



MS-16
K9

April 24, 1990
DDH-90-016

U.S. Nuclear Regulatory Commission
Nuclear Materials Safety Section B
Division of Radiation Safety and Safeguards
475 Allendale Road
King of Prussia, PA 19406

Attention: Mr. Francis M. Costello
Control No. 111757


Dear Mr. Costello:

This letter confirms our telephone conversation of this date regarding categories and possession limits of Radioactive Materials for License No. 06-00217-06.

A new item No. 5 "Radioactive Material" is enclosed. This will replace our previous submittals. Changes in A, B, C and E have been made as suggested.

If there is any further information we may provide, please call me at (203)285-5285.

Very truly yours,
ABB/Combustion Engineering Inc.


Stephen M. Sorensen
Manager, RPS

SMS:klm
DDH90016
Enclosure

ITEM # 94

ABB Combustion Engineering Nuclear Power

Combustion Engineering Inc

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

OFFICIAL RECORD COPY ML 10

APR 26 1990

111757

B/69

10

Item 5 Radioactive Material

a. Element and Mass No.	b. Chemical and/or Physical Form	c. Maximum Amount which will be possessed at any one time
A. Any byproduct Material	A. Irradiated and/or contaminated reactor components, inspection and test equipment, Reactor coolant samples, monitoring instruments, test samples, and calibration sources.	A. Not to exceed 50 curies total
B. Any byproduct material with Atomic Numbers between 84 and 103 inclusive	B. Irradiated and/or contaminated reactor components, inspection and test equipment, reactor coolant samples and calibration sources	B. Not to exceed 3 millicuries each nuclide Atomic Numbers between 84 and 103 inclusive
C. Cesium 137	C. Sealed Sources	C. 215 Curies
D. Americium 241	D. Sealed Neutron Sources	D. 10 sources not to exceed 1 curie per source
E. Americium 241	E. Sealed Neutron Sources	E. 10 sources not to exceed 10 curies per source
F. Neptunium 237	F. Oxide Wires	F. 10 <u>wires</u> not to exceed .5 millicuries per <u>wire</u>
G. Uranium 233	F. Any	G. 1 gram
H. Uranium 235	H. Any	H. 7 gram
I. Plutonium	I. Any	I. 1 milligram
J. $U_3 O_8$	J. Fission Chambers	J. 8 Chambers not to exceed 1.7 grams U_{235} per chamber

Item 5 RADIOACTIVE MATERIAL (cont'd)

Sealed Source Storage Container or Device

- A. N/A
- B. N/A
- C. Cesium 137 - Listed Below
 - 1. Gamma Densitometer - Model 660
 - 2. Lead Pig - Calibration Source
 - 3. Gamma Densitometer - Model 789
 - 4. Gamma Densitometer - Model 807 #35
 - 5. Lead Pig - Calibration Source
 - 6. Gamma Densitometer - Model 755
 - 7. Gamma Densitometer - Model RTR-N#221
 - 8. Lead Pig
- D. Americium 241 - Listed Below
 - 1. DOT 7A Type A Container - Certificate No. USA/0043/S
- E. Americium 241 - Listed Below
 - 1. DOT 7A Type A Container - Certificate No. USA/0043/S

Item 5 RADIOACTIVE MATERIAL (cont'd)

Sealed Source Information

- A. N/A
- B. N/A
- C. Cesium 137 - Listed Below
 - 1. Technical Operations, Inc. - Model SK1936, S/N S-171 - 2.0 Curies
 - 2. International Chemical and Nuclear - Model 375, S/N - 771 - 1.19 Millicuries
 - 3. Technical Operations, Inc.- Model #FM6, S/N 181 S/N 182 - 30 Curies each
 - 4. Measurements, Inc. - Model SK2085, S/N S-274 - 10 Curies
 - 5. New England Nuclear - Model NER-401H S/N CS-160 - 9.75 Millicuries
- D. Americium 241 - Monsanto Research Corp. - Model 2723A - 1 Curie
- E. Monsanto Research Corp. - Model 2727B - 20 Curies

ENCLOSURE

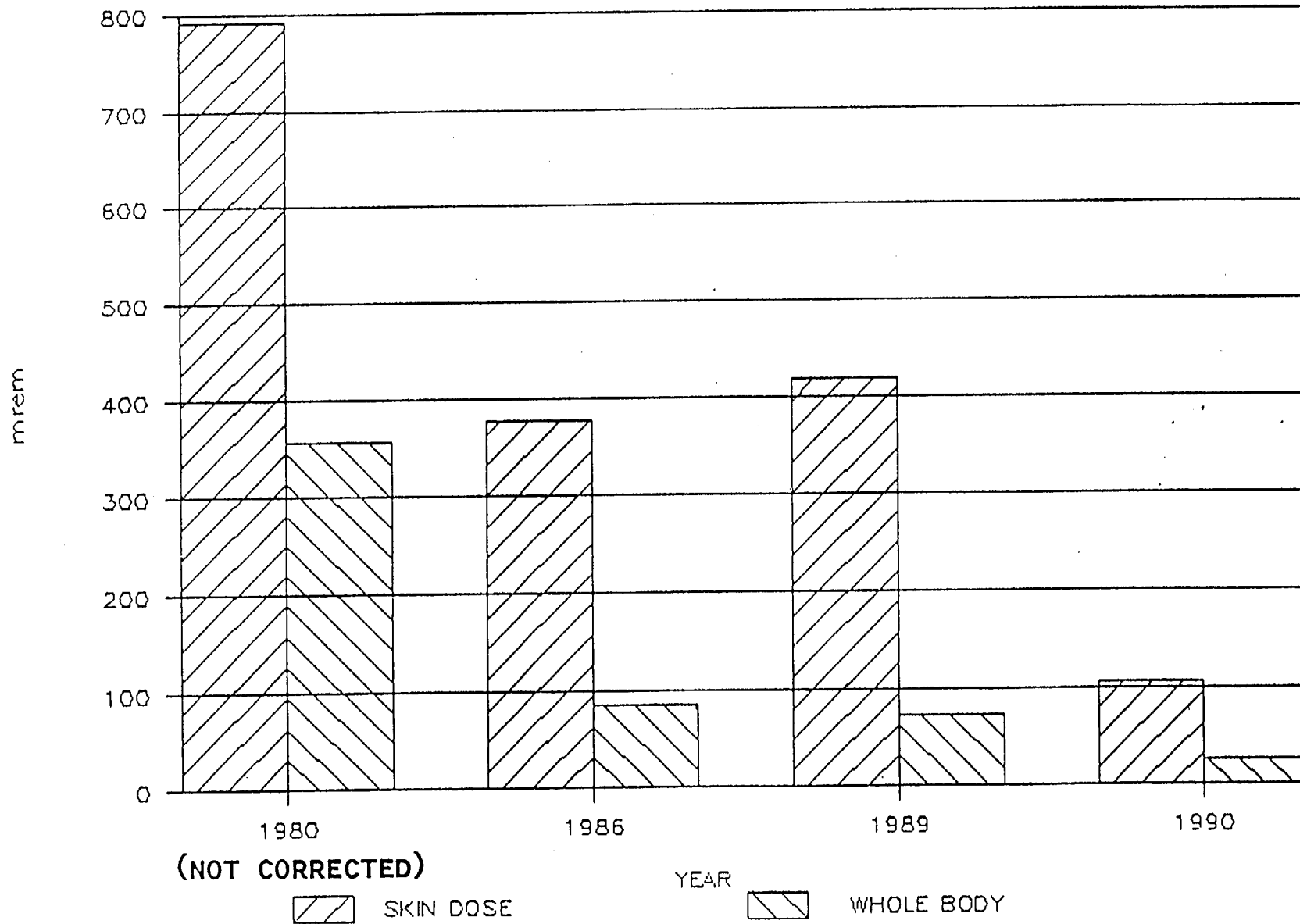
COMBUSTION ENGINEERING, INC.

NUCLEAR FUEL MANUFACTURING FACILITY
SUMMARY OF RECENT RADIOLOGICAL HEALTH
AND SAFETY PERFORMANCE IMPROVEMENT

OCTOBER, 1990

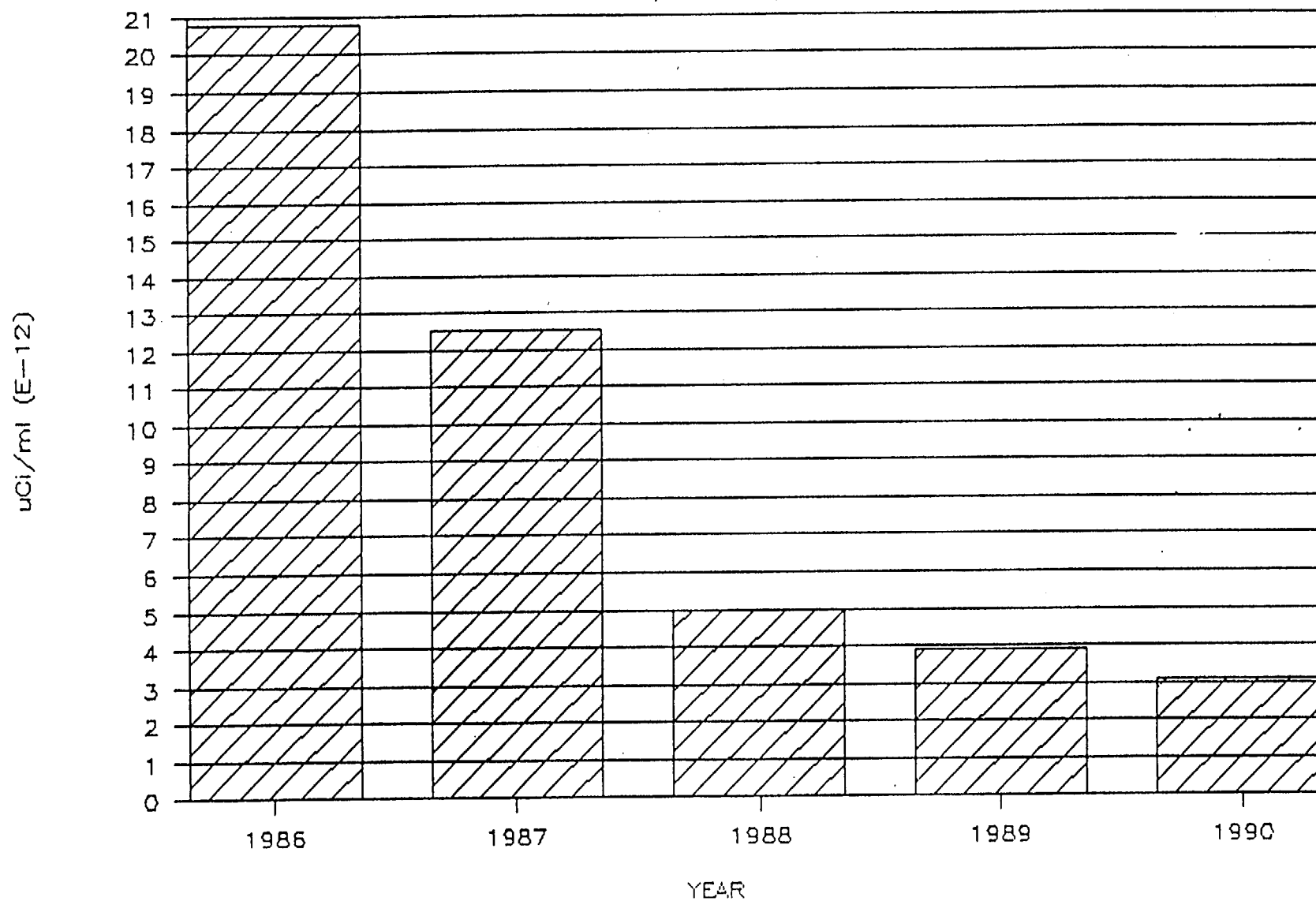
YEARLY FIRST QUARTER AVERAGE EXTERNAL DOSE

with beta C.F.



AIRBORNE RADIOACTIVITY

pellet shop



WINDSOR NUCLEAR FUEL MANUFACTURING

TYPICAL CONTAMINATION LEVEL

COMPARISON (DPM/100 CM²)

(1987 VS 1990)

<u>YEAR</u>	<u><5000</u> <u>(NO CLEAN-UP REQ'D)</u>	<u><5000 >10,000</u> <u>(24 HR CLEAN-UP REQ'D)</u>	<u>>10,000</u> <u>(IMMED CLEAN-UP REQ'D)</u>
1987 (109 SMEARS)	35%	17%	48%
1990 (1500 SMEARS)	99.47%	0.13%	0.40%

- NOTES:
1. 1987 SURVEY PERFORMED ON 9/6/87
 2. 1990 -- 1ST SIX MONTHS

WINDSOR NUCLEAR FUEL MANUFACTURING

TYPICAL CONTAMINATION LEVELS (DPM/100 CM²)

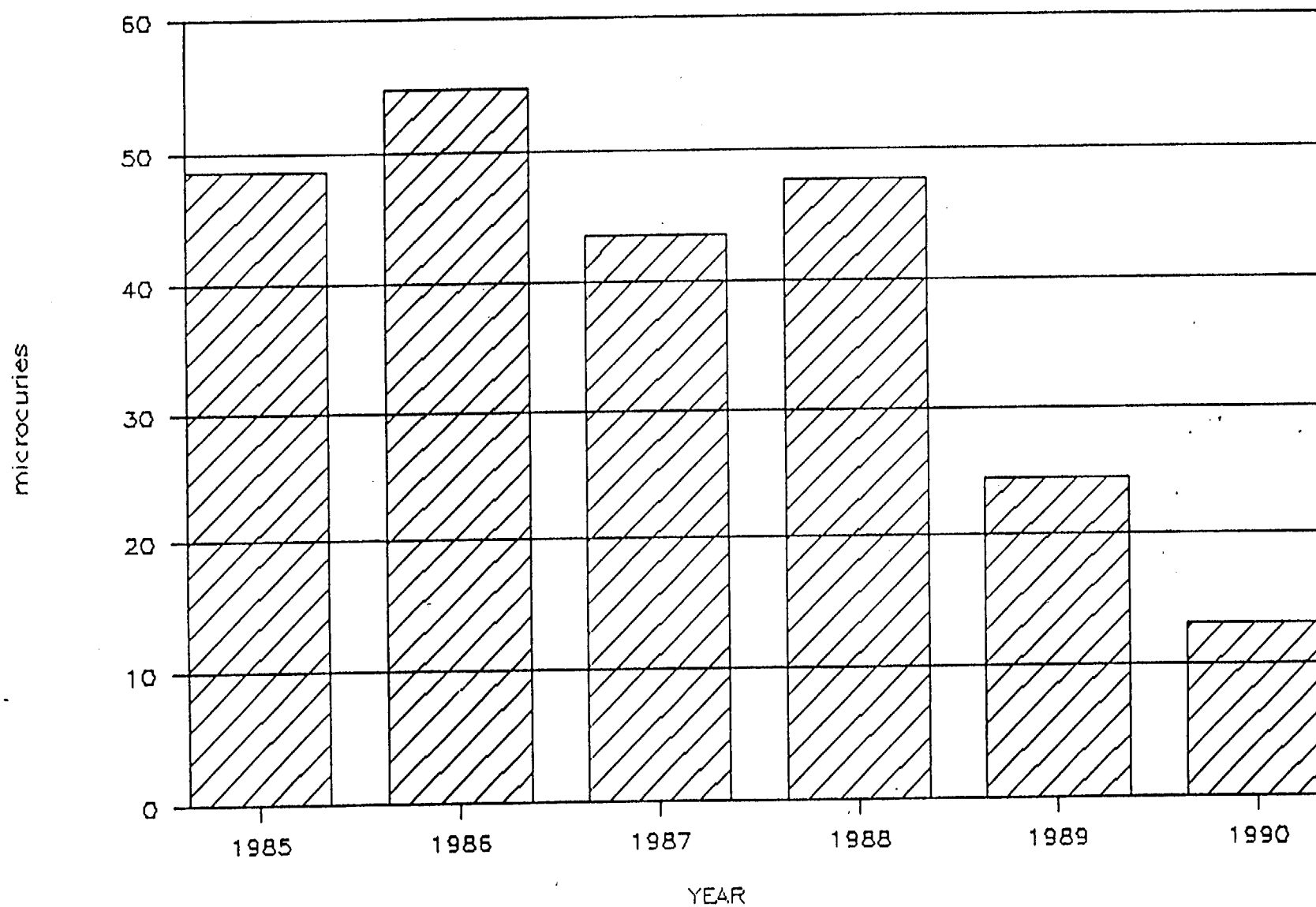
1990

(1500 SMEARS TAKEN IN THE PELLET SHOP ANNEX, POWDER AREA, AND
STACK AND LOAD AREA)

<u>MONTH</u>	<u>< 1000</u>	<u>>1000 < 5000</u>	<u>>5000 < 10,000</u>	<u>> 10,000</u>
JAN	250	0	0	0
FEB	250	0	0	0
MAR	244	3	1	2
APR	240	5	1	4
MAY	250	0	0	0
JUN	<u>250</u>	<u>0</u>	<u>0</u>	<u>0</u>
	1484 (98.94%)	8 (0.53%)	2 (0.13%)	6 (0.40%)

ANNUAL STACK RELEASES

1985 TO 1990



(1990 -- ESTIMATED)



030-03754

July 19, 1990
LD-90-049Docket No. 030-03754
License No. 06-00217-06

Log	Aug. 8
Remitter	
Check No.	050263
Amount	\$1,200
Fee Category	32 3N 10 3P
Type of Fee	AND
Date Check Rec'd.	7/30/90
Date Completed	
By:	JK

Mr. Lee H. Bettenhausen, Chief
Nuclear Materials Safety Branch
Division of Radiation Safety and Safeguards
Region I
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
475 Allendale Road
King of Prussia, Pennsylvania 19406

Subject: Financial Assurance for Decommissioning

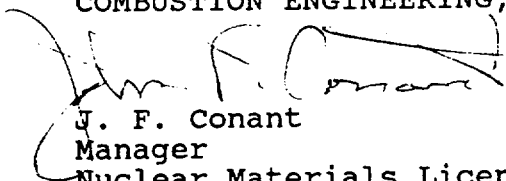
Dear Mr. Bettenhausen:

Regulations in 10CFR30.35 require licensees to provide financial assurance for decommissioning facilities in which licensed activities are conducted. Accordingly, as holder of license 06-00217-06, Combustion Engineering, Inc. submits the enclosed Certification of Financial Assurance and executed originals of the Payment Surety Bond and Standby Trust Agreement. Our check for \$1,200.00 as required by the applicable categories of 10CFR170.31 is also enclosed.

If I can be of any assistance in this matter, please do not hesitate to call me or Mr. G. D. Hess of my staff at (203) 285-5218.

Very truly yours,

COMBUSTION ENGINEERING, INC.


J. F. Conant
Manager

Nuclear Materials Licensing

JFC:nlv

Enclosures: As Stated

cc: J. Roth (NRC - Region I)

RECEIVED

ABB Combustion Engineering Nuclear Power

113919

ITEM # 96

Combustion Engineering, Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

OFFICIAL RECORD COPY ML 10

JUL 23 1990



October 31, 1990

Docket No. 70-1100
License No. SNM-1067

Dr. Malcolm R. Knapp, Director
Division of Radiation Safety and Safeguards
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

Subject: Addressing of Bechtel Recommendations

Reference: Letter, S. T. Brewer (C-E) to T. T. Martin (NRC)
"Response to SALP Report No. 70-1100/88-89",
dated October 8, 1990

Dear Dr. Knapp:

Section IV-E, Radiological Controls, of SALP Report No. 70-1100/88-89 recommends that Combustion Engineering address and document actions taken on each of Bechtel's recommendations. We described the actions taken to address the recommendations in our referenced response to the SALP Report and in our meeting with you and your staff on October 23, 1990.

I wish to take this opportunity, however, to emphasize to you that I have been systematically closing the Bechtel recommendations by assigning each one to a cognizant manager and am maintaining a documented record of the disposition of each recommendation that includes the basis for disposition. I expect that only your review of our records should be required to confirm that this SALP Board recommendation has been properly addressed.

Concerning due dates for addressing the Bechtel recommendations, I have been reluctant to formally submit due dates for these items to the NRC. I do, however, use due dates routinely as a management tool to set priorities and monitor progress.

ITEM # 98 ABB Combustion Engineering Nuclear Power

Combustion Engineering, Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

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2

Dr. Malcolm R. Knapp
October 31, 1990

Page 2

If you have further questions or wish more information on this issue, please do not hesitate to call me or Mr. John Conant, Manager, Nuclear Materials Licensing, at (203) 285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.

A handwritten signature in black ink, appearing to read 'R. E. Vaughan', is written over the company name and extends across the line to the right.

R. E. Vaughan
Plant Manager
Windsor Nuclear Fuel Manufacturing

REV:GDH:lw

cc: R. Bores (NRC Region I)
J. Joyner (NRC Region I)
T. Martin (NRC Region I)
J. Roth (NRC Region I)
S. Soong (NRC)



A SINGLE
LTR IS NOT
ALL THE
ASSURANCE
I'LL NEED.
66-00217-06

November 1, 1990

Docket No. 70-1100
License No. SNM-1067

Dr. Malcolm R. Knapp, Director
Radiation Safety and Safeguards Division
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Subject: Windsor Nuclear Fuel Facility Manufacturing -
Emergency Preparedness

Reference: Letter, S. T. Brewer (C-E) to T. T. Martin
(NRC), "Response to SALP Report No. 70-1100/88-99",
dated October 8, 1990.

Dear Dr. Knapp:

This letter provides follow-up comments regarding Emergency Preparedness concerns raised at our meeting on October 23, 1990. The Reference letter goes to significant length in responding to a SALP Board Recommendation to "conduct a site wide demonstration of the emergency plan and include offsite support groups". In our response, we re-emphasized our position that we have run a site-wide demonstration of our Emergency Plan and that the Plan does not require evacuating the entire Windsor Site. We consider previous drills to have been site-wide demonstrations in that emergency response support is integrated with other onsite support organizations outside of Nuclear Fuel Manufacturing.

Regarding evacuation, the Emergency Plan, submitted in June, 1989, does not call for evacuation of the entire Windsor Site and we have not attempted to implement such a plan. We believe that such action, in response to a maximum credible accident at the Manufacturing Facility, could increase the risk of injury to our employees and would hinder access to the affected facility by emergency teams (both on- and off-site).

B/72

ITEM #

99

ABB Combustion Engineering Nuclear Power

Combustion Engineering Inc

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 686-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

Dr. Malcolm R. Knapp
November 1, 1990

Page 2

The only remaining issue in the SALP Board Recommendation is the inclusion of offsite support group participation in Emergency Drills. As part of our upgraded program, we routinely verify our communication channels with offsite support groups and have had occasional observers from offsite support groups. Further, we now are planning to include the active participation of at least one offsite support group in our Fall 1990 drills for the Windsor Nuclear Fuel Manufacturing Facility. These drills are currently in preparation and are expected to be conducted in early December. In addition, our Emergency Response Organization is not without experience in interfacing with offsite support groups. A number of minor occurrences have required assistance from offsite emergency response organizations. The interface with offsite groups has always been handled professionally and without problems.

If you have any questions or comments concerning this issue, please do not hesitate to contact me or our Manager of Nuclear Materials Licensing, Mr. J. F. Conant at (203) 285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.



R. E. Vaughan
Plant Manager

REV:dd

cc: T. Martin (NRC - Region I)
J. Joyner (NRC - Region I)
S. Soong (NRC)
J. Roth (NRC - Region I)
B. Bores (NRC - Region I)



030-03754

November 6, 1990
DDH-90-038

Mr. Francis M. Costello
Nuclear Regulatory Commission
Nuclear Materials Safety Section B
475 Allendale Road
King of Prussia, PA 19406

References: License No. 06-00217-06
Docket No. 030-03754
Control No. 111757
Letter dated, September 27, 1990 "Second
Corrected Copy for Amendment No. 36".

Dear Mr. Costello:

Please change our License to permit possession of Fission
Chambers not to exceed 1.7 grams U-235 per Chamber and 13.6
grams U-235 total.

~~The Fuel Facility License (SNM-1067) should also be changed
to delete this item.~~

This letter confirms our recent telephone conversation
concerning this matter.

4/4/91

*Per call to licensee,
this sentence
should not be
included in this
request.*

Very truly yours,
ABB/Combustion Engineering, Inc.

Steph M. Sorensen
S.M. Sorensen
Manager, Radiological Protection Services

SMS/klm
DDH90038.DOC

ITEM # 100

FILE EXEMPT

Log No.	11168
Exempt	
Check No.	
Amount	
Per Company	
Type of Ex.	
Date Check	11/14/91
Initials	B/B

ABB Combustion Engineering Nuclear Power

Combustion Engineering Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

11168

OFFICIAL RECORD COPY ML 10

Rec'd in LMS 1/20/91

SEP 27 1990

License No. 06-00217-06
Docket No. 030-03754
Control No. 111757

ABB Combustion Engineering Nuclear Power
ATTN: James Limbert
Radiation Safety Officer
1000 Prospect Road
Windsor, Connecticut 06095-0202

Gentlemen:

Enclosed is the Second Corrected Copy of Amendment No. 36 for License No. 06-00217-06. The authorization for fission chambers is being deleted because the authorization for these chambers is already on your fuel facility license.

We apologize for any inconvenience this may have caused.

Sincerely,

Original Signed By:
Francis M. Costello

Francis M. Costello
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

Enclosures:
Second Corrected Copy for Amendment No. 36

DRSS:RI
Costello/lah

09/ /90

~~DRSS:RI~~
~~Kinneman~~

09/27/90

B/74

OFFICIAL RECORD COPY

ML 06-00217-06/LTR - 0001.0.0
09/24/90

ML 10

ITEM #

102

JUL 12 1990

License No. 06-00217-06
Docket No. 030-03754
Control No. 111757

ABB Combustion Engineering Nuclear Power
ATTN: James Limbert
Radiation Safety Officer
1000 Prospect Road
Windsor, Connecticut 06095-0202

Gentlemen:

Enclosed is the Corrected Copy of Amendment No. 36 for License No. 06-00217-06.
The Amendment Number was corrected to read Amendment No.36 instead of Amendment
No. 35

Sincerely,

Original Signed By:
Francis M. Costello

Francis M. Costello
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

Enclosures:
Corrected Copy for Amendment No. 36

Fmc
DRSS:RI
Costello/pmb

07/ /90

B/15

OFFICIAL RECORD COPY

ML 06-00217-06/LTR - 0001.0.0
07/03/90

ITEM # 103

ML10



030-03754

November 23, 1992

DDH-92-033

U.S. Nuclear Regulatory Commission
Nuclear Materials Safety Section B
Division of Radiation Safety and Safeguards
475 Allendale Road
King of Prussia, PA 19406

Log	_____
Remitter	_____
Check No.	_____
Amount	_____
Fee Category	_____
Type of Fee	_____
Date Check Recd.	_____
Date Completed	_____
By:	_____

Attention: Mr. Francis M. Costello

References: Letter DDH-90-011 Dated March 30, 1990 from S. M. Sorensen to F. M. Costello; Paragraph #3 "Confirmation to Use Radiological Protection Instructions When Working With Licensed Material" and Section 10.5 "Administrative Procedures" of License Renewal Application: Control No. 111757.

Dear Mr. Costello:

ABB Combustion Engineering Nuclear Power requests that Materials License 06-00217-06, Docket No. 030-3754 be amended as follows:

Change radiological protection instructions to read; "quarterly badging" rather than "monthly badging".

The purpose for this request is to lower the amount of usage of our TLD's (calibration and QC) and our TLD machine.

Considering the fact that the doses received in our facility are extremely low (see last three years annual reports attached) and we administratively limit personnel to one-hundred (100) MREM per week by pocket ion chamber, it seems reasonable that our ALARA and dose control programs will not be compromised. Further, we will read anyone's TLD who approaches one hundred (100) MREM, by pocket ion chamber, in any one calendar week.

All other elements of our radiation safety program shall remain the same.

A check in the amount of \$540.00, in accordance with 10CFR170.31, is enclosed.

5 B/76

ITEM # 107

Combustion Engineering Nuclear Services

OFFICIAL RECORD COPY

Combustion Engineering, Inc.
1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 285-9574
(203) 285-3937

Fax (203) 285-9530

117130

DEC 03 1992

Mr. Francis M. Costello - 2 -
U.S. Nuclear Regulatory Commission

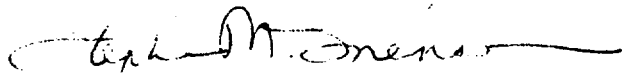
November 23, 1992

Your prompt attention to this request is appreciated as we would like to start quarterly monitoring in January 1993.

If you have questions or require additional information, please call me at (203) 285-5285 at your convenience.

Very truly yours,

ABB COMBUSTION ENGINEERING
NUCLEAR POWER

A handwritten signature in dark ink, appearing to read "S. M. Sorensen", with a long horizontal flourish extending to the right.

S. M. Sorensen, Manager
Radiological Protection Services

SMS:ksm
Enclosure

CE/NLS RADIATION EXPOSURE CONTROL SYSTEM
10-CFR-20 STATISTICAL SUMMARY REPORT
(FOR THE YEAR OF 1991)
DATE: 03/23/92 TIME: 15:37:39

ABB Combustion Engineering
1000 Prospect Hill Rd.
P.O. Box 500
Windsor, CT 06095-0500

Nuclear Outage Services
NRC License No.
06-00217-06

WHOLE BODY EXPOSURE RANGE UNIT OF MEASUREMENT REM	NUMBER OF INDIVIDUALS IN EACH RANGE
No Measurable Exposure	132
Measurable Exposure Less Than 0.1	35
0.1 to 0.25	6
0.25 to 0.5	5
0.5 to 0.75	1
0.75 to 1	0
1 to 2	0
2 to 3	0
3 to 4	0
4 to 5	0
5 to 6	0
6 to 7	0
7 to 8	0
8 to 9	0
9 to 10	0
10 to 11	0
11 to 12	0
12 +	0

Individuals values exactly equal to the values separating exposure ranges shall be reported in the higher range.

Her Sent
3/24/92
[Signature]

179
Reviewed and Approved 3/23/92
Tom Deneen, Manager
Radiological Protection Services

**RECORDED PERSONNEL WHOLE BODY EXPOSURE
FOR CALENDAR YEAR 1990**

LICENSE REPORTING:

COMBUSTION ENGINEERING INC.
1000 PROSPECT HILL ROAD
WINDSOR CT 06095

* LICENSE NO:
*
* 06-00217-06
*

**ANNUAL DOSE RANGES
(REM)**

**NO OF IND
IN EACH RAN**

0	NO MEASURABLE EXPOSURE	97
0	MEASURABLE EXPOSURE LESS THAN 0.10	41
0	0.10 -- 0.25	15
0	0.25 -- 0.50	2
0	0.50 -- 0.75	0
0	0.75 -- 1.00	0
0	1.00 -- 2.00	0
0	2.00 -- 3.00	0
0	3.00 -- 4.00	0
0	4.00 -- 5.00	0
0	5.00 -- 6.00	0
0	6.00 -- 7.00	0
0	7.00 -- 8.00	0
0	8.00 -- 9.00	0
0	9.00 -- 10.00	0
0	10.00 -- 11.00	0
0	11.00 -- 12.00	0
0	GREATER THAN 12.00	0
0	TOTAL NUMBER OF INDIVIDUALS REPORTED =	155

March 14, 1990
DDH-90-007

REPORT OF RECORDED PERSONNEL WHOLE BODY EXPOSURES
FOR THE CALENDAR YEAR 1989

Combustion Engineering, Inc.
Power Systems Group
1000 Prospect Hill Road
Windsor, CT 06095

NRC License Number
06-00217-06

Annual Whole Body Dose
Ranges* (Rems)

Number of Individuals
in Each Range

No Measureable Exposure	99
Measureable Exposure Less Than 0.10	46
0.10 -- 0.25	14
0.25 -- 0.50	3
0.50 -- 0.75	
0.75 -- 1.00	
1.00 -- 2.00	
2.00 -- 3.00	
3.00 -- 4.00	
4.00 -- 5.00	
5.00 -- 6.00	
6.00 -- 7.00	
7.00 -- 8.00	
8.00 -- 9.00	
9.00 -- 10.00	
10.00 -- 11.00	
11.00 -- 12.00	
Greater Than 12.00	

TOTAL NUMBER OF INDIVIDUALS REPORTED = 162

The above information is submitted for the total number of individuals for who personnel monitoring was provided during the calendar year in accordance with 10CFR20.407(a)(2).

* Individual values exactly equal to the values separating exposure ranges are reported in the higher range.

OFFICIAL RECORD COPY
ML 10

11,430

JAN 20 1993

License No. 06-00217-06
Docket No. 030-03754
Control No. 117490

ABB Combustion Engineering, Inc.
ATTN: S. M. Sorenson
Manager
1000 Prospect Hill Road
Windsor, Connecticut 06095-0500

Dear Mr. Sorenson:

Please find enclosed an amendment to your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5093, so that we can provide appropriate corrections and answers.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you. This could include issuance of a notice of violation, or in case of serious violations, an imposition of a civil penalty or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

OFFICIAL RECORD COPY - G:\WPS\MLTR\L0600217.06 - 01/11/93

ML 10

ITEM # 109

B/77

ABB Combustion Engineering, Inc.

-2-

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:
Elizabeth Ullrich

for

John D. Kinneman, Chief
Research, Development and
Decommissioning Section
Division of Radiation Safety
and Safeguards

Enclosures:

1. Amendment No. 38
2. Requirements for Materials Licensees

DRSS:RI
Weidner/cmm

1/16/93

DRSS:RI
Kinneman

for
1/17/93

4-8-93

9:45

TELEPHONE OR VERBAL CONVERSATION RECORD

☒ INCOMING CALL

☐ OUTGOING CALL

☐ VISIT

PERSON CALLING

T. Weidner

OFFICE/ADDRESS

RI

PHONE NUMBER

EXTENSION

x5272

PERSON CALLED

Jim Lambert

OFFICE/ADDRESS

ABB Combustion Engineering (203) 285-9574

PHONE NUMBER

EXTENSION

CONVERSATION

SUBJECT

Company Name Correction

SUMMARY

Company name on the license should look like:

ABB Combustion Engineering, Inc.
Nuclear Power

not:

ABB Combustion Engineering Nuclear Power

REFERRED TO:

ACTION REQUESTED

ACTION TAKEN

ITEM # 110

☐ ADVISE ME OF ACTION TAKEN.

INITIALS

DATE

INITIALS

DATE

OFFICIAL RECORD COPY

DATE 4-20-93

TELEPHONE OR VERBAL CONVERSATION RECORD

TIME ☐ A.M.
☐ P.M.

☐ INCOMING CALL

☒ OUTGOING CALL

☐ VISIT

PERSON CALLING

T. Weidner

OFFICE/ADDRESS

RI

PHONE NUMBER

EXTENSION

XS272

PERSON CALLED

Steve Sorenson, Mgr. ABB Comb. Eng. Inc.

PHONE NUMBER

EXTENSION

(203) 285-9574

CONVERSATION

SUBJECT

Name correction

SUMMARY

The correct name on the
license should be
ABB Combustion Engineering, Inc.

REFERRED TO:

ACTION REQUESTED

☐ ADVISE ME OF
ACTION TAKEN.

INITIALS

DATE

ACTION TAKEN

ITEM # 111

INITIALS

Bl79

DATE

OFFICIAL RECORD COPY ML 10

MAY 25 1993

License No. 06-00217-06
Docket No. 030-03754
Control No. 117490


ABB Combustion Engineering, Inc.
ATTN: Stephen M. Sorenson, Manager
Radiological Protection Services
P. O. Box 500
1000 Prospect Hill Road
Windsor, Connecticut 06095

Gentlemen:


Enclosed is a corrected copy for Amendment 38 for License No. 06-00217-06 which lists the correct corporate name in Item No. 1. During an internal audit of our licensing records, it was noted that the name listed on your license changed between Amendments 34 and 35 and a different variation of the name was listed in our records for your mailing address. In accordance with the telephone call on April 20, 1993 between Tara Weidner of this office and Stephen Sorenson, we understand that the correct corporate name is ABB Combustion Engineering, Inc. If there would be a company name change in the future, that change would require an amendment to your license.

Sincerely,

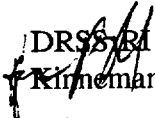
Original Signed By:
Elizabeth Ullrich

 John D. Kinneman, Chief
Research, Development and
Decommissioning Section
Division of Radiation Safety
and Safeguards

Enclosure: Corrected Copy for Amendment No. 38

DRSS:RI 
Weidner/smh

5/13/93

DRSS:RI 
Kinneman

5/18/93



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ITEM # 112

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ABB

February 17, 1994

DDH94-001

Docket No. 730-03754
License No. 06-00217-06
Control No. 117490

Mr. James H. Joyner, Chief
Facilities Radiological Safety & Safeguards Branch
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Subject: Update of Combustion Engineering, Inc.
Signature Authorities

Reference: Letter, A. E. Scherer (C-E) to R. M. Bernero (NRC)
RA-92-004 dated May 20, 1992

Dear Mr. Joyner:

This letter is to inform you of management changes, recently made, within Combustion Engineering Inc. with respect to License No. 06-00217-06.

Messrs. Skibitsky and Kesselman have left the Company and our nuclear organization has been consolidated under the leadership of Dr. Richard S. Siudek, President, Nuclear Operations. Mr. James E. McConnell is appointed as Vice-President, Field Services (formerly Nuclear Services). Mr. Stephen M. Sorensen continues as Manager, Radiological Protection Services and Mr. James M. Limbert continues as Radiation Safety Officer.

