

October 23, 2003

Kevin Romney
General Manager
21st Century Technologies
5050 E Belknap Street
Holtom City, Texas 76117-5050

Dear Mr. Romney:

This letter is in response to your letter dated July 3, 2003, requesting an amendment to add Models DNS390, DNS200, Ghosting Series 1000, and Ghosting 1100 to your Sealed Source and Device (SS&D) registration, NR-365-D-101-E. We are in the process reviewing your request and have determined that the following additional information is required.

1. PROTOTYPE TESTING

- 1.1 NUREG 1556, Volume 8, Appendix O, Section 3.2, specifically states that “[t]he gunsights must not become loosened or detached from the guns . . . ,” when subject to the Mechanical Shock test (3.2.7) and the Firing test (3.2.8). Reporting the results of the tests, performed by 21st Century on November 7, 2002, you stated in Attachment L of your letter that “[d]uring the test, the sight came loose from the weapon and had to be reattached.” This indicated that the gunsight attachments to the guns have failed to meet the test requirement. Please provide information how your design meets all the test requirements.
- 1.2 Please provide a rationale that the one dimensional linear slammer test is a valid representation of dual firing of the weapon as well as longitudinal, transverse, and rotational forces experienced by the devices.
- 1.3 Attachment M to your letter, *M16+M203 Mortar Launcher Dynamic Analysis*, showed notations of “??” and “?” in place of the mathematical symbols in all your formulae and/or calculations. Please resubmit this analysis report in a legible and understandable format.
- 1.4 Please clarify/confirm that each gunsight has undergone four periods of pressure tests, specify the relative humidity used in your temperature test, and that all prototype tests were performed on each model.

2. LABELING

Your gunsights are labeled by stamping “H-3” and “PT” on the devices. Confirm that the prototype tests were conducted with stamped devices and that the labels remained legible after the tests.

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3. ADDITIONAL INFORMATION

Your application indicated that you had used the Model DNS1700 device in the mechanical shock tests in the Attachment L of your letter. Please state how this model was selected as representative of all the models you intended to distribute.

Please provide the requested information within 30 days. If you need further assistance on the matter, feel free to call me at (301) 415-7640.

Sincerely,

/RA/

Xiaosong Yin
Materials Safety and Inspection Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Materials Safety
and Safeguards

cc: RJones, LFARB

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