



September 21, 1995

9555104

Mr. Anthony Allaker  
British Nuclear Fuels Private Limited Company  
MAGNOX Reprocessing Division  
Sellafield  
Seascale, Cumbria CA20 1PG  
United Kingdom

Dear Mr. Allaker:

SHIPMENT OF PLUTONIUM URANIUM EXTRACTION FACILITY NITRIC ACID TO THE UNITED KINGDOM, SAMPLE RESULTS FOR NITRIC ACID FROM TANKS TK-P2/MS AND TK-P4

Westinghouse Hanford Company (WHC) has completed analyzing representative samples of nitric acid from tanks Tk-P2/MS and Tk-P4. The nitric acid contained in Tk-P2/MS was obtained from tanks Tks-P13 and -P14, while the nitric acid in Tk-P4 is the combined volumes of tanks Tks-U1 and -U2. These analyses were previously agreed to by WHC, British Nuclear Fuels Limited (BNFL), and British Nuclear Fuels Private Limited Company (BNF plc). WHC agreed to provide these results prior to loading and release of this nitric acid from the Plutonium Uranium Extraction Facility.

Both samples were analyzed for the complete list of analytes identified in Attachment 1 of Appendix 1 of the WHC subcontract with BNFL, No. MAR-SVV-382237. Originally, the Tk-P4 material was to be analyzed for only the Key Analytes; however, WHC completed the entire analysis to provide assurance that all analytes were within the Conformance Criteria as specified in Attachment 2 of Appendix 1 of the previously mentioned contract.

This letter provides verification that the nitric acid contained in both tanks meet the specified Conformance Criteria. The individual sample results for each tank and the specific Conformance Criteria for each analyte are identified in the attached table.

WHC plans to initiate loading and shipment of the Tk-P4 material following the conclusion of Tk-P3. WHC will provide correspondence to both BNFL and BNF plc to identify which shipping container initiates the shipment of nitric acid from Tk-P4.

Approved for Public Release;  
Further Dissemination Unlimited

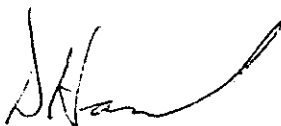
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WHC also understands and agrees that no material will be loaded or shipped from Tk-P2/MS until written authorization to do so has been received from BNFL. WHC understands that additional tests must be performed by BNF plc and that approval for acceptance into the MAGNOX Reprocessing Facility must be obtained from the Nuclear Installation Inspectorate.

If you require further information on this shipment, please contact Mr. R. A. Duncan (509-373-2229) of my staff.

Very truly yours,



D. G. Hamrick, Director  
PUREX Transition Project  
Transition Projects Division

sah

Attachment

DOE-HQ - R. Martinez  
          B. K. Nelson  
          D. A. Schmidt

RL      - B. L. Charboneau  
          R. X. Gonzalez  
          L. D. Romine  
          J. E. Mecca  
          A. H. Wirkkala (w/o attachment)

BNFL   - S. G. Donn  
          D. A. Kenyon

# CORRESPONDENCE DISTRIBUTION COVERSHEET

Author: R. A. Duncan, 373-2229      Addressee: Mr. Anthony Allaker, BNFL      Correspondence No.: 9555104

Subject: SHIPMENT OF PLUTONIUM URANIUM EXTRACTION FACILITY NITRIC ACID TO THE UNITED KINGDOM, SAMPLE RESULTS FOR NITRIC ACID FROM TANKS TK-P2/MS AND TK-P4

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SAMPLE RESULTS FOR NITRIC ACID FROM TANKS TK-P2/MS AND TK-P4

Constituent	Conformance Criteria	Tk-P2/MS	Tk-P4
* Acidity	>6M, <13M	8.51 M	11.1 M
Plutonium	<2.0E <sup>-5</sup> G/L	1.72E <sup>-7</sup> G/L	2.26E <sup>-7</sup> G/L
* Uranium	<80 G/L	12.9 G/L	3.36E <sup>-2</sup> G/L
Organic Carbon	<2000 uG C/mL	370 uG C/mL	55 uG C/mL
* Total Beta	<50 uCi/L	6.31 uCi/L	18.7 uCi/L
* Total Alpha	<25 uCi/L	2.15E <sup>-3</sup> uCi/L	7.6E <sup>-2</sup> uCi/L
Americium <sup>241</sup>	<1E <sup>-4</sup> uCi/mL	<3.07E <sup>-5</sup> uCi/mL	<2.5E <sup>-5</sup> uCi/mL
Neptunium <sup>237</sup>	<1E <sup>-4</sup> uCi/mL	<3.95E <sup>-5</sup> uCi/mL	<2.9E <sup>-5</sup> uCi/mL
* Uranium <sup>235</sup>	<0.95% w/wU	1.78E <sup>-1</sup> uCi/L	<9.0E <sup>-3</sup> uCi/L
* Fluoride	<400 uG/mL	<161 uG/mL	<257 uG/mL
Chloride	<800 uG/mL	720 uG/mL	<344 uG/mL
Phosphate	<4000 uG/mL	<1550 uG/mL	<662 uG/mL
Sulphate	<4000 uG/mL	<1760 uG/mL	<753 uG/mL
Iron	<100 uG/mL	67.6 uG/mL	80.3 uG/mL
Sodium	<50 uG/mL	<10.1 uG/mL	4.29 uG/mL
Potassium	<50 uG/mL	<30.3 uG/mL	2.2E <sup>-1</sup> uG/mL
Arsenic	<3E <sup>-2</sup> uG/mL	<2.5E <sup>-2</sup> uG/mL	2.5E <sup>-2</sup> uG/mL
Selenium	<7E <sup>-2</sup> uG/mL	<2.5E <sup>-2</sup> uG/mL	<2.5E <sup>-2</sup> uG/mL
Mercury	<100 uG/L	18.3 uG/L	53.0 uG/mL
Calcium	<30 uG/mL	14.3 uG/mL	2.09 uG/mL
Chromium	<40 uG/mL	19.9 uG/mL	20.8 uG/mL
Nickel	<20 uG/mL	8.28 uG/mL	11.1 uG/mL
Magnesium	BNFL	<10.1 uG/mL	<1.0E <sup>-1</sup> uG/mL
Phosphorus	<60 uG/mL	35.2 uG/mL	22.0 uG/mL
SpG	NA	1.27	1.30

\* Analytes of special interest to NII.