



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
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ATLANTA, GEORGIA 30303-8931

February 29, 2000

Department of the Navy  
ATTN: Commander Garry A. Higgins  
Executive Secretary  
Naval Radiation Safety Committee  
Office of Chief of Naval Operations (N455)  
Crystal Plaza 5  
2211 S. Clark Place, Room 680  
Arlington, VA 22202-3735

**SUBJECT: DECOMMISSIONING PLANS FOR NAVAL MEDICAL RESEARCH CENTER**

Dear Commander Higgins:

This refers to the decommissioning plans you forwarded with your letter dated November 29, 1999, for the Naval Medical Research Center (NMRC), in Bethesda, Maryland. The facility is authorized to possess and use licensed radioactive materials under Naval Radioactive Materials Permit Number 19-32398-41NP in accordance with NRC Master Materials License Number 45-23545-01NA. As discussed with you by telephone, we believe that it would be best to separate the facility into two separate decommissioning plans, one for Building 150 and one for the rest of the facility. This will prevent undue delays to decommissioning activities you have planned for NMRC (with the exception of Building 150). If you agree, with this approach, it will be necessary for you to submit a new, separate decommissioning plan for Building 150.

For areas other than Building 150, it will not be necessary for you to provide us with additional information before proceeding with your decommissioning activities. However, this activity may be subjected to future inspections or program reviews. For Building 150, as indicated above, specific information is required for us to continue our review.

NMRC (with exception of Building 150)

It appears that the overall approach to the survey and remediation of the site will be to identify any area of contamination that is 2-3 times above background and remediate any areas of contamination above that level so that the residual level is below 2-3 times above background. Therefore it appears that the overall approach is ALARA and should provide adequate assurance that the site is suitable for release for unrestricted use when the appropriate instrumentation is used to measure the residual contamination.

Page 7, Paragraph 1.4.6: States that the NRC screening values will be used as derived concentration guideline levels (DCGL) values. The NRC's screening values were published in Federal Register Vol. 63, No. 222, November 18, 1999. Table 1 in this FR included a limited number of radionuclides. In Table E-5, page 111 of the NMRC decommissioning plan, several isotopes are listed that may be present at the site which were not included in the NRC's screening values table (e.g., P-32, P-33, Ca-45, Cr-51, I-125, and Ba-133). You should document the basis for the DCGLs assigned to these isotopes. Several of the laboratories have more than one contaminant. Given that the survey instruments used will not be able to discriminate one radionuclide from another (e.g., will be measuring gross beta), you should document the basis for the assigned DCGL to the gross measurement.

NOTE: The Navy included a copy of SECY-98-242 that included the draft screening values table of common radionuclides for building surface contamination levels. This is not a document for use by licensees. The official screening values are in the FR.

Page 8, Paragraph 1.4.6: The stated design goal for the relative shift ( $\Delta/\sigma$ ) value was 2. You should document the basis for the relative shift value.

Page 27, Item 6.3.6: States that although unnecessary, reference area background surveys will be conducted. Draft Regulatory Guide (DG) 4006, Demonstrating Compliance with the Radiological Criteria for License Termination, Item 2.3.1, page 7, states that background reference areas are not needed when radionuclide-specific measurements will be used to measure concentrations of a radionuclide that is not present in background. It further states that background reference areas are needed for the MARSSIM method if (1) the residual radioactivity contains a radionuclide that occurs in background or (2) the sample measurements to be made are not radionuclide-specific. Since many of the survey areas are potentially contaminated with more than one radionuclide and the measurement of the presence of any contamination will depend on gross beta measurements which are not radionuclide-specific, the conclusion that reference area background surveys are not required appears inconsistent with DG 4006.

### Building 150

Regarding Building 150 and the surrounding grounds, as previously discussed, we believe that this site should be addressed in a separate decommissioning plan so that the decommissioning of the remainder of the NMRC site may proceed. You should complete a characterization survey of the building and surrounding grounds before submitting the plan so that we have some basis for determining what further actions need to be addressed before the decommissioning continues.

Page 19, Item 5.2.1: States that with the possible exception of the building 150 site, previous survey data for NMRC sites indicate that there is no reasonable expectation to find residual radioactivity that greatly exceeds background levels. It further indicates that a scoping survey has not been conducted at building 150 at the time that the decommissioning plan was written. In item E-5.3.5.1 it states that residual radioactivity remains at the site; the amount and type are undetermined and requires characterization before the area can be assigned a radiological classification. Given this, how did the Navy conclude in item 5.2.2.3, page 20, that the grounds surrounding Building 150 should be categorized as a Class 3 area?

If you have any questions, please contact Mr. Michael Fuller at (404) 562-4714.

Sincerely,

*/RA/*

Mark S. Lesser, Chief  
Nuclear Materials and Inspection Branch 2

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