



PA. 45-5
UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

OCT 10 1991

RECEIVED

Docket No. 70-364
License No. SNM-414
Amendment No. 8

'91 OCT 25 10:02

Babcock & Wilcox
ATTN: Mr. Bernie L. Haertjens
Manager, Technical Control
Pennsylvania Nuclear Service Operations
609 North Warren Avenue
Apollo, Pennsylvania 15613

Gentlemen:

In accordance with your application dated May 28, 1991, as modified by a subsequent telephone conversation on September 20, 1991, by Mr. Keith McDaniel of the Nuclear Regulatory Commission (NRC) and Mr. Don Sgarlata of Babcock & Wilcox (B&W), and pursuant to Title 10, Code of Federal Regulations, Part 70, Materials License No. SNM-414 is hereby amended to authorize outside storage of contaminated structural metallic material from the Apollo facility (SNM-145) and other facilities in freight containers which are strong, tight packages at the Parks Township site. Possession of less than 350 grams of U-235 is authorized for the outside storage of this material.

Revised Materials License No. SNM-414 is enclosed in its entirety to incorporate this amendment. Changes to the license as a result of this amendment occur on pages 1, 3, and 5. Page 1 contains changes that: identify this action as Amendment No. 8; add Item D.3 to Conditions 6, 7, and 8 to include the possession of less than 350 grams of U-235 in enriched uranium (any enrichment); and lower the possession of plutonium to less than 200 grams in Item A. On page 3, a change was made by adding Items D.3 to the Outside Storage location under Condition 10. On page 5, Item 11, under section "Outside Storage Areas," the following sentence was added: "Storage only of SNM contaminated metallic structural materials in freight containers which are also strong, tight packages."

In addition to the changes made per the May 28, 1991, request, as modified by the September 20, 1991, phone conversation, two corrections to the license were also made. Section 8.D.2 of page 1 should read "Less than 250 grams U-235." In Section 10 of page 3, Item D should be replaced with Item D.1. at location, Metals and Hafnium Complex, and at location, Storage Areas; Drawing 11-C-623. These changes are corrections to Amendment No. 7.

As agreed to in the September 20, 1991, telephone conversation, B&W will submit replacement pages I.B.1.0, I.B.1.0.(a), I.B.1.5, and I.B.2.0 of your license application document. The replacement pages will contain revised Sections 1.1.1, 1.1.5, 1.4.7., and new Section 2.1.6. which will reflect the changes in this amendment.

B&W is also requested to submit the affected pages of the Demonstration Section of the license document that reflect the changes in this amendment.

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Mr. Bernie L. Haertjens

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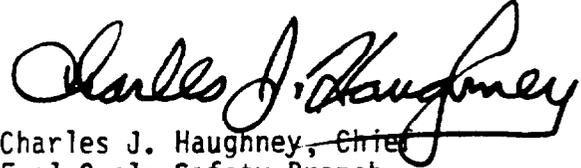
All other conditions of the license shall remain the same.

The Safety Evaluation Report prepared in support of this amendment, and a determination of eligibility for categorical exclusion from preparing an environmental assessment, are also enclosed.

Mr. Keith McDaniel of my staff discussed this amendment with your Mr. Don Sgarlata on September 23, 1991.

If you have any questions or we can be of additional assistance, please feel free to contact Keith McDaniel at (301)492-3448.

