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PA. 41

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

AUG 13 1979

FCAF:WB
70-364
SNM-414, Amendment No. 3

Babcock and Wilcox Company
Nuclear Materials Division
ATTN: Mr. Michael A. Austin
Manager, Technical Control
609 North Warren Avenue
Apollo, Pennsylvania 15613

Gentlemen:

In accordance with your application dated June 18, 1979, and pursuant to Title 10, Code of Federal Regulations, Part 70, Materials License SNM-414 is hereby amended to:

1. Delete the function of the Regulatory Projects Coordinator, and
2. Alter the experience requirements for the function of Licensing and Nuclear Safety Specialist.

Replacement pages for the license and condition section of the application are attached. Included are changes to License SNM-414 pages to reflect authorizations Amendment 1 dated May 8, 1979 (pages 2 and 3) and Amendment 2 dated June 18, 1979 (page 8). These replacement pages are:

License SNM-414

New Page and Date

Replaced Page and Date

Page 1, August 13, 1979
Page 2, August 13, 1979
Page 3, August 13, 1979
Page 8, August 13, 1979
Annex A, Page 1, August 13, 1979

Page 1, no date
Page 2, no date
Page 3, no date
Page 8, February 2, 1979
Annex A, Page 1, no date

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AUG 13 1979

Condition Section of Application

New Page and Date

1.B.1.0, March 1, 1979
1.B.4.1, June 12, 1979
1.B.4.12, June 12, 1979
1.B.4.14, June 12, 1979

Replaced Page and Date

1.B.1.0, April 14, 1978
1.B.4.1, February 6, 1978
1.B.4.12, April 14, 1978
1.B.4.14, April 14, 1978

All other conditions of Materials License SNM-414 shall remain the same.

For your information, a copy of the Safety Evaluation prepared in support of this amendment is enclosed.

FOR THE NUCLEAR REGULATORY COMMISSION



Leland C. Rouse, Chief
Advanced Fuel and Spent Fuel
Licensing Branch
Division of Fuel Cycle and
Material Safety

Enclosures:

1. License SNM-414 -
Pg. 1, 2, 3, and 8, August 13, 1979
Annex A, Pg. 1, August 13, 1979
2. Conditions Section -
Pg. 1.B.1.0, March 1, 1979
Pg. 1.B.4.1, June 12, 1979
Pg. 1.b.4.12, June 12, 1979
Pg. 1.B.4.14, June 12, 1979
3. Safety Evaluation Report

U. S. NUCLEAR REGULATORY COMMISSION
MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 94-333), and Title 10, Code of Federal Regulations, Chapter 1, Parts 30, 31, 32, 33, 34, 35, 36, 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); and to import such byproduct and source material. 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		
1. Babcock & Wilcox Company Nuclear Materials Division		3. License number SNM-414, Amendment No. 3 August 13, 1979
2. 609 North Warren Avenue Apollo, Pennsylvania 15613		4. Expiration date January 31, 1984
		5. Docket or Reference No. 070-0364
6. 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. 1,000 kilograms fissile
B. Plutonium-238	B. As oxide or metal	B. 60 grams
C. Uranium enriched up to 5.0 wt% in the U-235 isotope	C. Any covered by authorized activities Physical Form	C. 25,000 kilograms U
D. Uranium enriched to greater than 5.0 wt% in the U-235 isotope	D. Any covered authorized activities	D. Possession: < 5 kg U-235 Use: 1 kilogram effect
E. Uranium enriched up to greater than 5.0 wt% in the U-235 isotope	E. UF ₆	E. 200,000 kilograms U
F. Plutonium-238	F. Encapsulated	F. 60 grams
G. By-product material	G. Encapsulated	G. 10 curies per source of each isotope

For the U. S. Nuclear Regulatory Commission

Date

8-13-79

by



Division of Materials and Fuel Cycle
Facility Licensing
Washington, D. C. 20555

7900120/20

Form NRC-3748
(7-75)

U. S. NUCLEAR REGULATORY COMMISSION
MATERIALS LICENSE

Page 2 of 8 Pages

Supplementary Sheet

Continued From Page _____

License Number SNM-414

Docket or
Reference No. 070-0364

August 13, 1979

- | | | |
|---|---|--|
| 6. 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 |
| H. By-product material | H. Any form | H. 20 millicuries of any isotope |
| I. Uranium, natural or depleted | I. UF ₆ | I. 100,000 kilograms uranium |
| J. Uranium, natural or depleted | J. Any covered by authorized activities | J. 100,000 kilograms uranium |
| K. Uranium enriched to greater than 5 w/o U-235 | K. Any covered by authorized activities | K. 50 kilograms fissile* |