As a result, and to assist your staff, we are providing you with an updated listing and organization chart replacing in part that supplied as part of the Reference; with respect to License No. 06-00217-06.

ITEM # 113 ABB Combustion Engineering Nuclear Services

B/81

)


Mr. James H. Joyner, Chief - 2 - February 17, 1994
Facilities Radiological Safety and Safeguards Branch
U. S. Nuclear Regulatory Commission

Also, please note, I have been advised by legal counsel that our correct name is Combustion Engineering, Inc.

If you have any questions on this matter, please do not hesitate to call me at (203) 285-5285.

Very truly yours,

COMBUSTION ENGINEERING, INC.


Stephen M. Sorensen
Manager, Radiological
Protection Services

SMS:ksm

Attachments: Listing, Organization Chart

cc: D. Everhart (NRC)
J. Kinneman (NRC)
J. Noggle (NRC - Region 1)
T. Rich (NRC)
S. Villar (NRC)

Attachment 1

February, 1994

WINDSOR BY-PRODUCT MATERIAL LICENSE

Docket No. 030-03754

License No. 06-00217-06

Expiration Date: June 30, 1995

Licensee: Combustion Engineering, Inc.
1000 Prospect Hill Road
P.O. Box 500
Windsor, CT 06095-0500

Authorized to Make License Commitments:

Mr. J. E. McConnell, Vice President,
Field Services
Mr. S. M. Sorensen, Manager,
Radiological Protection Services
Mr. J. M. Limbert, Radiation Safety Officer

And their management:

President, Combustion Engineering, Inc. -
Nuclear Operations

Please Address all Correspondence to:

Mr. S. M. Sorensen, Manager
Radiological Protective Services (9459-0202)
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, CT 06095-0500

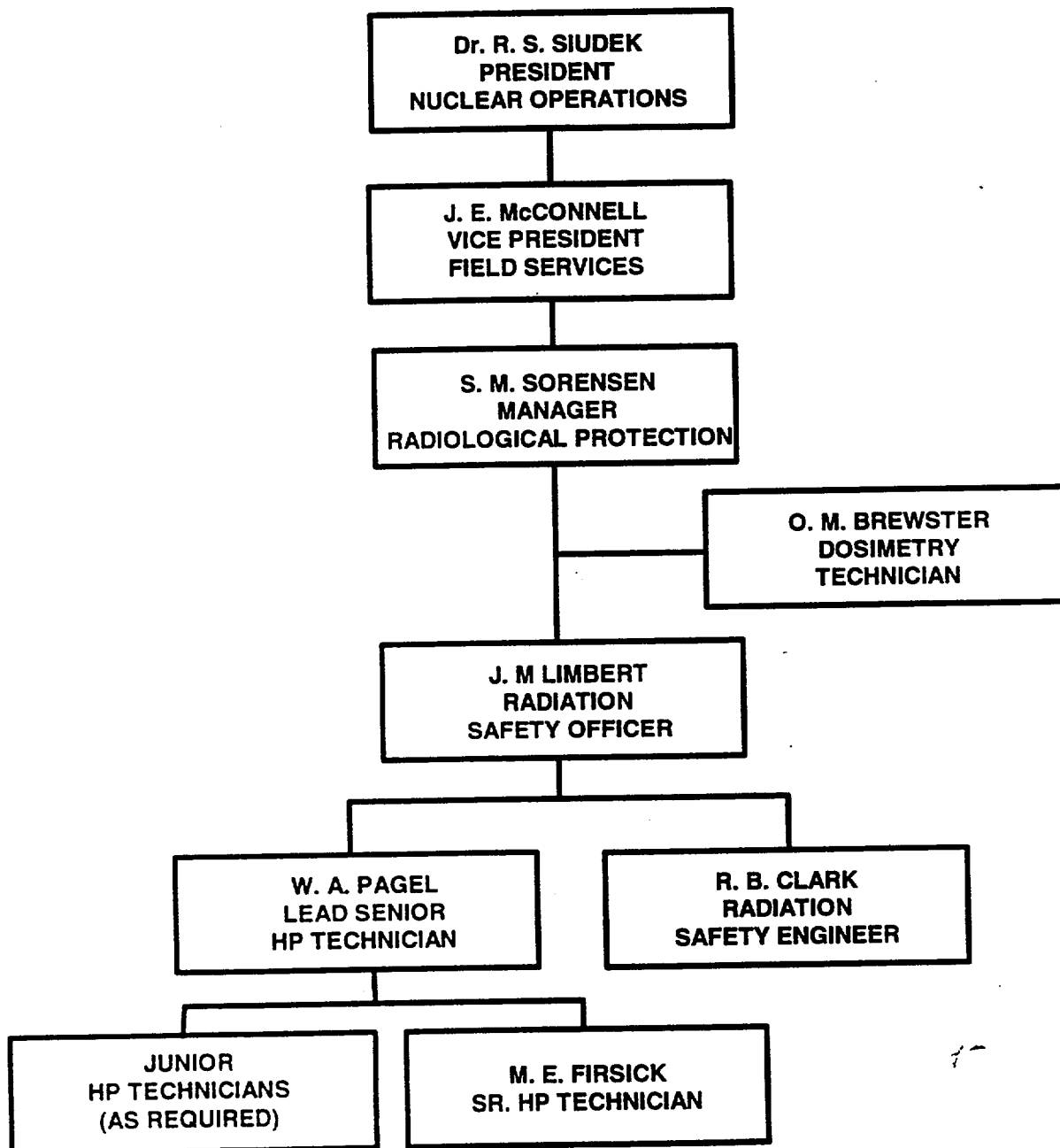
Please copy:

Mr. C. B. Brinkman, Manager
Washington Nuclear Operations
Combustion Engineering, Inc.
12300 Twinbrook Parkway
Suite 330
Rockville, MD 20852

Mr. J. E. McConnell, Vice President
Field Services
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, CT 06095-0500

Mr. J. F. Conant, Manager
Nuclear Materials Licensing
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, CT 06095-0500

COMBUSTION ENGINEERING, Inc.
NUCLEAR OPERATIONS
REPORTING ORGANIZATION
for
MATERIALS LICENSE 06-00217-06





030-03754

July 7, 1994
DDH-94-007

Mr. James H. Joyner III, Chief
Facilities Radiological Safety
& Safeguards Branch
Division of Radiation Safety
and Safeguards
U.S. Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

License No. 06-00217-06
Docket No. 030-03754
Control No. 117490

Dear Mr. Joyner:

Combustion Engineering, Inc. requests that Materials License 06-00217-06 be amended as follows:

Change Item No. 11 in the license application "Waste Management" to allow the return and receipt and storage of Processed Low Level Radioactive waste generated by the operations under this license only.

This amendment request is due the closure of Chem-Nuclear Systems, Inc. - Barnwell site.

It is our intent to continue to utilize our current waste processors: SEG, Inc. and Alaron, Inc., however, if new processors become available we reserve the right to utilize some without formal notification to the Commission.

A check in the amount of \$620.00 is enclosed, in accordance with 10CFR170.31.

If you have questions or require additional information please contact me at your convenience.

Very truly yours,

Stephen M. Sorensen, Manager
Radiological Protection
Services

SMS:ksm
Enclosure

LOG *Aug 8*
REPORT
CER. NO. *577521*
#640
303N 3P 14
Amu
8/23/94
Burke

ABB Combustion Engineering Nuclear Services

120173

JUL 21 1994

Combustion Engineering, Inc.

P.O. Box 500
1000 Prospect Hill Road
Winchester, MA 01890-0500

Telephone (203) 688-1911
Fax (203) 285-9530

ITEM # 115

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B/82

MAY 31 1995

Stephen M. Sorensen
ABB Combustion Engineering Inc.
P.O. Box 500
1000 Prospect Hill Road
Windsor, CT 06095-0500

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Mr. Sorensen:

This is to acknowledge receipt of your application for renewal of materials(s) license identified below. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified below.

Sincerely,

Original Signed By:
Cheryl K. Buracker

for Sheryl Villar, Chief
Licensing Assistance Section
Nuclear Materials Safety Branch
Division of Radiation Safety
and Safeguards

License No. 06-00217-06
Docket No. 03003754
Control No. 121790

DOCUMENT NAME: S:\PENDING\ABBCOM.DTL

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DRSS/RI	N	/	N	/		
NAME	Perkins/mlb		Shiller Cks				
DATE	05/30/95		05/31/95		05/ /95		05/ /95

ITEM # 119

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B/83



June 27, 1995

License No. 06-00217-06
Docket No. 030-03754

U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Licensing Assistance Section

Subject: **Broad Scope License No. 06-00217-06 Renewal Application Changes**

Reference: (A) CE (S. M. Sorensen) letter to NRC (Region I), dated May 18, 1995

Dear Sirs:


In Reference (A), Combustion Engineering, Inc. (CE), submitted its application for renewal of the subject license. This letter provides several changes to that application.

Enclosure I provides an explanation of the changes to the supplemental information of Enclosure (2) of Reference (A). As indicated in Enclosure I, several pages of the supplemental information associated with the application have been revised. Enclosure II provides the list of affected pages. Enclosure III provides a complete listing of the effective pages of the supplemental information for the renewal application. Enclosure IV provides the supplemental information application pages affected by these changes; changes are indicated by a bar in the right-hand margin.

If you have any questions concerning this matter, please contact me at (203) 285-5285.

Sincerely,

COMBUSTION ENGINEERING, INC.


Stephen M. Sorensen
Radiation Safety Officer

Enclosures - As Stated

ABB Combustion Engineering Nuclear Power

Combustion Engineering, Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOP

ITEM # 170

B/84
121790
JUN 30 1995

**COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Renewal Application
Supplemental Information Changes**

On page 22 of the supplemental information, the last sentence of the first paragraph under the heading "Buildings 2/2A", the location of the health physics counting room has been corrected.

On page 25, the guideline value for loose contamination for which protective enclosures are used has been reduced from 10,000 DPM/100cm² to 5,000 DPM/100cm².

A new page 39a has been added to depict the ventilation systems in Building 5 which are part of the Special Nuclear Material (SNM) laboratories.

On page 42, the listing of instruments has been increased to include instruments used in the SNM laboratories. In addition, the former flat calibration frequency of quarterly has been changed to as specified by the technical manual or procedure. This change is based upon an evaluation of instrumentation capabilities, which resulted in revised calibration frequencies.

On page 54, the wording in the first and second paragraphs concerning sample filter counting and work stoppage for a high intake instance has been revised for clarity.

On page 53, the action levels for Clean Areas and Step-Off Pad Areas (in use) have been reversed to correct a typographical error.

On page 54, the surface contamination value for unconditional release of equipment has been revised from 0.1 mr/hr to 5,000 DPM/100cm² for consistency with industry practice. In addition, the radiation survey action levels have been revised for consistency with current procedures.

On page 58, the second note at the bottom of the page has been revised to correct a typographical error ("reveals" was "revels"), and the alpha contamination limit for use of BZ's has been reduced from 1.0% of the beta/gamma count to 0.5% of the beta/gamma count.

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Renewal Application
Supplemental Information Changes

LIST OF AFFECTED PAGES

Combustion Engineering, Inc., is changing some of the supplemental information of the renewal application for the Windsor Broad Scope Radioactive Materials License. The pages of the supplemental information of the renewal application which are affected by this change are listed below.

Delete Pages

<u>Page</u>	<u>Date</u>
22	5/18/95
25	5/18/95
-	-
42	5/18/95
53	5/18/95
54	5/18/95
57	5/18/95
58	5/18/95

Add Pages

<u>Page</u>	<u>Date</u>
22	6/27/95
25	6/27/95
39a	6/27/95
42	6/27/95
53	6/27/95
54	6/27/95
57	6/27/95
58	6/27/95

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Renewal Application
Supplemental Information Changes

LIST OF EFFECTIVE PAGES

Date: 6/27/95

Combustion Engineering, Inc., provides changes to the Supplemental Information for the Windsor Broad Scope Radioactive Materials License Renewal Application. The following is a comprehensive List of Effective Pages, summarizing the latest applicable submittal dates for each page of the supplemental information.

<u>Pages</u>	<u>Date</u>		
		42	6/27/95
		43	5/18/95
		RPS CAL-03 (8 pages)	11/15/90
<u>Supplemental Information Title Page</u>		44	5/18/95
		through 50	
1	5/18/95	RPI-4 (13 pages)	10/18/94
		51	5/18/95
		RPI-15 (7 pages)	2/27/95
<u>Table of Contents</u>		52	5/18/95
		53	6/27/95
2	5/18/95	54	6/27/95
		55	5/18/95
<u>Body</u>		56	5/18/95
		57	6/27/95
3	5/18/95	58	6/27/95
through 21		59	5/18/95
22	6/27/95	through 61	
23	5/18/95	RPS-01 (4 pages)	4/10/95
through		62	5/18/95
24		63	5/18/95
25	6/27/95	RPI-10 (11 pages)	3/31/95
26	5/18/95	64	5/18/95
through 39			
39a	6/27/95		
40	5/18/95		
through 41			

COMBUSTION ENGINEERING, INC.

Broad Scope Radioactive Materials

License Renewal Application

Supplemental Information Changes

AFFECTED PAGES

June 1995

Building 1 - High Radiation Storage and Refurbishment

Figure 9-2 depicts the buildings of the Building 2 Complex (i.e., Buildings 1, 1A, 2 and 2A). Figure 9-3 depicts Building 1. This building is used for three basic purposes:

- A. High Radiation Storage - The northeast corner of the building contains a high density concrete walled cell, as depicted in Figure 9-3. The area is used to store contained materials with dose rates of approximately 100 mr/hr or greater.
- B. Interim Extended Radioactive Waste Storage - The vault shown in the north west corner of Figure 9-3 is used to store radioactive waste awaiting disposal.
- C. Control Zone #5 - The east section of Building 1 contains a work zone with a single bank HEPA filtered exhaust system. This exhaust system recirculates air back into the building. Figure 9-4 depicts the control zone, and Figure 9-5 depicts the ventilation and sampling system.

Building 1A - Storage

Occasionally, a temporary radioactive materials work area is set up in the northern half of this building. When the work is completed, the area is decontaminated as necessary, surveyed and released. Figure 9-6 depicts the northern end of Building 1A.

The southern half of this building is used primarily as an inventory area for packaged radioactive materials. The building layout and ventilation system for this building is shown in Figure 9-7.

Occasionally, a temporary tented controlled area is erected in the southeast corner of the building that is maintained under negative pressure by a portable HEPA filtered fan unit which exhausts back into the building. The tented area is used for visually inspecting containers containing radioactively contaminated equipment.

Buildings 2/2A

Buildings 2 and 2A consist of approximately 15,000 square feet of floor space as depicted in Figure 9-8. The southern half of Building 2 is a two story structure with the second floor devoted entirely to office space. A health physics counting room is located on the east side of the first floor.

A high density concrete vault is located in the center of Building 2. The layout of this vault is depicted in Figure 9-9. The purpose of this area is calibration of instruments and thermoluminescent dosimeters (TLD) using sealed sources. The single entrance to this vault is controlled by a combination door lock which is controlled by health physics personnel.

Building 16 - Boronometer Test Area

A room in Building 16 is used for testing boronometers; sealed sources are used in this area.

Building 18 - Test Loop

Building 18 contains a scale model reactor hydraulic test loop. Sealed simulated fuel rods containing source material (e.g., depleted uranium) are used in the test loop and are stored in the building.

Facilities and Equipment - General

It is the practice of CE Nuclear Operations that, whenever unclad radioactive materials are used in the various research laboratories, the equipment involved is enclosed where practical, for the protection of personnel and the environment. Generally, laboratory or equipment areas where loose contamination may exceed 5,000 DPM/100 cm² are candidates for protective enclosures. These enclosures may be permanent construction, semi-permanent controlled areas, or temporary enclosures (e.g., tents). Typical examples of restricted areas utilizing permanent enclosures or controlled zones may be seen in Figure 9-16.

Surveys and Counting Equipment

Figure 9-17 is a current listing of radiation survey, counting and sampling equipment used under this license. Calibration procedures are developed and used in accordance with ANSI N323-1980 and manufacturer's technical manuals as required. Equipment additions or deletions from this complement may be made as necessary without prior notification of the NRC, as long as such changes are reviewed and approved by the RSO or his designee. A typical calibration procedure is given in Figure 9-18 as an example for information.

Figure 9-14a
Building 5 Air Exhaust and Ventilation Systems
Ventilation Systems No. 2 and 3

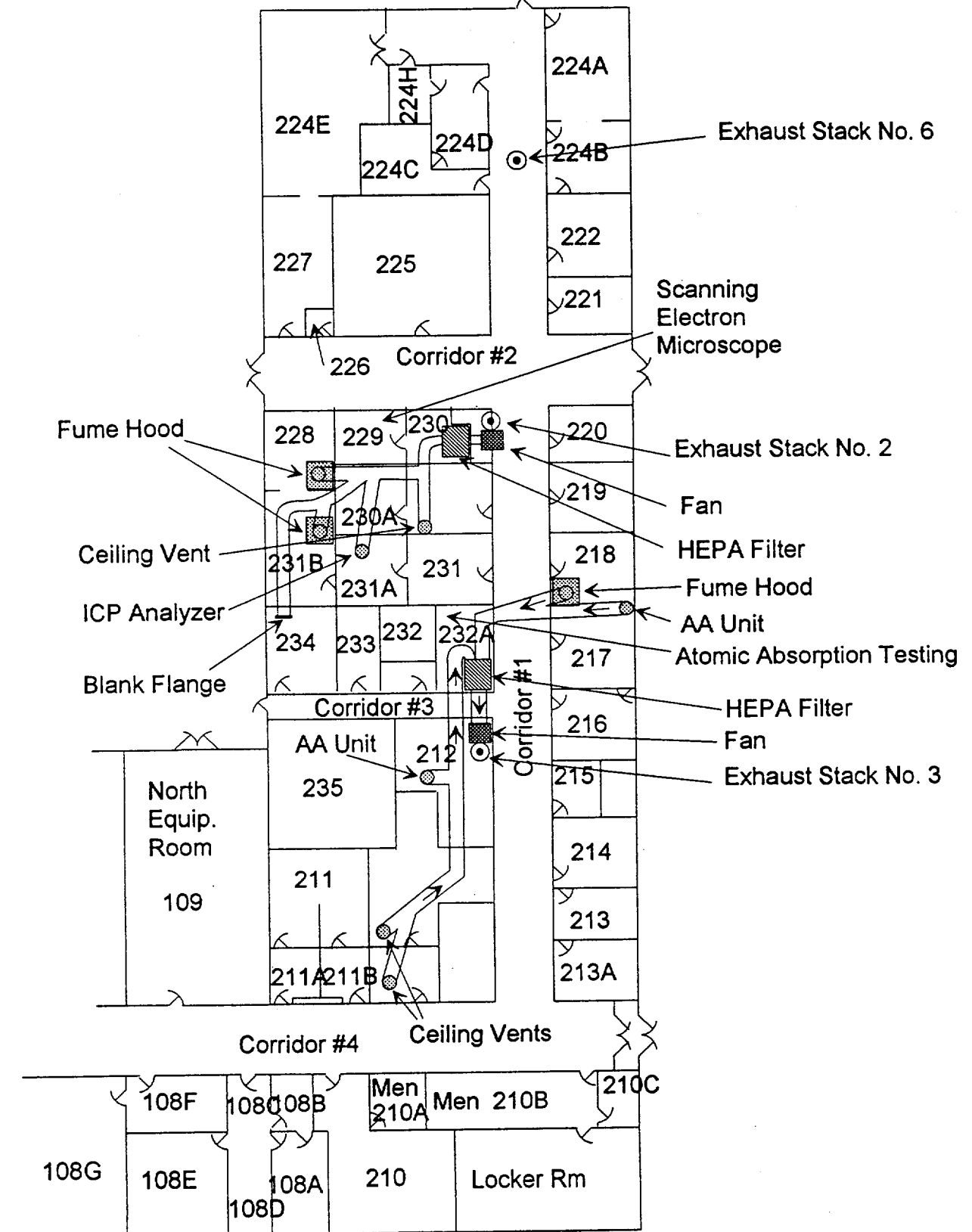


Figure 9-17
Radiation Survey, Counting and Sampling Equipment

<u>Manufacturer</u>	<u>Model</u>	<u>Type</u>	<u>Range</u>	<u>Quantity</u>
Eberline	RM-14	β Frisker	0 - 50K CPM	13
Ludlum	177	β Frisker	0 - 500K CPM	1
Eberline	RM-20	β Frisker (gas flow)	0 - 500K CPM	2
Eberline	E-520	Dose Rate	0 - 2 R/hr	3
Ludlum	14C	Dose Rate	0 - 2 R/hr	2
Eberline	6112B	Dose Rate	0 - 1000 R/hr	1
Eberline	RO-2	Dose Rate	0 - 5 R/hr	6
Eberline	MS-3	β Scaler	0 - 999,999 CPM	4
Eberline	MS-2	β Scaler	0 - 999,999 CPM	1
Eberline	PNR-4	Dose Rate	0 - 5 R/hr	1
Ludlum	125	μ R Meter	0 - 3,000 μ R/hr	1
Ludlum	19	μ R Meter	0 - 5,000 μ R/hr	1
Canberra	2404	β Scaler	0 - 999,999 DPM	1
Eberline	PCM1B	β Personal Frisker	N/A	1
Victoreen	OB-430	Personal Air Sampler	N/A	40
NMC	AM-2B	Continuous Air Monitor	10 - 1M CPM	2
NMC	AM-3D	Continuous Air Monitor	50 - 50K CPM	2
Dosimeter Corp.	862	Pocket Ion Chamber	0 - 200 mr	50
Dosimeter Corp.	611	Pocket Ion Chamber	0 - 1 R	10
Eberline	RM-20	α Frisker (AC-3 Probe)	0 - 500K PCM	4
Eberline	SAC-4	α Scaler	0 - 99,999 CPM	1
Canberra	2404	α/β (Low Bkg. Scaler)	0 - 999,999 CPM	1
Victoreen	08-430	Personal Air Sampler	N/A	10
Eberline	RASP	Air Sampler (Stacks/General Air)	0 - 120 LPM	4

Note: Each of the above instruments/systems will be calibrated on a periodic basis, per the technical manual or procedure.

Personnel intake of radioactive materials is monitored through the use of personal lapel breathing zone air samples whenever work with loose contamination exceeds 10,000 DPM/100 cm². The sample filters are counted daily. If a calculated daily intake of unknown nuclides is determined to be greater than four (4) DAC-hrs, the filter is sent for gamma spectroscopy to identify the nuclides involved. Further, the affected individual may be sent for a whole body count. Also, the work is reviewed and the individual may be restricted from work requiring breathing zone sampling for seven (7) days following the intake.

Should an individual be suspected of receiving an intake of greater than forty (40) DAC-hrs from an intake event, the work will be stopped and a complete evaluation and root cause analysis will be performed. Additionally, the individual will be given a whole body count and will not be allowed to work with radioactive material until the Radiation Safety Committee is satisfied that appropriate corrective actions to prevent recurrence have been taken.

10.6B.1 External - SM/SNM Activities

Exposure to radiation shall be monitored for individuals likely to receive, in one year from sources external to the body, in excess of 10% of the occupational dose limits of 10 CFR 20. The personnel monitoring device will be a thermoluminescent dosimeter (TLD). TLDs shall be processed for dose reading on at least a quarterly basis by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited dosimetry processor. The action level for investigation and possible work restrictions shall be 1 rem for deep dose equivalent (DDE) on an annual basis.

10.6B.2 Internal - SM/SNM Activities

The intake of radioactive material shall be monitored for individuals likely to receive in excess of 10% of the applicable Annual Limit on Intake (ALI). Soluble uranium intake shall be limited to less than 10 milligrams per week per individual. Work activity restrictions shall be imposed when an individual reaches 50% of the applicable limit; i.e., 0.5 ALI (1,000 DAC-hours) and 5 milligrams per week for soluble uranium. A diagnostic study to evaluate intakes shall be started at these action levels.

The primary method of calculating Committed Effective Dose Equivalent is by using personal lapel air sampling results. Personal lapel monitors shall be counted on a daily basis when in use for this purpose.

If a respiratory protection program is utilized or personnel are likely to receive greater than 10% ALI such that monitoring is required, then a bioassay program shall be maintained for confirmation and evaluation of intakes. If a bioassay program is required, then bioassay assessments of intakes shall be performed on an annual basis, or, for personnel exposed to soluble uranium, bioassay assessment shall be on a monthly basis. Bioassay assessment may also be used to perform the diagnostic study at the action levels above.

10.6B.3 Contamination Surveys - SM/SNM Activities

Contamination surveys are performed on a routine basis to monitor radioactive contamination. Routine contamination surveys are performed at a minimum of once per week in loose surface contaminated areas of the Laboratory where work involving unclad radioactive materials may be in progress. Direct beta/gamma surveys are also performed on a monthly basis in such areas. Surveys in step-off pad areas in use are performed on a daily basis. Surveys conducted in support of work performed under a radiation work permit may be used to meet the survey requirement.

The following are action levels for contamination control:

<u>Area</u>	<u>Action Level*</u>
Contamination Control Area	5,000
Step-Off Pad Areas (in use)	50
Clean Areas	10

* dpm alpha / 100 cm² as determined by smear survey

Clean up action is started within 24 hours when removable surface contamination exceeds the action level limits specified above.

10.6B.4 Materials and Equipment Released for Unrestricted Use - SM/SNM Activities

Release of equipment and materials from restricted areas to clean areas on-site or unrestricted areas shall be in accordance with the NRC's "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993.

Figure 10.6-3
Action Levels and Administrative Controls

Action Level	Administrative Control
1. Radiation Surveys - General	
a) 5,000 DPM/100cm ² - Contact (100 CPM/100 cm ² fixed contamination by RM-14 or equivalent)	Unconditional Release of Equipment (and requirements of 3a) of this table.
b) 2.0 mr/hr - area	Dosimetry required.
c) 2.0 mr/hr - area	Posted as a "RADIATION AREA".
d) 100 mr/hr - area	Posted as a "HIGH RADIATION AREA" and locked, guarded and/or alarmed.
2. Radiation Surveys - for RWP Controls	
a) Greater than 100 mr/hr Gamma @ contact	Issue Finger Rings
b) Greater than 1,000 mr/hr Beta @ contact	Estimate Shallow Dose - Extremity and Shallow Dose - Skin

Action Level**Administrative Control****3. Contamination Surveys**

- | | |
|---|---|
| a) 200 DPM/100 cm ² Beta/Gamma
10 DPM/100 cm ² Alpha | Limits for controlled area and for unrestricted release. Above these limits, area controlled as contaminated area. |
| b) 1,000 DPM/100 cm ² Beta/Gamma on items/equipment | BZ's required only if grinding, cutting or drilling performed on equipment or items. |
| c) 10,000 DPM/100 cm ² Beta/Gamma on items/equipment | BZ's required when working on items or equipment; no grinding, cutting or drilling unless approved by Health Physics. |
| d) 10,000 DPM/100 cm ² Beta/Gamma in General Area ¹ | Area cleanup required within 24 hours. |
| e) 11,100 DPM (0.005 microcuries) on sealed sources | Source must be removed from use and Manager, Radiation Protection Services or RSO notified immediately. |

¹ Action levels are based on smear averages, not individual smears.

NOTE: Limits for unconditional release may be increased to 1,000 DPM/100 cm² beta/gamma upon written approval by RSO or Manager, Radiation Protection Services. However, a reasonable effort must be made to decontaminate items to less than 200 DPM/100 cm² beta/gamma.

NOTE: If any smear reveals the presence of more than 100,000 DPM/100 cm² beta/gamma removable contamination, that smear will be counted for alpha. If the alpha contamination is greater than 0.5% of the beta/gamma count, the BZ's used in that work area shall be counted for alpha.

OCT - 6 1995

License No. 06-00217-06
Docket No. 030-03754
Control No. 121790

Stephen M. Sorensen
Radiation Safety Officer
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, Connecticut 06095-0500

Dear Mr. Sorensen:

This is in reference to your application dated May 18, 1995 and letter dated June 27, 1995 to renew the above NRC license. In order to continue our review, we need the following additional information:

1. Your application should have been signed by a management representative rather than the Radiation Safety Officer. Please submit a letter signed by a management representative indicating that management has reviewed the application and concurs in the statements and representations contained therein. Note also that a management representative should sign all future correspondence which request change in your license.
2. On page 11 of your application, you state that an individual's membership on the Radiation Safety Committee (RSC) may be changed without prior notification of the NRC. The individuals on the RSC who serve as Chairman and Radiation Safety Officer (RSO) are listed on your NRC license. A license amendment is required to change the individuals. Please amend your application to require a license amendment for personnel changes for Chairman of the RSC and the RSO.
3. Figure 7.1.1 in your application shows the organizational structure of personnel involved with radiation safety. This figure does not include the RSC. Please revise this figure showing the organizational relationship of the RSC to senior management.
4. Section 10.4.2 of your application states that routine unannounced audits are conducted to verify compliance with your license, Radiation Work Permits (RWPs), and good health physics practices. Please describe actions taken by either Radiation Safety Services or the RSC if licensed activities are not conducted in compliance with the license and RWPs.
5. Specify your criteria for performing internal monitoring which may be required for certain uses of material under your license. Submit a description of procedures, including the methods and instrumentation to be used for sampling and analysis, calibration of equipment, the lower limit of detection for the method and instrumentation, and the action

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ITEM # 121

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levels for each radionuclide. You may find Regulatory Guide 8.34 (enclosed) useful in preparing your response.

6. Section 3a. through 3d. of Figure 10.6.3 in your application describe your action levels for contamination on equipment and surfaces. It is not clear from this section if "contamination" refers to fixed, removable, or total contamination. Please revise this Figure to specify if the action levels refer to fixed, removable or total contamination.
7. Section 10.6A.2 describes your program for lapel breathing zone air (BZA) sampling. Describe the instrumentation that will be used for sample collection and analysis, the calibration method and frequency for each, and specify the lower limit of detection for the radionuclides present.
8. Section 10.6A.2 indicates that a respiratory protection program will be utilized if personnel receive greater than 10% of the Annual Limit of Intake (ALI). If you plan to utilize respiratory protection to limit intakes to workers, please describe your respiratory protection program. Your program description, at a minimum, should contain the elements in 10 CFR 20.1703.
9. Regarding your airborne effluent monitoring for releases into unrestricted areas, describe the instrumentation that will be used for sample collection and analysis, the calibration method and frequency for each, and specify the lower limit of detection for the radionuclides present. In addition, describe your action levels and administrative controls for airborne effluent releases to unrestricted areas.
10. Section 10.7 of your application describes your environmental monitoring program for the Windsor site. With regard to your environmental monitoring program, please provide the following information:
 - a. Map(s) of the Windsor facility and surrounding areas indicating the location of all monitoring points. The location of effluent release points and the location of the nearest receptors should also be indicated.
 - b. For each sampling location, indicate the type of sample(s) taken, frequency performed, radionuclide(s) monitored, type of analytical measurements performed, and brief description on the need for measurement at this particular location.
 - c. Description of instrumentation used for sample collection and analysis, the calibration method and frequency for each, and specify the lower limit of detection for each radionuclide measured.
 - d. Description of action levels and administrative controls for environmental measurements.

- e. For each groundwater monitoring location, depth of well from surface, depth from surface of the well's screened portion, and formation sampled (i.e. overburden, bedrock).
 - f. Map(s) indicating the current direction of groundwater flow in the overburden and bedrock.
11. Your ALARA program described in Section 10.8 does not appear to include effluent releases. Please revise your ALARA program to include effluents from your facility. You may find Regulatory Guide 8.37 (enclosed) helpful in preparing your response.
12. 10 CFR 20.1302(b) requires that the licensee show compliance with the annual dose limits in 10 CFR 20.1301. Describe your procedure for demonstrating compliance with 10 CFR 20.1301. If your procedure uses calculations or use of pathway models, please provide sample calculations or the name(s) of specific references or models utilized.

As discussed during our telephone conversation on October 4, 1995, the NRC will be conducting a licensing visit of your facility on October 19 and 20, 1995. During our visit, we would like to tour your facility and discuss your draft responses to this letter. During our visit, we would appreciate some time to meet with members of your RSC and management.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 121790. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5042.

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of our licensing visit.

Sincerely,

Original signed by:
Duncan White

Duncan White
Nuclear Materials Safety Branch 3
Division of Nuclear Materials Safety

License No. 06-00217-06
Docket No. 030-03754
Control No. 121790

Enclosures:

- 1. 10 CFR Part 20
- 2. Regulatory Guides 8.34 and 8.37

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Stephen M. Sorensen
Combustion Engineering, Inc.

-4-

DOCUMENT NAME: R:\WPS\DLTR\D0600217.06

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NAME	DWhite					
DATE	10/05/95	10/ /95	10/ /95	10/ /95		

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License No. 06-00217-06
Docket No. 030-03754
Control Number 121790

November 15, 1995
ML-95-030

MS 16
Q-4

Mr. Duncan White
U. S. Nuclear Regulatory Commission
Nuclear Materials Safety Branch 3
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Attention: Licensing Assistance Section

Subject: Response To Questions On Renewal Application

Reference: NRC (Duncan White, Region I) letter to CE (S. M. Sorensen), October 5, 1995

Dear Mr. White:

This letter provides responses to questions pertaining to the subject license that were forwarded by the reference. The content of the responses reflects discussions with the NRC staff, Duncan White and Steve Shaffer, at a meeting in Windsor on October 19 and 20, 1995. Responses to several items requested at the meeting are also included.

Enclosure (1) provides, in a question and answer format, the specific responses to the questions, and includes an explanation of how the substance of each response is proposed to be incorporated into the license application document. Enclosure (2) provides the list of the affected pages of the application. Enclosure (3) provides a complete listing of the effective pages of the license application. Enclosure (4) provides the application pages affected by these changes; changes are indicated by a bar in the right-hand margin.

If you have any questions concerning this matter, please contact Stephen M. Sorensen at (203) 285-5285.

Sincerely,
COMBUSTION ENGINEERING, INC.

D. A. Cirelli
Director, Finance and Facilities Administration
CENO Field Services

Enclosures - As Stated

ABB Combustion Engineering Nuclear Power

ITEM # 122

Combustion Engineering, Inc.

1000 Prospect Hill Road

P.O. Box 500

Windsor, Connecticut 06095-0500

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ML 10

Telephone (203) 688-1911

Fax (203) 285-9512

Telex 99297 COMBEN WSOR

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121790

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Renewal Application
Responses To NRC Questions

Question 1.

Your application should have been signed by a management representative rather than the Radiation Safety Officer. Please submit a letter signed by a management representative indicating that management has reviewed the application and concurs in the statements and representations contained therein. Note also that a management representative should sign all future correspondence which request change in your license.

Response 1.

A letter signed by a management representative (D. A. Cirelli (CE) to Duncan White (NRC), dated November 15, 1995) is attached as Enclosure (1)-1.

Question 2.

On page 11 of your application, you state that an individual's membership on the Radiation Safety Committee (RSC) may be changed without prior notification of the NRC. The individuals on the RSC who serve as Chairman and Radiation Safety Officer (RSO) are listed on your NRC license. A license amendment is required to change the individuals. Please amend your application to require a license amendment for personnel changes of the RSC and the RSO.

Response 2.

Page 11 of the application has been changed to indicate the requirement of a license amendment for any change of the RSC Chairman and/or RSO. Enclosure (4) contains the change page.

Question 3.

Figure 7.1.1 in your application shows the organizational structure of personnel involved with radiation safety. This figure does not include the RSC. Please revise this figure showing the organizational relationship of the RSC to senior management.

Response 3.

Figure 7.1.1 has been revised to show the reporting relationship of the RSC to senior management. Enclosure (4) contains the change page with the revised figure.

Question 4.

Section 10.4.2 of your application states that routine unannounced audits are conducted to verify compliance with your license, Radiation Work Permits (RWPs), and good health physics practices. Please describe actions taken by either Radiation Safety Services or the RSC if licensed activities are not conducted in compliance with the license and RWPs.

Response 4.

Section 10.4.2 of the application has been modified to describe the actions to be taken by the RSOS, RSO and/or the RSC if licensed activities are not conducted in compliance with the license and RWP's. Briefly, the actions may include a Stop Work initiated by the RSOS, RSO and/or RSC, reports to senior management with documented corrective action and followup action as a consequence of internal audits, reports of unusual occurrences to management and/or the commission, as appropriate, and retention of records to demonstrate compliance. Enclosure (4) contains change pages with the above modifications that revise page 48 and add page 48a of the application.

Question 5.

Specify your criteria for performing internal monitoring which may be required for certain uses of material under your license. Submit a description of procedures, including the methods and instrumentation to be used for sampling and analysis, calibration of equipment, the lower limit of detection for the method and instrumentation, and the action levels for each radionuclide. You may find Regulatory Guide 8.34 (enclosed) useful in preparing your response.

Response 5.

Please refer to Sections 10.6A.2, 10.6B.1 and 10.6B.2 for a description of the internal monitoring program, including methods, instrumentation, frequency and action levels. Additional details on the instrumentation for performing internal monitoring have been added as a new Section 10.6C.1 on page 54a. Details on whole body counting and MDA activity levels have been added in a new Figure 10.6-5 as page 59a which shows a sample output from whole body counting and includes the MDA for appropriate radionuclides. Enclosure (4) contains change pages with the added Section 10.6C.1 and the added Figure 10.6-5.