Sincerely,



Charles J. Haughney, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Enclosures:

1. Revised License No. SNM-414
2. Safety Evaluation Report
3. Categorical Exclusion

Mr. Bernie L. Haertjens

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Division of Industrial and
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Enclosures:

1. Revised License No. SNM-414
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DISTRIBUTION

NRC File Center PDR & LPDR
 Docket No. 70-364
 NMSS R/F
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 JRoth, RI
 MMessier, LFDCB
 DKasun, SGDB
 RGramann, SGIB
 SHO

[KM/LETTER]

DFC	: IMAF	: IMIF	: IMAF	: IMSB	:	:
NAME	: KMcDaniel	: jc	: FLBrown	: JSwift	: CHaughney	:

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		3. License number	SNM-414, Amendment 8
1. Babcock & Wilcox Nuclear Power Division			OCT 10 1991
2. 609 North Warren Avenue Apollo, Pennsylvania 15613		4. Expiration date	May 31, 1989
		5. Docket or Reference No.	70-364
Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license	
A. Plutonium	A. Non-pyrophoric	A. Less than 200 grams	
B. Deleted			
C. Deleted			
D.1. Uranium enriched to greater than 5.0 wt% in the U-235 isotope	D.1. Any covered authorized activities	D.1. Possession: Less than 700 grams U-235	
D.2. Uranium enriched to less than 5.0 wt%	D.2. Any covered authorized activities	D.2. Possession: Less than 250 grams U-235	
D.3. Uranium--Any enrichment U-235	D.3. Any covered authorized activities	D.3. Possession: Less than 350 grams U-235	
E. Deleted			
F. Deleted			
G. Byproduct material	G. Encapsulated	G. 10 curies per source of each isotope	
H.1. Byproduct material	H.1. Any form	H.1. 20 millicuries of any isotope	
H.2. Byproduct material	H.2. Contaminated Waste	H.2. 1000 curies of any isotope	

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H.3. Byproduct material	H.3. Contamination on/within equipment (ARIS)	H.3. 5 curies
H.4. Byproduct material	H.4. Contamination on/within equipment (NSO)	H.4. 5000 curies
H.5. Byproduct material	H.5. Contamination in Volume Reduction Services waste	H.5. 500 curies
I. Deleted		
J.1. Uranium, natural or depleted	J.1. Any covered by authorized activities	J.1. 100,000 kilograms uranium
J.2. Deleted		
K. Deleted		
L. Plutonium-239	L. Electroplated calibration or reference source	L. 20 grams
M. Plutonium-239	M. Evaporated calibration or reference sources	M. 5 grams
N. Plutonium-239	N. Encapsulated calibration or reference sources	N. 285 grams
O. Plutonium-241	O. Encapsulated calibration or reference sources	O. 5 grams
P. Uranium-233	P. Evaporated calibration or reference sources	P. 2 grams
Q. Uranium-235	Q. Evaporated calibration or reference sources	Q. 5 grams
R. Uranium-235	R. Encapsulated calibration or reference sources	R. 5 grams
S. Uranium-235	S. Electroplated calibration or reference sources	S. 10 grams

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9. Authorized Use:

For use in accordance with statements, representations and conditions contained in Section I of the licensee's application, except as modified by the conditions of this license. A list of effective pages for Section I of the application is given in Annex A to this license.

10. Authorized Places of Use:

The following areas within the licensee's facilities at Parks Township, Pennsylvania, except as authorized for Items H.3 and H.4 below:

<u>Item</u>	<u>Place of Use</u>
A, G, H.1, H.2, H.3, H.4, H.5, J.1, L, M, N, P, Q, R, S	Plutonium Plant
A, H.2, H.3, H.4, H.5, J.1	Plutonium Plant Storage Area (Trailer)
A, D.1, L, N	High Enriched Uranium Fuel Facility
A, D.1., D.2., G, H.1, H.2., H.3, H.4, J.1, L, N, O, P, Q, R, S	Metals and Hafnium Complex
D.1	Storage areas; Drawing 11-C-623, dated 07/12/79
D.3, H.2, H.4	Outside Storage
H.3, H.4	Nuclear power reactor sites anywhere in the United States where the Nuclear Regulatory Commission retains jurisdiction for regulating the use of licensed materials.

