

**ENCLOSURE**

We are in the process of reviewing your application for the Model 1000, 2000, and 3000 Series Bow Sights. In order to continue our review, we need the following information:

1. Paragraph (ii): Please specify separately the maximum activity for each of your Models, i.e., 1000, 2000, and 3000 Series.
2. Structural Mounting in Paragraph (v): You stated that "As in Series 1000 and 2000 we will utilize our build a tube design which has been approved by the NRC in gun sights and will be attached as Attachment C." Attachment C shows the drawing no. RDI111. However, Attachment D stated that "Series 1000 equates to Model RDI111, Series 2000 and 3000 cross references to Model SIC123 on the existing license." Please clarify which Series 2000 equates to.
3. Paragraph (vi): Please correct the unit which currently reads as "70 m thickness of the dead skin."
4. Paragraph (x): The application states that the identification can also be painted as well as stamped or engraved on the bow sights. Please describe the paint and the painting process. Please demonstrate that the paint will stay permanently on the bow sights for the expected life of the device under the expected environmental conditions of use.
5. Paragraph (xii): Regarding prototype testing, the application referred to Reference D. Reference D described the test conditions and test results. Please indicate how many units were subjected to the tests, whether the thermal-drop-chemical tests were conducted sequentially on the same units, what were the pass-fail criteria for each of these tests, and whether the devices were leak-tested after the prototype tests.
6. Paragraph (xv): Please provide all changes made since February 20, 1996, in QA/QC and any other information, if any.
7. Your letter dated February 15, 1996, was referenced in NR-365-D-101-E registration certificate dated February 20, 1996. However, the NRC Public Document Center could not locate that letter. Please send a copy of that letter.
8. The Attachments 27, 28, and 29 of NR-365-D-101-E registration certificate dated February 20, 1996, stated that the sealed source manufacturer is Saunders-Roe Developments, Limited. However, paragraph (v) stated that the source manufacturer now is Lumitec Atomic Energy Corporation of South Africa. Please clarify this discrepancy.
9. Drawings: Please note that we cannot perform a safety evaluation of your product without legible, clear drawings as specified in Section 10.3, NUREG-1556, Vol. 3, "Consolidated Guidance About Materials License." Please provide clear and properly sized copies of Attachments A and C. The drawings should also identify the components, the materials for the components and methods of attachment.

21<sup>st</sup> Century Technologies, Inc.

10. Attachment A: Please provide the tolerances to be used.
11. In Attachment A: Please clarify how the RD1111 having dimensions of 0.13" by 0.043" is fitted in a space of 0.2" by 0.625" for Series 1000 and 0.3" by 0.1" for Series 2000, respectively? How is the mounting bracket attached permanently in the tritium barrel for Series 3000?
12. Please provide a legible copy of the flow chart entitled "QC Inspection" located in Attachment F.
13. In Appendix F, QA Program, Section entitled "Audits," you indicated that the Accounting Department personnel will conduct the internal audits. Please provide information that the persons conducting the audit are technically qualified to review the quality of the fabrication process and the quality of the devices.

Patricia Wilson, RSO  
21<sup>st</sup> Century Technologies, Inc.  
5050 E. Belknap St.  
Haltom City, TX 76117-5050

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON SERIES 1000, 2000, AND  
3000 BOW SIGHTS

Dear Ms. Wilson:

This letter is in response to your application dated June 11, 2001, requesting license amendment, which also requires the amendment of your device registration certificate, to add bow sights. We are in the process of evaluating your request. In order to continue our evaluation of the registration certificate of your devices, we need additional information attached in the Enclosure. You will receive separate communication from the NRC regarding the amendment of your material license.

Some questions in our request for additional information refer to the applicable NRC technical report, NUREG-1556, Vol. 3, "Consolidated Guidance About Materials License." Please find a copy of the report enclosed for your information.

Please submit the requested information within thirty days of the date of this letter. If we have not received complete information within thirty days of the date of this letter, we will consider your application as having been abandoned by you. This is without prejudice to the submission of a complete application.

If you have any questions, please contact me at (301) 415-5787 or Dr. John Jankovich at (301) 415-7904.

Sincerely,

/RA/

Seung J. Lee, Mechanical Engineer  
Materials Safety and Inspection Branch  
Division of Industrial and  
Medical Nuclear Safety  
Office of Nuclear Material Safety  
and Safeguards

Enclosures: As stated

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July 5, 2001

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