

From: Eli Port <eport@rssinc.org>
To: "Nima Ashkeboussi" <NAA@nrc.gov>
Date: 5/19/04 6:53PM
Subject: Request for Additional Information - Seaman Nuclear

Mr. Ashkeboussi

Our responses follow your questions. Please call me at 8470965-1999 if you require more information.

Thanks.

Eli Port

Dear Mr. Port,

This email is in response to Seaman Nuclear Corporations's request for an amendment to NR-587-D-104-S. In order to complete our review, please provide the following additional information and clarifications:

1. Under Group III of your application, AEA Technology model RAN.C1 (MA-1059-S-878-S) is listed as an available source model for use. This certificate is currently inactive.

Seaman Nuclear Corporation (Seaman) is requesting authorization to use the sources described in SSD registry (SSD) MA-1059-S-878-S that were manufactured prior to the date on which the SSD was made inactive.

2. Please confirm that there will be no other changes to the C-300 Series Gauges except for different source combinations.

Seaman confirms that no changes other than source combinations and the spacers necessary to accommodate differences in source size shall be made.

3. Are the physical dimensions of the sources compatible to fit in the existing source holder. If not, please provide information on the new source holders.

The physical dimensions of the sources are compatible with the existing source holder with the modification of a bore diameter for Group III sources noted on the drawing attached to Seaman's March 30, 2004 letter.

4. In Attachment 2 of Seaman Nuclear registration sheet NR-587-D-104-S, the dose rates listed are substantially higher than those listed in the application sheet for C-300 Model Suffix-00. Please explain this discrepancy.

The dose rates in Attachment 2 of SSD NR-587-D-104-S were measured at various times using several different types of survey instruments. The higher doses in contact with the gauge were measured using a small diameter GM detector that could be placed in crevices between the gauge handle and its case. Some were scaled up to the expected values for the maximum activities of the approved sources.

The results of measurements reported on the attached tables were made using

two instruments, a tissue equivalent Health Physics Instruments 1010 limited proportional detector measuring physical dose rate from gamma radiation in mrad/hr and an Eberline PNR4 neutron detector measuring neutron dose equivalent rate in mrem/hr. The physical dose rates in mrad/hr from gamma radiation were converted to mrem/hr using a quality factor of 1. The results were scaled up to 10 mCi Group I sources, 50 mCi Group II sources and 5.5 mCi Group III sources. These measurements are most representative of maximum dose rates to which individuals can be exposed.

We will continue our review upon receipt of this information. If we do not receive a response from you in 30 days, we will consider your request as having been abandoned and void the active control for your request. This action would be without prejudice to the resubmission of another request.

Please contact me at 301-415-7637 if you have any questions.

Sincerely,

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