Question 6.

Section 3a. through 3d. of Figure 10.6.3 in your application describe your action levels for contamination on equipment and surfaces. It is not clear from this section if "contamination" refers to fixed, removable, or total contamination. Please revise this figure to specify if the action levels refer to fixed, removable or total contamination.

Response 6.

Figure 10.6-3 on page 58 has been revised to indicate the intended "removable" contamination applicable to Sections 3.a through 3.d. Also, in 3.a of the figure, the alpha release limit has been changed from 10 DPM/100 cm² to 50 DPM/cm² alpha consistent with the intent to show release or control limits rather than administrative action values. Enclosure (4) contains a change page with the revised Figure 10.6-3.

Question 7.

Section 10.6A.2 describes your program for lapel breathing zone air (BZA) sampling. Describe the instrumentation that will be used for sample collection and analysis, the calibration method and frequency for each, and specify the lower limit of detection for the radionuclides present.

Response 7.

A description of the instrumentation used for lapel air sampling has been added to Section 10.6B.2 on page 54. Enclosure (4) contains a change page with the added description.

Question 8.

Section 10.6A.2 indicates that a respiratory protection program will be utilized if personnel receive greater than 10% of the Annual Limit of Intake (ALI). If you plan to utilize respiratory protection to limit intakes to workers, please describe your respiratory protection program. Your program description, at a minimum, should contain the elements in 10 CFR 20.1703.

(We assume that the section number in the Question 8. should be 10.6B.2, which makes reference to the ALI.)

Response 8.

There are no plans for use of a respiratory protection program as we will use engineering controls to maintain internal exposures less than 10% ALI in all cases. However, should conditions warrant, a program will be developed and the NRC notified in accordance with 10 CFR 20.1703. A statement to this effect has been added to Section 10.6B.2 on page 54. Enclosure (4) contains a change page with the added statement.

Question 9.

Regarding your airborne effluent monitoring for releases into unrestricted areas, describe the instrumentation that will be used for sample collection and analysis, the calibration method and frequency for each, and specify the lower limit of detection for the radionuclides present. In addition, describe your action levels and administrative controls for airborne effluent releases to unrestricted areas.

Response 9.

A description has been added to Section 10.7 on page 60 for the effluent monitoring system, including instrumentation, lower limits of detection, calibration, collection frequency and action levels. Enclosure (4) contains the change page with the added description.

Question 10.

Section 10.7 of your application describes your environmental monitoring program for the Windsor site. With regard to your environmental monitoring program, please provide the following information:

- a. Map(s) of the Windsor facility and the surrounding areas indicating the location of all monitoring points. The location of effluent release points and location of the nearest receptors should also be indicated.

- b. For each sampling location, indicate the type of sample(s) taken, frequency performed, radionuclide(s) monitored, type of analytical measurements performed, and brief description on the need for measurement at this particular location.
- c. Description of instrumentation used for sample collection and analysis, the calibration method and frequency for each, and specify the lower limit of detection for each radionuclide measured.
- d. Description of action levels and administrative controls for environmental measurements.
- e. For each groundwater monitoring location, depth of well from surface, depth from surface of the well's screened portion, and formation sampled (i.e. overburden, bedrock).
- f. Map(s) indicating the current direction of ground water flow in the overburden and bedrock.

Response 10.a.

Maps of the Windsor facility, the surrounding area and monitoring locations have been added as Figures 10.7-1 and 10.7-2 on pages 60b and 60c and they are referenced in text added to a newly titled Section 10.7.1 on page 60. Note that the nearest receptor location is not shown since the more limiting boundary of the restricted area is currently employed for demonstration of compliance. Enclosure (4) contains change pages with the figures.

Response 10.b.

Figure 10.7-3 has been added to Section 10.7 as page 60d of the application, showing the sample type, frequency, analysis made and location. This figure is taken directly from an amendment submitted for the existing SNM-1067 license application for which the need for each sample was established over the duration of that license and for which a much larger amount of material handling occurred than will occur under this license. Therefore, we believe that the scope of sampling shown is probably more than what would be adequate under this license application. Reference to the added figure is made on page 60 in the newly titled Section 10.7.1. Enclosure (4) contains a change page with the added Figure 10.7-3.

Response 10.c.

The details of the analytical procedures may vary with the sample type and the equipment currently employed may change as it is replaced over time. The current procedures are provided in the "Analytical Chemistry and Radiochemistry Procedures Manual", No. CE NPSD 503. A note is added to the new Figure 10.7-3 referencing this manual and the procedures that typically apply to the environmental samples.

Response 10.d.

Action levels and administrative controls related to the environmental monitoring program conducted under the existing SNM-1067 license were submitted in an amendment dated October 25, 1995, and those same levels are proposed here for this Broad Scope license. Briefly, there two criteria that are used - a current sample value above the log-normal mean plus three times the standard deviation and the occurrence of four successive sample values that exceed the mean plus standard deviation. These criteria are further described in an added Section 10.7.2 on page 60a of the application. Enclosure (4) contains a change page with the addition.

Response 10.e.

The characteristics of the monitoring wells have been referenced in Section 10.7.1 on page 60. It refers to added Figure 10.7-4 on page 60e which is the well drilling logs for well Nos. 1 and 2 that are located on the site map shown by Figure 10.7-1 on page 60b. The well drilling log identifies the formation sampled. Enclosure (4) contains change pages with the added text and figure.

Response 10.f.

A topographic map of the site area is added as Figure 10.7-7A (State of Connecticut, Department of Environmental Protection Natural Resources Center, DEP Bulletin 17A). The site is located in the bottom center of this map and may be recognized from the site layout shown in Figure 10.7-1. Drainage basins for the same area as shown on the topographic map and to the same scale are shown on Figure 10.7-7B (Connecticut DEP map, Natural Drainage Basins, Windsor Locks Quadrangle No. 22). These maps have been referenced in Section 10.7 and are included as change pages 60i and 60j of Enclosure (4).

Question 11.

Your ALARA program described in section 10.8 does not appear to include effluent releases. Please revise your ALARA program to include effluents from your facility. You may find Regulatory Guide 8.37 (enclosed) helpful in preparing your response

Response 11.

The ALARA program has been revised to include a review of effluent releases. The program revision is contained in Revision 02 of RPS-01, Figure 10.8-1. Enclosure (4) contains the updated title page 61 and Revision 02 of RPS-01.

Question 12.

10 CFR 20.1302(b) requires that the licensee show compliance with the annual dose limits in 10 CFR 20.1301. Describe your procedure for demonstrating compliance with 10 CFR 20.1301. If your procedure uses calculations or use of pathway models, please provide sample calculations or the name(s) of specific references or models utilized.

Response 12.

Compliance with 10 CFR 20.1302(b) is demonstrated through the use of boundary TLD's in accordance with RPI-7 and through effluent air calculations performed in accordance with NESHAP's calculational model. Statements to this effect have been added to revise Section 10.7.1 on page 60a and a sample compliance report to satisfy the EPA has been added as Figure 10.7-5 of the application. Enclosure (4) contains change pages with the text revision and the added figure.

**Responses to Additional Items Requested At the Meeting In
Windsor On October 19 and 20, 1995.**

Item 1. Additional diagrams of the layout within individual rooms in Buildings #5 and #16 are provided as Figures 9-12A through 9-12L, following the existing Figure 9-12 which shows the building layout for all the rooms in Buildings #5 and #16. Enclosure (4) contains the added figures.

Item 2. The location of the effluent release point on Building #2 has been noted on Figure 9-10. The release points on Building #5 are shown in existing Figures 9-12 through 9-14. Enclosure (4) includes the revised Figure 9-10 on page 35.

Item 3. The responsibility, authority and accountability proposed by this application for SNM is as specified in Section 5 of the application. Generally, the enrichment level is less than 5%. All other SNM, including residues and assay standards not associated with current operations will be the responsibility of License SNM-1067.

Note that item B, listed in Section 5, has been changed from "byproduct material" to "byproduct and/or source material" so as to include the use of source material. Enclosure (4) includes a revised page 5 with this change.

**Enclosure (1)-1 to
ML-95-030**

**Letter No. DDH95010, D. A. Cirelli (ABB) to Duncan White (NRC)
Dated November 15, 1995**



November 15, 1995
DDH95010

License No. 06-00217-06
Docket No. 030-03754
Control No. 121790

Mr. Duncan White
U.S. Nuclear Regulatory Commission
Nuclear Materials Safety Branch 3
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. White:

This letter shall confirm that the management of Combustion Engineering, Inc. has reviewed the application for renewal of Materials License No. 06-00217-06, and concurs in the statements and representations contained therein.

Further, for future reference the following individuals are authorized to make license committments concerning this license:

Mr. J.E. McConnell, Vice President
Field Services, Nuclear Operations

Mr. D.A. Cirelli, Director
Field Services, Nuclear Operations

Mr. Stephen M. Sorensen, Manager
Radiological Protection Services
Radiation Safety Officer

And their management:

President, Combustion Engineering, Inc.
Nuclear Operations

Sincerely,

D.A. Cirelli, Director
Finance & Facilities Administration
CENO, Field Services

ABB Combustion Engineering Nuclear Power

B/87

ITEM # 122

Combustion Engineering Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

**COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Renewal Application
Supplemental Information Changes**

LIST OF AFFECTED PAGES

In response to questions from the NRC, Combustion Engineering, Inc., is changing some of the supplemental information of the renewal application for the Windsor Broad Scope Radioactive Materials License. The pages of the supplemental information of the renewal application which are affected are listed below.

Delete Pages

<u>Page</u>	<u>Date</u>
2	5/18/95
5	5/18/95
9	5/18/95
11	5/18/95
35	5/18/95
48	5/18/95
54	6/27/95
58	6/27/95
60	5/18/95

Add Pages

<u>Page</u>	<u>Date</u>
2	11/15/95
5	11/15/95
9	11/15/95
11	11/15/95
35	11/15/95
37a	11/15/95
through 37l	
48	11/15/95
48a	11/15/95
54	11/15/95
54a	11/15/95
58	11/15/95
59a	11/15/95
60	11/15/95
60a	11/15/95
through 60f	
EPA Compliance (2 pages)	3/6/95
60g	11/15/95
through 60j	

LIST OF AFFECTED PAGES (Continued)

Delete Pages

61 5/18/95
RPS-01 (4 pages)
 4/10/95

Add Pages

61 11/15/95
RPS-01 (4 pages)
 10/17/95

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Renewal Application
Supplemental Information Changes

LIST OF EFFECTIVE PAGES

Combustion Engineering, Inc., is providing changes to the Supplemental Information for the Windsor Broad Scope Radioactive Materials License Renewal Application. The following is a comprehensive List of Effective Pages, summarizing the latest applicable submittal dates for each page of the supplemental information.

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
Supplemental Information Title Page		12	6/27/95
1	5/18/95	through	
		22	
		23	5/18/95
		24	5/18/95
Table of Contents		25	6/27/95
		26	5/18/95
2	11/15/95	through	
		34	
Body		35	11/15/95
		36	5/18/95
3	5/18/95	37	5/18/95
4	5/18/95	37a	11/15/95
5	11/15/95	through	
6	5/18/95	37l	
7	5/18/95	38	5/18/95
8	5/18/95	39	5/18/95
9	11/15/95	39a	6/27/95
10	5/18/95	40	5/18/95
11	11/15/95	41	5/18/95

LIST OF EFFECTIVE PAGES
(Continued)

Pages	Date
42	6/27/95
43	5/18/95
RPS CAL-03 (8 pages)	11/15/90
44	5/18/95
through	
47	
48	11/15/95
48a	11/15/95
49	5/18/95
50	5/18/95
RPI-4 (13 pages)	10/18/94
51	5/18/95
RPI-15 (7 pages)	2/27/95
52	5/18/95
53	6/27/95
54	11/15/95
54a	11/15/95
55	5/18/95
56	5/18/95
57	6/27/95
58	11/15/95
59	5/18/95
59a	11/15/95
60	11/15/95
60a	11/15/95
through	
60f	
EPA Compliance (2pages)	3/6/95
60g	11/15/95
through	
60j	
61	11/15/95
RPS-01 (4 pages)	10/17/95
62	5/18/95
63	5/18/95
RPI-10 (11 pages)	3/31/95

Pages
64

Date
5/18/95

**Enclosure (4) to
MI-95-030**

COMBUSTION ENGINEERING, INC.

Broad Scope Radioactive Materials

License Renewal Application

Supplemental Information Changes

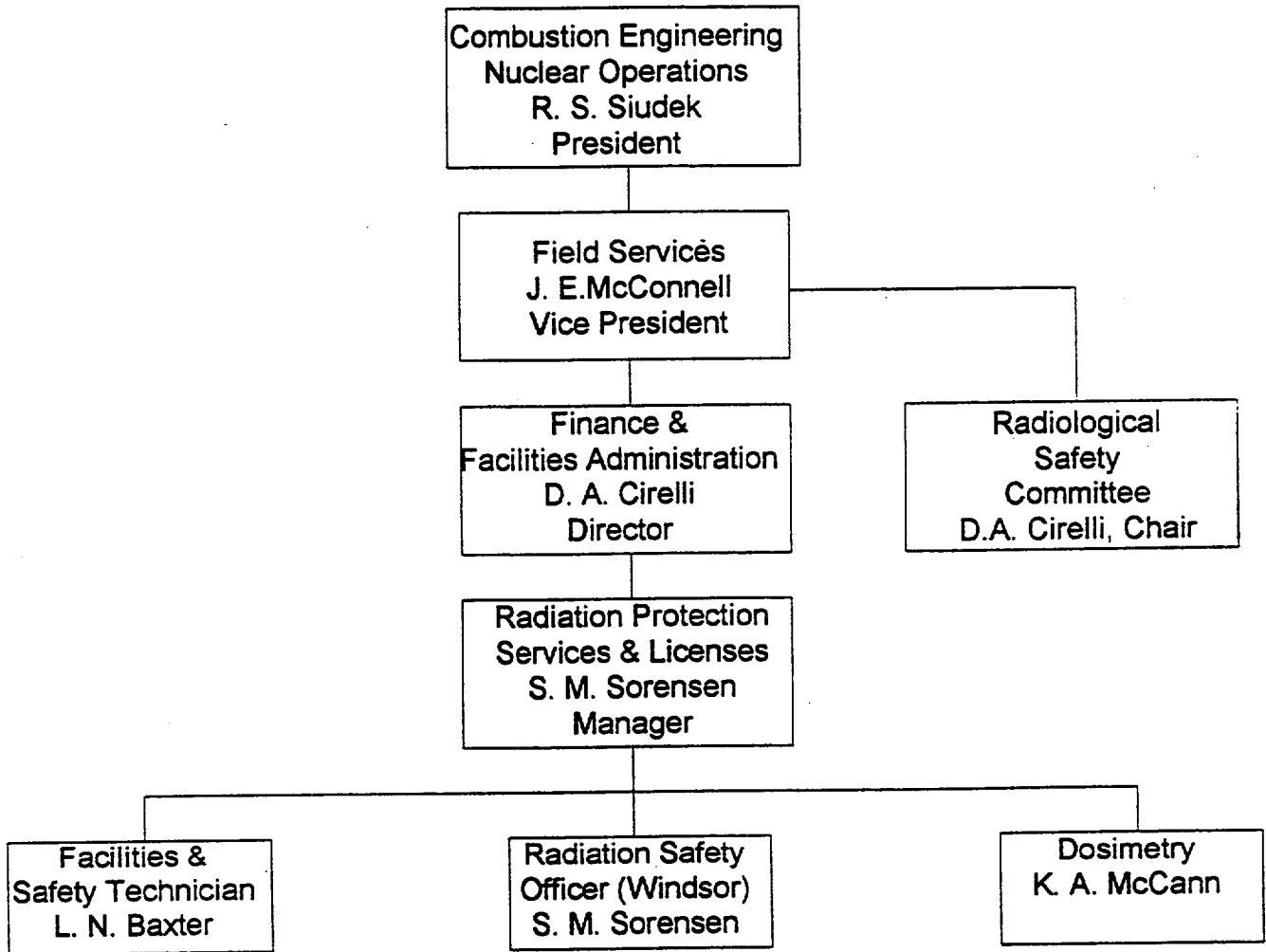
AFFECTED PAGES

November 15, 1995

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4	Person to be Contacted About the Application	4
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	10.7.1 Environmental Monitoring Sampling and Counting	60
	10.7.2 Environmental Monitoring Evaluation	60a
	10.8 ALARA Program	60a
11	Waste Management	62
12	License Fees	64
13	Certification	64

Figure 7.1-1
Organization Chart



W. A. Pagel
S. L. Kapetan
G. F. LeClair
C. L. Tarallo (PSESI)
C. S. Medor (PSESI)

7.2 Radiation Safety Committee

Combustion Engineering has established a Radiation Safety Committee (RSC) in accordance with paragraph 33.13(c)(1) of 10 CFR 33 for this Type A broad scope license application. The following statement empowers that committee:

Statement Empowering Radiation Safety Committee

The Radiation Safety Committee is empowered to oversee the licensed program and is responsible for control and direction of the radiation safety program and the Radiation Safety Officer, including the establishment of appropriate policies and procedures to assure control of procurement and use of radioactive material, completion of safety evaluations of proposed uses and users, and overall development and implementation of the radiation safety program.

The membership of the RSC consists of:

Director, Finance and Administration (Chairman)⁽¹⁾
Manager, Radiation Protection Services / Radiation Safety Officer
Lead Senior Health Physics Technician
Supervisor of Chemistry Services
One (1) other Scientist or Engineer⁽²⁾

The Chairman of the RSC is the Director, Finance and Administration, who is also the management representative; this person is named in the resume given in Figure 7.2-1. The Radiation Safety Officer is also the Manager, Radiation Protection Services.

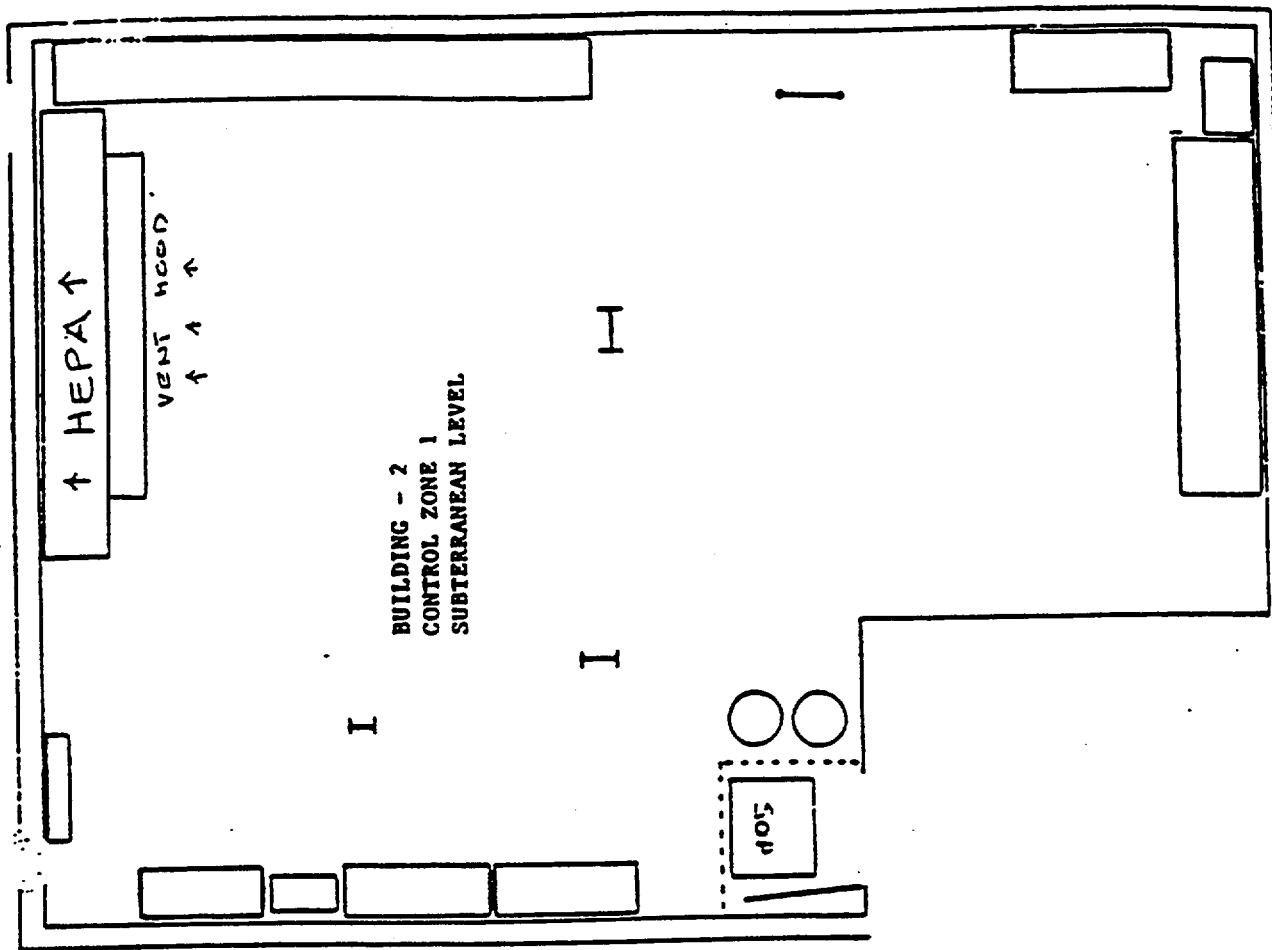
An individual's membership on the Radiation Safety Committee may be changed without prior notification of the NRC, except the Chairman and/or the Radiation Safety Officer (which requires a license amendment), providing that the new member meets the training and experience requirements for the position. The specific responsibilities of the Radiation Safety Committee are given in Figure 7.2-2.

A quorum of the RSC consists of at least three members: the RSO, a Lead Senior Health Physics Technician, and at least one other member.

(1) This member shall represent the organization's interest from a business, legal and financial standpoint.

(2) This member must have at least five (5) years of experience in the use of radioactive materials.