11. Notwithstanding the text of Specification I-2 on pages I.B.2.0 and I.B.2.1 of Section I of the application, dated February 2, 1981, authorized activities are:

PLUTONIUM PLANT Building (A)

Plutonium containing at least 3 wt. % Pu-240 in nonpyrophoric form

Decontamination of equipment and facility; analytical services; packaging and shipping; storage of packaged radioactive waste, receipt and shipment of same.

Byproduct Materials and Uranium and Plutonium Calibration or Reference Sources

As sources for nondestructive analysis and for calibration sources.

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11. continued

Byproduct Materials

Decontamination, maintenance and storage of the Automated Reactor Inspection System (ARIS).

Decontamination, maintenance and storage of Nuclear Services Operations (NSO) equipment.

Conduct of Volume Reduction Services Facility activities using only that portion of the Facility required for high-force compaction operations.

HIGH-ENRICHED URANIUM FUELS FACILITY

Uranium enriched to >5 wt. % in U-235

Decontamination of equipment and facility; packaging and shipping.
Storage of packaged low level waste, receipt and shipment of same.

Uranium enriched to <5 wt. % in U-235

Plutonium

Storage of packaged low level waste, receipt and shipment of same.

METALS AND HAFNIUM COMPLEX

Special Nuclear Material

As samples for isotopic analysis.

Source Material

As samples for isotopic analysis.

Byproduct Materials

As encapsulated and unencapsulated sources for nondestructive assay and for calibration and testing.

As samples for isotopic analysis.

Storage of Nuclear Services Operations equipment and related packaged wastes (600 curies).

Decontamination, maintenance, and storage of the Automated Reactor Inspection System (ARIS) (0.1 curies).

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11. continued

TRAILER STORAGE

Storage of (1) waste contaminated with Special Nuclear Materials in DOT approved shipping containers prior to shipment, (2) waste/equipment contaminated with byproduct materials in DOT Approved Shipping Containers.

OUTSIDE STORAGE AREAS

Drawing 11-C-623 dated 07/12/79

Storage of SNM low level waste (no plutonium) in DOT approved containers, receipt and shipment of same.

Storage only of SNM contaminated metallic structural materials in freight containers which are also strong, tight packages.

Byproduct Materials

Storage of Nuclear Services Operations equipment and related packaged wastes in freight containers which are also strong, tight packages (600 curies).

12. B&W shall continue to maintain, read out quarterly, and record the results of the penetrating radiation monitoring measurements at the restricted/unrestricted area interface. In order to assure that the average dose rate is below the maximum limits specified in 10 CFR 20.105, B&W shall use a value equal to or less than 0.06 mR/hr average (with adjustment for natural background) as the maximum permissible value.
13. Unless the operation or maintenance work is covered by an effective operating procedure, a Radiation Contamination Work Permit (RCWP) shall be prepared and approved for all work involving entry into a system containing SNM or where a potential for release of contamination or exposure of contaminated surfaces exists such that the airborne radioactivity concentration to which employees are exposed from the proposed operation or work is likely to exceed the concentrations in Appendix B, Table 1, of 10 CFR 20.

RCWPs shall specify the necessary radiation safety controls including but not limited to respiratory protection, special air sampling, and/or special local ventilation.
14. Radiation monitoring equipment shall be calibrated after repair and at least once every six months. Calibration sources shall be traceable to the National Institute of Standards and Technology.
15. Notwithstanding the text of paragraph c(ii) on page I.B.5.23 of the license application, the solid angle method shall not be used to analyze interaction in arrays subject to interunit moderation; and the method shall be limited to arrays reflected by reflectors no more effective than water.

