



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

March 18, 2014

Gregory S. Hiatt, Managing Director  
Spectron mrc, LLC  
17490 Dugdale Drive  
South Bend, IN 46635

Dear Mr. Hiatt:

We have completed our review of Spectron's Decommissioning Funding Plan (DFP), dated November 1, 2010. The November 1 DFP supplemented a May 10, 2010, decommissioning plan and included a decommissioning cost estimate in the amount of 47,750 dollars. We also reviewed Spectron's executed trust fund agreement dated May 31, 2011.

The NRC staff determined that in order to complete a detailed review, Spectron will need to submit the following additional information:

1. Submit additional detail to support the cost estimate (NUREG-1757, Volume 3, Section 4.1 and Appendix A, Section A.3)

NUREG-1757, Volume 3, Section 4.1 and Appendix A, Section A.3, call for the submission of information sufficient to allow the NRC to determine if the cost estimates for decommissioning and site control and maintenance are reasonable and were developed in accordance with NRC regulations and guidance. The cost for decommissioning a cyclotron depends heavily on the complexity of decommissioning activities, which would be impacted by multiple factors such as the design, age, operating condition, maintenance practices, and usage of the cyclotron and the type of facility where the cyclotron is located.

Spectron's cost is broken up into two sections: rates/statistics and costs. The rates/statistics section vaguely identifies rates for low-level radioactive waste (LLRW) contractors and weights and volumes of materials presumably associated with decontamination or dismantling of radioactive facility components. There is no explanation for the basis of the "rates/statistics" or the relevance of any specific item included. The cost section then lists four cost elements without any clear explanation of what each cost-element represents (e.g., labor or equipment rental fees) or how the cost was calculated. Generally, the cost estimate does not include sufficient detail to allow an adequate evaluation of the reasonableness of the cost estimate. In particular, the submission does not include the following information:

- Schematic or other description of ventilation systems illustrating the location of each system within the building relative to one another (e.g., pharmacy vs. cyclotron), the intake and exhaust points, direction flow-through, location and type of filtration system(s), and location of effluent monitoring instrumentation, as applicable;

- The number and dimensions of any facility or cyclotron component (e.g., targets, windows, foils, beam tubes, and carousels) that may become activated;
- Costs for all major decommissioning, site control, and maintenance activities, including: (a) planning and preparation, (b) decontamination and/or dismantling of facility components, (c) packaging, shipment, and disposal of radioactive wastes, (d) a final radiation survey, (e) restoration of contaminated areas on facility grounds (if necessary), and (f) site stabilization and long-term surveillance (if necessary); and,
- A documented and reasonable basis for each of the cost elements (i.e., labor and non-labor elements) and unit costs. Labor costs should include basic wages and benefits for Spectron and contractor staff performing decommissioning-related tasks, overhead costs, and contractor profit (sufficient to allow an independent third party to carry out the decommissioning project). Non-labor costs may include the following: packing materials, shipping costs, disposal costs, other equipment and supplies, laboratory costs, and other miscellaneous expenses.

In order to allow an adequate evaluation of the estimated costs for the disposal of cyclotron components and facility decommissioning, please revise your cost estimate to include the information listed above and to increase the level of detail to be consistent with the cost estimating tables in Appendix A of NUREG-1757, Volume 3 (where applicable).

2. Clarify that no credit was taken for salvage value or reduced taxes in the cost estimate (NUREG-1757, Volume 3, Section 4.1)

NUREG-1757, Volume 3, Section 4.1, calls for the inclusion of a statement within each cost estimate asserting that the estimate does not take credit for any salvage value that may be realized with the sale of potential assets during decommissioning or reduced taxes that might result from payment of decommissioning costs or site control and maintenance costs. Spectron's cost estimate does not indicate whether or not credit was taken for salvage value or reduced taxes. If estimated credits are taken for salvage value or reduced taxes that are not fully realized at the time of decommissioning, the cost estimate may be significantly low. To ensure the adequacy of the cost estimate, please state that you have not included in your cost estimate credit for any salvage value or reduced taxes.

3. Incorporate a contingency factor into the cost estimate (NUREG-1757, Volume 3, Section 4.1 and Appendix A, Section A.3)

NUREG-1757, Volume 3, Section 4.1 and Appendix A, Section A.3, call for the inclusion of a contingency factor of at least 25 percent in the decommissioning cost estimate. Spectron's cost estimate does not include a contingency factor. A contingency factor helps ensure coverage for unexpected circumstances that could increase decommissioning costs. Please incorporate a contingency factor of at least 25 percent into your decommissioning cost estimate.

4. Submit a certification of financial assurance (10 CFR Part 30.35(e))

10 CFR Part 30.35(e) requires that decommissioning funding plans contain a certification of financial assurance, which indicates that financial assurance for decommissioning has been provided in the amount of the decommissioning cost estimate. Spectron has not submitted a certification of financial assurance to the NRC. Please submit a certification of financial assurance in order to satisfy the requirements of 10 CFR Part 30.35(e).

5. Submit a specimen certificate of events and a specimen certificate of resolution in support of the trust fund assurance mechanism (NUREG-1757, Volume 3, Section 4.3.2.1 and Appendix A, Section A.4.6)

NUREG-1757 recommends that licensees submit a specimen certificate of events and a specimen certificate of resolution in support of a trust fund submission. These documents provide the format for instructing the trustee to release monies from the trust in order to fund decommissioning activities at Spectron's facility. Spectron did not submit either of these documents in support of its trust fund submission.

In order to ensure that Spectron and the NRC agree on the terms instructing the trustee to release monies from the trust for the purpose of funding decommissioning activities, please submit a specimen certificate of events and a specimen certificate of resolution in support of the trust fund assurance mechanism. A model specimen certificate of events is provided in NUREG-1757, Volume 3, Appendix A, Section A.4.6.

In accordance with 10 Code of Federal Regulations 2.390 of the NRC's "Rules of Practice," a copy of this letter will be 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>.

In your response, please reference as additional information to Control Number 575631. Please contact me at 630-829-9854 if you have any questions.

Sincerely,

**/RA/**

Kevin G. Null  
Materials Licensing Branch  
Division of Nuclear Materials Safety

Docket No.: 030-38045  
License No.: 13-32726-02

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