Figure 9-10
Building 2 Cell 2 Control Zone Layout



BUILDING #2
STACK DISCHARGE

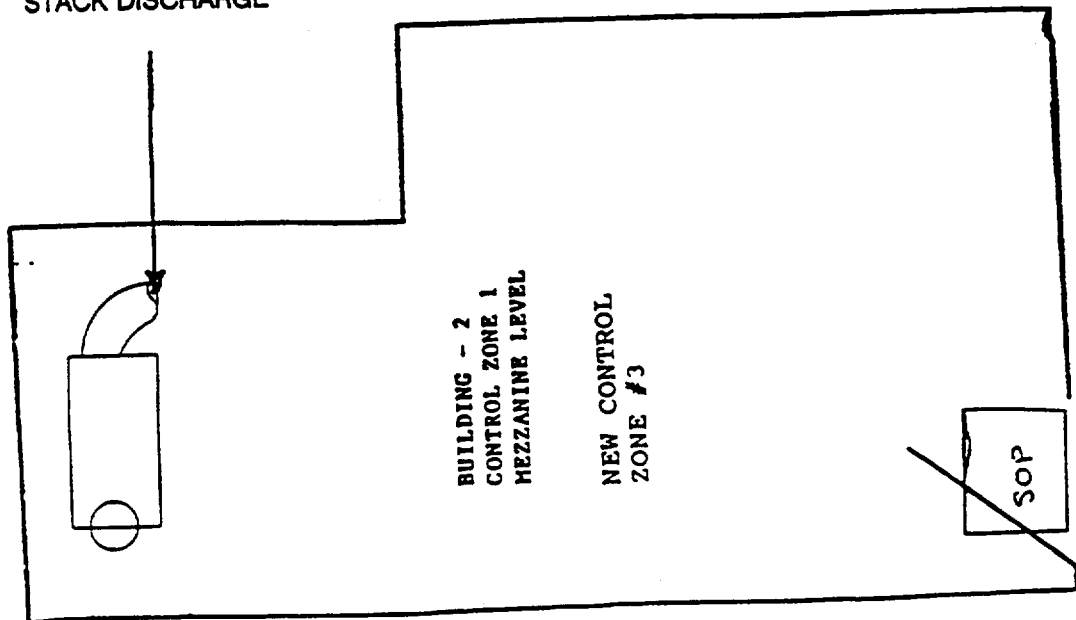


Figure 9-12A
Building 5, Room 224C

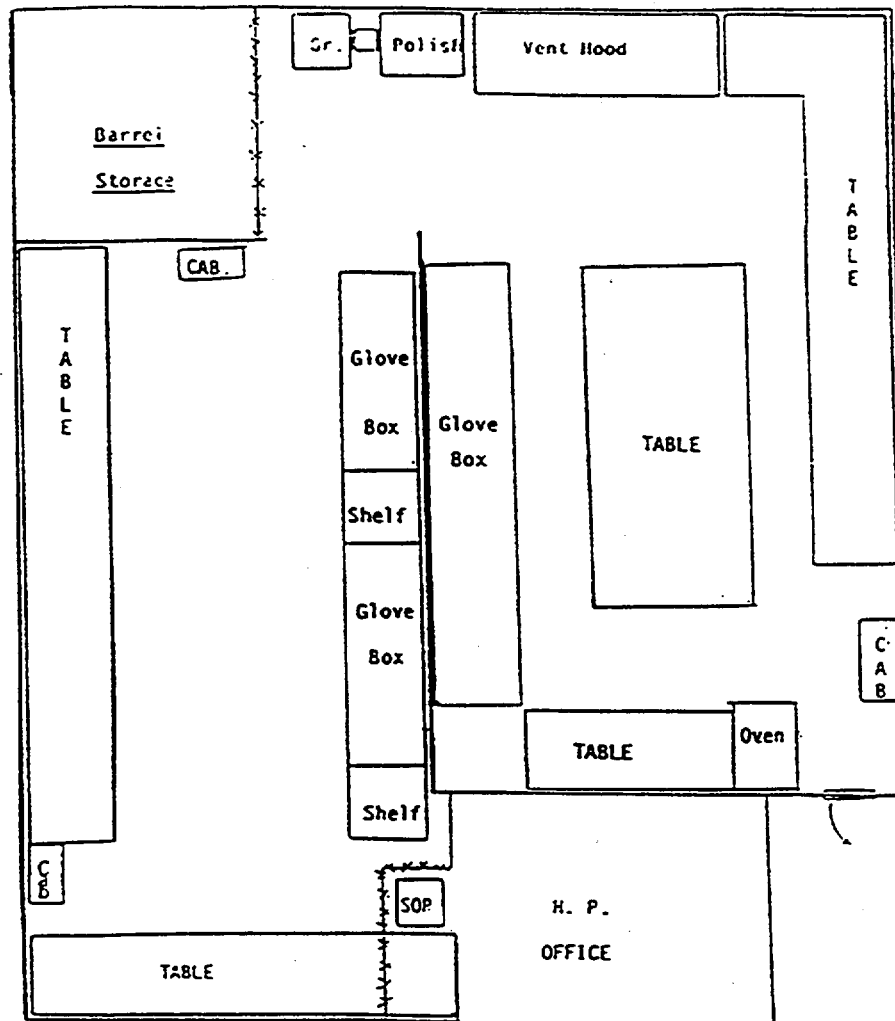


Figure 9-12B
Building 5, Room 225

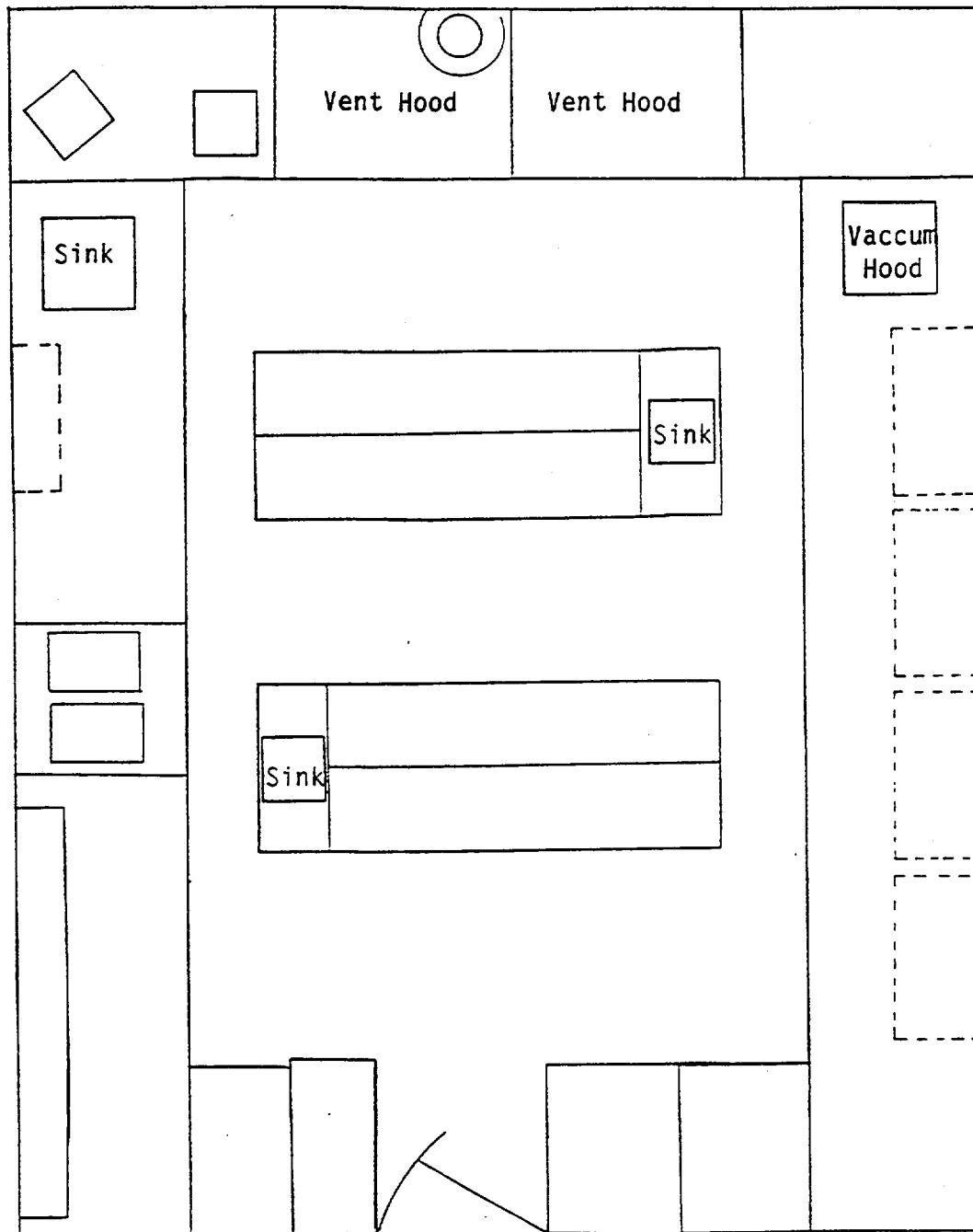


Figure 9-12C
Building 5, Room 228

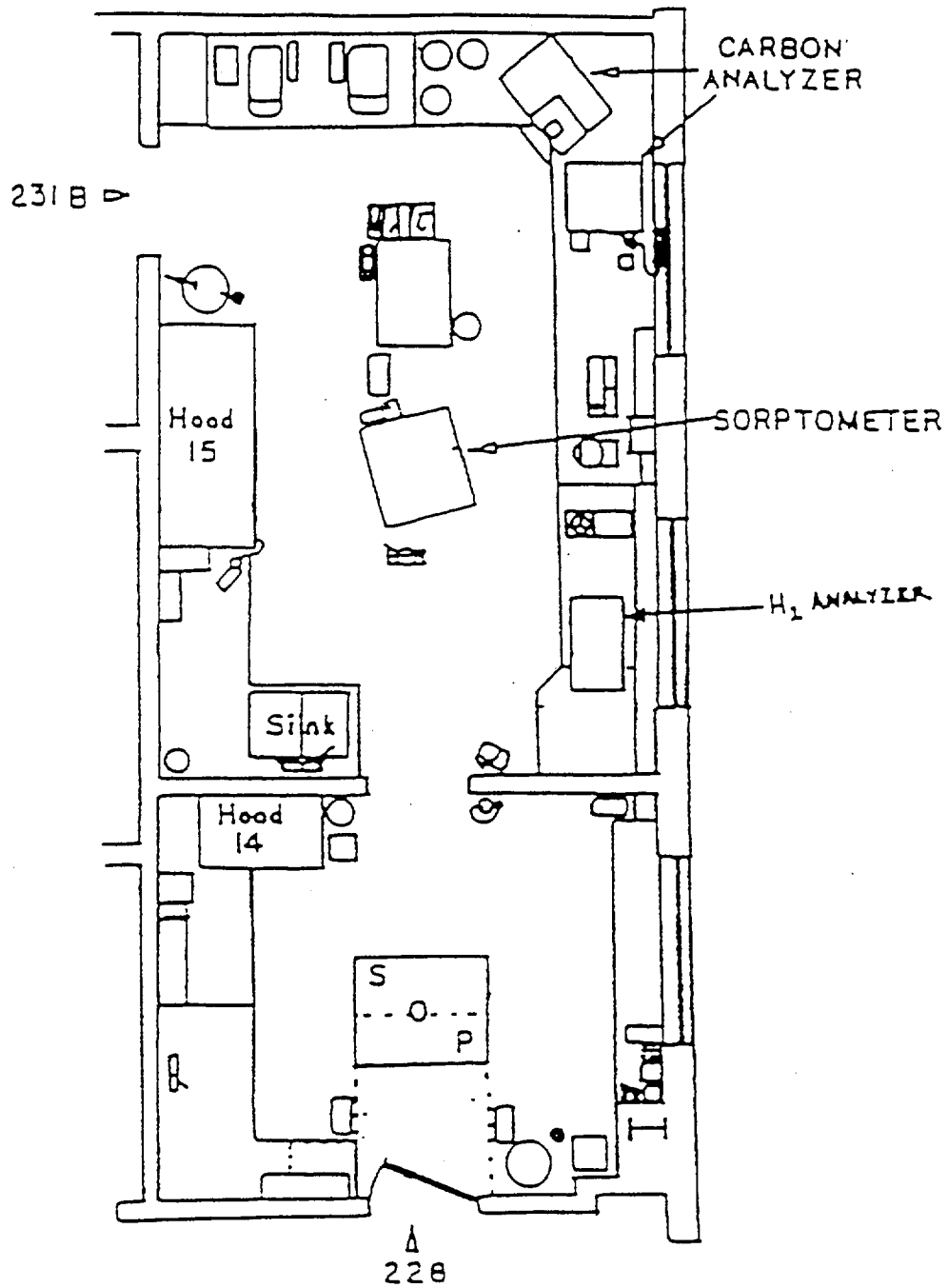


Figure 9-12D
Building 5, Room 231

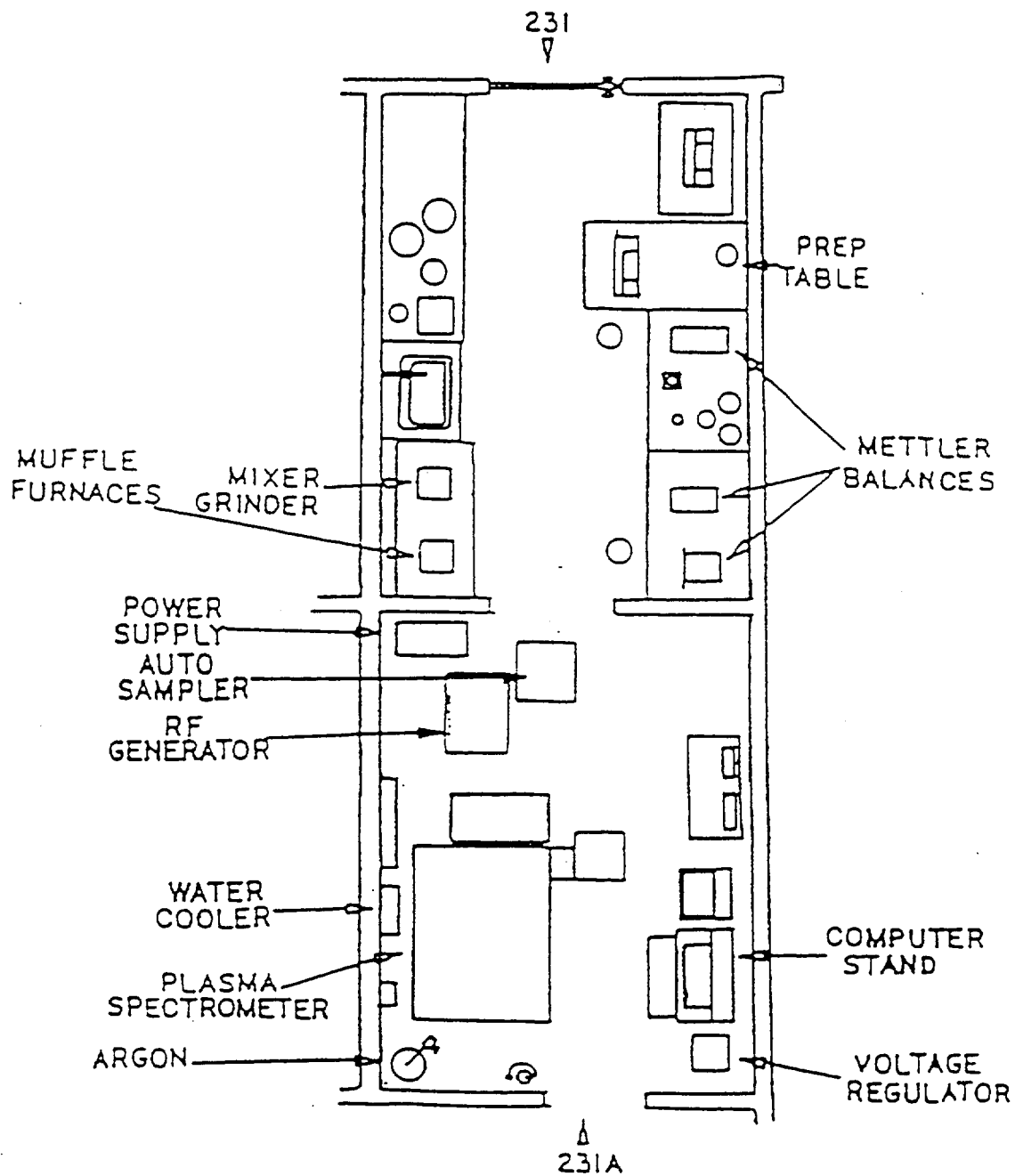


Figure 9-12E
Building 5, Room 232

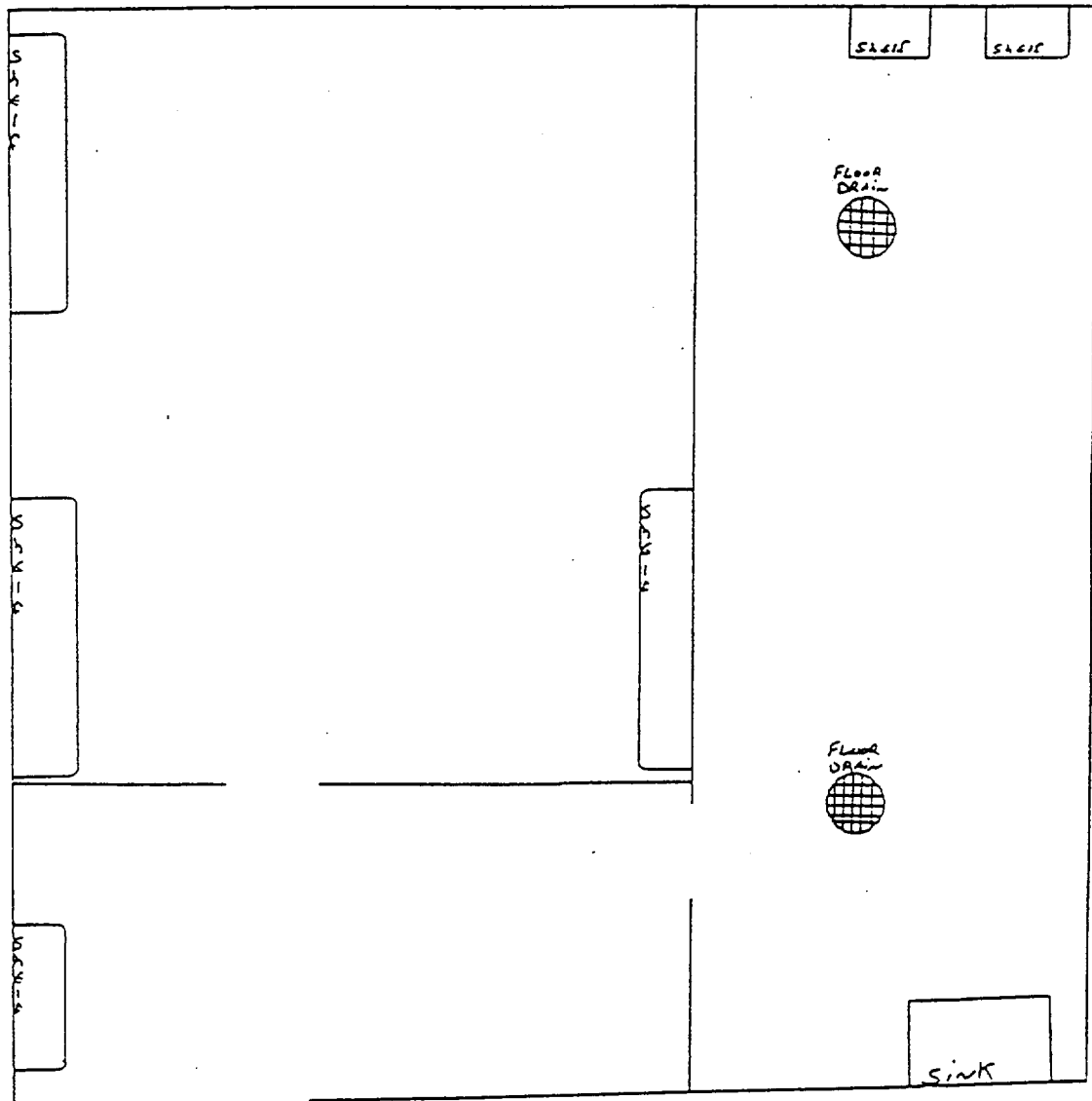


Figure 9-12F
Building 5, Room 305

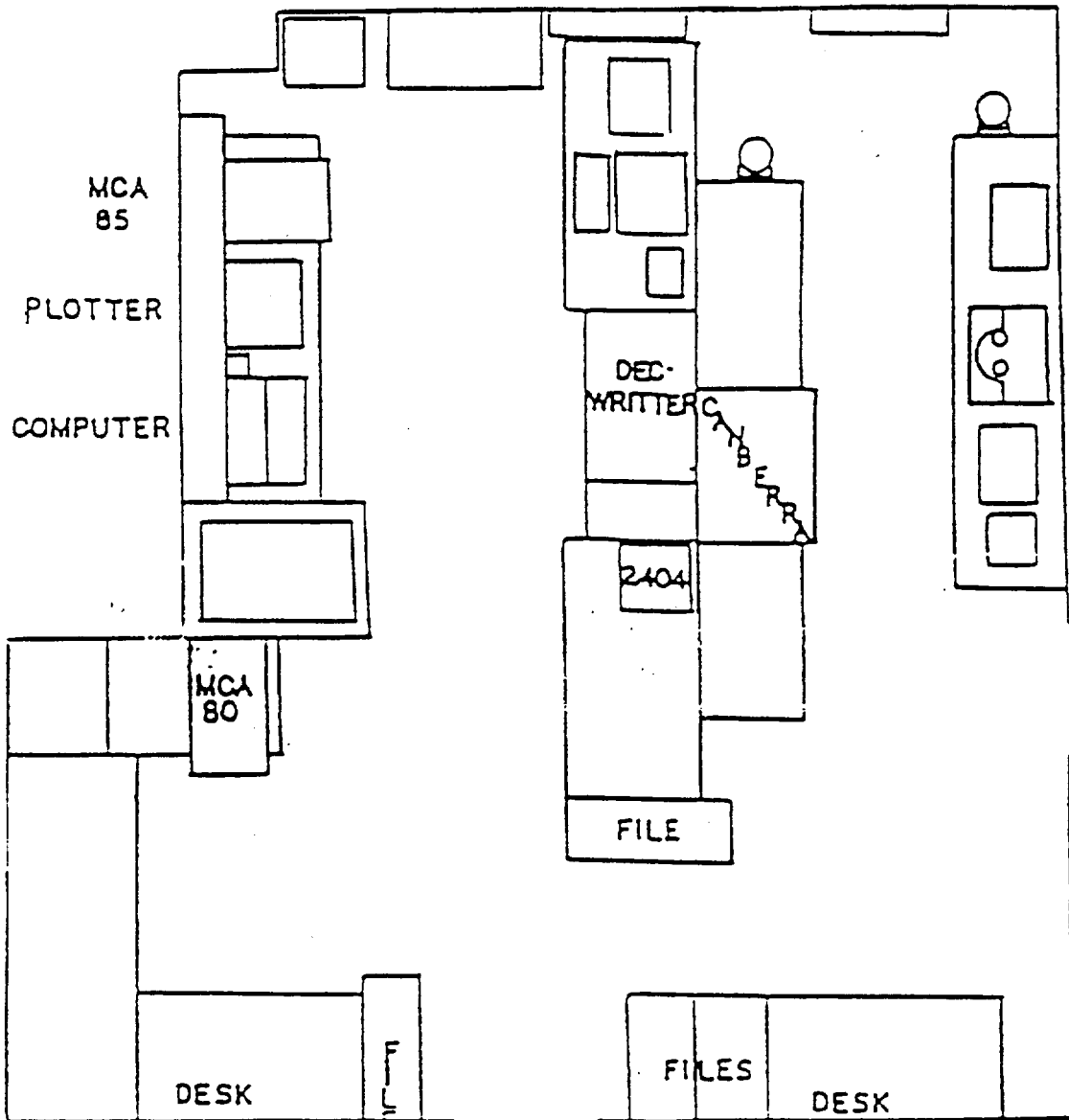


Figure 9-12G
Building 5, Room 306

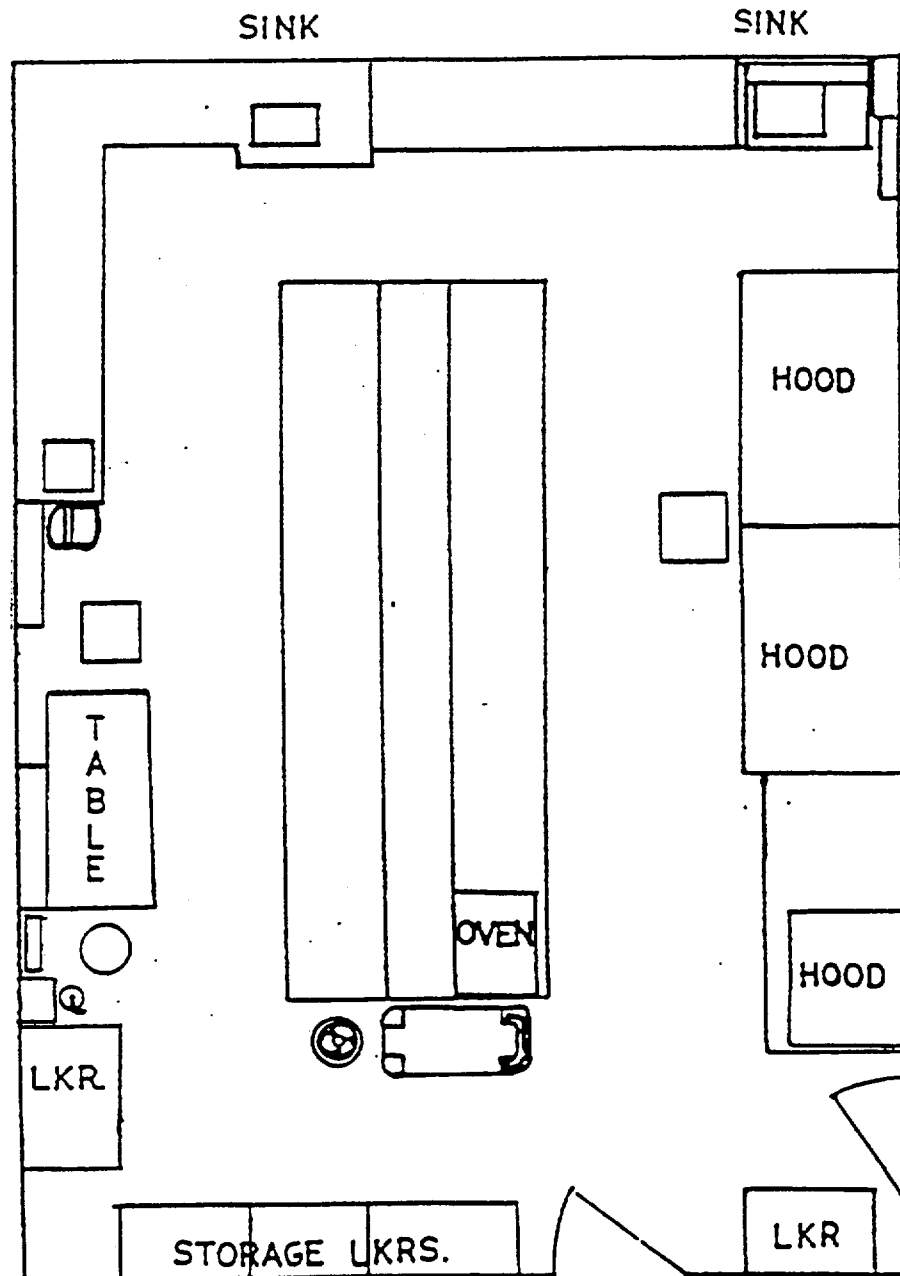


Figure 9-12H
Building 5, Room 308

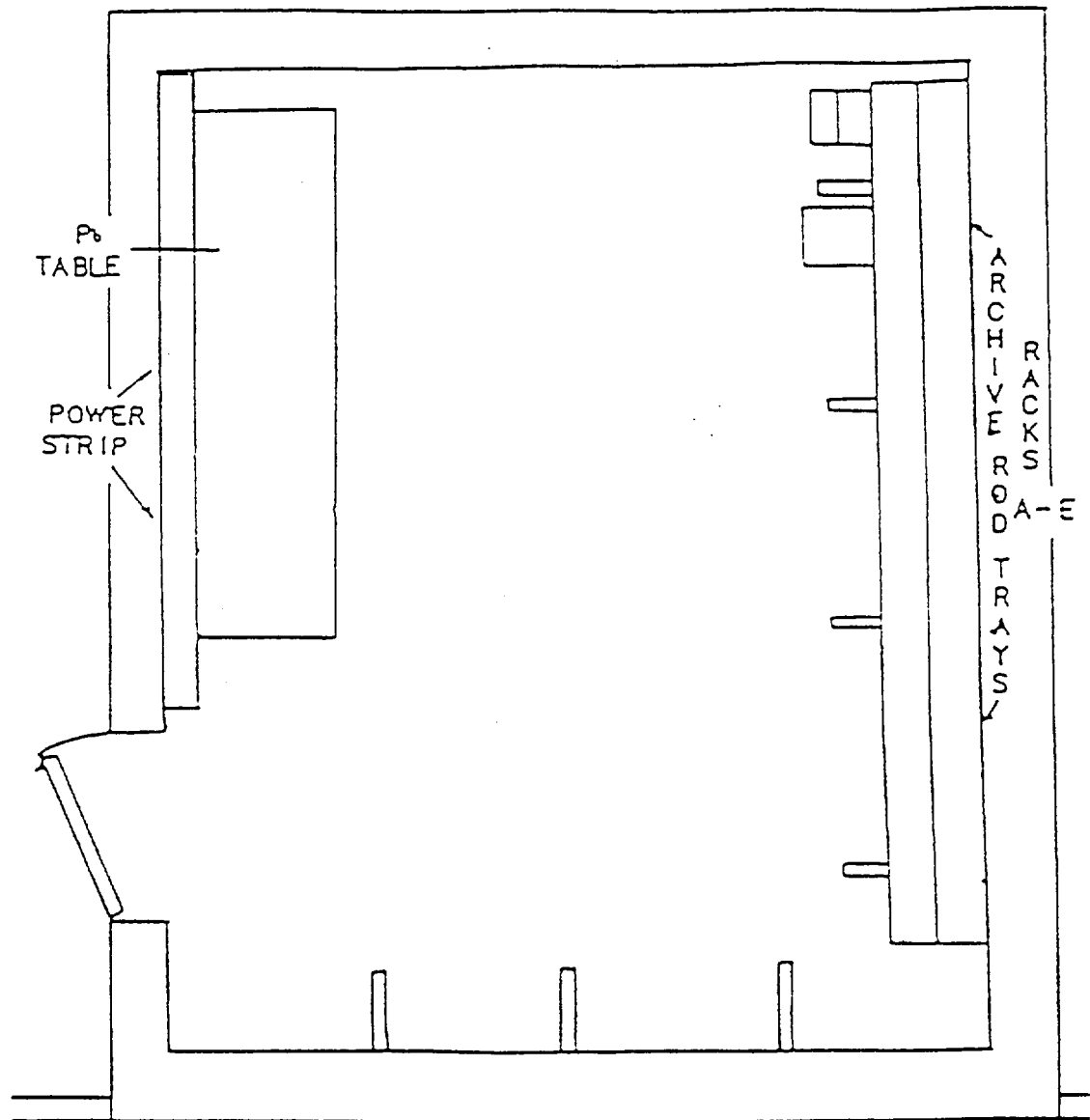


Figure 9-12I
Building 5, Rooms 309 and 311

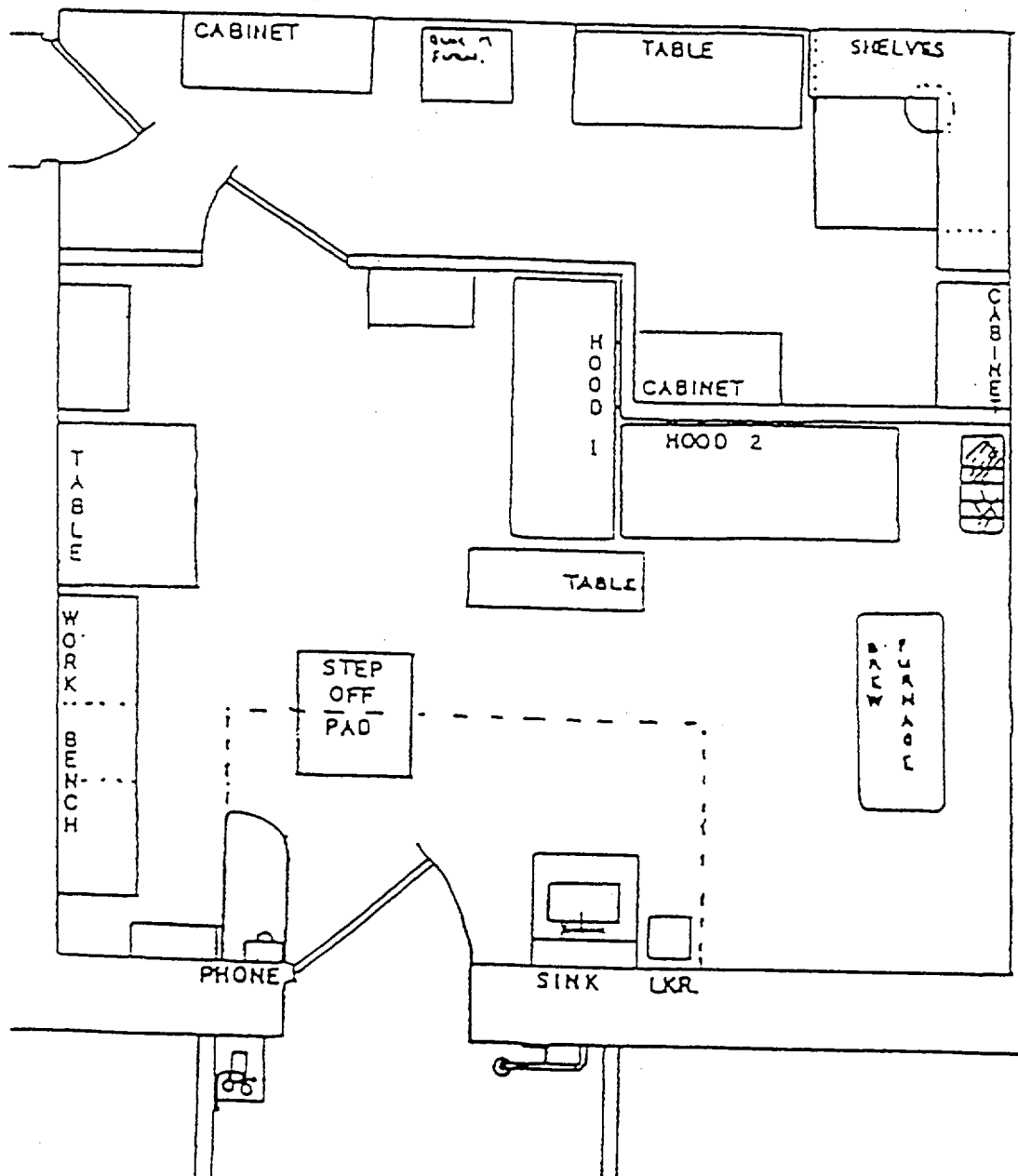


Figure 9-12J
Building 5, Room 320A

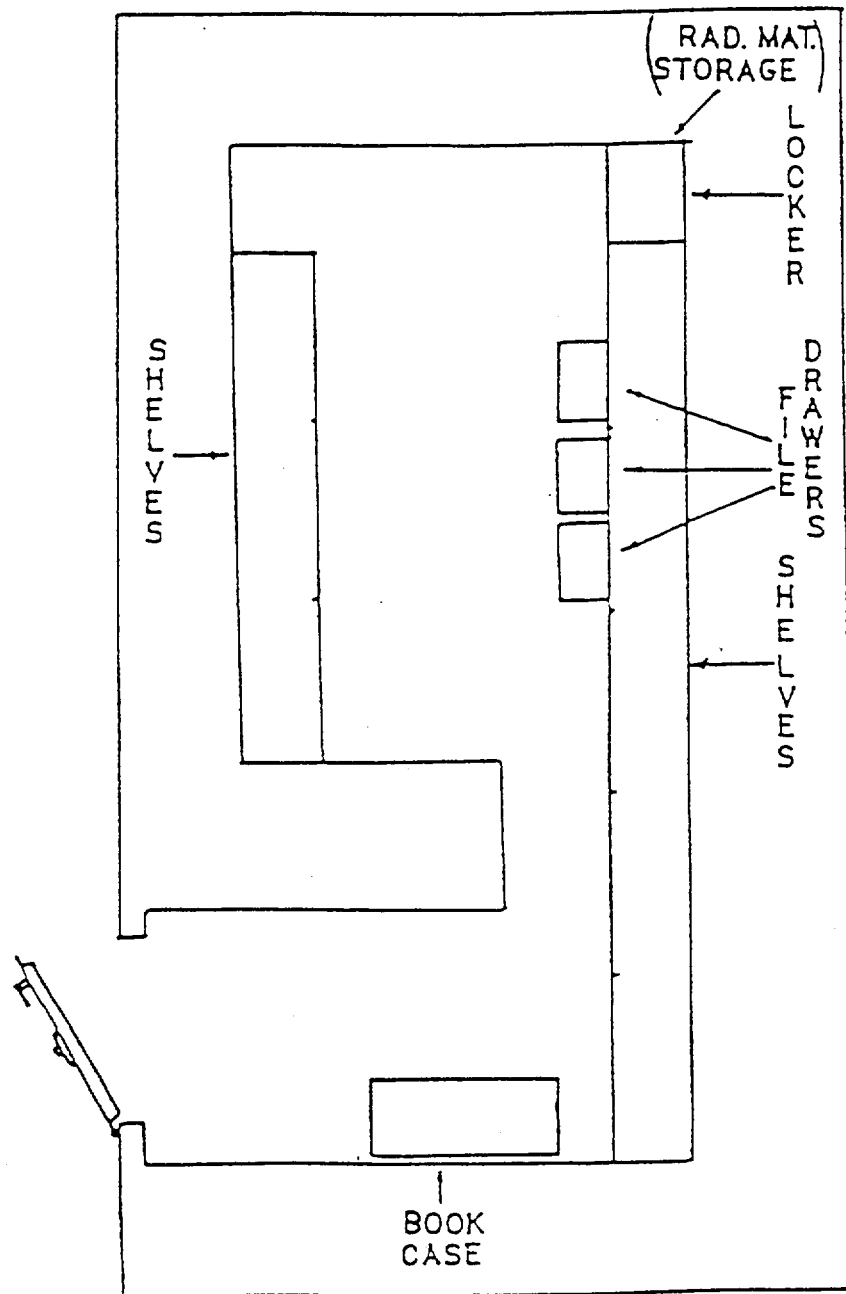


Figure 9-12K
Building 5, Room 321

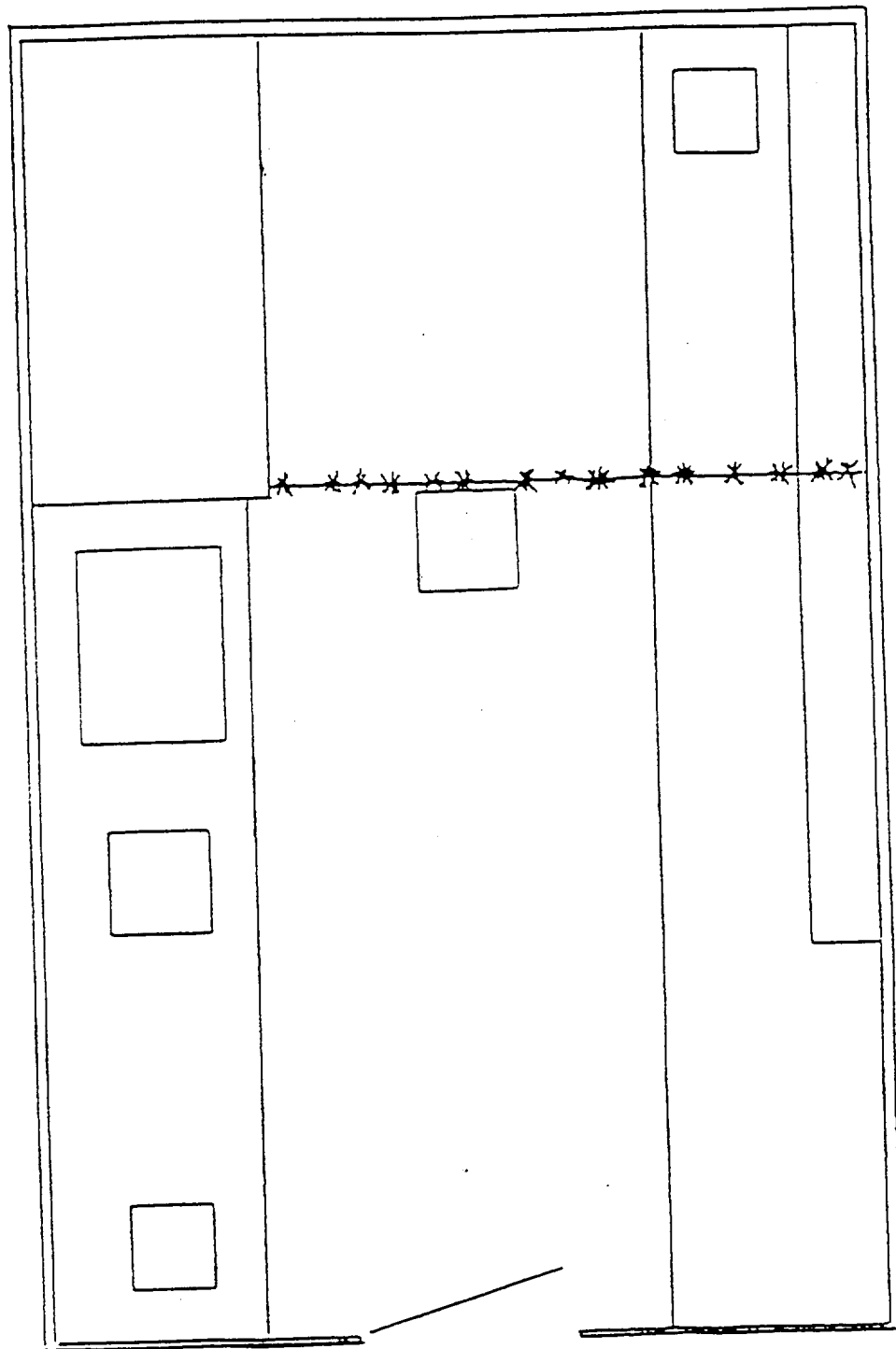
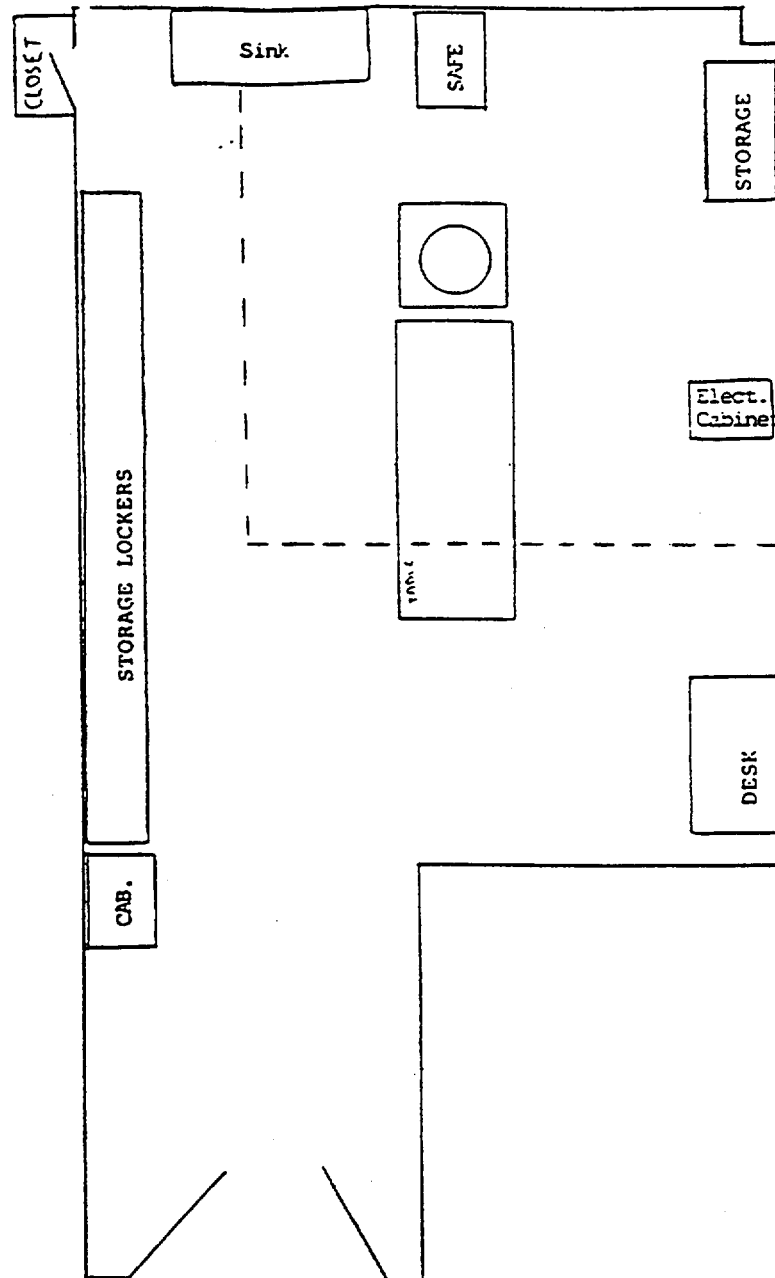


Figure 9-12L
Building 16, Boronometer



10.4 Audits and Appraisals

Section 7.2 and Figure 7.2-2 contain commitments for the annual Radiation Safety Committee audit of the radiation safety program.

10.4.1 Management and Radiation Safety Committee

The Chairman of the Radiation Safety Committee is the management representative; as such he is responsible to keep upper management informed of the compliance status of the radiation safety program. The RSO communicates as needed with the Chairman of the RSC regarding compliance status. Provisions of NRC regulations and of the license which affect the radiation safety program are reflected in the Radiological Protection Instructions.

The Radiation Safety Committee is fully aware of the operations and activities of the radiation safety office through frequent meetings. Provisions for RSC oversight are discussed in Section 7.2 and Figure 7.2-2.

10.4.2 Radiation Safety Officer and Staff

The RSO and RSOS audit activities to verify compliance with the terms and conditions of the NRC license, including RWPs and good health physics practices. Routine unannounced inspections are performed under the RWP system. Inspections include:

- a. Review of inventory and survey records.
- b. Evaluation of worker training through discussion and observation of work practices.
- c. Performance of independent surveys of work areas.
- d. Evaluation of compliance with RWP and RPI (Safety Manual) requirements.
- e. Provision for performance-based instruction to radiation workers.

Inspections of radiation workers are performed on a routine basis. All work with licensed material is performed under RWP. The RSOS, RSO and RSC each has STOP WORK AUTHORITY delegated by management.

10.4.2.1 Internal Inspections

Inspections are performed to determine if materials operations are being conducted in accordance with applicable license conditions and written procedures. Annual audits cover the Radiation Protection Program and Environmental Program and are conducted based upon a written check list. Qualified personnel having no direct responsibility for the operations are used as auditors. The audit report is distributed to Senior Management, the Radiological Safety Committee and the RSO. Corrective and follow-up action is documented and distributed.

10.4.2.2 Investigations and Reporting

Unusual occurrences are investigated and reported to the RSC, RSO or his designee, and Management. Reports to the NRC are made in accordance with specific license conditions and applicable Federal Regulations. The level of investigation, corrective action and reporting are based upon the severity of the occurrence.

10.4.2.3 Records

Records pertaining to the Radiation Protection Program, the Radiological Safety Committee, unusual occurrences, inspections, audits, ALARA, personnel exposures, radiation and contamination surveys, effluent monitoring, Environmental Monitoring Program, calibrations, and decommissioning are retained to demonstrate compliance with the conditions of the license and with applicable Federal, State and local regulations. Such records are retained, as a minimum, for the times specified in governing regulations.

Engineering controls are used to maintain internal exposures less than 10% ALI in all cases. While there are no plans for use of a respiratory protection program, should conditions warrant a program it will be developed and the NRC will be notified in accordance with 10 CFR 20.1703.

If personnel are likely to receive greater than 10% ALI such that monitoring is required, then a bioassay program shall be maintained for confirmation and evaluation of intakes. If a bioassay program is required, then bioassay assessments of intakes shall be performed on an annual basis, or, for personnel exposed to soluble uranium, bioassay assessment shall be on a monthly basis. Bioassay assessment may also be used to perform the diagnostic study at the action levels above.

The instrumentation used for lapel air sampling is Victoreen Model 08-430 Lapel Air Samplers (or equivalent). They are calibrated every three months in accordance with RPSCAL-18. All calibration equipment is traceable to NIST Standards. Filters are counted daily, after use, on a Canberra Model 2400/2404 gas proportional counter which is calibrated monthly and Quality Control Checked daily in accordance with RPI-6, RPS-5, RPS-6 and RPSCAL-10. The typical LLD for CO-60 is $1\text{E-}12$ microcuries/ml and the typical LLD for uranium is $1\text{E-}14$ microcuries/ml.

10.6B.3 Contamination Surveys - SM/SNM Activities

Contamination surveys are performed on a routine basis to monitor radioactive contamination. Routine contamination surveys are performed at a minimum of once per week in loose surface contaminated areas of the Laboratory where work involving unclad radioactive materials may be in progress. Direct beta/gamma surveys are also performed on a monthly basis in such areas. Surveys in step-off pad areas in use are performed on a daily basis. Surveys conducted in support of work performed under a radiation work permit may be used to meet the survey requirement.

The following are action levels for contamination control:

<u>Area</u>	<u>Action Level*</u>
Contamination Control Area	5,000
Step-Off Pad Areas (in use)	50
Clean Areas	10

* dpm alpha / 100 cm² as determined by smear survey

Clean up action is started within 24 hours when removable surface contamination exceeds the action level limits specified above.

10.6B.4 Materials and Equipment Released for Unrestricted Use - SM/SNM Activities

Release of equipment and materials from restricted areas to clean areas on-site or unrestricted areas shall be in accordance with the NRC's "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993.

10.6C.1 Internal Monitoring; Instruments and Calibration

The methods of internal monitoring include the use of personal-lapel breathing zone samplers, gas proportional counters, urine analysis (for uranium) and whole body counting.

The collection and analysis instrumentation is calibrated on a routine schedule as follows:

- a.) Breathing Zone Air Samplers - Calibrated every three months in accordance with RPSCAL-18 and RPI-6.
- b.) Canberra Model - 2400/2404 - Calibrated each month; Source check and quality control check daily. MDA approximately 1E-14 to 1E-12 microcuries/ml, depending upon count time and background.
- c.) Urine Analysis - Performed by radiochemistry laboratory as required (See Section 10.6B.2.) MDA approximately one micro-gram per liter (soluble uranium).
- d.) Canberra Whole Body Counter - For byproduct analysis only. Calibrated annually; daily QBC and QCC checks. MDA is calculated for each isotope in the library and for each count. See Figure 10.6-5 for a sample output.

Action Level**Administrative Control****3. Contamination Surveys (Removeable)**

a) 200 DPM/100 cm ² Beta/Gamma 50 DPM/100 cm ² Alpha	Limits for controlled area and for unrestricted release. Above these limits, area controlled as contaminated area.
b) 1,000 DPM/100 cm ² Beta/Gamma on items/equipment	BZ's required only if grinding, cutting or drilling performed on equipment or items.
c) 10,000 DPM/100 cm ² Beta/Gamma on items/equipment	BZ's required when working on items or equipment; no grinding, cutting or drilling unless approved by Health Physics.
d) 10,000 DPM/100 cm ² Beta/Gamma in General Area ¹	Area cleanup required within 24 hours.
e) 11,100 DPM (0.005 microcuries) on sealed sources	Source must be removed from use and Manager, Radiation Protection Services or RSO notified immediately.

¹ Action levels are based on smear averages, not individual smears.

NOTE: Limits for unconditional release may be increased to 1,000 DPM/100 cm² beta/gamma upon written approval by RSO or Manager, Radiation Protection Services. However, a reasonable effort must be made to decontaminate items to less than 200 DPM/100 cm² beta/gamma.