* Amendment No. 1 dated May 8, 1979

For the U. S. Nuclear Regulatory Commission

Date 8-13-79

by L.C. House

FORM NRC-374A
(5-76)

U. S. NUCLEAR REGULATORY COMMISSION

Page 3 of 8 Pages

MATERIALS LICENSE

Supplementary Sheet

License Number SNM-414

Docket or
Reference No. 070-0364

August 13, 1979

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 Place of Use:

The following areas within the licensee's facilities at Parks Township, Pennsylvania.

<u>Item</u>	<u>Place of Use</u>
A, B, C, F, G, H, J, K	Plutonium Plant
A, C, J	Plutonium Plant Storage Area (Trailer)
D	High Enriched Uranium Fuel Facility
F, G, H.	Metals and Hafnium Complex
E, I	Uranium Hexafluoride Storage Area

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

PLUTONIUM PLANT

Enriched uranium to <5 wt. % in U-235, natural uranium and depleted uranium

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

Conduct chemical operations to recover scrap or purify off-specification special nuclear material..

Convert the above material to a usable form and;

Process uranium and plutonium oxides through fabrication of fuel elements including storage of fissile materials in authorized locations, packaging and shipping and laboratory operations.

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

Storage of only

Date 8-13-79

For the U. S. Nuclear Regulatory Commission

by L.C. Rouse
Division of Fuel Cycle and

FORM NRC-374A
(5-76)

U. S. NUCLEAR REGULATORY COMMISSION

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MATERIALS LICENSE

Supplementary Sheet

License Number SNM-414

Docket or
Reference No. 070-0364

August 13, 1979

34. Continued

commencement of operations in an area that has been shut down for more than six months to verify the representatives of the air sampling.

35. The average face velocity into ventilated enclosures shall be checked at least monthly.

36. Permanently mounted air samples shall be changed and the filters counted according to the following schedule:

- a. Production areas during normal operation @ 8 hrs. maximum interval;
- b. Ancillary areas during normal operation @ 24 hrs. maximum interval;
- c. All areas during periods when normal operations are shut down @ 48 hrs. maximum interval.

**37. B&W shall modify plant ventilation systems by December 31, 1979, incorporating identified fire protection features, in accordance with commitments stated in the following letters:

- (a) J. S. Dziewisz to J. B. Martin dated August 15, 1977
- (b) R. A. Williams to R. W. Starostecki dated August 16, 1978

By April 30, 1979, B&W shall submit a description of the revised ventilation and fire protection systems, as designed, for incorporation in the Safety Demonstration sections of the license renewal application document. The description shall incorporate the selected design bases for the modifications and how they are met, including line schematics showing the revised plant ventilation flowsheet and the related instrument-electric interlock system(s) for detection, alarm, and ventilation control. If the "as constructed" features change the above description, revised pages for the application document shall be submitted within 60 days of completing construction. By Amendment No. 2 dated June 18, 1979 this license condition has been revised to exempt completion of ventilation modifications for the Hot Cell and Fab 6 areas until such time as process activities may be scheduled for these areas.