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16. Notwithstanding the text of paragraph C on page I.B.5.20, the licensee shall institute criticality safety controls to restrict the quantity of plutonium and uranium-235 to a safe quantity in any one room or area. A safe quantity is defined as 200 grams plutonium, 350 grams U-235 or any combination of plutonium and uranium U-235 in accordance with the equation $\frac{\text{gmsPu}}{200} + \frac{\text{gmsU-235}}{350}$ is equal to or less than 1.
17. The subjects to be discussed in the work place meetings shall include radiation protection procedures, nuclear criticality safety controls, and emergency procedures. All of these subjects shall be discussed at least annually. The discussions shall be led by qualified personnel in the technical control organization or be based on subject material prepared by the qualified personnel.
18. The licensee shall comply with the provisions of Annex B for all sealed byproduct material and plutonium sources in his possession.
19. The release of equipment or packages from the controlled areas for unrestricted use shall be in accordance with the attached Annex C, dated November 1976. For internal plant transfers from controlled contamination areas to contamination free areas, the surface contamination levels given in Table I of Annex C shall apply; and the package shall be clearly identified to prevent release from the contamination free area to uncontrolled areas for unrestricted use.
20. Notwithstanding the text of page I.B.5.6., item ii relative to periodic smoke tests to assure room air flow from noncontaminated areas to contaminated areas, the differential pressure instrumentation data shall be logged, compared with smoke test results, and also used as a basis for corrective action.
21. Notwithstanding the text of Specification, I-9 and I-10 of Chapter I of the application, the licensee shall follow all provisions of the Materials and Plant Protection Amendment MPP-1 or subsequent revisions applicable to License SNM-414.
22. At the end of plant life, the licensee shall decontaminate the facility and grounds in accordance with the general decommissioning plan for License SNM-414 submitted in the enclosure to the letter dated February 17, 1978, and supplement transmitted by letter May 17, 1978, so that these facilities and grounds can be released for unrestricted use. The financial surety arrangement, to provide assurance on a continuing basis that funds will be available for decommissioning, described by letter dated March 13, 1978, is hereby incorporated as a condition of the license.
23. Current copies of Operating Procedures and RCWP's shall be readily and conveniently available to the operators.
24. The licensee shall inform the NRC Region 1 office of any violation of the NPDES permit at the same time that EPA is informed. Changes to the NPDES permit will be promptly reported to the NRC Region I office.

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25. The licensee shall perform the environmental monitoring program described in Chapter XIII of the submission "Environmental Data for the Leechburg Site Materials Plant of the Nuclear Materials Division of The Babcock & Wilcox Company," September 5, 1975. Subsequent revisions must be approved by the Safety Advisory Board (SAB) and submitted to the NRC for information within 30 days of SAB approval. The licensee shall make no changes to the environmental program that would decrease the effectiveness of the program without prior Commission approval.
26. As of the date of the renewed license no change or expansion of present activities which may involve new and increased amounts of combustibles are permitted in unsprinklered areas of the Plutonium Plant without the preparation of a safety analysis which demonstrates no change in fire safety risk. This safety analysis must be approved by the Safety Advisory Board (SAB) prior to implementation of the change. The safety analysis must be submitted to the NRC for information within 30 days of SAB approval. The NRC must approve any change which demonstrates an increased fire safety risk.
27. In the event of utility supplied electrical power loss, all activities shall cease until utility supplied power or equivalent auxiliary power is established with the exception of those necessary for conducting a safe and orderly shutdown or to establish a normal electrical service condition.
28. All areas in which radioactive materials are stored, handled, or used shall be posted with caution signs meeting the requirements of Title 10 CFR Part 20.203, except that of 20.203(f). In lieu of 20.203(f) requirements, a sign bearing the legend "Every container or vessel in this area, unless otherwise identified, may contain radioactive material," shall be posted at entrances to each building in which radioactive materials are used, stored, or handled.
29. Personnel dosimeters used for external radiation monitoring shall be evaluated at least monthly for personnel assigned routine operations in process areas and every three months for occasional occupants of process areas.
30. Permanently mounted general air samplers shall be used to monitor room air. Portable breathing zone samplers shall be used to determine concentration of radioactive materials in the workers' breathing zone. In addition, the location of permanently mounted general air samplers shall be evaluated every 12 months and whenever licensed process or equipment changes are made to assure that airborne contamination is adequately monitored in each room or area.
31. The average face velocity into ventilated enclosures shall be checked at least monthly.
32. Permanently mounted air samplers shall be changed and the filters counted according to the following schedule:
 - a. Radioactive Material Handling Areas - once per each operating shift - 8 hrs. maximum interval;

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32. continued

- b. All nonworking potentially contaminated areas of the facility - 48 hrs. maximum interval;
- c. All areas during periods when normal operations are shut down - 96 hrs. maximum interval.