NOTE: If any smear reveals the presence of more than 100,000 DPM/100 cm² beta/gamma removable contamination, that smear will be counted for alpha. If the alpha contamination is greater than 0.5% of the beta/gamma count, the BZ's used in that work area shall be counted for alpha.

Figure 10.6-5 Sample Output Whole Body Counting

CANBERRA/RMC ABACOS-II		O.A. Background Check Report				printed: 16-OCT-95 08:02:22				
title of count: QBC DAILY					file number: 3935. input: 1					
counted: 16-OCT-95 07:55:58					operator: [300.001] LECLAIR					
phantom used for count: N					FASTSCAN DIAGNOSTIC COUNTER					
special configuration for the count: N										
comments:										
Preliminary Whole Body Count Results (Peak Energy Analysis)										
nuclide	energy (keV)	activity (nCi)	Z error (2.0 SD)	gain (Z)	fit	burden (Z)	peak area	centroid (ch)	warnings AC FT GN BB	comments
IK-40	1460.7	72.08	36.8	0.00	0.49	0.0	84.	371.48	xx	
II-131	364.4							95.20		INBA activity 5.991 nCi
ICD-58	511.0							133.29		INBA activity 15.31 nCi
ICS-134	569.2							147.95		INBA activity 28.93 nCi
ICS-134	604.6							156.95		INBA activity 4.618 nCi
ICS-137	661.6							171.49		INBA activity 5.149 nCi
ICS-134	795.7							205.42		INBA activity 5.464 nCi
ICD-58	810.7							209.20		INBA activity 4.685 nCi
INM-54	834.8							215.27		INBA activity 4.773 nCi
ICD-60	1173.2							299.94		INBA activity 4.607 nCi
ICD-60	1332.5							339.60		INBA activity 4.727 nCi
totals		72.08				0.	totals are computed from the final (nuclide analysis) report			
count time:	300.	input	sum of counts	fraction	calibrations used			warnings levels		
analysis limits:	1		6502.	0.568	energy:	11	03-OCT-94	fit (FT):	3.00	
low: 79.2 (keV)	2		4946.	0.432	FWRM:	11	03-OCT-94	gain (GN):	2.000	
high: 2012.8 (keV)	0		0.	0.000	efficiency:	17	03-OCT-94	activity (AC):	10.00	
	0		0.	0.000	library:	100.	03-OCT-94	Z burden (BB):	1.0	
	0		0.	0.000	background:	0.				
Reviewed by: <u>William Tagel</u> Date: <u>10-17-95</u> Facility: ABB COMBUSTION ENGINEERING										

10.7 Environmental Monitoring

10.7.1 Environmental Monitoring Sampling and Counting

Environmental monitoring is accomplished by the Windsor Site Environmental Monitoring Program. This program examines uranium content, alpha radioactivity and beta radioactivity in surface and well waters, river sediment, soil, vegetation, and atmospheric fallout. A gamma spectrum is performed on selected river sediment, soil, vegetation and atmospheric fallout samples. Fourteen (14) on-site routine sampling stations have been established at designated points for collection of quarterly atmospheric fallout samples. Semi-annually, soil and vegetation samples are also collected at these fourteen (14) on-site locations, and four (4) additional locations off-site. Figure 10.7-1 shows the onsite locations; Figure 10.7-2 shows the offsite locations; and Figure 10.7-3 lists the sample frequency and analyses.

The characteristics of the formation sampled by the well water sampling are indicated by the well drilling logs in Figure 10.7-4 for Well No. 1 and Well No. 2, that are located on the site map in Figure 10.7-1. Figure 10.7-7A shows the site on a topographic map of the area. The site may be recognized in the the bottom center of the map by comparison with Figure 10.7-1. Drainage basins for the same area as shown on the topographic map and to the same scale are shown on Figure 10.7-7B.

Airborne effluent monitoring is performed by the use of isokinetic stack and ventilation samplers with constant air monitors for some systems and fixed sample pumps for others. The constant air monitors are set to alarm at 20% of the DAC values specified for Co-60. The fixed sample collection media are counted daily except weekends when the the pumps are allowed to run over the weekend. The samples are counted on the next working day after the weekend. No work with radioactive material is allowed without a member of the RSOS on site.

The sample pump flow meters are calibrated every six months. The constant air monitors are calibrated every three months and the response is checked daily. All calibration sources and equipment are NIST traceable. Samples are collected daily for byproduct and weekly for uranium and are counted on a Canberra Model 2400/2404 gas proportional counter, or equivalent, with a typical LLD of 1E-12 microcuries/ml for Co-60 and 1E-14 microcuries/ml for uranium. Equipment may be changed without prior notification of the NRC provided the effectiveness of the monitoring is not diminished. Effluent air sample values are reviewed daily by the RSOS and the RSO is notified if any sample value approaches 0.2 DAC for any isotope or a visual alarm occurs on the C.A.M.s.

Compliance with 10 CFR 20.1302(b) is demonstrated through use of boundary TLD's in accordance with RPI-7 and through effluent air calculations performed in accordance with NESHAPS's calculational model. The locations of the TLDs are shown on Figure 10.7-6A and sample results from the TLD environmental monitoring are given on Figure 10.7-6B. A sample report on compliance with EPA air effluent emissions standards is provided as Figure 10.7-5.

10.7.2 Environmental Monitoring Evaluation

Current and historical sample values from the environmental monitoring are statistically evaluated in order to demonstrate the effectiveness of the environmental controls. Valid sample data values are values which 1) are above the lower threshold of detection, 2) have allowances made for changes in analytical procedures over past years and 3) were not obtained during known historical events that caused significant increases. The following provides a description of the analyses performed on the valid data for each sample type and location. Two criteria are established. If either criterion is violated, action will be taken to investigate the cause and remedial action will be taken as appropriate.

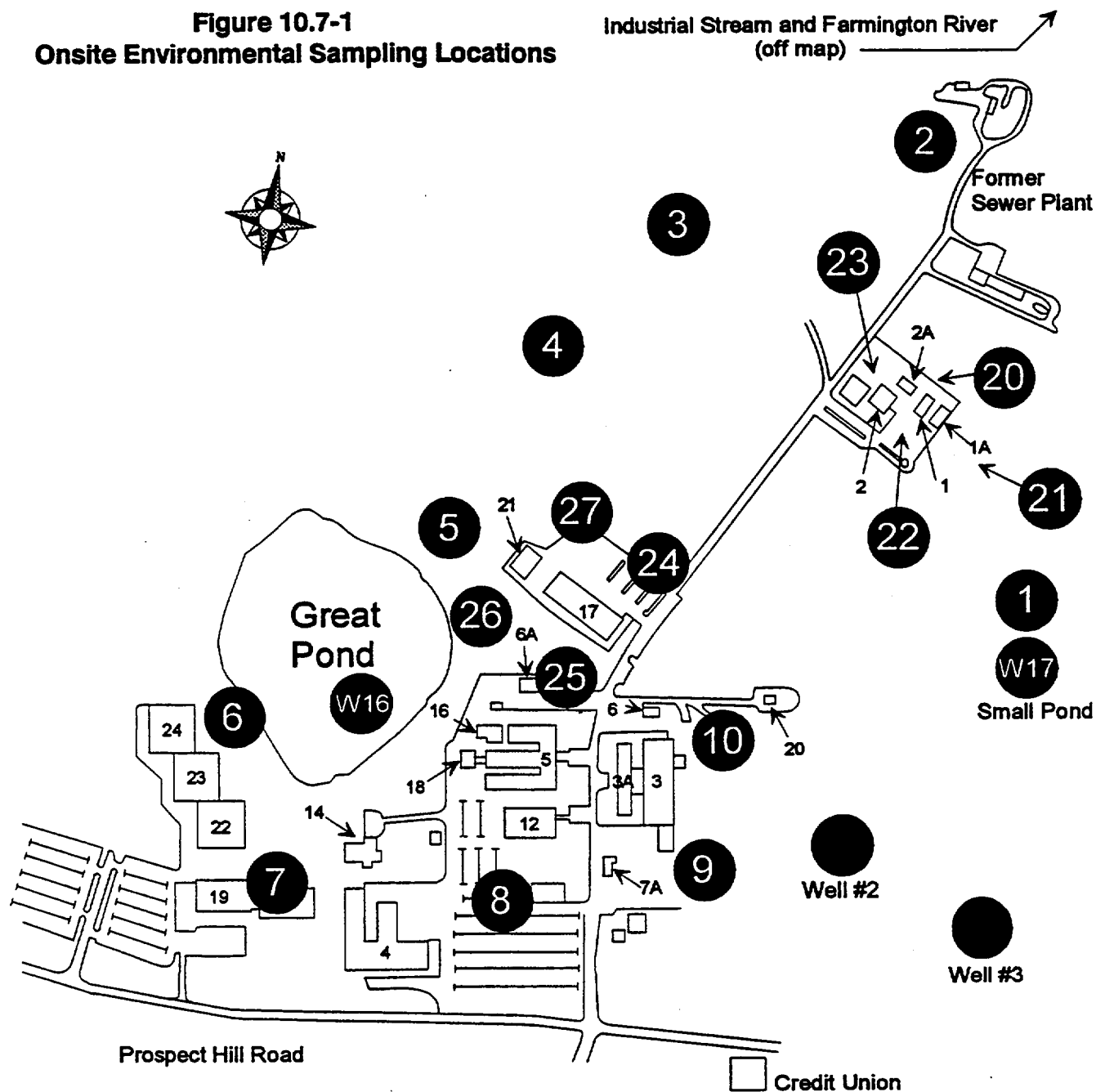
First, the log-normal mean and standard deviation of the twelve most recent sample values are determined. The log-normal distribution is a good representation of the sample data distribution. Action is taken if the current sample value exceeds the mean plus three times the standard deviation.

Second, the data is evaluated to determine if there is a trend that might indicate continual small increases. Action is taken if four successive sample values exceed the mean plus standard deviation calculated from the twelve most recent sample values.

10.8 ALARA Program

Combustion Engineering is committed to keep radiation exposures As Low As Reasonably Achievable (ALARA). The ALARA Program is described in RPS-01, given for information in Figure 10.8-1.

**Figure 10.7-1
Onsite Environmental Sampling Locations**



Sample Locations

(sample type)

- 1 - Former Well #1 (3, 4)
- 2 - Former Sewer Plant (3, 4)
- 3 - Windsor-Bloomfield Boundary (3, 4)
- 4 - West Side Boundary (3, 4)
- 5 - Southwest Corner of Site (3, 4)
- 6 - West of Great Pond (3, 4)
- 7 - Roof of Building 19 (3, 4)
- 8 - Cooling Tower Area (3, 4)
- 9 - South of Building 3 (3, 4)
- 10 - North of Building 3 (3, 4)

License No. 06-00217-06

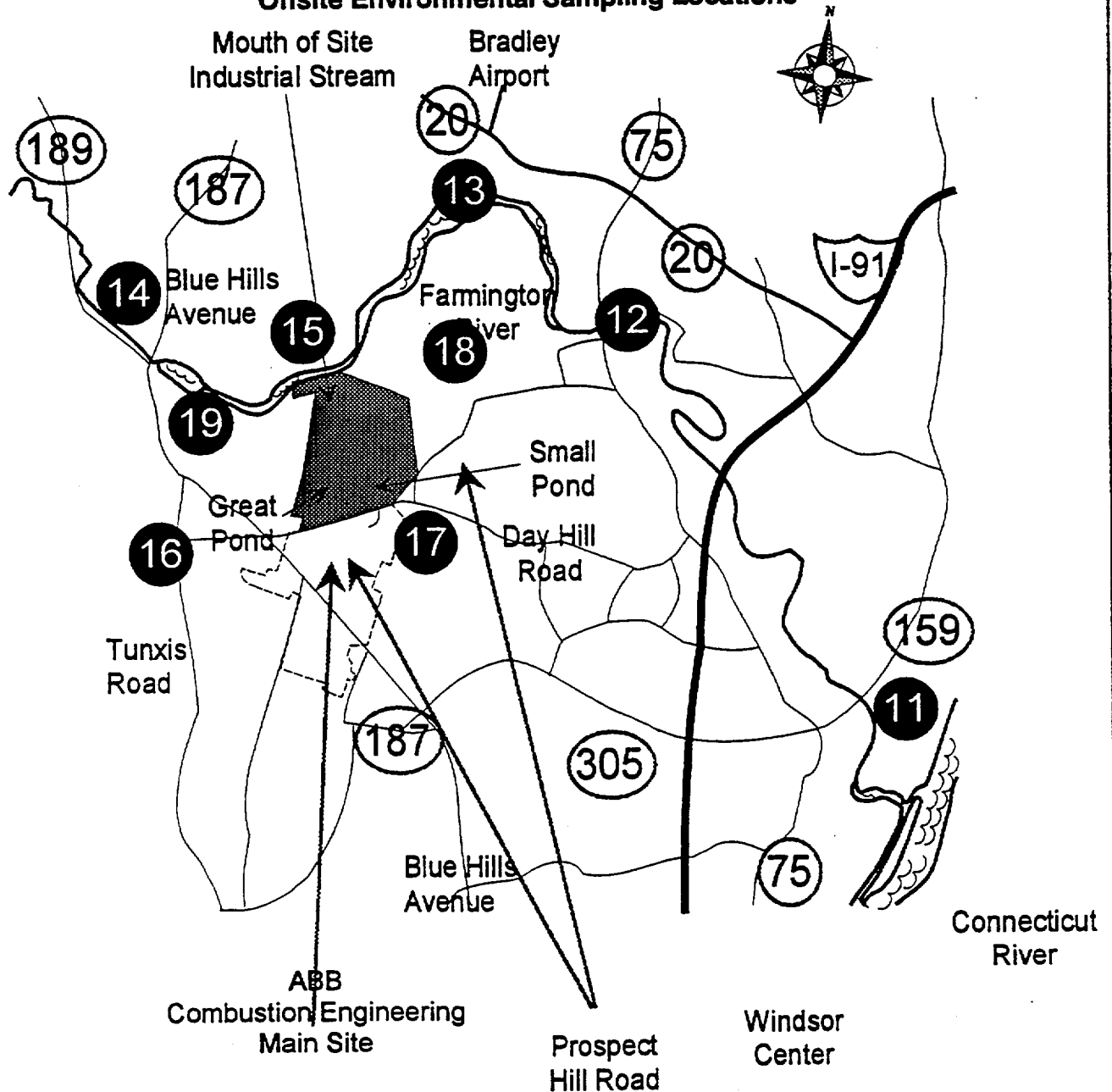
Sample Locations - continued

- W16 - Great Pond (1)
- W17 - Small Pond (1)
- 20 - North of Building 2 (3, 4)
- 21 - East of Building 2 (3, 4)
- 22 - South of Building 2 (3, 4)
- 23 - West of Building 2 (3, 4)
- 24 - North of Building 17 (3, 4)
- 25 - East of Building 17 (3, 4)
- 26 - South of Building 17 (3, 4)
- 27 - West of Building 17 (3, 4)
- Well #2 (2)
- Well #3 (2)

Sample Types

- (1) Surface Water and Sediment
- (2) Well Water
- (3) Soil and Vegetation
- (4) Fallout

**Figure 10.7-2
Offsite Environmental Sampling Locations**



**Sample Locations
(sample type)**

- 11 - Windsor Bridge (1)
- 12 - Poquonock Bridge (1)
- 13 - Rainbow Dam (1)
- 14 - Spoonville Bridge (1)
- 15 - Industrial Stream* (1)

Sample Locations - continued

- 16 - Tunxis & Griffin Road (3)
- 17 - Dayhill & Prospect Hill Road (3)
- 18 - Field 1/2 Mi. East of Site (3)
- 19 - Field N. W. of Site on Blue Hills Ave. Ext. (3)

Sample Types

- (1) Surface Water and Sediment
- (2) Well Water
- (3) Soil and Vegetation
- (4) Fallout

* (a.k.a. Goodwin Pond Brook, a.k.a. Site Creek, a.k.a. Plant Outflow)

**Figure 10.7-3
Environmental Monitoring Program Samples**

Sample	Frequency	Location	Analysis *	Volume
1. Farmington River Surface Water, Industrial Stream and Site Ponds	Quarterly - March, May, August and November	Four locations on the Farmington River, the Site Ponds and Industrial Stream	Gross Alpha and Beta, Total Uranium	1.25 liters
2. Well Water	Quarterly - March, May, August and November	Each Site Well	Gross Alpha and Beta,, Total Uranium	1.25 liters
3. Sediment from Farmington River, Site Ponds and Industrial Stream	Quarterly - March, May, August and November	Same Locations as Surface Water	Gross Alpha and Beta, Total Uranium **	1 pint
4. Vegetation On-Site	Semiannually - May and September	Each Fallout Station Location	Gross Alpha and Beta, Total Uranium **	1 pint
5. Vegetation Off-Site	Semiannually - May and September	Fields on North, South, East and West Site Boundary	Gross Alpha and Beta, Total Uranium **	1 pint
6. Soil	Semiannually - May and September	Same Locations as Vegetation	Gross Alpha and Beta, Total Uranium **	1 pint (upper inch)
7. Fallout	Quarterly - March, May, August and November	Ten Locations On Site	Gross Alpha and Beta, Total Uranium **	Not Applicable

* The details of the analytical procedures employed for the environmental monitoring samples are found in the applicable procedures in "Analytical Chemistry and Radiochemistry Procedures Manual", No. CE NPSD 503 (e. g. Procedure Nos 18, 19, 20, 21 and 66.)

**Gamma spectrum on selected samples.

**Figure 10.7-4
Environmental Sampling Wells
Well Drilling Log**

**R. E. CHAPMAN CO.
OAKDALE, MASS.**

Driller <u>F. A. Sullivan</u>			Names of Helpers <u>F. P. Sullivan R. Thair</u>		
Name & Location <u>STONE - WEBSTER WINDSOR CONN-PROSPER ST.</u>					
Date Started <u>8/26/56</u>		Date Finished <u>8/2/56</u>	Date Started <u>8/12/56</u>		Date Finished <u>8/1/56</u>
Hole No. <u>1. 2.4" X 18" GRAVEL PACK</u>			Hole No. <u>2. 2.4" X 18" GRAVEL PACK</u>		

Hole No. 1			Hole No. 2		
Depth	Classification of	Feet of Screen Exposed	Depth	Classification of	Feet of Screen Exposed
From To	Material	Size of Screen & Slot	From To	Material	Size of Screen & Slot
0-15'	FINE-RED-SAND	15'	0-40'	FINE-RED-SAND	45'
15-30'	COARSE GRAVEL	18"	40-62'	GRAY-RED-CLAY	18"
30-50'	MEDIUM SAND	18" EVERDOTS	62-80'	FINE RED SAND	18" EVERDOTS
50-81'	COARSE SAND	Screen Left in 15"	80-91'	COARSE SAND	Screen Left in 15"
81'	HARD PAN	CONG. FITTING	91'	MEDIUM GRAVEL	CONG. FITTING
		Screen Pulled Out		HARD PAN	Screen Pulled Out
		Pipe Left in			Pipe Left in
		68'-3"			77'
		Pipe Pulled Out			Pipe Pulled Out
		ALL 2.4" PIPE			ALL 2.4" PIPE
Remarks			Remarks		
TEMP. 48°			TEMP. 48°		

Hole No. 1					Hole No. 2				
Date	Time	Dr. Down	G. P. M.	Static and Other Info.	Date	Time	Dr. Down	G. P. M.	Static and Other Info.
8/13/56	4:00 PM	STATIC 4'-8" FROM TOP OF PIPE			8/12/56		STATIC 11" FROM TOP OF PIPE		
		PIPE IS 1.5" ABOVE BR.					PIPE IS 2" ABOVE BR.		
		CAP WELDED ON AFTER PUMP TEST					CAP WELDED ON AFTER PUMP TEST		
		DEPTH OF WELL FROM GROUND LEVEL 80'					DEPTH OF WELL FROM GROUND LEVEL 80'		
		D.D. PUMPING 350 GPM FROM TOP OF PIPE					D.D. PUMPING 120 GPM FROM TOP OF PIPE		

Figure 10.7-5
EPA Document 520/1-89-002
Sample NESHAPS Effluent Air Calculation

The following two pages provide a sample calculation showing compliance with the EPA requirement invoked by 10 CFR 20.1301.

40 CFR Part 61
National Emission Standards
for Hazardous Air Pollutants

REPORT ON COMPLIANCE WITH
THE CLEAN AIR ACT LIMITS FOR RADIONUCLIDE EMISSIONS
FROM THE COMPLY CODE, VERSION 1.5d

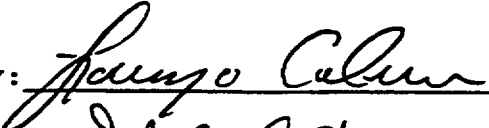
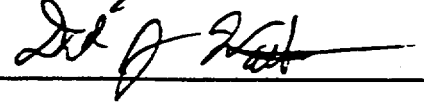
Prepared by:

ABB Combustion Engineering
SNM-1067
1000 Prospect Hill Road Windsor CT

Jim Limbert (RSO)
(203) 285-2603

Prepared for:

U.S. Environmental Protection Agency
Office of Radiation Programs
Washington, D.C. 20460

Prepared By:  Date: 3/6/95
Reviewed By:  Date: 3/6/95

SCREENING LEVEL 2
-----DATA ENTERED:

Nuclide		Release Rate (curies/YEAR)
U-235	Y	1.020E-05

Release height 5 meters.

Building height 5 meters.

The source and receptor are not on the same building.

Distance from the source to the receptor is 870 meters.

Building width 87 meters.

Default mean wind speed used (2.0 m/sec).

NOTES:

Input parameters outside the "normal" range:

Receptor is unusually FAR.

RESULTS:

Effective dose equivalent: 3.6E-03 mrem/yr.

*** Comply at level 2.

This facility is in COMPLIANCE.

It may or may not be EXEMPT from reporting to the EPA.

You may contact your regional EPA office for more information.

***** END OF COMPLIANCE REPORT *****

Figure 10.7-6A
Locations of Site Boundary Environmental TLDs

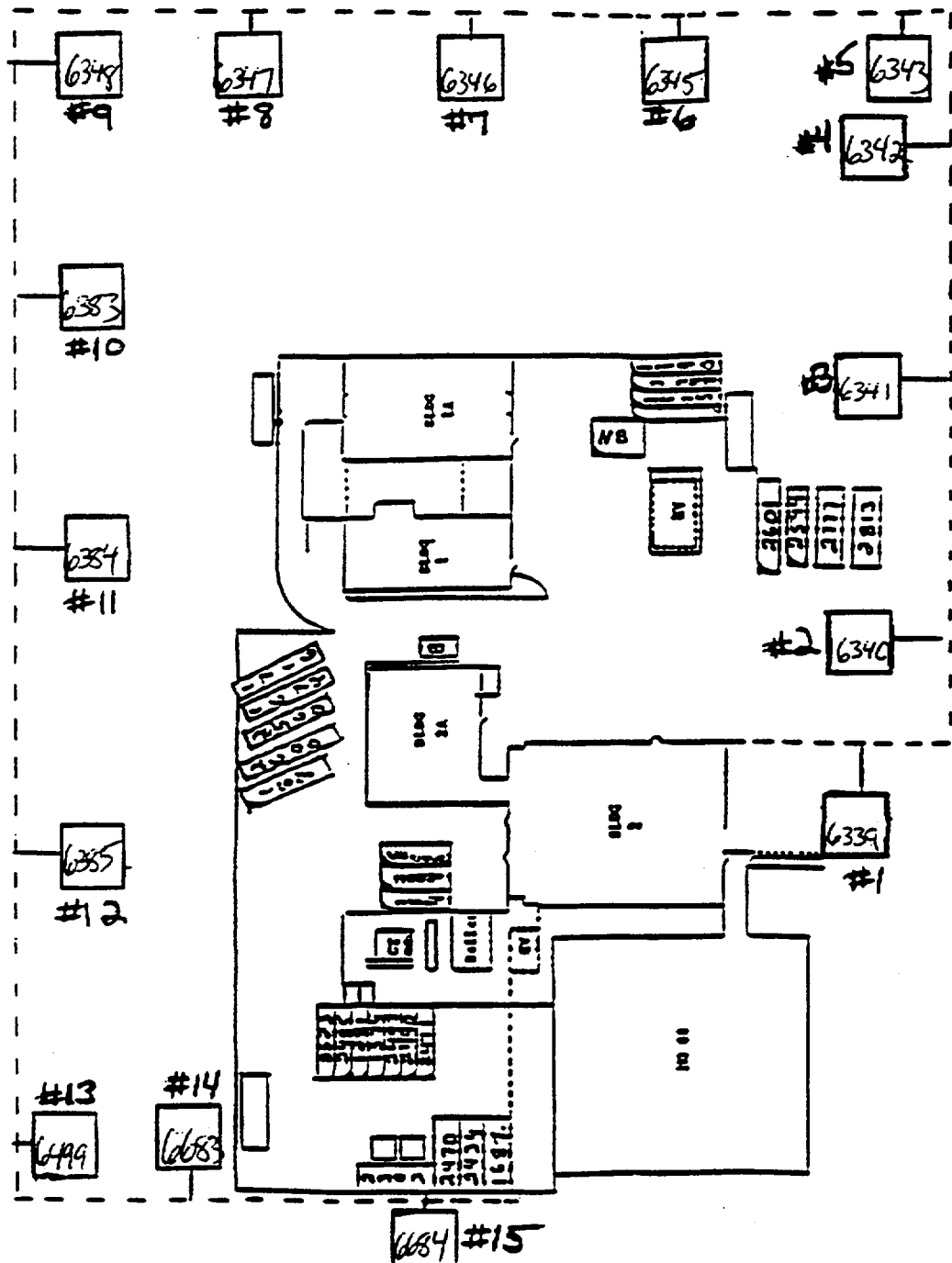


Figure 10.7-6B Sample Results From Site Boundary Environmental TLDs

TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES ENVIRONMENTAL TLD EXPOSURE REPORT

CC99 COMBUSTION ENGINEERING INC.

THE RESULTS INDICATED BELOW HAVE BEEN OBTAINED USING THE TELEDYNE ISOTOPIES
READOUT SYSTEM AND DOSIMETERS. THE ORIGINAL DATA ARE RETAINED ON FILE.

NET EXPOSURES IN MR AND MR/STD. QUARTER

IDENT.	BEGINNING MM/DD/YY	HR	ENDING MM/DD/YY	HR	DAYS	TLD	AREA 1	AREA 2	AREA 3	AREA 4	AVERAGE	STD. DEV.	PER STANDARD QUARTER AVERAGE	2 STD. DEV.
STA-01	06/30/95	11	09/27/95	14	89.1	3-6339	29.2	29.4	26.4	26.2	27.8	1.7	28.5	3.5
STA-02	06/30/95	11	09/27/95	14	89.1	3-6340	27.2	27.5	24.2	23.9	25.7	1.9	26.3	3.9
STA-03	06/30/95	11	09/27/95	14	89.1	3-6341	39.5	37.8	34.8	35.0	36.8	2.3	37.7	4.7
STA-04	06/30/95	11	09/27/95	14	89.1	3-6342	26.4	26.4	24.2	24.6	25.4	1.2	26.0	2.4
STA-05	06/30/95	11	09/27/95	14	89.1	3-6343	20.6	20.3	18.9	18.9	19.7	0.9	20.1	1.8
STA-06	06/30/95	11	09/27/95	14	89.1	3-6345	21.5	21.4	18.8	18.9	20.1	1.5	20.6	3.1
STA-07	06/30/95	11	09/27/95	14	89.1	3-6346	21.0	21.2	18.5	17.9	19.6	1.7	20.1	3.4
STA-08	06/30/95	11	09/27/95	14	89.1	3-6347	19.2	19.1	17.9	17.8	18.5	0.7	19.0	1.5
STA-09	06/30/95	11	09/27/95	14	89.1	3-6348	19.5	19.3	17.8	18.0	18.7	0.9	19.1	1.8
STA-10	06/30/95	11	09/27/95	14	89.1	3-6383	20.8	21.6	18.5	18.7	19.9	1.5	20.4	3.2
STA-11	06/30/95	11	09/27/95	14	89.1	3-6384	22.4	23.4	20.2	20.8	21.7	1.4	22.2	2.9
STA-12	06/30/95	11	09/27/95	14	89.1	3-6385	24.7	22.1	20.1	19.5	21.6	2.4	22.1	4.9
STA-13	06/30/95	11	09/27/95	14	89.1	3-6499	22.6	21.8	19.9	21.0	21.3	1.1	21.8	2.3
STA-14	06/30/95	11	09/27/95	14	89.1	3-6683	24.8	23.9	22.1	22.5	23.3	1.2	23.9	2.5
* SITEZERO	06/30/95	11	09/27/95	14	89.1	3-0578	20.7	19.6	18.4	18.6	19.3	1.1	19.8	2.2
TELEZERO	06/15/95	12	09/29/95	12	106.0	3-6344	7.2	9.0	6.0	7.6	7.5	1.2	6.4	2.1
STA-15	06/30/95	11	09/27/95	14	89.1	3-6684	23.8	23.5	21.3	22.3	22.7	1.2	23.3	2.4

THESE GROSS EXPOSURES WERE OBTAINED IN THE ABSENCE OF DESIGNATED CONTROL
DOSIMETERS FOR SUBTRACTING TRANSIT DOSES AND SYSTEM BACKGROUND.

SUBTRACT FROM GROSS
EXPOSURES TO OBTAIN NET
TLD

APPROVED
DATE

[Signature]
10-10-95

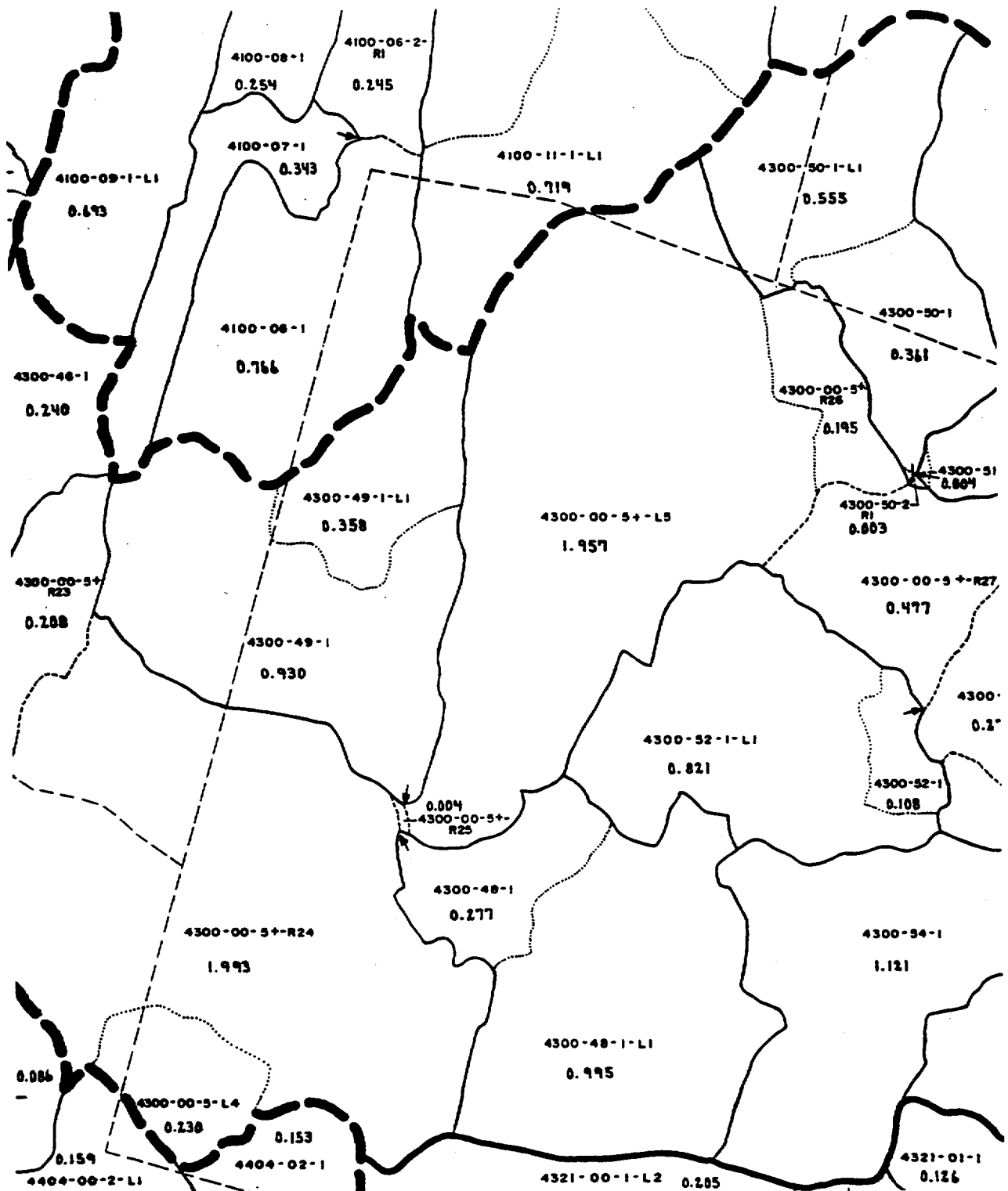
High
17.5
mean
net.
OMS

*Reviewed
and approved
JMT
10/11/95*

Figure 10.7-7A
Topographic Map of Site Area



Figure 10.7-7B
Drainage Basins for Site Area



Compare with area shown in Figure 10.7-7A

Figure 10.8-1
ALARA Program

The following 4 pages provide for information a current copy of the Radiological Protection Standard, RPS-01, "A.L.A.R.A. Program for Materials License No. 06-00217-06".

COMBUSTION ENGINEERING, INC.

RADIOLOGICAL PROTECTION STANDARD

RPS-01

A.L.A.R.A. PROGRAM FOR MATERIALS LICENSE

NO. 06-00217-06

PREPARED BY: William PAGEL DATE: 10-17-95
(PRINTED NAME)

SIGNATURE : William PageL

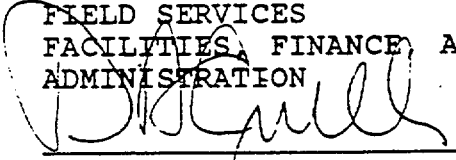
APPROVED BY: S.M. JORENSON DATE: 10-17-95
(PRINTED NAME)

SIGNATURE : SM Jorensen

A.L.A.R.A. POLICY STATEMENT

"THE MANAGEMENT OF COMBUSTION ENGINEERING, INC. IS COMMITTED TO KEEPING OCCUPATIONAL RADIATION EXPOSURES AS LOW AS REASONABLY ACHIEVABLE (A.L.A.R.A.) WITH REGARD TO OPERATIONS CONDUCTED UNDER U.S.N.R.C. MATERIALS LICENSE NO. 06-00217-06 AS RENEWED OR AMENDED. THE FOLLOWING PROGRAM IS ADOPTED AS THE METHOD TO ACHIEVE THIS COMMITMENT."

D.A. CIRELLI, DIRECTOR
FIELD SERVICES
FACILITIES, FINANCE, AND
ADMINISTRATION


(DATE)

10/16/95

I. MANAGEMENT AUDIT

A. "MANAGEMENT SHALL PERFORM AN ANNUAL AUDIT, THROUGH THE RADIOLOGICAL SAFETY COMMITTEE, TO DETERMINE HOW EXPOSURES MIGHT BE LOWERED."

B. AS A MINIMUM, THE FOLLOWING AREAS SHALL BE REVIEWED AND EVALUATED FOR A.L.A.R.A.:

1. ANNUAL EXPOSURE REPORT
2. WEEKLY DOSIMETER LOG SHEETS
3. RADIATION WORK PERMITS
4. RADIATION AND CONTAMINATION SURVEYS
5. WHOLE BODY COUNT RESULTS
6. BREATHING ZONE SAMPLE RESULTS
7. EFFLUENT AIR AND LIQUID (IF ANY) SAMPLE RESULTS
(AIR EMISSIONS SHALL BE EVALUATED IN ACCORDANCE WITH U.S. E.P.A. DOCUMENT 520/1-89-002 "CLEAN AIR ACT STANDARDS FOR RADIONUCLIDE EMISSIONS/NESHAPS.

II. A. "MANAGEMENT SHALL ENSURE THAT THERE IS A WELL SUPERVISED RADIATION PROTECTION CAPABILITY, WITH WELL DEFINED RESPONSIBILITIES."

B. THIS IS ACCOMPLISHED BY THE FOLLOWING:

1. A FORMAL ORGANIZATION CHART (UPDATED AS NECESSARY)
2. FORMAL JOB DESCRIPTIONS FOR THE POSITIONS IDENTIFIED IN THE ORGANIZATION.
3. PERIODIC PROFESSIONAL TRAINING OR RETRAINING OF THE RADIATION PROTECTION STAFF.

III. RADIATION WORKER TRAINING

A. "MANAGEMENT SHALL ENSURE THAT RADIATION WORKERS AND OTHER SITE PERSONNEL RECEIVE APPROPRIATE AND SUFFICIENT TRAINING."

B. THIS IS ACCOMPLISHED BY THE FOLLOWING METHODOLOGY:

1. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-15 "RADIATION WORKER TRAINING PROGRAMS" FORMALLY SPECIFIES VARIOUS TRAINING REQUIREMENTS AND PROCEDURES FOR PERSONNEL WHO WORK WITH AND/OR IN THE VICINITY OF RADIOACTIVE MATERIAL.
2. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-4 "RADIATION WORK PERMITS" SPECIFIES THE TRAINING REQUIRED TO WORK WITH A RADIATION WORK PERMIT (RWP).
3. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-1 "PERSONNEL MONITORING" SPECIFIES RADIATION MONITORING AND TRAINING REQUIREMENTS FOR ANY PERSONNEL ENTERING A HEALTH PHYSICS RESTRICTED AREA.

