

National Aeronautics and
Space Administration
John H. Glenn Research Center
Lewis Field
Plum Brook Station
Sandusky, OH 44870



March 20, 2009

Reply to Attn of: QD

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Subject: Plum Brook Radiological Characterization and Dose Pathway Analyses for the Plum Brook Reactor Facility, Licenses Nos. TR-3, Docket No. 50-30 and R-93, Docket No. 50-185

Our letters dated October 29, 2008, November 21, 2008 and February 24, 2009 contained detailed data reports on the sampling and characterization data from Plum Brook. This data was submitted in support of a License Amendment addressing unrestricted release criteria for the environmental areas along Plum Brook. We committed to follow up this summary report with a final detailed Plum Brook Characterization Report and a final report on the dose pathway analyses.

Enclosure 1 is our Technical Basis Document PBRF-TBD-08-005, "Radiological Characterization of Plum Brook Sediments", Revision 1. This document presents an evaluation of the distribution of radionuclides of PBRF origin in the Plum Brook sediments and provides a refined source term description in support of the dose pathway analyses.

Enclosure 2 is our Technical Basis Document PBRF-TBD-08-006, "Revised Dose Assessments for Plum Brook Sediments", Revision 0. This report presents an assessment of the radiation doses to members of the public that could come in contact with sediments containing radionuclides of PBRF origin. This report refines and consolidates into a single report the preliminary dose models previously submitted in our June 27, 2008 (PBRF-TBD-07-005) and August 7, 2008 (PBRF-TBD-08-001) letters.

Should you have any questions or need additional information, please contact me a NASA Plum Brook Station, 6100 Columbus Avenue, Sandusky, Ohio 44870, or by telephone at (419) 621-3277.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith M. Peacock", with a long, sweeping underline.

Keith M. Peacock
NASA Decommissioning Program Manager

Enclosures:

1. Technical Basis Document PBRF-TBD-08-005, "Radiological Characterization of Plum Brook Sediments", Revision 1
2. Technical Basis Document PBRF-TBD-08-006, "Revised Dose Assessments for Plum Brook Sediments", Revision 0

cc:

USNRC/C. J. Glenn (FSME) – CDROM copy
USNRC/J. Webb (FSME) – CDROM copy
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