33. The quality assurance program for fire suppression systems shall include (1) testing and auditing of sprinkler systems that incorporate recommendations of the vendor for frequency and quality control measures, and (2) a testing and auditing procedure for the exhaust duct Dynavane filter arrangement in the Fab 1 ventilation system.

34. The licensee shall implement, maintain, and execute the response measures of his Radiological Contingency Plan submitted to the Commission on January 15, 1982, and revised on March 9, 1982. The licensee shall also prepare and maintain implementing procedures for his Radiological Contingency Plan as necessary to implement the Plan. The licensee shall make no change in his Radiological Contingency Plan that would decrease the response effectiveness of the Plan without prior Commission approval as evidenced by a license amendment. The licensee may make changes to his Radiological Contingency Plan without prior Commission approval if the changes do not decrease the response effectiveness of the Plan. The licensee shall maintain records of changes that are made to the Plan without prior approval for a period of two years from the date of the change and shall furnish the Chief, Fuel Cycle Safety Branch, Division of Industrial and Medical Nuclear Safety, NMSS, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and the Regional Administrator, NRC Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406, a report containing a description of each change within six months after the change is made.

35. Deleted

36. The licensee is hereby exempted from the provisions of 10 CFR 70.24 insofar as this section applies to materials held under this license.

37. An automatic sprinkler system is to be operational in the Metals and Hafnium Complex whenever Nuclear Service Operations equipment and related packaged wastes are stored therein.

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38. In addition to other applicable conditions of this license, operation of the high-force compactor unit of the Volume Reduction Services Facility (VRSF) shall be in accordance with the following conditions (the reference to the VRSF in these conditions means only the high-force compactor unit of the VRSF):
- a. Operation of the VRSF shall not commence without a valid permit or permits issued therefor by the Commonwealth of Pennsylvania Department of Environmental Resources and other permits or authorities required by federal statutes.
 - b. Operation of the VRSF shall be conducted by the licensee in accordance with the conditions, statements and representations contained in the application for license amendment dated October 31, 1984, and supplements dated March 15, 1985, August 30, 1985, September 18, 1985, November 5, 1985, and January 20, 1986, except as modified by conditions of this license. The licensee may make changes in the VRSF, its equipment and procedures without license amendment provided that any proposed change does not involve (i) a modification to the provisions of Conditions 8, 9, 10 or 11 of this license or Section I of the license application document; (ii) a significant increase in radiation exposure of employees; (iii) an unreviewed safety question; or (iv) a decrease in effectiveness of VRSF effluent treatment systems. An evaluation shall be required to validate a change to the VRSF not requiring amendment to the license. Such evaluation shall be reviewed and approved by the Health and Safety Supervisor and the Safety Advisory Board or an ad hoc committee designated by the Safety Advisory Board, and shall provide the basis for determining that the change will not involve a modification to the provisions of Conditions 8, 9, 10 or 11 of this license or Section I of the license application document, a significant increase in radiation exposure of employees, an unreviewed safety question, or a decrease in effectiveness of VRSF effluent treatment systems. A change shall be deemed to involve an unreviewed safety question if an accident analysis for the change (i) results in consequence values exceeding the values of the accident analyses described in Section 8 of the licensee's Environmental Analysis for the VRSF or the probability of occurrence for the types of events there evaluated is judged to increase; or (ii) reveals a possibility for an accident of a different type than previously evaluated. Records of evaluations and approvals of changes shall be maintained by the licensee.
 - c. The licensee shall not retain low-level radioactive waste in physical inventory in the VRSF, either in the form of incoming waste or end-product, on behalf of customers, freight forwarders, carriers, brokers or the licensee, for a period of time in excess of one year from the time of receipt.
 - d. Operation of the VRSF shall not commence until the licensee has reviewed its Emergency Procedures Manual and revised it, if necessary, to incorporate provisions for protective actions near the site boundary as a result of postulated VRSF accidents for which radiation doses of one rem or more (whole body) or five rem (thyroid) could occur.