IV. RADIATION SAFETY OFFICER (RSO) AUTHORITY

- A. THE RADIATION SAFETY OFFICER (RSO) OR HIS/HER DESIGNEE SHALL HAVE THE AUTHORITY TO ENFORCE SAFE OPERATIONS AND HAS THE AUTHORITY TO HALT WORK THAT HE/SHE DEEMS NOT IN ACCORDANCE WITH THIS PROGRAM.

V. MODIFICATIONS TO OPERATING PROCEDURES

- A. MODIFICATIONS TO OPERATING PROCEDURES SHOULD BE MADE WHERE THEY WILL SUBSTANTIALLY REDUCE EXPOSURES AT A REASONABLE COST.

- B. THIS IS ACCOMPLISHED BY THE FOLLOWING:

1. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-1 "PERSONNEL MONITORING"
 - (a) ADMINISTRATIVELY AND OPERATIONALLY LIMITS WHOLE BODY AND LENS OF THE EYE EXPOSURE.
2. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-2 "SKIN AND EXTREMITY MONITORING"
 - (a) ADMINISTRATIVELY AND OPERATIONALLY LIMITS SKIN AND EXTREMITY EXPOSURE.
3. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-4 "RADIATION WORK PERMITS"
 - (a) ADMINISTRATIVELY AND OPERATIONALLY PROVIDES FOR REVIEWS OF RADIOLOGICAL CONDITIONS, OPERATIONS, AND PERSONNEL EXPOSURE ON AN ONGOING BASIS.
4. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-8 "VISITOR ACCESS TO HEALTH PHYSICS RESTRICTED AREAS"
 - (a) ADMINISTRATIVELY AND OPERATIONALLY RESTRICTS "VISITORS" TO SPECIFIC AREAS WITHIN THE HEALTH PHYSICS RESTRICTED AREA.
5. RADIOLOGICAL PROTECTION INSTRUCTION - RPI-9 "MONITORING FOR RADIATION AND CONTAMINATION"
 - (a) ADMINISTRATIVELY AND OPERATIONALLY SPECIFIES CONTROLS AND ACTION LEVELS FOR RADIATION AND CONTAMINATION LEVELS IN THE WORKPLACE.

ANY OPERATION THAT FALLS OUTSIDE THE SCOPE OF THE ABOVE MENTIONED INSTRUCTIONS, SHALL BE REVIEWED BY THE RSO AND/OR RADIOLOGICAL SAFETY COMMITTEE

TELEPHONE CONVERSATION RECORD		Date: 2/14/96	Time: 9:30 am
Mail Control No.: 121790		License : 06-00217-06	Docket No.: 030-03754
Person Called: Stephen Sorensen Radiation Safety Officer		Organization: Combustion Engineering	Telephone Number: (860) 285-5285
Person Calling: Duncan White			
Subject: Building 17 and letter dated January 12, 1996			
<p>Summary: As a result of the meeting between the licensee, fuels branch (NMSS) and Region I personnel on February 6th at TWFN, the licensee will be transferring Building 17 to the Operations license (Part 30), but as an amendment, not as part of the renewal. The timing of this amendment will be later this year, probably in the spring or summer.</p> <p>The licensee acknowledged that this amendment request will require modifications to the DFP, particularly the cost estimate, surety bond and Standby Trust Agreement. In addition, the licensee representative was informed about the need to maintain all records necessary for decommissioning as required by 10 CFR 30.35(g). These records are particularly important for Building 17 which has been partially decontaminated.</p> <p>The licensee also indicated that contaminated areas on the roof of Building 17 will be evaluated, probably survey and possibly decontaminated such that no contamination will spread from this building.</p>			
Action Required/Taken: Issue renewal; received concurrence from the Branch Chiefs (Costello and Bellamy) in Industrial and Decommissioning Branches.			
Signature: Duncan White <i>[Signature]</i>		Date: February 15, 1996	

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FILE TO

ITEM #

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B/88



January 12, 1996

Docket No. 030-03754
License No. 06-00217-06

U. S. Nuclear Regulatory Commission
Nuclear Materials Safety Branch
Region I
475 Allendale Road
King of Prussia, PA 19406-1415
Attn: Mr. Duncan White

Subject: Potential Use of By-Product Test "Sources" in the Building 17 Hot Shop

Dear Mr. White:

As you may know, the Building 17/21 Complex has been undergoing D&D since April of 1994. D&D work in Building 21 is nearly completed and the D&D work in Building 17 has been slowed pending review of a proposed alternate use. The proposed alternate use of Building 17 is to process by-product contaminated equipment brought back from reactor sites as part of our nuclear services business.

In anticipation of potential future use of the former hot shop area for processing and storage of equipment contaminated with radioactive by-product material, Combustion Engineering may need to make measurements of radiation dose through the hot shop walls in order to establish characteristics of radiation shielding. Such use would be conducted under our Materials License No. 06-00217-06 utilizing the commensurate controls and precautions associated with that License.

Should these measurements become necessary, boxes containing field services equipment ("sources") will be introduced into the hot shop of Building 17 for approximately four (4) weeks. The equipment is contaminated with mostly radioactive cobalt. The boxes are sealed, heavy plastic containers approximately three (3) feet by three (3) feet by four (4) feet in size. They will be moved around within the hot shop and dose rates will be measured inside and outside the shop. Measurements would be combined with calculational models to establish the required shielding configuration. Following this period, the by-product "sources" will be removed.

If there are any questions or comments regarding this matter, please do not hesitate to call me at (860) 285-5285.

Very truly yours,

COMBUSTION ENGINEERING, INC.

Stephen M. Sorensen
Manager, Radiological Protection Services

XC: J. Kottan
S. Soong

SMS:bwf
96-03.doc

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Asea Brown Boveri Inc.

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ITEM # 125

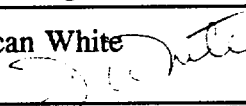
1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone
(203) 688-1911

Telex
99297

121742

JAN 17 1996

TELEPHONE CONVERSATION RECORD		Date: 1/16/96	Time: 11:30 am
Mail Control No.: 121790		License : 06-00217-06	Docket No.: 030-03754
Person Called: Stephen Sorensen		Organization: Combustion Engineering	Telephone Number: (860) 285-5285
Person Calling: Duncan White			
Subject: Possession Limits and Licensee's January 12, 1996 facsimile			
Summary: The following items were discussed:			
<ol style="list-style-type: none"> 1. The licensee's November 15, 1995 letter requested that 3 millicuries per nuclide for byproduct and source material with atomic numbers 84 through 103 (Item 5B. on page 5) be possessed for irradiated reactor components and associated equipment. Mr. Sorensen agreed that the source material be listed separately with a limit of 75 kilograms. 2. With regard to the licensee's January 12, 1996 letter, the four week test of radiation fields in Building 17 will proceed by several months any construction of permanent facilities. The packages of equipment with byproduct material for the test will not be opened while in Building 17. 3. Mr. Sorensen stated that a decommissioning plan for Building 17 has been submitted to the NRC under SNM-1067. The licensee will probably request that the NRC approval the use of Building 17 for Part 30 activities without any further decommissioning of the structure. Mr. Sorensen stated that the 341 gram of U-235 requested in the renewal includes the amount of U-235 present in Building 17 (approximately 100 grams). 4. Informed the licensee that their DFP will require modification if Building 17 is incorporated under Part 30 license. 			
Action Required/Taken: Modify license to incorporated item no. 1; discuss remaining items with NRC management.			
Signature: Duncan White 		Date: January 16, 1996	

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12-TC D/90

FEB 25 1996

License No. 06-00217-06
Docket No. 030-03754
Control No. 121790

Dese A. Cirelli
Director, Finance and Facilities Administration
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, Connecticut 06095-0500

Dear Mr. Cirelli:

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I office, the Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

In a January 12, 1996 letter, Combustion Engineering (CE) proposed to use Building 17 to process contaminated equipment used as part of their nuclear services business. It is now our understanding that CE will be forwarding a request to amend this license at a later date to use licensed material in Building 17 for activities authorized by this license. This request should amend your Decommissioning Funding Plan to include a cost estimate for decommissioning Building 17 and revisions to the Standby Trust Agreement and surety bond. If your understanding of this matter is different from ours, please contact this office immediately.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Until your license is terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
 - a. when the Radiation Safety Officer or Chairman of the Radiation Safety Committee, permanently discontinues performance of duties under the license or has a name change; or
 - b. when the mailing address on the license changes (no fee is required if the location of byproduct material remains the same).

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3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. change Radiation Safety Officer or Chairman of the Radiation Safety Committee;
 - b. order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. add or change the address or addresses of use identified in the license application or on the license; or
 - d. change ownership of your organization.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or a certifying official of the licensee rather than the Radiation Safety Officer or a consultant.

You will be periodically inspected by the NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy), NUREG 1600.

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement actions will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

D.A. Cirelli
Combustion Engineering, Inc.

-3-

Thank you for your cooperation.

Sincerely,

Original Signed By:
Duncan White
Duncan White
Nuclear Materials Safety Branch 3
Division of Nuclear Materials Safety

License No. 06-00217-06
Docket No. 030-03754
Control No. 121790

Enclosures:

1. Amendment No. 41
2. 10 CFR Parts 2, 19, 20, 30, 33, 40, 70, and 170
3. NRC Forms 3 and 313

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OFFICE	DNMS/RI	N	DNMS/RI				
NAME	DWhite						
DATE	02/15/96		02/ /96		02/ /96		02/ /96

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5 Radioactive Material

The following categories of radioactive material, with corresponding forms and possession limits, are requested:

Byproduct, Source, and/or Special Nuclear Material	Chemical and/or Physical Form	Possession Limit
A. Any byproduct material with Atomic Numbers 1 through 83	A. Irradiated and/or contaminated reactor components, inspection and test equipment, test samples, monitoring instruments, reactor coolant samples, or calibration sources	A. 50 Curies
B. Any byproduct and/or source material with Atomic Numbers 84 through 103	B. Irradiated and/or contaminated reactor components, inspection and test equipment, calibration sources or, reactor coolant samples	B. Not to exceed 3 millicuries per nuclide and 30 millicuries total
C. Cesium 137	C. Sealed Sources	C. 215 Curies
D. Americium 241	D. Sealed neutron sources	D. Not to exceed 1 Curie per source and 10 Curies total
E. Americium 241	E. Sealed neutron sources	E. Not to exceed 10 Curies per source and 100 Curies total
F. Neptunium 237	F. Oxide Wires	F. Not to exceed 0.5 millicuries per wire and 5 millicuries total
G. Uranium 233	G. Any	G. 1 gram
H. Uranium 235	H. Any	H. 7 grams
I. Uranium 235	I. Fission chambers (sealed)	I. Not to exceed 1.7 grams per chamber and 13.6 grams total
J. Plutonium	J. Any	J. 1 milligram
K. Uranium 235	K. Any	K. 341 grams, including < 5Kg UF ₆
L. Natural and/or Depleted Uranium	L. Any	L. 10,000 KgU, including < 5Kg UF ₆



License No. 06-00217-06
Docket No. 030-03754
Control No. 121790 123132-200

May 08, 1996
DDH96008

Mr. Duncan White
U.S. Nuclear Regulatory Commission
Nuclear Materials Safety Branch 3
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Subject: Organization Change for Licensed Operations

Dear Mr. White:

Effective immediately Mr. Michael F. Barnoski is now the President of Combustion Engineering Nuclear Operations, succeeding Dr. Richard Suidek.

A formal change document, updating the license application pages will follow, in the near future.

Very truly yours,
Combustion Engineering, Inc.

Stephen M. Sorensen, Manager/RSO
Radiological Protection Services

ITEM # 128

B/92

ABB Combustion Engineering Nuclear Power



May 10, 1996
ML-96-005

Docket No. 70-1100
License No. SNM-1067

Mr. J. J. Kottan
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Subject: Delegation of Authority, RSO Position, Building 17 Facility

Dear Mr. Kottan:

This is to notify you that Stephen M. Sorensen assumed the duties and responsibilities of the RSO function for the Building 17 facility, effective April 29, 1996. As you know, Mr. Sorensen is the RSO of records for the CE Byproduct License No. 06-00217-06, and is also qualified for the RSO duties associated with Building 17. Mr. Sorensen is being assisted by available CE Health Physics staff personnel who are familiar with the current license and applicable regulatory requirements. Mr. James M. Limbert, who previously performed the RSO function in Building 17, remains the RSO for NRC License No. SNM-1067 for other than Building 17. Please note the purpose of this change is to facilitate the transition of Building 17 to a facility where byproduct materials will be used.

If there are any questions or comments regarding this matter, please feel free to contact me at (860) 285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.

John F. Conant
Sr. Project Manager

RSOPOSIT.DOC

cc: S. Soong (NRC)
D. White (NRC)

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123132

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JUN 12 1996

License No. 06-00217-06
Docket No. 030-03754
Control No. 123132

Stephen M. Sorensen
Radiation Safety Officer
Combustion Engineering, Inc.
2000 Day Hill Road
P.O. Box 500
Windsor, Connecticut 06095-0500

Dear Mr. Sorensen:

This is in reference to your letter dated April 23, 1996 to amend License No. 06-00217-06. In order to continue our review, we need the following additional information:

1. In Section 9 (Facilities and Equipment) of your letter, you indicate that liquid radioactive waste in Building 6 will either be processed using an evaporator system or discharged to local surface waters. With regard to the processing of liquid waste:
 - a. Confirm that a representative sample of the liquid effluent will be taken from the retention tank and analyzed for compliance against applicable limits in 10 CFR 20.1301 prior to discharge to local surface waters.
 - b. Figure 9-15, Building 6 Liquid Waste System, indicates an air sampler on the exhaust line from the evaporator to the atmosphere. Please describe the type of sampler, sampling frequency and the presence of filtration used prior to or after the sampler. Confirm that effluents will be discharged in compliance with applicable limits in 10 CFR 20.1301.
 - c. Describe how solid waste from the evaporator system will be handled and disposed.
2. In Section 9 (Facilities and Equipment) of your letter, you indicate that Building 6 will be used to store radioactive waste awaiting shipment. If you plan to use Building 6 for extended interim waste storage, please revise and resubmit a revised copy of RPI-10 "Receipt and Interim Storage of Low Level Radioactive Waste" included in Figure 11-1 of your application. If Building 6 will not be used for extended interim waste storage, please confirm this fact.

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3. Please revise Section 10.6 of your application to include the type and frequency of radiation surveys that will be performed in Building 17. Your response should include those surveys that will be performed periodically to document the levels of residual contamination from licensed activities performed under NRC License No. SNM-1067.
4. Please revise Section 10.7 of your application to include environmental monitoring from direct radiation and effluents from Building 17 to demonstrate compliance with 10 CFR 20.1301.
5. Please confirm that all records of information important to the decommissioning of Building 17, including all licensed and decommissioning activities performed under NRC License No. SNM-1067, will be maintained in accordance with 10 CFR 30.35(g).
6. Please provide the results of surveys conducted in Building 17 that characterize the building's current radiological condition. Your response should clearly indicate those areas in Building 17 which do not meet the action levels specified in Figure 10.6-3 of your application and those areas which meet NRC guidelines for unrestricted use.
7. Your letter included Part 2 of the Decommissioning Funding Plan (DFP) for License No. 06-00217-06 which addresses the remediation of Building 17. With regard to Part 2 of the DFP;
 - a. Based on the information provided in the DFP, it appears that the costs associated with decommissioning are based on designated Bay C as an affected area and the balance of Building 17 as an unaffected area with regards to future use and existing residual contamination. Since unaffected areas are not expected to contain residual radioactivity based on site history and previous survey information, please provide the results of radiation surveys demonstrating that unaffected areas designated in the DFP for Building 17 currently meet NRC guidelines for unrestricted use.
 - b. In Table 5.4-A (Cost for Decon/Dismantle of Radiological Areas), the cost for dismantling and removing the ventilation system is provided. These costs do not appear to be consistent with costs provided in NUREG-1754, Addendum 1. For example, using methodology in NUREG-1754, Addendum 1, the removal of 500 feet of ventilation duct should take 46 man-days (based on 12 man-days per 40 meter segment). This compares with 31.25 man-days indicated in the DFP. Please revise the costs in the DFP for dismantling and removal of the ventilation system in Building 17 to reflect costs associated with NUREG-1754, Addendum 1.

Stephen M. Sorensen
Combustion Engineering, Inc.

-3-

- c. In Table 5.4-B of the DFP (Cost for Decon/Dismantle of Radiological Area), the total area stated for dismantling and decontaminating the floor, walls and roof is 38,400 square feet (ft²). This surface area is not consistent with Section 3.0 of the DFR (Facility Description) which indicates that the dimensions of Bay C are 300 feet by 40 feet by 30 feet, or a total surface area of 44,400 ft². In addition, Bay C includes a mezzanine where the HEPA unit is located. Please revise the costs in the DFP to include the correct surface area.
- d. In Table 5.6 of the DFP (Packaging, Shipping and Disposal of Radioactive Wastes), costs are provided for the disposal of underground piping in Building 17. In Table 5.4-B (Cost for Decon/Dismantle of Radiological Areas), the cost for dismantling and removing the underground pipes in Building 17 is not included. Please revise the DFP to include the cost for dismantling and removing the underground pipes in Building 17.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I Office and refer to Mail Control No. 123132. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5042.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application.

Sincerely,

Original Signed By:
Duncan White

Duncan White
Division of Nuclear Materials Safety

License No. 06-00217-06
Docket No. 030-03754
Control No. 123132

DOCUMENT NAME: R:\WPS\DLTR\L0600217.06

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OFFICE	DNMS/RI	N	DNMS/RI				
NAME	DWhite						
DATE	06/12/96		06/ /96		06/ /96		06/ /96

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Inter-Office Correspondence

To: S.M. Sorensen

L. Cabrera *LC*

cc: J. Conant
D. Cirelli
J. Kulik
J. Limbert
B. Mandeville
S. Masciulli
R. Sheeran
B. Pagel

June 18, 1996

Memo: 96-LJC-052-B17

- References: (1) Memo, R.E. Sheeran to J.J. Kulik, dated January 11, 1996
(2) Memo, L. Cabrera to S.M. Sorensen, dated April 15, 1996
(3) Memo, S.M. Sorensen to S. Masciulli, dated May 7, 1996

Subject: Closure Report - Determination of Radiological Conditions In the
Building 17 Complex Project

INTRODUCTION

CENO requested that SRS provide radiological engineering support services for the "Determination of Radiological Conditions In the Building 17 Complex Project" in January 1996.

SCOPE OF WORK

The scope of the project included: achieving reasonable assurance that the radiological conditions in the Building 17 Complex are known; minimization of the potential for unknown sources of contamination; and establishment and documentation of baseline radiological conditions.

Evaluation of the Building 17 Complex was conducted by radiological surveys which consisted of the following: large area smears used to detect the presence of loose surface alpha and beta contamination, proportional detector scans and integrated measurements used to detect the presence of fixed alpha and beta contamination, and volumetric samples used to detect the presence of total uranium and Uranium-235 activity. Areas within the Building 17 Complex that were surveyed included: the Guard House, Building 2901, the Compressor

ITEM #

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Building, the Office Areas, Bays "A", "B", and "C", and the Building 17 roof (See Figure 1).

The criteria used to determine if areas within the Building 17 Complex were contaminated (Table 9) was obtained from the Building 17/21 Decommissioning Plan, SNM-1067 License, and the 06-00217-06 Radioactive Material License.

PROCEDURE AND RESULTS

The floors, ceilings, and the Bay "C" roof were monitored using 1 square meter grids and the walls were monitored using 2 square meter grids. Large area smears were obtained over approximately 3 square meter areas. Approximately 5% of all grid areas were monitored with the exception of the Bay "C" and its roof, in which 20% was monitored. Also, all accessible cracks and crevices were 100% surveyed.

Alpha and beta scans and integrated measurements were performed using a gas flow proportional counter. The integrated count time was set at 1 minute for each sample point. All large area smears and the Bay "C" roof volumetric samples (i.e., roof rocks and tar paper) were analyzed by gamma spectroscopy. Below is a summary of the results:

GUARD HOUSE

A 5% radiological survey of the Guard House was performed. Fixed contamination levels up to 22,000 dpm/100 cm² beta, with an average of 5,507 dpm/100 cm² beta were found. The Guard House was the only area surveyed which had contamination levels greater than the release criteria levels from both licenses. The survey results are presented in Table 1.

OFFICE AREA

A 5% survey was conducted of the Office Areas. No contamination levels were found to exceed the release criteria levels from either license. The highest contamination levels found for fixed contamination were 180 dpm/100 cm² alpha and 2000 dpm/100 cm² beta. Both the alpha and beta levels for loose surface contamination were below MDA. The survey results are presented in Table 2.

BUILDING 2901

A 5% survey was conducted of Building 2901. No contamination levels were found to exceed the release criteria levels from either license. The highest contamination levels found for fixed contamination were 225 dpm/100 cm² alpha and 1312 dpm/100 cm² beta. Both the alpha and beta levels for loose surface contamination were below MDA. The survey results are presented in Table 3.

COMPRESSOR BUILDING

A 5% survey was conducted of the Compressor Building. No contamination levels were found to exceed the release criteria levels from either license. The highest contamination levels found for fixed contamination were 40 dpm/100 cm² alpha and 280 dpm/100 cm² beta. Both the alpha and beta levels for loose surface contamination were below MDA. The survey results are presented in Table 4.

BAY "C" ROOF

A 20% survey was conducted of the Bay "C" roof. The survey consisted of direct alpha and beta measurements of the gravel and tar roof. Volumetric samples of gravel and surface tar (surface scrapings) were also collected due to the potential for attenuation of the alpha and beta when using the proportional detector. The volumetric samples were taken from the same location that the direct alpha and beta measurements were taken. Fixed contamination levels were found up to 120 dpm/100 cm² alpha and 700 dpm/100 cm² beta for gravel and 106 dpm/100 cm² alpha and 400 dpm/100 cm² beta for tar. Volumetric contamination levels were found up to 745 dpm/100 cm² alpha and 324 dpm/100 cm² beta for gravel and 16,208 dpm/100 cm² alpha and 7,047 dpm/100 cm² beta for tar. The survey results are presented in Table 5.

BAY "A"

A 5% survey was conducted of Bay "A". No contamination levels were found to exceed the release criteria levels from either license. The highest contamination levels found for fixed contamination were 60 dpm/100 cm² alpha and 1300 dpm/100 cm² beta. Both the alpha and beta levels for loose surface contamination were below MDA. The survey results are presented in Table 6.

BAY "B"

A 5% survey was conducted of Bay "B". No contamination levels were found to exceed the release criteria levels from either license. The highest contamination levels found for fixed contamination were 60 dpm/100 cm² alpha and 1560 dpm/100 cm² beta. Both the alpha and beta levels for loose surface contamination were below MDA. The survey results are presented in Table 7.

BAY "C"

A 20% survey was conducted of Bay "C". Fixed contamination levels were found up to 3,600 dpm/100 cm² alpha (north wall less than 6 feet) and 68,000 dpm/100 cm² beta (floor) with an average of 6,305 dpm/100 cm² alpha and 880 dpm/100 cm² beta were found. The survey results are presented in Table 8.

1st Stage 7-1

2nd Stage 6-3

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5-1

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2-100

1. Board House

2. Office Area

3. Engineering Building

4. Building 2101

5. Day A Night (OIL Shop)

6. Day B Night (OIL Shop)

7. Day C Night (OIL Shop)

8. Fuel House with fuel line

9. Fuel House with fuel line

5/1/68

FUEL FABRICATION BLDG #17

KEY PLAN

DATE

5/1/68

PEM-17000

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131175

TABLE 1
LOCATION #1 (Guard House)

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
East Wall	N/D	N/D	2	6	<1	<5
West Wall	77	232	4	12		
South Wall	⁽¹⁾ 5,507	⁽¹⁾ 22,000	N/D	N/D		
North Wall	N/D	N/D	N/D	N/D		
Ceiling	257	300	6	12		
Floor (Carpet)	⁽¹⁾ 8,853	⁽¹⁾ 22,000	9	25		

(1) Exceeds both the 06-00217-06 Radioactive Material License and the Building 17/21 Decommissioning Plan Under SNM-1067 License unrestricted release limits
(See Table 2).

TABLE 2
LOCATION #2 (Office Area)

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
2-1	93	240	N/D	5	<1	<5
2-2	190	240	10	15		
2-3 and 2-4	113	335	3	10		
2-5	N/D	28	N/D	N/D		
2-5A	116	240	4	6		
2-6	N/D	10	6	35	N/D	N/D
2-7	45	164	9	24		
2-8	118	180	23	35		
2-9	131	380	22	40		
2-10	87	150	N/D	10	N/D	N/D
2-11	576	1300	40	60		
2-12	447	1000	15	25		
2-13	80	224	7	48		
2-14	N/D	100	N/D	5	N/D	N/D
2-15	N/D	120	N/D	N/D		
2-16	N/D	160	N/D	24		
2-17	133	160	10	18		
2-Corridor #1	513	2000	48	180		
2-Vest	N/D	15	N/D	8		

TABLE 3
LOCATION #3 (Compressor Room)

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
Floor	214	280	N/D	40	<1	<5
Ceiling	N/D	N/D	N/D	N/D	<1	<5
South Wall	N/D	N/D	N/D	N/D	<1	<5
North Wall	N/D	N/D	N/D	N/D		
East Wall	N/D	200	N/D	N/D		
West Wall	N/D	N/D	N/D	N/D		

TABLE 4
LOCATION #4 (Building 2901)

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
Floor	180	340	14	40	<1	<5
Ceiling	N/D	N/D	N/D	10	<1	<5
South Wall	441	978	47	225	<1	<5
North Wall	446	1272	12	18		
East Wall	460	1312	8	12		
West Wall	105	163	10	15		

TABLE 5
BAY "C" ROOF

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Volumetric ⁽²⁾	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
Gravel	112	700	10	120	373 - 745	162 - 324
Tar	106	400	12	50	1,335 - 16,208 ⁽¹⁾	580 - 7,047 ⁽¹⁾

(1) Exceeds both the 06-00217-06 Radioactive Material License and the Building 17/21 Decommissioning Plan Under SNM-1067 License unrestricted release limits (See Table 2).

(2) Since the potential for multiple roof layers existed which could negatively impact direct measurement readings, volumetric samples were also collected of the gravel and tar and analyzed by gamma spectroscopy. The gamma spectroscopy results were converted from pCi/g to dpm 100 cm², since most of the surface areas were 100 cm².

TABLE 6
LOCATION #5 (Bay "A")

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
Floor	332	1300	13	60	<1	<5
Ceiling	167	480	14	24	<1	<5
South Wall > 6 feet	64	100	2	6	<1	<5
South Wall < 6 feet	76	120	3	6		
North Wall > 6 feet	493	600	2	6	<1	<5
North Wall < 6 feet	310	520	6	18		
West Wall > 6 feet	200	360	2	8	<1	<5
West Wall < 6 feet	60	140	2	12		
East Wall > 6 feet	180	240	3	6	<1	<5
East Wall < 6 feet	100	220	2	6		

TABLE 7
LOCATION #6 (Bay "B")

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
Floor	478	1060	13	36	<1	<5
Ceiling	217	560	8	18	<1	<5
South Wall > 6 feet	489	880	9	18	<1	<5
South Wall < 6 feet	586	1540	19	60		
North Wall > 6 feet	343	760	8	12	<1	<5
North Wall < 6 feet	240	480	8	12		
West Wall > 6 feet	200	360	3	6	<1	<5
West Wall < 6 feet	175	260	8	12		
East Wall > 6 feet	220	400	2	6	<1	<5
East Wall < 6 feet	807	1560	12	36		

TABLE 8
LOCATION #7 (Bay "C")

SUMMARY OF SURVEY RESULTS

Location	Scans/Integrated Measurements dpm/100 cm ²				Removable	
	Average (Beta)	Highest (Beta)	Average (Alpha)	Highest (Alpha)	Alpha (dpm/100 cm ²)	Beta (dpm/100 cm ²)
Floor	1081	68000	105	2600	<1	<5
Ceiling	77	180	6	10	<1	<5
South Wall > 6 feet	1205	5200	203	750	<1	<5
South Wall < 6 feet	4953	52000	160	800		
North Wall > 6 feet	6305	22044	680	3600	<1	<5
North Wall < 6 feet	2219	10800	154	415		
West Wall > 6 feet	4140	4140	880	880	<1	<5
West Wall < 6 feet	4952	8964	445	695		
East Wall > 6 feet	160	160	75	75	<1	<5
East Wall < 6 feet	140	280	N/D	N/D		

TABLE 9

06-00217-06 Radioactive Material License Limits For Unrestricted Release			
Removable Contamination (dpm/100 cm ²)		Fixed Contamination (dpm/100 cm ²)	
Alpha	Beta/Gamma	Alpha	Beta/Gamma
10	200	1000	5000

SNM-1067 License Limits For Unrestricted Release			
Removable Contamination (dpm/100 cm ²)		Fixed Contamination (dpm/100 cm ²)	
Alpha	Beta/Gamma	Alpha	Beta/Gamma
1000	434	5000	2175



MS 16
Q-4

License No. 06-00217-06
Docket No. 030-03754
Mail Control No. 123132

July 10, 1996
DDH96010.amd
Page 1 of 3

Mr. Duncan White, Sr, Health Physicist
U.S. Nuclear Regulatory Commission
Licensing Assistance Section - Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. White:

This is in reference to your letter of June 12, 1996, requesting additional information so that you might continue with your review of our License No. 06-00217-06 amendment application.

With regard to Building #6:

- 1.a. A representative sample of the liquid effluent will be taken from any retention tank and analyzed for compliance against applicable limits in 10 CFR 20.1301, should discharge be required to local surface waters.
- 1.b. A description of the air sampler, sampling frequency, and filtration is shown on page 24a (new). Please replace page 24a. We confirm that effluents will be discharged in compliance with the applicable limits in 10 CFR 20.1301.
- 1.c. Solid waste from the evaporator system will be collected as a sludge in containers suitable for drying, using resistance barrel heaters, then shipped offsite as solid LLRW, after appropriate analyses.

(Please note: An executive summary of the evaporator system is provided on new page 24a). Please replace page 24a.

ITEM # 132

OFFICIAL RECORD COPY

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ABB Combustion Engineering Nuclear Power

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2. Building #6 **will not** be used for extended interim waste storage without prior notification to the Commission, appropriate license amendment and procedural changes.
3. A new page, numbered 56a describes the type and frequency of radiation and contamination surveys that will be performed in Building #17 and its environs. These surveys will evaluate both Byproduct and SNM radiation and contamination to assure any residual as well as "new" radioactive materials are properly identified.
(Please insert page 56a in revised Section 10.6 of the application)
4. Section 10.7 "Environmental Monitoring" has been revised to include surveys at the boundary of the restricted area around Building #17 and the appropriate effluent air sampling and analyses to demonstrate compliance with 10 CFR 20.1301.
{Please replace pages 60 and 60a, add page 60g(1)}
5. We confirm that all records of information important to the decommissioning of Building #17, including all licensed and decommissioning activities performed under NRC License No SNM-1067 will be maintained in accordance with 10 CFR 30.35(g).
6. **Attachment A** provides results of our confirmatory survey performed this year. However, further surveys will be made as reconstruction progresses to assure that no areas in the proposed unrestricted area exceed NRC limits for unrestricted areas. If areas that exceed the specified limits are found occupancy may be postponed until remediation has been completed. Additionally areas within the proposed restricted area that are found to be contaminated in excess of the action levels in Figure 10.6-3 of our application, will be remediated as soon as possible, after discovery.
7. With regard to Part 2 of the Decommissioning Funding Plan:
 - a. Surveys to show Bays A and B are unrestricted areas in accordance with NRC guidelines are part of **Attachment A**. However, these surveys are of a confirmatory nature only. Our intent is to perform contamination surveys, as appropriate during the demolition and reconstruction phases of the project. If areas are found to be contaminated in excess of NRC guidelines for unrestricted use, they will be remediated prior to occupancy.

- b. Table 5.4-A has been revised to reflect the appropriate cost for the dismantlement of the proposed ventilation system in building 17. Please replace **page 15** of DFP Part 2.
- c. Table 5.4-b has been revised to reflect the proper surface area hence cost of the floor, walls, roof and mezzanine of Building 17. Please replace **page 16** of DFP Part 2.
- d. Table 5.4-c has been added to DFP Part 2 to include the cost of dismantling and removal of the underground pipes in Building 17. Please add **page 16a** to DFP Part 2.

Please replace page 8 of DFP Part 2 to account for the above revisions

Additionally please replace the following pages of the application due to editorial and organizational changes: Pages 5 and 9.

If you have questions or require additional information, please call or fax me at the following: (P) 860-285-5285 (F) 860-285-2540. Thank you, in advance for your assistance.

Regards,
Combustion Engineering, Inc.



Stephen M. Sorensen,
Radiation Safety Officer

Att: Confirmatory Surveys
Replacement/Additional Pages

License No. 06-00217-06
Docket No. 030-03754
Mail Control No. 123132

July 10, 1996
DDH96010.amd
Attachment A

Attachment A

Radiological Survey of Building 17

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
Supplemental Information Changes

LIST OF AFFECTED PAGES

The pages of Materials License No. 06-00217-06, Docket 030-03754 are changed in accordance with the submitted amendment application dated July 10, 1996. The pages of the Supplemental Information and Decommissioning Funding Plan which are affected are listed below.

Delete Pages

<u>Page</u>	<u>Date</u>
5	4/23/96
9	11/15/95
24a	4/23/96
60	11/15/95
60a	11/15/95

Add Pages

<u>Page</u>	<u>Date</u>
5	7/10/96
9	7/10/96
24a	7/10/96
56a	7/10/96
60	7/10/96
60a	7/10/96
60g(1)	7/10/96

DFP Part 2

Delete Pages

<u>Page</u>	<u>Date</u>
8	4/23/96
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16	4/23/96

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8	7/10/96
15	7/10/96
16	7/10/96
16a	7/10/96

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
Supplemental Information Changes

LIST OF EFFECTIVE PAGES

The pages of Materials License No. 06-00217-06, Docket 030-03754 are changed in accordance with the submitted amendment application dated July 10, 1996. The pages of the Supplemental Information and Decommissioning Funding Plan which are currently effective are listed below.

