 10 CFR 20.2108, 20.2103(b)(4), 20.2002, 20.2003, 20.2004 and 20.2005 were contained within the termination package.

10 CFR 30.51(d) requires licensee, prior to termination, to forward to the NRC waste disposal and environmental effluent records required to be maintained by 10 CFR 20.2108 and 20.2103(b)(4), respectively. 10 CFR 20.2108 requires, in part, that licensees maintain records of disposal of licensed materials made under 10 CFR

Enclosure

20.2002, 20.2003, 20.2004, and 20.2005. 10 CFR 20.2103(b)(4) requires, in part, that licensees maintain records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment.

The licensee is requested to submit to NRC for review any and all records associated with the above regulations. The records shall include all the records maintained since the original license was issued.

4. During the review of the licensee's termination package, the reviewer noted that values for the Net Count Rate (cpm), as contained in Appendix D titled "Fixed Contamination Surveys" as found in pages 12 through 44 (1252 measurements), were found to be zero (0). Also, the background for each of Sample ID sections A, B and C (totaling 1183) had a single value of 250 cpm and the remaining found in Sample ID section D (totaling 69) had a single value of 1250 cpm.

The NRC has found that there is always some variability in background radiological measurements resulting from the randomness of radioactive decay (licensed material) and terrestrial or cosmic radiation impacting the detector and that 1252 measurements with net results all less than background are unlikely. Therefore, the NRC is requesting the licensee review its radiological survey procedures and equipment calibration and submit information to the NRC associated with the adequacy of the radiological survey results reported.

5. During the review of the licensee's termination package, the reviewer noted that contained within Appendix E and F (pages 45 through 110), titled "Removable Contamination Survey (Hydrogen-3)" and "Removable Contamination Survey (Carbon-14)," respectively, there are numerous occurrences of the "Raw Count Rate (cpm)" (or gross count rate) not being whole number while the count time was 60 seconds. The NRC believes there might have been some miscalculation or recording as the resulting cpm from a Raw Count Rate, in one minute intervals, should not be a fraction.

The NRC is requesting the licensee review the above portion of the package and provide NRC with an explanation of the Raw Count Rate values recorded as fractions.

6. During the review of the licensee's termination package, the reviewer noted that contained within Appendix E and F (pages 45 through 110), titled "Removable Contamination Survey (Hydrogen-3)" and "Removable Contamination Survey (Carbon-14)," respectively, there are a number of "Raw Count Rates" (or gross count rates) that are recorded as zero (0).

The NRC has found that there is always some variability in background radiological measurements resulting from the randomness of radioactive decay (licensed material) and terrestrial or cosmic radiation impacting the detector. Consequently, the NRC believes that the Raw (or gross) Count Rate equal to zero over a period of 60 second count time, especially as the value was found in numerous occasions, and the background count of 21 cpm, is unlikely. Therefore, the NRC is requesting the licensee review its radiological survey procedures and equipment calibration and submit information to the NRC associated with an explanation the adequacy of the radiological survey results reported.