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38. continued:

- e. The licensee shall limit releases of gaseous radionuclides in effluents from the VRSF to not more than the following schedule:

Hydrogen-3	80 curies/year
Carbon-14	4 curies/year
Iodine-125	0.012 curies/year

The licensee shall maintain administrative control procedures and records to achieve and demonstrate that such limits have not been exceeded.

- f. The licensee shall use appropriate methods for the continuous collection of gaseous hydrogen-3, carbon-14 and iodine-125 samples in VRSF airborne effluents and shall analyze such samples on a daily basis when industrial and institutional waste containing these radionuclides is being processed, and on a weekly basis when other waste, including waste from nuclear utilities, is being processed. If only nuclear reactor waste is being processed, no sampling or analysis for I-125 is required.
- g. The licensee shall prepare and submit to the NRC Regional Administrator semiannually a report that provides an evaluation of VRSF operations performance, including the licensee's experience with correlating and managing the receipt, processing, shipment and release of radioactive material as the result of VRSF operations. This report shall accompany the semiannual report required by 10 CFR Part 70.59.
- h. The licensee shall revise Specification I-5.1.2A ("Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable") of Section I, Part B, of the licensee's application document to require that actions considered to correct unfavorable trends in occupational exposures shall include evaluation of engineering controls, such as shielding, remote handling and process design changes, as well as administrative controls to maintain occupational exposures ALARA. Records of evaluations and actions taken shall be maintained.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date:

October 10, 1991

By:

Charles J. Haughey
Charles J. Haughey, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS
Washington, DC 20555

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38. continued:

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g. The licensee shall prepare and submit to the NRC Regional Administrator semiannually a report that provides an evaluation of VRSF operations performance, including the licensee's experience with correlating and managing the receipt, processing, shipment and release of radioactive material as the result of VRSF operations. This report shall accompany the semiannual report required by 10 CFR Part 70.59.

h. The licensee shall revise Specification I-5.1.2A ("Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable") of Section I, Part B, of the licensee's application document to require that actions considered to correct unfavorable trends in occupational exposures shall include evaluation of engineering controls, such as shielding, remote handling and process design changes, as well as administrative controls to maintain occupational exposures ALARA. Records of evaluations and actions taken shall be maintained.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date:

10/10/91

By:



Charles J. Haughney, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS
Washington, DC 20555

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KMD 10-8-91
fw 10-8-91



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

OCT 10 1991

DOCKET NO.: 70-364
LICENSE NO.: SNM-414
APPLICANT: Babcock & Wilcox
Apollo, Pennsylvania
LOCATION: Parks Township Site
SUBJECT: SAFETY EVALUATION REPORT -- STORAGE OF CONTAMINATED
METALLIC STRUCTURAL MATERIALS IN FREIGHT CONTAINERS
AT BABCOCK & WILCOX PARKS TOWNSHIP - AMENDMENT NO.8

Background:

By letter dated May 28, 1991, as modified by a subsequent telephone conversation on September 20, 1991, Babcock & Wilcox (B&W) requested that the Nuclear Regulatory Commission (NRC) issue a minor amendment to Materials License No. SNM-414 to provide for the outside storage of contaminated structural metallic material from the Apollo facility (SNM-145) and other facilities in freight containers at B&W's Parks Township site (PTS). A possession limit of less than 350 grams of U-235 would be assigned to this material.