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
<u>Supplemental Information Title Page</u>		12 through	
1	4/23/96	20	6/27/95
		21	4/23/96
<u>Table of Contents</u>		22	4/23/96
		23	4/23/96
2	4/23/96	24	4/23/96
		24a	7/10/96
		25	4/23/96
<u>Body</u>		26	4/23/96
		27	
3	4/23/96	through	
4	4/23/96	34	5/18/95
5	7/10/96	35	
6	4/23/96	36	5/18/95
7	4/23/96	37	5/18/95
8	5/18/95	37a	
9	5/18/95	through	
10	7/10/96	37l	11/15/95
11	11/15/95	38	5/18/95

LIST OF EFFECTIVE PAGES
(continued)

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
39	5/18/95	58	11/15/95
39a	6/27/95	59	5/18/95
40	4/23/96	59a	11/15/95
40a	4/23/96	60	7/10/96
41	5/18/95	60a	7/10/96
42	6/27/95	60b	11/15/95
43	5/18/95	60c	11/15/95
RPS CAL - 03 (8 pages)	11/15/90	60d	11/15/95
44	5/18/95	60e	11/15/95
45	5/18/95	60f	11/15/95
46	5/18/95	EPA Compliance(2 pages)	3/6/95
48	11/15/95	60g	11/15/95
		60g(1)	7/10/96
48a	11/15/95	60h	11/15/95
49	5/18/95	60i	11/15/95
50	5/18/95	60j	11/15/95
RPI-4 (13 pages)	10/18/94	61	11/15/95
51	5/18/95	RPS-01 (4 pages)	10/17/95
RPI-15 (7 pages)	2/27/95	62	5/18/95
52	5/18/95	63	5/18/95
53	6/27/95	RPI-10	3/31/95
54	11/15/95	64	5/18/95
54a	11/15/95		
55	4/23/96		
56	5/18/95		
56a	7/10/96		

List of Effective Pages (continued)

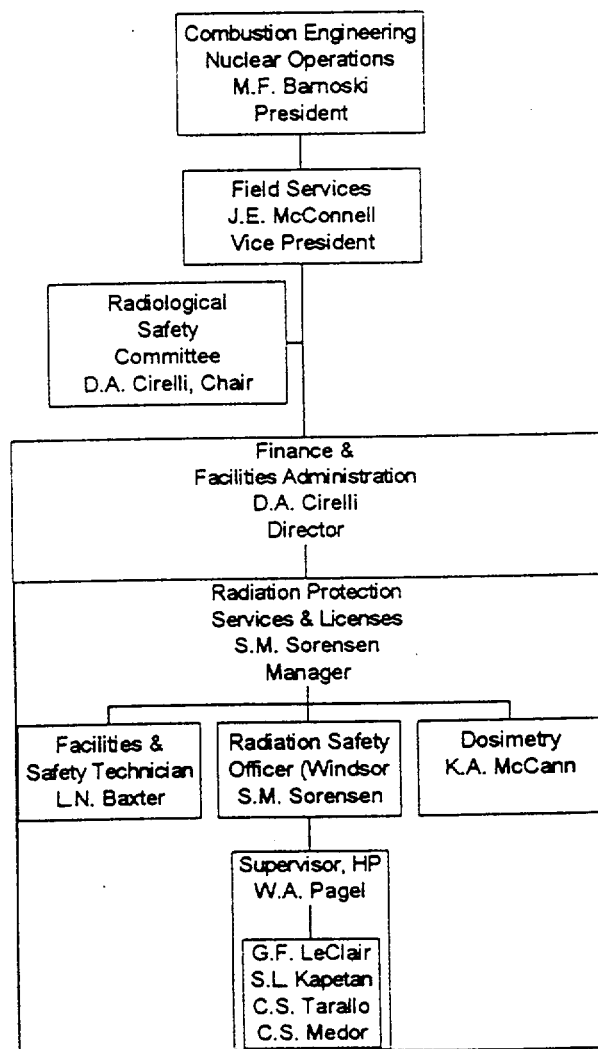
<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
<u>DFP Part 1</u>			
1 through 37 Attachment 1 Rider to increase surety bond (4 pages)	4/23/96 4/23/96		
<u>DFP Part 2</u>			
1 through 7 8 15 16 16a	4/23/96 7/10/96 7/10/96 7/10/96 7/10/96	17 through 24 Attachment 1 Rider to increase surety bond (3 pages)	7/10/96 4/23/96

5 Radioactive Material

The following categories of radioactive material, with corresponding forms and possession limits, are requested:

Byproduct, Source, and/or Special Nuclear Material	Chemical and/or Physical Form	Possession Limit
A. Any byproduct material with Atomic Numbers 1 through 83	A. Irradiated and/or contaminated reactor components, inspection and test equipment, test samples, monitoring instruments, reactor coolant samples, or calibration sources	A. 50 Curies
B. Any byproduct material with Atomic Numbers 84 through 103	B. Irradiated and/or contaminated reactor components, inspection and test equipment, calibration sources or, reactor coolant samples	B. Not to exceed 3 millicuries per nuclide and 30 millicuries total
C. Any source material	C. Irradiated and/or contaminated reactor components, inspection and test equipment, calibration sources or reactor coolant samples	C. 75 kilograms
D.. Cesium 137	D. Sealed Sources	D. 215 Curies
E. Americium 241	E. Sealed neutron sources	E. Not to exceed 1 Curie per source and 10 Curies total
F. Americium 241	F. Sealed neutron sources	F. Not to exceed 10 Curies per source and 100 Curies total
G. Neptunium 237	G. Oxide Wires	G. Not to exceed 0.5 millicuries per wire and 5 millicuries total
H. Uranium 233	H. Any	H. 1 gram
I. Uranium 235	I. Any	I. 7 grams
J. Uranium 235	J. Fission chambers (sealed)	J. Not to exceed 1.7 grams per chamber and 13.6 grams total
K. Plutonium	K. Any	K. 1 milligram
L. Uranium 235	L. Any	L. 325 grams, including < 5Kg UF ₆
M. Natural and/or Depleted Uranium	M. Any	M. 10,000 KgU, including < 5Kg UF ₆
N. Plutonium 238	N. Sealed Sources	N. < 1 gram each not to exceed 4 grams total

Figure 7.1-1
Organization Chart



Executive Summary

Building 6 Wastewater Processing System

The basic setup, operation, and sampling criteria of the Building 6 wastewater processing system is described as follows:

Using an automated and computerized system, the wastewater entering building 6 will be diverted into one of five "A-Side" retention tanks (2,000 gallons each). The system will be programmed to discharge wastewater from "A-Side" retention tanks through a strainer and two (2) filter units, in series, using a centrifugal pump. The strainer will remove particles of 10 microns or greater, the first filter will remove particles of 1.0 micron or greater and the second filter will remove particles of 0.5 microns or greater. The wastewater will then be collected in one of five "B-Side" retention tanks (2,000 gallons each).

Once on the "B-Side", the wastewater will be sampled and analyzed to determine radioactivity concentrations. Administrative concentration limits (typically 0.1-0.01 of 10 CFR 20 App. B Table 2 limits) will be established to ensure airborne effluent concentrations comply with 10 CFR 20.1301 and license commitments. If the concentration meets the administrative discharge limit, the wastewater will be pumped to the evaporator unit for processing. If the wastewater does not meet the limit, the water is recirculated through the strainer and filter units and diverted back to the "B-Side" retention tanks. This process will be performed until the concentration meets the administrative limits. If the wastewater does not meet the limits, after repeated processing, alternative means will be used to ensure air effluent concentration limits are met (solidification by a contractor being one alternative).

The system will be programmed to evaporate wastewater that meets administrative limits, from the "B-Side" retention tanks. The water vapor will be discharged through an unfiltered discharge stack that is continuously and isokinetically sampled when the system is in operation. Any concentrated sludge will be collected and dried, using resistance heaters. The dried sludge will then be disposed of as solid LLRW, in accordance with all appropriate rules and regulations.

**Figure 10.6-2a
Building 17 Complex
Survey Requirements**

Item	Survey Location	Frequency	Contamination Survey	Radiation Survey
1	Control Zone Buffer Zones	Daily ^{1,2}	X	
2	Building 17 Office Spaces	Weekly	X	X
3	Building 17 Restricted Areas	Weekly	X	X
4	Control Zones	Weekly ^{1,3}	X	X
5	Restricted Area Boundary	Weekly		X
6	Building 2901	Monthly	X	

¹ When in use; monthly when not in use.

² No map required. Health Physics personnel perform the required surveys and acceptability of survey results is acknowledged on the weekly report.

³ Prior to a new RWP being issued for change of work scope when radiological conditions could materially change.

10.7 Environmental Monitoring

10.7.1 Environmental Monitoring, Sampling and Counting

Environmental monitoring is accomplished by the Windsor Site Environmental Monitoring Program. This program examines uranium content, alpha radioactivity and beta radioactivity in surface and well waters, river sediment, soil, vegetation, and atmospheric fallout. A gamma spectrum is performed on selected river sediment, soil, vegetation and atmospheric fallout samples. Fourteen(14) on-site routine sampling stations have been established at designated points for collection of quarterly atmospheric fallout samples. Semi-annually, soil and vegetation samples are also collected at these fourteen (24) on-site locations, and four(4) additional locations off-site. Figure 10.7-1 shows the onsite locations; Figure 10.7-2 shows the offsite locations; and Figure 10.7-3 lists the sample frequency and analyses.

The characteristics of the formation sampled by the well water sampling are indicated by the well drilling logs in figure 10.7-4 for Well No. 1 and Well No. 2, that are located on the site map in Figure 10.7-1. Figure 10.7-7A shows the site on a topographic map of the area. The site maybe recognized in the bottom center of the map by comparison with Figure 10.7-1. Drainage basins for the same area as shown on the topographic map and to the same scale area shown on Figure 10.7-7B.

Airborne effluent monitoring for each building, is performed by the use of isokinetic stack and ventilation samplers with constant air monitors for some systems and fixed sample pumps for others. The constant air monitors are set to alarm at 20% of the DAC values specified for Co-60. The fixed sample collection media are counted daily except weekends when the pumps are allowed to run over the weekend. The samples are counted on the next working day after the weekend. No work with radioactive material is allowed without a member of the RSOS on site.

The sample pump flowmeters are calibrated every six months. The constant air monitors are calibrated every three months and the response is checked daily. all calibration sources and equipment are NIST traceable. Samples are collected daily for byproduct and weekly for uranium and are counted on a Canberra Model 2400/2404 gas proportional counter, or equivalent, with a typical LLD of 1E-12 microcuries/ml for Co-60 and 1E-14 microcuries/ml for uranium. Equipment may be changed without prior notification of the NRC, provided, the effectiveness of the monitoring is not diminished. Effluent are sample values are revised daily by the RSOS and the RSO is notified if any sample value approached 0.2 DAC for any isotope or a visual alarm occurs on the C.A.M.s.

Compliance with 10 CFR 20.1302(b) is demonstrated through use of boundary TLD's in accordance with RPI-7 and through effluent air calculations performed in accordance with NESHAP's calculational model. The locations of the TLDs are shown on Figures 10.7-6A and 10.7-6B sample results from the TLD environmental monitoring are given of Figure 10.7-6C A sample report on compliance with EPA air effluent emissions standards is provided as Figure 10.7-5.

10.7.2 Environmental Monitoring Evaluation

Current and historical sample values from the environmental monitoring are statistically evaluated in order to demonstrate the effectiveness of the environmental controls. Valid sample data values are values which 1) are above the threshold of detection, 2) have allowances made for changes in analytical procedures over past years and 3) were not obtained during known historical events that caused significant increases. The following provides a description of the analyses performed on the valid data for each sample type and location. Two criteria are established. If either criterion is violated, action will be taken to investigate the cause and remedial action will be taken as appropriate.

First, the log-normal mean and standard deviation of the twelve most recent sample values are determined. The log-normal distribution is a good representation of the sample data distribution. Action is taken if the current sample exceeds the mean plus three times the standard deviation.

Second, the data is evaluated to determine if there is a trend that might indicate continual small increases. Action is taken if four successive sample values exceed the mean plus standard deviation calculated from the twelve most recent sample values.

10.8 ALARA Program

Combustion Engineering is committed to keep radiation exposures As Low As Reasonably Achievable (ALARA). The ALARA Program as described in RPS-01 given for information in Figure 01.8.1

Figure 10.7-6B
Locations of Restricted Area Boundary TLDs
Building 17 Complex

Table 5.4-A
Cost for Decon/Dismantle of Radiological Areas
 (Table 3 of Appendix F, Reg. Guide 3.66)

<u>Building</u>	<u>Area (ft²)^(b)</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
Building 17 (Control Zones)				
- Decon/Dismantle ^(a) equipment	10,420	606	\$21.97	\$13,313.82
- Ventilation (Removal)	500(ft)	368	\$35.00	\$12,880.00
- Supplies	-----	-----	-----	\$20,000.00
- Survey/H.P. Coverage **	26,400	970	\$24.85	\$24,104.50
- H.P. Support**	26,400	144	\$50.90	\$7,329.60
- Craft		-----	\$35.00	\$10,640.00
Total				\$88,267.42

^(a) Indicates hoods, benches, walls, ceiling, etc.

^(b) Indicates walls, and floor only

** Indicates floor and walls only

Table 5.4 - B
Cost for Decon/ Dismantle of Radiological Area
 (Table 3 of Appendix F, Reg. Guide 3.66)

<u>Building</u>	<u>Area (ft²)</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
Building 17 (Dismantle Structure)				
- Decon/Dismantle ^(a)	46,000	3834	\$21.97	\$84,218.33
- Supplies	-----	-----	-----	\$20,000.00
- Survey/H.P. Coverage	46,000	958	\$24.85	\$23,806.30
- H.P. Support	46,000	479	\$50.90	\$24,389.58
- Craft	46,000	958	\$35.00	\$33,541.67
			Total	\$185,955.88

^(a) Indicates: Floor, Walls, Roof, and Mezzanine area

Table 5.4-C
Cost for Decon/Dismantle of Underground
Piping System
 (Table 5.7, NUREG 1754 Addendum 1)

<u>Building</u>	<u>Linear ft.</u> <u>5" Pipe</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
Building 17 (Dismantle/Decon Piping System)				
-Decon/Dismantle	400	365	\$21.97	\$8,019.05
-Supplies	-----	-----	-----	\$10,000.00
-Survey/HP Coverage	400	90	\$24.85	\$2,236.50
-HP Support	400	46	\$50.90	\$2,341.40
Craft	400	90	\$35.00	\$3,150.00
				\$25,746.95



License No. 06-00217-06
Docket No. 030-03754
Mail Control No. 123132

July 17, 1996
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Page 1 of 1

Mr. Duncan White, Sr, Health Physicist
U.S. Nuclear Regulatory Commission
Licensing Assistance Section - Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. White:

Please make the indicated change of **page 10** of our License document in order to update all of the organizational changes within Combustion Engineering, Inc. that affect the license.

I'm hopeful you can process this minor change along with our current changes.

Please call me, at your convenience, if you require additional information.

Thank you for your assistance.

Regards,
Combustion Engineering, Inc.

Stephen M. Sorensen,
Radiation Safety Officer

ITEM # 134

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ABB Combustion Engineering Nuclear Power

JUL 19

**COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
Supplemental Information Changes**

LIST OF AFFECTED PAGES

The pages of Materials License No. 06-00217-06, Docket 030-03754 are changed in accordance with the submitted letter DDH96011.amd dated July 17, 1996. The pages of the Supplemental Information which are affected are listed below.

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Add Pages


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10	7/17/96

Figure 7.1-2
Radiation Safety Officer Certification

We certify that the individual named in this license to perform the function of Radiation Safety Officer:

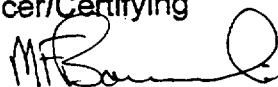
1. Has read and understands the NRC regulations applicable to this license and the specific conditions in the license;
2. Has sufficient technical knowledge to perform the duties of a Radiation Safety Officer;
3. Has and will continue to have sufficient time to perform the duties of the Radiation Safety Officer;
4. Has and will continue to get sufficient resources to accomplish the tasks of the Radiation Safety Officer;
5. Is completely willing to perform the functions of the Radiation Safety Officer; and
6. Has and will continue to receive the support of the management of this license in ensuring that all licensed activities will be conducted in accordance with NRC regulations and the specific terms of the license.

Radiation Safety Officer

Applicant 
S. M. Sorensen
Radiation Safety Officer

Date 7/15/96

Corporate Officer/Certifying

Official 
M.F. Barnoski
Vice President, Combustion Engineering, Inc.
President, ABB Combustion Engineering Nuclear Operations

Date 7/16/96

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
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		25	4/23/96
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RPS CAL - 03 (8 pages)	11/15/90	60d	11/15/95
44	5/18/95	60e	11/15/95
45	5/18/95	60f	11/15/95
46	5/18/95	EPA Compliance(2 pages)	3/6/95
48	11/15/95	60g	11/15/95
		60g(1)	7/10/96
48a	11/15/95	60h	11/15/95
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RPI-4 (13 pages)	10/18/94	61	11/15/95
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TELEPHONE CONVERSATION RECORD		Date: 7/18/96	Time: 8:45am
Mail Control No.: 123132		License : 06-00217-06	Docket No.: 030-03754
Person Called: Stephen Sorensen Radiation Safety Officer		Organization: Combustion Engineering	Telephone Number: (860) 285-5285
Person Calling: Duncan White			
Subject: DFP for Building 17			
Summary: The revised DFP costs in Table 4.2 for Building 17 attached to the licensee July 10, 1996 letter included revised costs for Table 5.2 (Planning and Preparation) and Table 5.3 (Cost for Surveying Non-Contaminated Areas). Tables 5.2 and 5.3 were not included. The licensee agreed to provide these revised Tables.			
Action Required/Taken: MS 15			
Signature: Duncan White <i>D. White</i>		Date: July 18, 1996	

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MS 16
Q-4

License No. 06-00217-06
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Page 1 of 1

Mr. Duncan White, Sr, Health Physicist
U.S. Nuclear Regulatory Commission
Licensing Assistance Section - Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. White:

Please make page 11,12,13, & 14 changes to DFP Part 2 as we discussed today on the telephone. I have provided two (2) copies for your use. Sorry about the confusion.

Please call me, at your convenience, if you require additional information.

Thank you for your assistance.

Regards,
Combustion Engineering, Inc.

Stephen M. Sorensen,
Radiation Safety Officer

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JUL 22 1996

ABB Combustion Engineering Nuclear Power

Enclosure (1) to
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COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
Supplemental Information Changes

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The pages of Materials License No. 06-00217-06, Docket 030-03754 are changed in accordance with the submitted letter DDH96011.amd dated July 18, 1996. The pages of the **DFP Part 2** which are affected are listed below.

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COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
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7	4/23/96	37	5/18/95
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10	7/17/96	37l	11/15/95
11	11/15/95	38	5/18/95

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55	4/23/96		
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Table 5.2
Planning and Preparation
 (Table 1 of Appendix F, Reg. Guide 3.66)

1. Preparation of Documentation for Regulatory Agencies

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	300	\$50.90	\$15,270.00
Project Manager	80	\$50.90	\$4,072.00
Clerical	200	\$10.96	\$2,192.00
Total			\$21,534.00

2. Submission of Decommissioning Plan to NRC when required by 10 CFR 30

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	1000	\$50.90	\$50,900.00
Project Manager	200	\$50.90	\$10,180.00
Clerical	400	\$10.96	\$4,384.00
Total			\$65,464.00

3. Development of Work Plans

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	500	\$50.90	\$25,450.00
Project Manager	125	\$50.90	\$6,362.50
Clerical	200	\$10.96	\$2,192.00
Total			\$34,004.50

Table 5.2 (Cont.)
Planning and Preparation
 (Table 1 of Appendix F, Reg. Guide 3.66)

4. Procurement of Special Equipment

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	100	\$50.90	\$5,090.00
Project Manager	100	\$50.90	\$5,090.00
Clerical	40	\$10.96	\$438.40
		Total	\$10,618.40

5. Staff Training

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	40	\$50.90	\$2,036.00
Project Manager	0	\$50.90	\$0.00
Clerical	100	\$10.96	\$1,096.00
H.P. Supervisor	500	\$41.70	\$20,850.00
		Total	\$23,982.00

6. Characterization of Radiological Condition of Facility

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	100	\$50.90	\$5,090.00
Project Manager	100	\$50.90	\$5,090.00
Clerical	100	\$10.96	\$1,096.00
H.P. Supervisor	200	\$41.70	\$8,340.00
		Total	\$19,616.00

Table 5.2 (Cont.)
Planning and Preparation
 (Table 1 of Appendix F, Reg. Guide 3.66)

7. Other

<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
H.P. Engineer	200	\$50.90	\$10,180.00
Project Manager	200	\$50.90	\$10,180.00
Clerical	200	\$10.96	\$2,192.00
H.P. Supervisor	200	\$41.70	\$8,340.00
		Total	\$30,892.00

Total \$206,110.90

Table 5.3
Cost for Surveying Non-contaminated Areas
 (Table 3 of Appendix F, Reg. Guide 3.66)

3. Cost of gridding /surveying non-contaminated areas.

<u>Building</u>	<u>Area (ft²)</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
17	66,000	1150	\$22.00	\$25,288.00

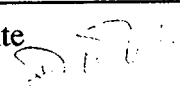
4. Cost of Instrumentation support and supplies.

<u>Building</u>	<u>Area (ft²)</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
17	----	200	\$31.90	\$6,380.00
Supplies	----	-----	-----	\$5,000.00

5. Cost for collecting and analyzing volumetric samples

<u>Building</u>	<u>Area (ft²)</u>	<u>Hours</u>	<u>Rate</u>	<u>Cost</u>
17	----	200	\$50.90	\$10,180.00
Grid layout		1128	\$22.00	\$22,560.00
Collecting	----	150	\$24.85	\$3,727.50
Analyses (300 @ \$60 each)	----	----	----	\$18,000.00

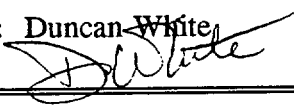
Total \$ 91,135.50

TELEPHONE CONVERSATION RECORD		Date: 7/29/96	Time: 8:30 am
Mail Control No.: 123132		License : 06-00217-06	Docket No.: 030-03754
Person Called: Sean Soong Project Manager for CE's SNM license		Organization: NMSS	Telephone Number: (301) 415-8155
Person Calling: Duncan White			
Subject: Transfer of Funding Mechanism for DFP from SNM to Byproduct license			
Summary: <ol style="list-style-type: none"> 1. According to Sean, the 1990 Surety Bond and rider issued in 1992 specifically name the SNM license on the bond. Transfer of this bond to the byproduct license will require, at a minimum, an additional rider to the 1990 bond. 2. NMSS has not yet determine the level of financial assurance (FA) for the SNM license after Building 17 is transfered to the byproduct, resulting in the license being reduced in scope. The licensee has proposed that no FA is needed. <p>The issuance of this amendment will require coordination with NMSS since the scope of the SNM license must be reduced prior to transferring the surety bond to the byproduct license.</p>			
Action Required/Taken: NMSS will sent copies of the 1990 surety bond and the 1992 rider to RI; continue coordination with NMSS.			
Signature: Duncan White 		Date: July 29, 1996	

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TELEPHONE CONVERSATION RECORD		Date: 8/12/96	Time: 9:45 am
Mail Control No.: 123132		License : 06-00217-06	Docket No.: 030-03754
Person Called: Stephen Sorensen Radiation Safety Officer		Organization: Combustion Engineering	Telephone Number: (860) 285-5285
Person Calling: Duncan White			
Subject: Financial Assurance Mechanism			
<p>Summary: Based on a conversation with Sean Soong, NMSS Project Manager for CE's SNM license on August 7, 1996, it became apparent that the CE submittal dated 4/23/96 did not include all pages. Omitted from the application sent to Region I was a second rider to the surety bond, increasing the amount from 2 million to 4 million dollars. Mr. Sorensen agreed to forward another original to Region I.</p> <p>Mr. Sorensen indicated that some of the language on page 60 of the CE license application maybe modified to assure that the environmental program under the byproduct license is similar to the SNM license (CE has requested that NMSS amend the SNM license to drop the environmental monitoring program).</p>			
Action Required/Taken: MS 15			
Signature: Duncan White 		Date: August 12, 1996	

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M.S 16
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License No. 06-00217-06
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August 16, 1996
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Page 1 of 1

Mr. Duncan White, Sr, Health Physicist
U.S. Nuclear Regulatory Commission
Licensing Assistance Section - Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. White:

Please make page 60a changes to **Section 10.7.2 Environmental Monitoring Evaluation**, as we discussed on the telephone. I have provided two (2) copies for your use.

Also, please find an original Surety Bond Rider in the amount of \$3,600,000 to cover decommissioning costs for **both DFP parts 1 & 2. Please delete Attachments in both DFP Parts and replace with the new Attachment at the end of DFP Part 2.**

Please call me, at your convenience, if you require additional information.

Thank you for your assistance.

Regards,
Combustion Engineering, Inc.

Stephen M. Sorensen,
Radiation Safety Officer

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ABB Combustion Engineering Nuclear Power

123132

Combustion Engineering Inc

2000 DAY HILL ROAD
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

AUG 27 1996

Enclosure (1) to
DDH96014.amd
August 16, 1996

**COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
Supplemental Information Changes**

LIST OF AFFECTED PAGES

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Delete Pages

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60a	7/10/96

DFP PART 1
ATT. 1 (ALL) 4/23/96

DFP PART 2
ATT. 1 (ALL) 7/10/96

Add Pages

<u>Page</u>	<u>Date</u>
60a	8/16/96

DFP PART 2
ATT 1 8/16/96

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment Application
Supplemental Information Changes

LIST OF EFFECTIVE PAGES

The pages of Materials License No. 06-00217-06, Docket 030-03754 are changed in accordance with the submitted amendment letter DDH96014.amd dated August 16, 1996. The pages of the Supplemental Information which are currently effective are listed below.

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
<u>Supplemental Information Title Page</u>		12	
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		20	6/27/95
		21	4/23/96
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<u>Body</u>		26	4/23/96
		27	
3	4/23/96	through	
4	4/23/96	34	5/18/95
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7	4/23/96	37	5/18/95
8	5/18/95	37a	
9	5/18/95	through	
10	7/17/96	37l	11/15/95
11	11/15/95	38	5/18/95

LIST OF EFFECTIVE PAGES
(continued)

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
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39a	6/27/95	59	5/18/95
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40a	4/23/96	60	7/10/96
41	5/18/95	60a	8/16/96
42	6/27/95	60b	11/15/95
43	5/18/95	60c	11/15/95
RPS CAL - 03 (8 pages)	11/15/90	60d	11/15/95
44	5/18/95	60e	11/15/95
45	5/18/95	60f	11/15/95
46	5/18/95	EPA Compliance(2 pages)	3/6/95
48	11/15/95	60g	11/15/95
48a	11/15/95	60g(1)	7/10/96
49	5/18/95	60h	11/15/95
50	5/18/95	60i	11/15/95
RPI-4 (13 pages)	10/18/94	60j	11/15/95
51	5/18/95	61	11/15/95
RPI-15 (7 pages)	2/27/95	RPS-01 (4 pages)	10/17/95
52	5/18/95	62	5/18/95
53	6/27/95	63	5/18/95
54	11/15/95	RPI-10	3/31/95
54a	11/15/95	64	5/18/95
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56	5/18/95		
56a	7/10/96		

List of Effective Pages (continued)

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
<u>DFP Part 1</u>			
1 through 37	4/23/96		
<u>DFP Part 2</u>			
1 through 7	4/23/96	17 through 24	4/23/96
8	7/10/96	Attachment 1	
9-10	4/23/96	Rider to increase surety bond	
11-16a	7/10/96	(4 pages)	8/20/96

Compliance with 10 CFR 20.1302(b) is demonstrated through use of boundary TLD's in accordance with RPI-7 and through effluent air calculations performed in accordance with NESHAP's calculational model. The locations of the TLDs are shown on Figures 10.7-6A and 10.7-6B sample results from the TLD environmental monitoring are given of Figure 10.7-6C A sample report on compliance with EPA air effluent emissions standards is provided as Figure 10.7-5.

10.7.2 Environmental Monitoring Evaluation

Current and historical sample values from the environmental monitoring are statistically evaluated in order to demonstrate the effectiveness of the environmental controls. Valid sample data values are values which have allowances made for changes in analytical procedures over the past years and which were not obtained during known historical events that caused significant increases. The following provides a description of the analyses performed on the valid data for each sample type and location. Two criteria are established. If either criterion is violated, action will be taken to investigate the cause and remedial action will be taken as appropriate.

First, the log-normal mean and standard deviation of the twelve most recent sample values are determined. The log-normal distribution is a good representation of the sample data distribution. Action is taken if the current sample exceeds the mean plus 2.33 times the standard deviation.

Second, the data is evaluated to determine if there is a trend that might indicate continual small increases. Action is taken if four successive sample values exceed the mean plus standard deviation calculated from the twelve most recent sample values.

10.8 ALARA Program

Combustion Engineering is committed to keep radiation exposures As Low As Reasonably Achievable (ALARA). The ALARA Program as described in RPS-01 given for information in Figure 01.8.1

SEP - 5 1996

Dese A. Cirelli
Director, Finance & Facilities Administration
Combustion Engineering, Inc.
2000 Day Hill Road
P.O. Box 500
Windsor, Connecticut 06095-0500

Dear Mr. Cirelli:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

ORIGINAL SIGNED BY:

Duncan White
Division of Nuclear Materials Safety

License No. 06-00217-06
Docket No. 030-03754
Control No. 123132

Enclosure:
Amendment No. 42

DOCUMENT NAME: R:\WPS\MLTR\L0600217.06

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	DWhite						
DATE	09/04/96	09/	/96	09/	/96	09/	/96

ITEM #

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B/103



030 - 03754

License No. 06-00217-06
Docket No. 030-03754
Mail Control No. 123132

September 17, 1996
DDH96015.amd
Page 1 of 1

Mr. Duncan White, Sr, Health Physicist
U.S. Nuclear Regulatory Commission
Licensing Assistance Section - Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. White:

We are in receipt of the Materials License No. 06-00217-06, Amendment 42. In our review we have found corrections that need to be made. They are as follows:

1. Page 2 of 4 on the Materials License Supplementary Sheet - Item 9 - Authorized Use:

L. Should read: Research and development as defined in 10 CFR 70.4 in the licensee's facilities located at Buildings 1, 2, 5, 6, 16, 17, and 18.

M. Should read: Research and development as defined in 10 CFR 70.4 in the licensee's facilities located at Buildings 1, 2, 5, 6, 16, 17 and 18.

Please call me, at your convenience, if you require additional information.

Thank you for your assistance.

Regards,
Combustion Engineering, Inc.

Stephen M. Sorensen,
Radiation Safety Officer

att: Page 2 of 4 Materials License Supplementary Sheet

B/104

ITEM # 142

ABB Combustion Engineering Nuclear Power

Combustion Engineering Inc

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOR

9-19-96

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OCT - 1 1996

Stephen M. Sorensen
Radiation Safety Officer
Combustion Engineering, Inc.
2000 Day Hill Road
P.O. Box 500
Windsor, Connecticut 06095-0500

Dear Mr. Sorensen:

Enclosed is the Corrected Copy of Amendment No. 42 for License No. 06-00217-06. In accordance with your letter dated September 17, 1996, Items 9.L. and 9.M. of your license has been corrected to include Buildings 1 and 16.

We apologize for any inconvenience this error may have caused.

Sincerely,



Original Signed By:
Duncan White

Francis M. Costello, Chief
Nuclear Materials Safety Branch 3
Division of Nuclear Materials Safety

License No. 06-00217-06
Docket No. 030-03754
Control No. 123132

Enclosure:
Corrected Copy of Amendment No. 42

DOCUMENT NAME: R:\WPS\MLTR\L0600217.06

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OFFICE	DNMS/RI	N	DNMS/RI				
NAME	DWhite		FCostello				
DATE	09/23/96		09/23/96		09/ /96		09/ /96

ITEM #

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00-00217-00

September 3, 1997
97-2-2256A

Mr. Francis M. Costello, Chief
Nuclear Materials Safety Branch 3
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. Costello:

In response to the request made in your letter dated August 26, 1997 for NRC inspection accompaniment by an "individual not routinely engaged in licensed activities under control of the licensee", please be advised that Combustion Engineering, Inc. does not approve the requested accompaniment.

If you have questions or require additional information, please contact me on 860-688-2400 X30, at your convenience.

Regards,

Combustion Engineering, Inc.

Dese A. Cirilli, Director
Finance and Facilities Administration

DAC/sms/NRCUn.doc
Page 1 of 1

ITEM # 146

B/106

ABB Combustion Engineering Nuclear Operations



License No. 06-00217-06
Docket No. 030-03754
Mail Control No. 123132

December 15, 1998
DDH98001amd.doc
Page 1 of

Mr. Francis M. Costello, Chief
U.S. Nuclear Regulatory Commission
Nuclear Materials Safety Branch 3- Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. Costello:

Combustion Engineering, Inc. requests that Materials License No. 06-00217-06 be amended as follows:

1. Modify Section 10.7 Environmental Monitoring on page 60d of our application document to read as shown in Attachment A.

The reasons for this request are:

Combustion Engineering, Inc. no longer manufactures nuclear fuel on the site and no longer discharges uranium and other materials, associated with that process, to the environment, we see no reason to perform the extensive sampling and analyses as is currently being done.

By continuing to perform NESHAPS type calculations for air emissions we believe public health and safety as well as regulatory and license conditions will continue to be met.

Please be aware that License No. SNM-1067 references this environmental program. Perhaps Headquarters should review this request

ITEM #

150

B/107

8

ABB Combustion Engineering Nuclear Operations

1 2 6 4 0 4

Combustion Engineering Inc.

P.O. Box 501
2000 Day Hill Road
Windsor, CT 06095

Tel: (860) 686-1911
Fax: (860) 285-9530

OFFICIAL RECORD COPY

ML 10

DEC 29 1998

License No. 06-00217-06
Docket No. 030-03754
Control No. 123132

December 15, 1998
DDH98001amd.doc
Page 2 of 2

Please replace page 60d if you are in concurrence with this request. Also please replace your list of effective pages with Attachment B.

We have included a check in the amount of ~~\$175.00~~ ^{\$530.00} in accordance with 10 CFR 170 to cover the cost of this request.

Please call Mr. Stephen M. Sorensen, RSO at 860-285-5285, at your convenience, if you require additional information.

Thank you for your assistance.

Regards,



Combustion Engineering, Inc.
Dese A. Cirelli, Director
Finance & Facilities Administration

Attachment A

Figure 10.7.3

Environmental Monitoring Program Samples

Figure 10.7.3

Environmental Monitoring Program Samples

Sample	Frequency	Location	Analysis*	Volume
1. Farmington River Surface Water, Industrial Stream and Site Ponds	<i>Semiannually - May and September</i>	Four locations on the Farmington River, the Site Ponds and Industrial Stream	Gross Alpha and Beta, Total Uranium	1.25 litres
2. Well Water	<i>Semiannually - May and September</i>	Each Site Well	Gross Alpha and Beta, Total Uranium	1.25 litres
3. Sediment from Farmington River, Site Ponds and Industrial Stream	<i>Semiannually - May and September</i>	Same locations as surface water	Gross Alpha and Beta, Total Uranium**	1 pint
4. Vegetation, On Site	Semiannually - May and September	<i>Each former fallout pot location</i>	Gross Alpha and Beta, Total Uranium**	1 pint
5. Vegetation, Off Site	Semiannually - May and September	Fields on North, South, East and West of the Site Boundary	Gross Alpha and Beta, Total Uranium	1 pint
6. Soil	Semiannually - May and September	Same locations as Vegetation	Gross Alpha and Beta, Total Uranium	1 pint (upper inch)

*Details of the analytical procedures employed for the environmental monitoring samples are found in the applicable procedures in "Analytical Chemistry and Radiochemistry Procedures Manual", No. CE NPSD 503(e.g. Procedures Nos. 18,19,20,21 and 66)

**Gamma spectrum on selected samples.

Attachment B
List of Effective Pages

December 15, 1998

COMBUSTION ENGINEERING, INC.
Broad Scope Radioactive Materials
License Amendment #43
Supplemental Information

LIST OF EFFECTIVE PAGES

The pages of Materials License No. 06-00217-06, Docket 030-03754 are changed in accordance with amendment request #43 dated December 15, 1998.

The pages of the Supplemental Information which are currently effective are listed below.

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
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9	7/10/96	through	
10	7/15/96	37l	11/15/95
11	11/15/95	38	5/18/95

LIST OF EFFECTIVE PAGES
(continued)

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
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46	5/18/95	60f	11/15/95
47	5/18/95	EPA Compliance(2 pages)	3/6/95
48	11/15/95	60g	11/15/95
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54a	11/15/95	64	5/18/95
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56	5/18/95		
56a	7/10/96		

List of Effective Pages (continued)

<u>Pages</u>	<u>Date</u>	<u>Pages</u>	<u>Date</u>
<u>DFP Part 1</u>			
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<u>DFP Part 2</u>			
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8	7/10/96	Attachment 1	
9-10	4/23/96	Rider to increase surety bond	
11-16a	7/10/96	(4 pages)	8/20/96

TELEPHONE CONVERSATION RECORD	Date: 1/25/99	Time:
Mail Control No.: 126404	License No.: 06-00217-06	Docket No.: 030-03754
Person Called:	Organization:	Telephone Number:
Person Calling: Sean Soong, NMSS		
Subject: Combustion Engineering		
<p>Summary: I sent an e-mail to Mr. Soong concerning the CE requests to modify their environmental monitoring program. Mr. Soong called to say that he had no problem with the proposed amendment. The SNM license no longer references the licensees monitoring program.</p>		
Action Required/Taken:		
Signature: John R. McGrath <i>JRM</i>	Date: 1/25/99	

ITEM # 151

B/108



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 17, 1999

Mr. Garland R. Proco
Project Manager, NMMSS
P.O. Box 922088
Norcross, GA 30010

SUBJECT: CORRECTION TO NMMSS BOOK BALANCE

Dear Mr. Proco:

Combustion Engineering Inc. at Windsor, Connecticut, low-enriched uranium (LEU) fuel fabricator, notified NRC of a difference between their physical inventory and the NMMSS Book inventory for depleted uranium at their site. The NMMSS book value of depleted uranium does not reflect the actual quantity possessed by Combustion Engineering. The primary cause of the inaccurate NMMSS Book balance appears to be the incomplete reporting of depleted uranium transactions since, under normal circumstances, NRC licensees are not required to report all transfers of depleted uranium to NMMSS. We have been assured by the facility staff that the quantity of depleted uranium is very small and being reduced and future imbalances between the facility's and NMMSS' records will not occur.

Please make a one-time correction to the NMMSS data base so that it will reflect the actual quantity of depleted uranium at the Combustion Engineering Windsor Connecticut LEU fuel fabricator site. The correction to the NMMSS data base should be timed to correspond with Combustion Engineering's September, 1999 physical inventory report to NMMSS.

If you need additional clarification or guidance to accept this direction, please direct such need to Mr. Brian Horn of my staff. His telephone number is (301) 415-8128.

Sincerely,

Josephine M. Piccone
Elizabeth Q. Ten Eyck, Director
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket Nos: 70-1100
30-03754

cc: Ken Sanders, DOE/NN-44
S. Sorrenson, Combustion Engineering

ITEM # 153

B/1109 2

Mr. Garland R. Proco
Project Manager, NMMSS
P.O. Box 922088
Norcross, GA 30010

SUBJECT: CORRECTION TO NMMSS BOOK BALANCE

Dear Mr. Proco:

Combustion Engineering Inc. at Windsor, Connecticut, low-enriched uranium (LEU) fuel fabricator, notified NRC of a difference between their physical inventory and the NMMSS Book inventory for depleted uranium at their site. The NMMSS book value of depleted uranium does not reflect the actual quantity possessed by Combustion Engineering. The primary cause of the inaccurate NMMSS Book balance appears to be the incomplete reporting of depleted uranium transactions since, under normal circumstances, NRC licensees are not required to report all transfers of depleted uranium to NMMSS. We have been assured by the facility staff that the quantity of depleted uranium is very small and being reduced and future imbalances between the facilities' and NMMSS records will not occur.

Please make a one-time correction to the NMMSS data base so that it will reflect the actual quantity of depleted uranium at the Combustion Engineering Windsor Connecticut LEU fuel fabricator site. The correction to the NMMSS data base should be timed to correspond with Combustion Engineers' September, 1999 physical inventory report to NMMSS.