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

** Modified by Amendment No. 2 dated June 18, 1979.

For the U. S. Nuclear Regulatory Commission

by Frank C. Rowle

Date

8-13-79

August 13, 1979

ANNEX A

LIST OF EFFECTIVE PAGES
SECTION I - B&W APPLICATION
SNM-414

<u>Page No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Date</u>
I.1.0	04/14/78	I.B.4.19	04/14/78
I.A.1.0	03/01/75	I.B.4.20	08/15/77
I.A.1.1	03/01/75	I.B.4.21	04/14/78
I.A.1.2	09/19/77	I.B.4.22	04/14/78
I.A.1.3	09/19/77	I.B.4.23	08/15/77
I.A.1.4	09/19/77	I.B.4.24	08/15/77
		I.B.4.25	08/15/77
I.B.1.0	03/01/79*	I.B.4.26	08/15/77
I.B.1.0(a)	04/14/78	I.B.4.27	04/14/78
I.B.1.1	04/14/78	I.B.4.28	04/14/78
I.B.1.2	11/09/77		
I.B.2.0	11/09/77	I.B.5.0	08/15/77
I.B.2.1	11/09/77	I.B.5.1	08/15/77
		I.B.5.2	08/15/77
I.B.4.1	06/12/79*	I.B.5.3	08/15/77
I.B.4.2	08/15/77	I.B.5.4	08/15/77
I.B.4.3	02/06/78	I.B.5.5	04/14/78
I.B.4.4	04/14/78	I.B.5.6	08/16/78
I.B.4.4a	02/06/78	I.B.5.7	04/14/78
I.B.4.4b	08/16/77	I.B.5.8	08/15/77
I.B.4.4.c.1	02/06/78	I.B.5.9	04/14/78
I.B.4.4.c.2	02/06/78	I.B.5.10	08/15/77
I.B.4.4.d	02/06/78	I.B.5.11	04/14/78
I.B.4.5	04/14/78	I.B.5.11a	04/14/78
I.B.4.6	08/15/77	I.B.5.12	08/15/77
I.B.4.7	04/14/78	I.B.5.13	08/15/77
I.B.4.8	04/14/78	I.B.5.14	08/15/77
I.B.4.9	08/15/77	I.B.5.15	08/15/77
I.B.4.10	04/14/78	I.B.5.16	04/14/78
I.B.4.11	02/06/78	I.B.5.16a	04/14/78
I.B.4.11(a)	04/14/78	I.B.5.17	04/14/78
I.B.4.11(b)	02/06/78	I.B.5.18	08/15/77
I.B.4.12	06/12/79**	I.B.5.19	08/15/77
I.B.4.13	08/15/77	I.B.5.20	08/15/77
I.B.4.14	06/12/79**	I.B.5.21	04/14/78
I.B.4.14(a)	02/06/78	I.B.5.22	08/15/77
I.B.4.15	04/14/78	I.B.5.23	10/09/77
I.B.4.16	02/06/78	I.B.5.24	08/15/77
I.B.4.17	04/14/78	I.B.5.24a	08/15/77
I.B.4.18	04/14/78	I.B.5.25	08/15/77

*Amendment No. 1
May 8, 1979

**Amendment No. 3
August 13, 1979

SPECIFICATIONS AND CONTROLS

SPECIFICATION I-1

Special Nuclear, By-Product and Source Material Limitations

The itemized possession limits detailed below have been determined from a review of past operations (based on the size of backlog of material necessary to sustain operations), followed by adjustment of this past backlog to obtain limits needed to sustain the maximum potential facility throughput. The total possession limit and authorized location for each material use is as follows:

1.1 Special Nuclear Material Limitations1.1.1 Plutonium Plant

- | | |
|--|------------------------|
| a) Plutonium (non-pyrophoric) | 1,000 kgs fissile |
| b) Uranium-enriched to greater than 5 w/o U-235 | 50 kgs fissile] 3/1/79 |
| c) Plutonium-238 (as sealed sources) | 60 grams |
| d) Plutonium-238 (as metal or oxide) | 60 grams |
| e) Uranium enriched to not more than 5 w/o U-235 | 25,000 kgs |

1.1.2 High Enriched Uranium Fuels Facility

- | | |
|---|---|
| a) Uranium enriched to greater than 5 w/o U-235 | Possession: <5 Kgs.
Use: 1 Kgs Effective |
|---|---|

1.1.3 Metals and Hafnium Complex

- | | |
|--|---|
| a) Radioactive materials with concentrations not exceeding those given in 10 CFR 20, Appendix B, Table II (for release to unrestricted areas). | |
| b) Radioactive material in sealed sources or on commercially available calibration or reference sources that satisfy the conditions of 10 CFR 70.39. | 5 Curies of any isotope encapsulated in one or more sealed sources. |

 Document SNM-414, Amendment 1

Revision No. 4

Date Mar. 1, 1979 Page I.B.1.0

Supersedes Revision No. 3

Date Apr. 14, 1979 Page I.B.1.0

INDEX

4.0 Organization

Figures 4.1 thru 4.5

4.1 Manager of Pennsylvania Operations

4.2 Technical Control

4.2.1 Manager, Technical Control

4.2.2 Manager of Health Safety

4.2.3 Manager of Compliance

4.2.4 Licensing and Nuclear Safety Specialist

4.2.5 Training and Development Coordinator

4.2.6 Supportive Technical Control Functions

4.2.6.1 (Reserved)