The request to store this material at the PTS has been made for two reasons. B&W's Apollo site is becoming increasingly stockpiled with contaminated construction materials as a result of their decommissioning operations. Consequently, B&W would like to store some of this material offsite as they prepare to terminate the Apollo license and release the site for unrestricted use. B&W's PTS is located within 5 miles from the Apollo site making it a viable offsite location for storage. The second purpose for storage of this material at PTS is that B&W plans to perform shot blast operations in the near future at PTS. If authorized, this operation would clean contaminated materials including those in the storage which this amendment authorizes.

The licensee submitted with the request letter an evaluation supporting a categorical exclusion from the requirement for an environmental assessment or an environmental impact statement pursuant to 10 CFR Part 51. In addition, the licensee committed in the September 20, 1991, phone conversation, to submit replacement pages to the Specification and Demonstration Section of the license reflecting the storage amendment request.

In 1979, B&W was authorized storage of low-level waste containing special nuclear material (SNM) in DOT approved containers. Storage of this material was restricted to specific locations as identified in Drawing 11-C-623 dated July 12, 1979.

On March 2, 1987, Amendment No. 4 was issued authorizing outside storage of NSC equipment and related packaged wastes containing not more than 600 curies of byproduct material in freight containers that are strong, tight packages.

Storage containers must be at least three inches off the ground and may be stored at various locations provided there is adequate radiological protection. The proposed amendment would authorize similar outside storage of limited quantities of SNM material as contamination on metallic structural material.

Discussion:

Radiological protection requirements specified in the Conditions Section of the currently approved license application document are directly applicable to the proposed storage activity. This includes radiation surveys of shipments received at the PTS prior to being placed in storage and periodic surveys thereafter. B&W also must maintain the radiation levels at the security fence (the unrestricted boundary) according to the limits of 10 CFR 20.105(b)(2). License Condition 12 specifies that direct radiation levels outside the fence will average less than 0.06 mR/hr.

Criticality safety controls restricting the quantities of uranium-235 to safe quantities in any one area is currently required in Condition No. 16 of the license and shall be applied to the storage of materials allowed by this amendment.

Since not all freight containers are provided with gasketed closures and are not weatherproof, the freight containers used should also be strong, tight packages as described in 49 CFR 173.425(b)(1).

Due to the small quantities (less than 350 grams of U-235), the inert physical properties (material contamination) of radioactive material involved, and the type of proposed packaging involved, the outside storage of this material in strong, tight containers at least three inches from the ground should not significantly increase radioactive effluent releases into the environment or increase the potential for or consequences from radiological accidents.

Conclusion:

Based on information submitted by B&W and the staff's review and evaluation, we conclude that implementation of the proposed amendment will not present a risk to the health and safety of the workers or the public. Accordingly, issuance of the amendment is recommended subject to the following revisions to the license conditions specified for Materials License No. SNM-414:

- a. Modify Conditions No. 8 by lowering the possession limit for plutonium under Item A. from less than 450 grams to less than 200 grams.
- b. Modify Condition No. 8 under Item D.2. by revising to read "Possession: Less than 250 grams U-235." Modify Conditions No. 6, 7, and 8 to include possession only. This change is a correction to Amendment No. 7.

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- c. Modify Conditions No. 6, 7, and 8 to include possession only of uranium U-235 in quantities of less than 350 grams and in uranium of any enrichment. Possession of this material would be designated as Item D.3.
- d. Modify Condition No. 10 by replacing Item D with Item D.1. for materials use at locations High Enriched Uranium Fuel Facility and Storage Areas; Drawing 11-C-623. These changes are corrections to Amendment No. 7.
- e. Modify Condition No. 10 to include Item D.3. as material used at Outside Storage location.
- f. Modify Condition No. 11 to include as an authorized activity the outside storage of SNM contaminated metallic structural materials in freight containers which are also strong, tight packages.

