

CONVERSATION RECORD

TYPE: **Meeting by phone**

(NRC represented by W Ward, J Jankovich, M Bailey, J B Carrico and S Lee)

NAME OF PERSON CONTACTED:

Kevin Romney, GM
Ken Wilson, Consultant

ORGANIZATION:

21st Century
Technologies, Inc.

TIME:

2:00 -
2:40 pm

DATE:

9/24/02

SUBJECT: **Amendment request concerning Thin-walled tritium vials**

SUMMARY: 21st Century was advised that the amendment request submitted, dated September 19, 2002, was insufficient to review. Normally, NRC would have rejected the amendment, but, due to the circumstances (approved, expedited handling), NRC would advise 21st Century in this call of the items that needed to be addressed with this conversation record serving as the record similar to a deficiency letter. Items identified to 21st Century are listed below:

- the drawing provided as exhibit A did not reflect the new vial, please submit a new drawing
- please provide detailed specifications (length, diameter, curie content, gas pressure, etc.) for the vial
- model number is same as thicker walled vial, please renumber to differentiate
- please follow appendix O in volume 8 of NUREG-1556
- when providing proof of prototype testing, please submit detailed test reports that demonstrate satisfactory compliance with all test requirements, and how compliance was measured including calibration data
- please discuss normal conditions of operation and demonstrate how the prototype testing bounds these conditions, specifically use of sights on grenade launchers as opposed to rifle or handgun sights; the conditions may be referenced to approved sight designs, such as the 0.25 mm thickness tritium vials previously approved
- please follow appendix P in volume 8 of NUREG-1556
- please follow appendix C in volume 3 of NUREG-1556
- please follow section 10 in volume 3 of NUREG-1556
- please provide a working life for the sight, 21st Century stated it would be 15 yrs.
- please provide radiation dose estimates and/or profiles per the referenced guidance
- please state that the installation process for the thin-walled vials is the same as for the thick-wall vials, or provide details on the thin-walled vial installation process
- please follow Reg. Guide 6.9 and provide information on your Quality Assurance program, and specifically, your oversight of the vial vendor, Lumitec in South Africa including monitoring of the manufacturing, loading of tritium content (verification of <30 mCi per vial), and screening of vials prior to shipment to Texas
- please provide information concerning your receipt inspection process for vial arriving from Lumitec or other authorized vendors
- please indicate how many of the thin-walled vials have already been distributed, and how many have been returned

ACTION REQUIRED: 21st Century will heed the discussion and provide a revised amendment request addressing the items listed above

PLACE THIS RECORD IN:
Registration File **NR-0365-D-101-E**

PERSON DOCUMENTING THE
CONVERSATION:
William Ward

SIGNATURE:
/RA/

DATE:
9/24/2002