4.2.6.2 Health and Safety Coordinator

4.2.6.3 Nuclear Safety Officer

4.2.6.4 Industrial Safety Officer

4.2.6.5 Environucleonics Supervisor

4.2.6.6 Health and Safety Supervisor

4.2.6.7 Health and Safety Technicians

4.3 Nuclear Materials Control and Accountability

4.4 Security

4.5 Other Key Management and Supervisory Positions and Committees

4.5.1 Manager of Quality Assurance

4.5.2 Manager of Facilities Engineering

4.5.3 Manufacturing Managers

Document: SMH-414 Renewal Application (Docket 70-364)		
Revision No.: 2	Date: June 12, 1979	Page: I.B.4.1
Supersedes Revision No.: 1	Date: Feb. 6, 1978	Page: I.B.4.1

(C) Professional Qualifications

Baccalaureate Degree in Scientific or Engineering field; and, two (2) years experience in obtaining licenses and permits from Regulatory Agencies, plus two (2) years experience in nuclear criticality safety analysis.

(Note: The current incumbent to this position does not meet the exact experience requirements of this base; therefore, a detailed, documented and approved Organization Change Evaluation has been performed to assure that competency is maintained or strengthened).

4.2.5 Training and Development Coordinator

(The Training and Development Coordinator is the Training and Development Function Head reporting to the Manager of Technical Control).

(A) Responsibilities

Prepares and directs basic general training programs; and, coordinates presentation of basic and advanced training programs in the Regulatory areas of health, safety and safeguards. Supervises the units responsible for implementing compliance with Regulatory training requirements, and meeting employee skill development needs. Coordinates and directs the personnel development program.

+Evaluates, through active participation in the presentation of training programs and work area observation, training and

Document: SIM-414 Renewal Application (Docket 70-364)

Revision No.	3	Date	June 12, 1979	Page	I.B.4.12
Supersedes Revision No.	2	Date	Apr. 14, 1978	Page	I.B.4.12

(C) Professional Qualifications

Baccalaureate Degree in Arts, Education, or equivalent; and, five (5) years experience in directing training and development activities.

(Note: The current incumbent to this position does not meet the exact experience requirements of this base; therefore, a detailed, documented and approved Organization Change Evaluation has been performed to assure that competency is maintained or strengthened).

4.2.6 Supportive Technical Control Functions

4.2.6.1 (Reserved)

4.2.6.2 Health and Safety Coordinator

(The Health and Safety Coordinator is the Radiological Evaluation Function reporting to the Manager of Health and Safety.)



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

AUG 13 1979

Docket NO.: 70-364
LICENSEE: Babcock and Wilcox
FACILITY: Parks Township, Pennsylvania Plant
SUBJECT: REQUEST FOR ADMINISTRATIVE AMENDMENT

Background

By letter dated June 18, 1979, B&W requested an administrative change to their license SNM-414 to (a) delete the function of the Regulatory Projects Coordinator and (b) alter the experience requirements for the function of Licensing and Nuclear Safety Specialist.

Discussion

Item (a)

There is no regulatory requirement that the licensee organization include the function of Regulatory Projects Coordinator. Further, management needs and plant operations have changed at Apollo, and B&W no longer believes the function of the Regulatory Projects Coordinator is needed.

Item (b)

The experience requirements for the Licensing and Nuclear Safety Specialist included in the B&W renewal application for License No. SNM-414 were based on the qualifications of the person filling the position at that time, and the qualifications listed were more requirements than generally used in the nuclear industry. Overly restrictive qualifications make it difficult for B&W to fill positions vacated. The proposed new qualifications are consistent with industry practice and are adequate.

The proposed changes have been discussed with Region I personnel and they have no objections to granting the B&W request. Qualifications for the Licensing and Nuclear Safety Specialist were discussed with Mr. R. L. Stevenson, an NRC expert in criticality, who had no objection to the change in qualifications.

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Conclusions and Recommendation

Based on the facts summarized above, I believe the license can be amended without undue risk to the public.

Approval of the request for amendment is recommended.

W. Burkhardt

W. Burkhardt
Advanced Fuel and Spent Fuel
Licensing Branch
Division of Fuel Cycle and
Material Safety

Approved by:

Leland C. Rouse

Leland C. Rouse, Chief
Advanced Fuel And Spent Fuel
Licensing Branch