The proposed amendment was discussed with and agreed to by Mr. Jerry Roth of Region I.



Keith K. McDaniel, Project Manager
Advanced Fuel and Special
Facilities Section
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Approved: 

Jerry E. Swift, Section Leader
Advanced Fuel and Special
Facilities Section

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Original Signed by

Keith K. McDaniel, Project Manager
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[KM/SER]

JFC	: IMAF	: IMIF	: IMAF	: MSB	:	:
NAME	: KMcDaniel	: jc	: FBrown	: JSwift	: CHaughney	:
DATE	: 10/9/91	: 10/ /91	: 10/09/91	: 10/ /91	:	:



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

OCT 10 1991

DOCKET NO.: 70-364
LICENSE NO.: SNM-414
LICENSEE: Babcock & Wilcox
Pennsylvania Operations
FACILITY: Parks Township Site
SUBJECT: DETERMINATION OF ELIGIBILITY FOR CATEGORICAL
EXCLUSION UNDER 10 CFR 51.22 -- AMENDMENT NO. 8

By letter dated May 28, 1991, as modified by a subsequent telephone conversation on September 20, 1991, by Mr. Keith McDaniel of the Nuclear Regulatory Commission (NRC) and Mr. Don Sgarlata of Babcock & Wilcox (B&W), B&W requested amendment of their NRC Materials License No. SNM-414 to authorize outside storage of metallic structural material contaminated with less than 350 grams of U-235 from B&W's Apollo site and other facilities. The contaminated material will be stored in freight containers which are also strong, tight packages conforming to Department of Transportation regulation 49 CFR Part 173. The purpose of the proposed storage is to relieve the Apollo site of the increasing inventory of such material as a result of their decommissioning operations. The stored material may undergo decontamination at Parks Township at a later date, provided NRC authorizes such activities.

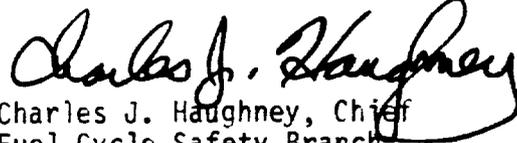
As part of its application, B&W submitted an analysis to demonstrate that issuance of an amendment for storage of this material is a licensing action eligible for categorical exclusion from preparing an environmental assessment or environmental impact statement. The category of actions cited by B&W in this analysis is 10 CFR 51.22(c)(11), which states:

"Issuance of amendments to licenses for fuel cycle plants and radioactive waste disposal sites and amendment to materials licenses identified in 51.60(b)(1) which are administrative, organizational, or procedural in nature, or which result in a change in process operations or equipment, provided that (i) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, (ii) there is no significant increase in individual or cumulative occupational radiation exposure, (iii) there is no construction impact, and (iv) there is no significant increase in the potential for or consequences from radiological accidents."

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Upon review of B&W's information, the staff has determined that the proposed amendment would not violate any of the four provisions of 10 CFR 51.22(c)(11). Therefore, the proposed licensing action is eligible for categorical exclusion and, pursuant to 10 CFR 51.22(b), an environmental assessment or an environmental impact statement is not required.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Charles J. Haughney, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety

OCT 10 1991

Upon review of B&W's information, the staff has determined that the proposed amendment would not violate any of the four provisions of 10 CFR 51.22(c)(11). Therefore, the proposed licensing action is eligible for categorical exclusion and, pursuant to 10 CFR 51.22(b), an environmental assessment or an environmental impact statement is not required.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Original Signed,

Charles J. Haughney, Chief
Fuel Cycle Safety Branch
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[KM/CATEXCL]

FC	: IMAF	: IMIF	: IMAF	: IMSE	:	:
AMF	: Daniel	: jc: Brown	: JSwift	: CHaughney	:	:
ATE	: 10/7/91	: 10/8/91	: 10/09/91	: 10/10/91	:	:

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