If you need additional clarification or guidance to accept this direction, please direct such need to Mr. Brian Horn of my staff. His telephone number is (301) 415-8128.

Sincerely,

Elizabeth Q. Ten Eyck, Director
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket Nos.: 70-1100
30-03754

cc: Ken Sanders, DOE/NN-44
S. Sorrenson, Combustion Engineering

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030-03754

June 3, 1999

Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Application for Transfers and Amendments of Materials License
06-00217-06

Gentlemen:

Enclosed for filing is an Application for Transfers and Amendments of certain materials license 06-00217-06. The filing is necessitated by the acquisition by ABB Combustion Engineering Nuclear Power, Inc. of all assets and liabilities related to NRC licensed activities of Combustion Engineering, Inc. Upon closing of the transaction, ABB Combustion Engineering Nuclear Power, Inc. will become a wholly owned subsidiary of Asea Brown Boveri Inc., which is currently the parent of Combustion Engineering, Inc.

Details on the transaction giving rise to the Application are provided therein.

The enclosed Application demonstrates that the proposed transfers will not involve any change in the operating organization, location, facilities, equipment or procedures associated with the licensed activities, and that there will be no changes in the use, possession, locations or storage of licensed material as a result of the transaction. Current Combustion Engineering, Inc. employees responsible for licensed materials and activities will become ABB Combustion Engineering Nuclear Power, Inc. employees and will continue to be responsible for such activities after the transfers. ABB Combustion Engineering Nuclear Power, Inc. will meet all the requirements for a NRC licensee and holder of approvals and certificates, including financial and technical qualifications. ABB Combustion Engineering Nuclear Power, Inc. will agree to abide by all commitments and representations made to the NRC prior to the transfers, as well as all of the terms and conditions of the licenses, approvals and certificates.

ITEM # 154

ABB Combustion Engineering Nuclear Power

15
B/110

126917

Robert S. Bell, Jr.
Vice President
and General Counsel

Combustion Engineering, Inc.
Post Office Box 500
2000 Day Hill Road
Windsor, Connecticut 06095-0500

Telephone (860) 285-9780
Fax (860) 285-3671

JUN - 7 1999

SECTION COPY

Director,
June 3, 1999
Page 2

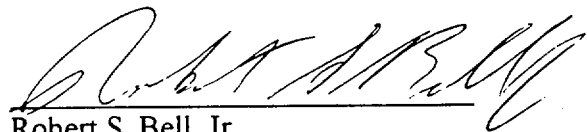
We request the NRC to make the transfers and amendments effective as of the Closing Date of the transaction. As it is currently contemplated that the Closing Date will occur on or about June 29, 1999, issuance of the NRC's approval is requested by no later than that date. We will keep the NRC informed of any changes in the timetable established for closing the transaction and the Closing Date.

We further request that, as of the effective date of the transfers requested by the Application, the NRC consider that any other pending applications for approvals or amendments with respect to the licenses, approvals and certificates which are subject of such Application be considered as the pending applications of the transferee.

Combustion Engineering, Inc. will pay the fees for processing the requested amendment, which is subject to full cost review, upon billing by the NRC in accordance with 10 CFR 170.12.

Should there be any questions regarding this matter please contact Robert S. Bell, Jr., Esq., Vice President and General Counsel, ABB Combustion Engineering Nuclear Power, at 860-285-9780.

Sincerely,



Robert S. Bell, Jr.
Vice President and General Counsel
ABB Combustion Engineering Nuclear Power

Enclosure

cc: Administrator
Region I
U.S. Nuclear Regulatory Commission

APPLICATION FOR TRANSFERS AND AMENDMENTS OF MATERIALS LICENSES

June 3, 1999

I. INTRODUCTION

This application for transfers and amendments of certain materials licenses arises from the acquisition by ABB Combustion Engineering Nuclear Power, Inc. of all assets and liabilities related to current NRC licensed activities of Combustion Engineering, Inc. Combustion Engineering, Inc. is currently the holder of licenses, quality assurance program approvals and certificates of compliance issued by the Nuclear Regulatory Commission ("NRC") pursuant to 10 C.F.R. Parts 30, 70, 71 and 110 ("licensees, approvals and certificates"). Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request that the NRC approve the transfers of the licenses, approvals and certificates listed on Exhibit "A" to ABB Combustion Engineering Nuclear Power, Inc., and that the NRC approve the corresponding amendments to those licenses, approvals and certificates necessary to effectuate such transfers.

Closing of the transaction cannot take place until receipt of NRC's approval. Therefore, Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request the NRC to approve the transfers and amendments to be effective as of the Closing Date of the transaction. As it is currently anticipated that the Closing Date will be on or about June 29, 1999, Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request that the NRC issue its approval prior to that date. Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. will keep the NRC

)
informed of progress in obtaining other regulatory approvals and the timetable established for the Closing Date.

From and after the Closing Date, as discussed herein, ABB Combustion Engineering Nuclear Power, Inc. will be technically and financially qualified to be the holder of the licenses, approvals, and certificates that are the subject of this Application for transfers and amendments and will fulfill the responsibilities of such a holder. As of the Closing Date, current Combustion Engineering, Inc. employees responsible for the licensed materials and activities that are subject of this application, as currently described the dockets for such licenses, approvals and certificates, will become ABB Combustion Engineering Nuclear Power, Inc. employees and will continue to be responsible for such activities. The transfers of these licensed activities will not affect the operational structure described in the licenses. There will be no changes in operating organizations, locations, facilities, equipment or procedures associated with the licensed activities, and there will be no charges in the use, possession, locations or storage of licensed materials as a result of the transaction. Licensed activities will continue in their current form without interruption resulting from the transfers.

II. THE TRANSACTION

ABB Combustion Engineering Nuclear Power, Inc. will acquire from Combustion Engineering, Inc. all of its assets and liabilities related to current NRC licensed activities, with the exception of ownership of certain real estate as described below. Upon Closing of the transaction, ABB Combustion Engineering Nuclear Power, Inc. will be a wholly owned subsidiary of Asea Brown Boveri, Inc., a U.S. corporation which is currently the parent of Combustion Engineering, Inc. As an intermediate step in the transaction, ABB Combustion

)

APPLICATION FOR TRANSFERS AND AMENDMENTS OF MATERIALS LICENSES

June 3, 1999

I. INTRODUCTION

This application for transfers and amendments of certain materials licenses arises from the acquisition by ABB Combustion Engineering Nuclear Power, Inc. of all assets and liabilities related to current NRC licensed activities of Combustion Engineering, Inc. Combustion Engineering, Inc. is currently the holder of licenses, quality assurance program approvals and certificates of compliance issued by the Nuclear Regulatory Commission ("NRC") pursuant to 10 C.F.R. Parts 30, 70, 71 and 110 ("licensees, approvals and certificates"). Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request that the NRC approve the transfers of the licenses, approvals and certificates listed on Exhibit "A" to ABB Combustion Engineering Nuclear Power, Inc., and that the NRC approve the corresponding amendments to those licenses, approvals and certificates necessary to effectuate such transfers.

Closing of the transaction cannot take place until receipt of NRC's approval. Therefore, Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request the NRC to approve the transfers and amendments to be effective as of the Closing Date of the transaction. As it is currently anticipated that the Closing Date will be on or about June 29, 1999, Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request that the NRC issue its approval prior to that date. Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. will keep the NRC

informed of progress in obtaining other regulatory approvals and the timetable established for the Closing Date.

From and after the Closing Date, as discussed herein, ABB Combustion Engineering Nuclear Power, Inc. will be technically and financially qualified to be the holder of the licenses, approvals, and certificates that are the subject of this Application for transfers and amendments and will fulfill the responsibilities of such a holder. As of the Closing Date, current Combustion Engineering, Inc. employees responsible for the licensed materials and activities that are subject of this application, as currently described the dockets for such licenses, approvals and certificates, will become ABB Combustion Engineering Nuclear Power, Inc. employees and will continue to be responsible for such activities. The transfers of these licensed activities will not affect the operational structure described in the licenses. There will be no changes in operating organizations, locations, facilities, equipment or procedures associated with the licensed activities, and there will be no charges in the use, possession, locations or storage of licensed materials as a result of the transaction. Licensed activities will continue in their current form without interruption resulting from the transfers.

II. THE TRANSACTION

ABB Combustion Engineering Nuclear Power, Inc. will acquire from Combustion Engineering, Inc. all of its assets and liabilities related to current NRC licensed activities, with the exception of ownership of certain real estate as described below. Upon Closing of the transaction, ABB Combustion Engineering Nuclear Power, Inc. will be a wholly owned subsidiary of Asea Brown Boveri, Inc., a U.S. corporation which is currently the parent of Combustion Engineering, Inc. As an intermediate step in the transaction, ABB Combustion

Engineering Nuclear Power, Inc. will be established as a wholly owned subsidiary of Combustion Engineering, Inc.

III. DESCRIPTION OF BUSINESSES TO BE TRANSFERRED

The NRC licensed activities to be transferred supply services, fuel and equipment for the nuclear energy market. These include the nuclear fuel manufacturing facilities in Missouri and the various nuclear business activities located in Windsor, Connecticut. The specific license affected by this application is identified in Exhibit A.

IV. INFORMATION REQUIRED FOR TRANSFER OF LICENSES, APPROVALS AND CERTIFICATES

Set forth below is information in response to NRC regulations and Information Notice 89-25, Rev. 1, dated December 7, 1994 to support the transfers of the licenses requested by this Application.

A. Name of Transferee:

ABB Combustion Engineering Nuclear Power, Inc.

B. Address:

ABB Combustion Engineering Nuclear Power, Inc.
2000 Day Hill Road
Windsor, CT 06095-05000

C. Organization and Management:

The names and addresses of directors and officers of ABB Combustion Engineering Nuclear Power, Inc. are as follows:

Michael F. Barnoski
Harold D. Folsom
Robert S. Bell, Jr.

President
Vice President and Treasurer
Director, Vice President, Secretary and
General Counsel

Gilles J. Page
James E. McConnell
Regis A. Matzie
William J. Gill
Valdemar B. Probst
E. Barry Lyon
Julietta Guarino

Timothy D. Boehm

Vice President. Nuclear Fuels
Vice President. Field Services
Vice President. Nuclear Systems
Vice President. Engineering Services
Assistant Secretary
Assistant Secretary
Assistant Secretary and Assistant
Treasurer
Assistant Secretary and Assistant
Treasurer

All of the above are citizens of the United States. The business addresses are: for Mr. Page, 3300 State Road P, Festus, MO 63028; for Ms. Guarino and Mr. Boehm, One Stamford Plaza, Stamford, CT 06901, for Mr. Lyon, 501 Merritt 7, Norwalk, CT 06856, and for the other officers and director, 2000 Day Hill Road, Windsor, CT 06095.

**D. Information Provided Pursuant to NRC Information Notice 89-25,
Rev. 1, Attachment 1**

1. The new name of the licensed organization

The new name of the licensed organization will be ABB Combustion Engineering Nuclear Power, Inc.

**2. The new licensee contact and telephone number(s) to
facilitate communications**

Mr. Robert S. Bell, Esq.,
Vice President and General Counsel
ABB Combustion Engineering Nuclear Power, Inc.
Telephone: (860) 285-9780
Fax: (860) 285-3671
E-mail: robert.s.bell@us.abb.com

3. Any changes in personnel having control of licensed activities (e.g., officers of a corporation) and any changes in personnel named in the license such as radiation safety officer, authorized users or any other persons identified in previous license applications as responsible for radiation safety or use of licensed material. The licensee should include information concerning the qualifications, training, and responsibilities of new individuals.

No changes are expected to occur in personnel having control over licensed activities or in personnel named in the license. The officers and directors of ABB Combustion Engineering Nuclear Power, Inc. are set forth in item C. above. See also the response to item 5.

4. *An indication of whether the transferor will remain in non-licensed business without the license.*

Combustion Engineering, Inc. is expected to remain in non-licensed businesses without the licenses identified in the attachment. Following the proposed transaction, Combustion Engineering, Inc. is expected to become a subsidiary of a proposed joint venture corporation to be known as ABB Alstom Power.

5. *A complete, clear description of the transactions, including any transfer of stock or assets, mergers, etc., so that legal counsel is able, when necessary to differentiate between name changes and changes of ownership.*

Combustion Engineering, Inc. has, since early 1990, been a wholly owned subsidiary of Asea Brown Boveri Inc., as described to the NRC in correspondence dated November 21, 1989 from Combustion Engineering, Inc. and Asea Brown Boveri Inc. Since about that time, the licensed activities which are the subject of this application have been conducted by an unincorporated part of Combustion Engineering, Inc. which is now called ABB Combustion Engineering Nuclear Power.

The proposed transaction will result in the incorporation of the ABB Combustion Engineering Nuclear Power business as a subsidiary of Asea Brown Boveri Inc., separate and apart from Combustion Engineering, Inc. The mechanics of this will most likely involve an intermediate step during which ABB Combustion Engineering Nuclear Power, Inc. will, for a limited time, be a subsidiary of Combustion Engineering, Inc. It is intended that the effect of the proposed transaction on the licensed activities will be negligible.

)

ABB Combustion Engineering Nuclear Power, Inc. will acquire all assets and liabilities and assume all obligations of Combustion Engineering, Inc. related to the NRC licensed activities. It is anticipated that real estate owned by Combustion Engineering, Inc. in Festus (formerly Hematite), Missouri will be deeded to ABB Combustion Engineering Nuclear Power, Inc.; the real estate at the Combustion Engineering, Inc. site in Windsor, Connecticut will remain the property of Combustion Engineering, Inc. and parts of it will be leased by ABB Combustion Engineering Nuclear Power, Inc. as necessary to support licensed activities, including, but not limited to, ultimate decontamination and decommissioning under the NRC licenses.

It is intended that there will be no material change in the conduct of licensed activities as a result of the proposed transaction. Those officers of Combustion Engineering, Inc. who are involved with the current ABB Combustion Engineering Nuclear Power business will assume similar offices in ABB Combustion Engineering Nuclear Power, Inc., and employees of ABB Combustion Engineering Nuclear Power will become employees of ABB Combustion Engineering Nuclear Power, Inc. Various procedures and other documents will be revised to reflect the change in the name of the licensee to ABB Combustion Engineering Nuclear Power, Inc., but will otherwise be unaffected by this transaction.

6. *A complete description of any planned changes in organization, location facility, equipment, or procedures (i.e., changes in operating or emergency procedures).*

Except as described in the response to item 5, there are no planned changes in organization, location, facilities, equipment, or procedures as a result of this transaction.

7. *A detailed description of any changes in the use, possession, location or storage of the licensed material.*

There will be no changes in the use, possession, location or storage of licensed material as a result of this transaction. As noted in the response to item 5, the premises in Windsor, Connecticut will be leased by the new corporation, rather than owned.

8. Any changes in organization, location, facilities, equipment, procedures or personnel that would require a license amendment even without the change in ownership.

No changes are planned to organization, location, facilities, equipment, procedures or personnel that would require a license amendment even without the change of ownership.

9. An indication of whether all surveillance items and records (e.g., calibrations, leak tests, surveys, inventories, and accountability requirements) will be current at the time of transfer. A description of the status of all surveillance requirements and records should also be provided.

All licensed activities will continue without interruption at and after the time of transfer. All surveillance items and records will be maintained in their existing state in accordance with applicable regulations.

10. Confirmation that all records concerning the safe and effective decommissioning of the facility pursuant to 10 CFR 30.35(g), 40.36(f), 70.25(g) and 72.30(d); public dose; and waste disposal by release to sewers, incineration, radioactive material spills, and on-site burials, have been transferred to the new licensee, if license activities will continue at the same location, or to the NRC for license termination.

Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. will submit a letter to the NRC confirming that all records of Combustion Engineering, Inc. concerning the safe and effective decommissioning of the facilities involved will be transferred to the new licensee. The transfer of records occurs as a result of the nature of the transaction, as described in item 5. These records are already in the possession of ABB Combustion Engineering Nuclear Power.

11. A description of the status of the facility. Specifically, the presence or absence of contamination should be documented. If contamination is present, will decommissioning occur before transfer? If not, does the successor company agree to assume full liability for [decommissioning and the costs of decommissioning]?

Both the Hematite facility and the Windsor facility contain some contamination from NRC licensed activities. This contamination will be managed in accordance with the same plans and schedules which would have applied if the proposed transaction did not occur. Decontamination will not occur before the proposed transaction. ABB Combustion Engineering Nuclear Power, Inc. agrees to assume full liability for the removal of this contamination from these facilities.

12. A description of any decommissioning plans, including financial assurance arrangements of the transferee, as specified in 10 CFR 30.35, 40.36 and 70.25. This should include information about how the transferee and transferor propose to divide the transferor's assets, and responsibility for any cleanup needed at the time of transfer.

Combustion Engineering, Inc. has in place approved decontamination funding plans under licenses SNM-33, SNM-1067, and 06-00217-06. These will either be transferred as part of this transaction, or substantially the same plans will be implemented for ABB Combustion Engineering Nuclear Power, Inc., together with an identical mechanism for assuring the NRC of funding, or an equivalent NRC-approved funding mechanism.

13. Confirmation that the transferee agrees to abide by all commitments and representations previously made to the NRC by the transferor. These include, but are not limited to: maintaining decommissioning records required by the 10 CFR 30.35(g); implementing decontamination activities and decommissioning of the site; and completing corrective actions for open inspection items and enforcement actions.

With regard to contamination of facilities and equipment, the transferee should confirm, in writing, that it accepts full liability for the site, and should provide evidence of adequate resources to fund

decommissioning; or the transferor should provide a commitment to decontaminate the facility before change of control or ownership.

With regard to open inspection items, etc., the transferee should confirm, in writing, that it accepts full responsibility for open inspection items and/or any resulting enforcement actions; or the transferee proposes alternative measures for meeting the requirements; or the transferor provides a commitment to close out all such actions with NRC before license transfer.

(a) ABB Combustion Engineering Nuclear Power, Inc. hereby confirms its agreement to abide by all commitments and representations previously made to the NRC by Combustion Engineering, Inc. in connection with the NRC licenses in question.

(b) ABB Combustion Engineering Nuclear Power, Inc. hereby confirms that it accepts full liability for the Windsor and Hematite sites in connection with NRC licensed operations. A copy of the applicable decommissioning funding plan standby trust agreements and surety bonds will be provided to the NRC by June 17, 1999.

(c) ABB Combustion Engineering Nuclear Power, Inc. hereby confirms that it accepts full responsibility for open inspection items and/or any resulting enforcement actions.

14. Documentation that the transferor and transferee agree to the change in ownership or control of the licensed material and activity, and the conditions of transfer; and the transferee is made aware of all open inspection items and its responsibility for possible resulting enforcement actions.

Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. hereby indicate their agreement to the change in ownership or control as described herein. Because of the continuity of management, ABB Combustion Engineering Nuclear Power, Inc. will be aware of open inspection items and its responsibility for possible resulting enforcement actions.

15. A commitment by the transferee to abide by all constraints, conditions, requirements, representations and commitments identified in the existing license. If not, the transferee

must provide a description of its program to ensure compliance with the license and regulations.

ABB Combustion Engineering Nuclear Power, Inc. will abide by all constraints, conditions, requirements, representations, and commitments identified in the existing licenses.

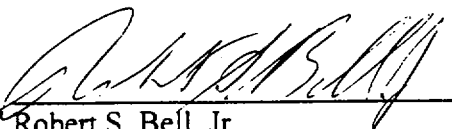
V. CONCLUSION

For the reasons stated above, Combustion Engineering, Inc. and ABB Combustion Engineering Nuclear Power, Inc. request that the NRC approve the transfer of the licenses, approvals and certificates listed in Exhibit A and that NRC approve the corresponding amendments to those licenses, approvals and certificates to change the name of the holder of such licenses, approvals and certificates from Combustion Engineering, Inc. to ABB Combustion Engineering Nuclear Power, Inc., effective as of the Closing Date referenced above.

Combustion Engineering, Inc.

ABB Combustion Engineering Nuclear Power, Inc.

By:


Robert S. Bell, Jr.
Vice President and General Counsel
ABB Combustion Engineering
Nuclear Power

By:

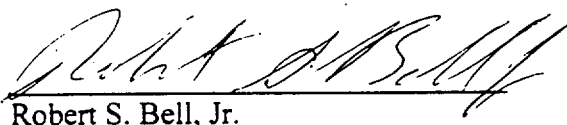
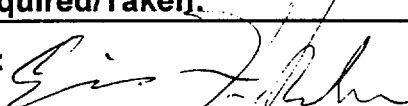

Robert S. Bell, Jr.
Vice President, Secretary and General
Counsel

EXHIBIT A

AFFECTED NRC LICENSE

06-00217-06

TELEPHONE CONVERSATION RECORD	Date: June 9, 1999	Time: 10:00am
Mail Control No.: 126917	License No.: 06-00217-06	Docket No.: 030-03754
Person Called: Robert S. Bell	Organization: ABB Combustion Engineering Nuclear Power, Inc.	Telephone Number: (860) 285-9780
Person Calling: Eric H. Reber / (610) 337-5276		
Subject: Financial Assurance		
Summary: Mr. Bell stated that he would send updated financial assurance documents by the end of next week that reflect the name change proposed in this amendment. I said that I needed the updated documents before the change of ownership could be processed.		
Action Required/Taken:		
Signature: 	Date: 6/9/99	

ITEM # 155

SECTION COPY

B/111

Eric Rebar
MS 16
L-3**ABB****Facsimile**

Combustion Engineering, Inc. ABB Combustion Engineering Nuclear Power Windsor, CT, USA

To: 1-301-415-2036
Stuart Treby, esq.
Office of the General Counsel
United States Nuclear Regulatory Commission

cc:

From: Robert S. Bell, Jr.
(Phone: 1 (860) 285-9780, Facsimile: 1 (860) 285-3671)

Date: June 11, 1999

Subject: ABB Combustion Engineering Nuclear Power, Inc.

Dear Mr. Treby,

As you requested, I am faxing drafts of the three surety bonds which are being prepared at this time. The substance of these bonds is identical to the bonds issued on behalf of Combustion Engineering, Inc. which they are to replace.

The E-mail addressed to you earlier today from Jay Silberg forwarding the draft standby trust agreement contained three files, one for each of the standby trust agreements. If only one of these files was received, please let me or Jay know and we will forward the files again.

Sincerely,



126917

ITEM #

156

SECTION COPY

JUN 11 1999



CHUBB GROUP OF INSURANCE COMPANIES

100 William Street, New York, New York 10038-4568

DRAFT -

06-00217-06
BOND

FEDERAL INSURANCE COMPANY

PAYMENT SURETY BOND

Date bond executed:

Effective date:

Principal: ABB COMBUSTION ENGINEERING NUCLEAR POWER, INC.
2000 DAY HILL ROAD
Windsor, CT. 06095

Type of organization: Corporation

State of incorporation: Delaware

NRC license number, name and address of facility, and amount(s) for decommissioning activity guaranteed by this bond:

ABB COMBUSTION ENGINEERING NUCLEAR POWER, INC.
2000 Day Hill Road
Windsor, CT 06095
Byproduct License 06-00217-06Surety: Federal Insurance Company
100 William Street
New York, N.Y. 10038

Type of organization: Corporation

Surety's qualification in jurisdiction where licensed facility(ies) is (are located).

Surety's bond number:

Total penal sum of bond: \$ 3,600,000.00

Know all persons by these presents, That we, the Principal and surety(ies) hereto, are firmly bound to the U.S. Nuclear Regulatory Commission (hereinafter called NRC), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety; but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

(8)

WHEREAS, the U.S. Nuclear Regulatory Commission, an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part (30, 40, 70, or 72), applicable to the Principal, which require that a license holder or an applicant for a facility license provide financial assurance that funds will be available when needed for facility decommissioning;

NOW, THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of decommissioning of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility:

Or, if the Principal shall fund the standby trust fund in such amount(s) after an order to begin facility decommissioning is issued by the NRC or a U.S. district court or other court of competent jurisdiction;

Or, if the Principal shall provide alternative financial assurance and obtain the written approval of the NRC of such assurance, within 30 days after the date a notice of cancellation from the Surety(ies) is received by both the Principal and the NRC, then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the NRC that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the NRC provided, however, that cancellation shall not occur during the 90 days beginning on the date of receipt of the notice of cancellation by both the Principal and the NRC, as evidenced by the return receipts.

(9)

The Principal may terminate this bond by sending written notice to the NRC and to Surety(ies) 90 days prior to the proposed date of termination, provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond from the NRC.

If any part of this agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

In Witness Whereof, the Principal and Surety(ies) have executed this financial guarantee bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies).

By: [Signature]
Name: _____
Title: *Secretary*

FEDERAL INSURANCE COMPANY
100 William Street
New York, N.Y. 10038

State of Incorporation: New Jersey
Liability limit: \$750,000.00

By: [Signature]
Name: _____
Title: *Attorney-in-fact*

Bond premium: \$2,000.00

NOTARIZATION OF PRINCIPAL'S EXECUTION
POWER OF ATTORNEY FOR SURETY

June 16, 1999

Docket No. 030-03754
Control No. 126917

License No. 06-00217-06

Robert S. Bell, Jr
Vice President and General Counsel
ABB Combustion Engineering Nuclear Power
P.O. Box 500
2000 Day Hill Road
Windsor, CT 06095-0500

Dear Mr. Bell, Jr:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original signed by John R. McGrath

John R. McGrath
Senior Health Physicist
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 44

cc:
Stephen M. Sorensen, Radiation Safety Officer

ITEM # 157

SECTION COPY

B/11B

July 14, 1999

MEMORANDUM: Eric Reber, Region I
Sheryl Villar, Region I

FROM: Pam Shea, LA/LIB/FCSS

SUBJECT: STANDBY TRUST AGREEMENT
AND SURETY BOND

Enclosed is the original NRC approved Standby Trust Agreement and Surety Bond for NRC License No. 06-00217-06, that was delivered to me by Lou Bykoski. Per my discussion with Lou Bykoski, I was instructed to send the original documents to you for maintaining in your safe at the Region.

If you have any questions, please give me a call at (301) 415-8029 or e-mail me at pws@nrc.gov.

Enclosure: As stated

03003754

ITEM # 159

OFFICIAL RECORD COPY

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REC'D IN LAT AUG 11 1999

~~JUL 15 1999~~

STANDBY TRUST AGREEMENT
NRC LICENSE NO. 06-00217-06

TRUST AGREEMENT, the Agreement entered into as of June 15, 1999 by and between ABB Combustion Engineering Nuclear Power, Inc., a Delaware corporation, herein referred to as the "Grantor," and Citibank, N.A., New York, NY 10043, herein referred to as the "Trustee."

WHEREAS, the U.S. Nuclear Regulatory Commission (NRC), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part 30, 40, 70 and 72. These regulations, applicable to the Grantor, require that a holder of, or an applicant for, a Part 30, 40, 70 or 72 license provide assurance that funds will be available when needed for required decommissioning activities.

WHEREAS, the Grantor has elected to use a surety bond to provide all of such financial assurance for the facilities identified herein; and

WHEREAS, when payment is made under a surety bond, this standby trust shall be used for the receipt of such payment; and

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the Trustee under this Agreement, and the Trustee is willing to act as Trustee,

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

- (a) The term "Grantor" means ABB Combustion Engineering Nuclear Power, Inc., the NRC licensee who enters into this Agreement, and any successors or assigns of the Grantor.
- (b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Costs of Decommissioning. This Agreement pertains to the costs of decommissioning the materials and activities identified in License Number 06-00217-06 issued pursuant to 10 CFR Part 30, as shown in Schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund (the Fund) for the benefit of the NRC. The Grantor and the Trustee intend that no third party have access to the Fund except as provided herein.

Section 4. Payments Constituting the Fund. Payments made to the Trustee for the Fund shall consist of cash, securities, or other liquid assets acceptable to the Trustee. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee are referred to as the "Fund," together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount of, or adequacy of the Fund, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the NRC.

Section 5. Payment for Required Activities Specified in the Plan. The Trustee shall make payments from the Fund to the Grantor upon presentation to the Trustee of the following:

- a. A certificate duly executed by the Secretary or an Assistant Secretary of the Grantor attesting to the occurrence of the events, and in the form set forth in the attached Specimen Certificate, and
- b. A certificate attesting to the following conditions:
 - (1) that decommissioning is proceeding pursuant to an NRC-approved plan
 - (2) that the funds withdrawn will be expended for activities undertaken pursuant to that Plan, and
 - (3) that the NRC has been given 30 days' prior notice of Grantor's intent to withdraw funds from the escrow fund.
- c. An order for payment of a stated amount to be withdrawn.

No withdrawal from the fund can exceed ten percent of the outstanding balance of the Fund or 360,000 dollars, whichever is greater, unless NRC approval is attached.

In the event of the Grantor's failure or inability to direct decommissioning activities, the Trustee shall make payments from the Fund as the NRC shall direct in writing to provide for the payment of the costs of required decommissioning activities for the licensed facility covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the

NRC from the Fund for expenditures for such required activities in such amounts as the NRC shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the NRC specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 6. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the Fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the licensed facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended (15 U.S.C. 80a-2(a)), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal government.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 U.S.C. 80a-1 et seq.), including one that may be created, managed, underwritten, or to which investment advice is rendered, or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale, as necessary for prudent management of the Fund;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the Fund in its own name, or in the name of a nominee, and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, to reinvest interest payments and funds from matured and redeemed instruments, to file proper forms concerning securities held in

the Fund in a timely fashion with appropriate government agencies, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee or such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the U.S. Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all time show that all such securities are part of the Fund;

- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. After payment has been made into this standby trust fund, the Trustee shall annually, at least 30 days before the anniversary date of receipt of payment into the standby trust fund, furnish to the Grantor and to the NRC a statement confirming the value of the Trust. Any securities in the

Fund shall be valued at market value as of no more than 60 days before the anniversary date of the establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the NRC, or State agency, shall constitute a conclusively binding assent by the Grantor, barring the grantor from asserting any claim or liability against the Trustee with respect to the matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting on the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing with the Grantor. (See Schedule C.)

Section 13. Successor Trustee. Upon 90 days notice to the NRC, the Trustee may resign; upon 90 days notice to NRC and the Trustee, the Grantor may replace the Trustee; but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee and this successor accepts the appointment. The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the NRC or State agency, and the present Trustee by

certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instruction to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are signatories to this agreement or such other designees as the Grantor by designate in writing. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. If the NRC or State agency issues orders, requests, or instructions to the Trustee these shall be in writing, signed by the NRC, or State agency, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor, the NRC, or State agency, hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instruction from the Grantor and/or the NRC, or State agency, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee and the NRC, or State agency, or by the Trustee and the NRC or State Agency, if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the NRC or State agency, or by the Trustee and the NRC or State agency, if the Grantor ceases to exist. Upon termination of the trust, all

remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or its successor.


Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this trust, or in carrying out any directions by the Grantor, the NRC, or State agency, issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. This Agreement shall be administered, construed, and enforced accordance to the laws of the State of New York.

Section 19. Interpretation and Severability. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement. If any part of this Agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by the respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first written above.

ABB COMBUSTION ENGINEERING NUCLEAR POWER, INC.

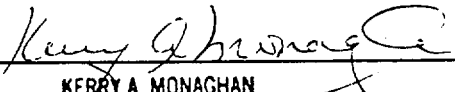
By: 

Title: VICE PRESIDENT AND TREASURER

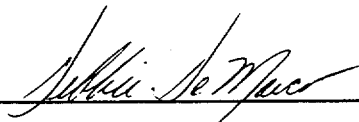
ATTEST: 

Title: VICE PRESIDENT, SECURITY AND GENERAL COUNSEL - SEAL -

CITIBANK, N.A.

By: 
KERRY A. MONAGHAN
ASSISTANT VICE PRESIDENT

Title: _____

ATTEST: 

Title: DEBBIE DeMARCO Assistant Vice President - SEAL -

September 3, 1999

Docket No. 030-03754
Control No. 127133

License No. 06-00217-06

Robert S. Bell
Vice President, Secretary and General Counsel
ABB Combustion Engineering Nuclear Power Inc.
2000 Day Hill Road
Windsor, CT 06095

Dear Mr. Bell:

This is in reference to your revised Standby Trust Agreement and Surety Bond dated June 15, 1999 for License No. 06-00217-06. We have reviewed these documents and have no further questions at this time. We are enclosing the superceded Surety Bond dated May 24, 1990, the Standby Trust Agreement dated July 1, 1990 and rider dated August 20, 1996.

If you have any questions, please contact me at (610) 337-5069.

Your cooperation with us is appreciated.

Sincerely,

Original signed by John R. McGrath

John R. McGrath
Senior Health Physicist
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

cc:
Stephen M. Sorensen, Radiation Safety Officer

Certified Mail
Return Receipt Requested

ITEM # 160

ML10

B/115

R. Bell 2
ABB Combustion Engineering Nuclear Power Inc.

bcc:
S. Villar

DOCUMENT NAME: B:\DNMS Documents\Lic Cover Letter\L06-00217-06.127133.wpd 99941719
To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/end "E" = Copy w/ attach/end "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	JMcGrath <i>JRM</i>						
DATE	09/03/99	09/ /99	09/ /99	09/ /99	09/ /99		

OFFICIAL RECORD COPY



RECEIVED
REGION 1

24 JAN 28 PM 5:16

030-03754
06-00217-06

U.S. Nuclear Regulatory Commission
Region I Nuclear Materials Safety Branch 2
475 Allendale Road
King of Prussia, PA 19406-1415

24 January 2000
Licamd44.doc

Attention: Mr. John R. McGrath
Senior Health Physicist

Dear Mr. McGrath:

Because of the NRC approved change in our corporate name to ABB C-E Nuclear Power, Inc., Updated decommissioning funding documents are required to be submitted. Enclosed are the new decommissioning funding documents (Surety Bond Rider and Standby Trust Agreement).

If you have any questions or require additional information, please contact me at your convenience on 860-285-5285 or steve.m.sorensen@us.abb.com

Thank you for your attention in this matter

Regards,
ABB C-E Nuclear Power, Inc.

Stephen M. Sorensen, Manager
Radiological Protection Services

Xc: R.S. Bell Jr. (w/o attachments)
D.A. Cirelli (w/o attachments)

B/116

ABB Combustion Engineering Nuclear Power

1 2 7 7 3 6

Combustion Engineering, Inc.

P.O. Box 500
2000 Day Hill Road
Windsor, Connecticut 06095

Telephone (860) 688-1911

ITEM # 161

AMENDMENT ONE
TO
STANDBY TRUST AGREEMENT
NRC LICENSE NO. 06-00217-06

Recitals

1. ABB Combustion Engineering Nuclear Power, Inc., a Delaware corporation, and Citibank, N.A., New York, NY 10043, have entered into a Standby Trust Agreement with respect to U. S. Nuclear Regulatory Commission License Number 06-00217-06.
2. Effective December 16, 1999, ABB Combustion Engineering Nuclear Power, Inc. changed its corporate name to ABB C-E Nuclear Power, Inc.
3. The parties desire to amend such Standby Trust Agreement to reflect such name change.

Agreement

A. The parties to said Standby Trust Agreement, in consideration of the recitals and agreements in this Amendment and in the Standby Trust Agreement, hereby amend the Standby Trust Agreement by replacing the name "ABB Combustion Engineering Nuclear Power, Inc." wherever it appears with the new name "ABB C-E Nuclear Power, Inc."

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by the respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first written above.

ABB C-E NUCLEAR POWER, INC.

By: [Signature]
Title: Vice President & Secretary

ATTEST: [Signature]
Title: Assistant Secretary

SEAL

Date: January 11, 2000

CITIBANK, N.A.

By: [Signature]
Title: Assistant Vice President

ATTEST: [Signature]
Title: [Signature]

SEAL

Date: January 14, 2000

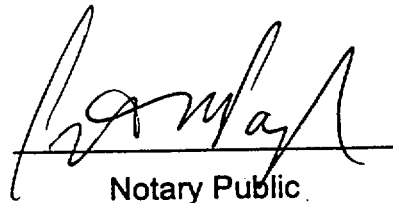
ACKNOWLEDGEMENT

STATE OF NEW YORK

COUNTY OF MANHATTAN

CITY OF NEW YORK

On this 15th day of June, 1999, before me, a notary public in and for the city and state aforesaid, personally appeared Kerry A. Monaghan and she/he did depose and say that she/he is the Ass. Vice President, of Citibank, N.A., Trustee, which executed the above instrument, that she/he knows the seal of said association; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of said trustee; and that she/he signed her/his name thereto by like order.



Notary Public

PETER M. PAWLYSHIN
Notary Public, State of New York
No. 41-4991297
Qualified in Queens County
Certificate Filed in New York County
Commission Expires January 27, 2000

Specimen Certificate of Events

Citibank, N.A.
Global Agency and Trust/Escrow Administration
111 Wall Street – Fifth Floor
New York, NY 10043

Attention: Assistant Vice President

Gentlemen:

In accordance with the terms of the Agreement with you dated _____, I, _____, Secretary of [insert name of licensee], hereby certify that the following events have occurred:

1. [Insert name of licensee] is required to commence the decommissioning of its facility located at [insert location of facility] (hereinafter called decommissioning).
2. The plans and procedures for the commencement and conduct of the decommissioning have been approved by the United States Nuclear Regulatory Commission, or its successor, on _____ (copy of approval attached).
3. The Board of Directors of [insert name of licensee] has adopted the attached resolution authorizing the commencement of the decommissioning.

Secretary of [insert name of licensee]

Date

Form of
Certificate of Resolution

I, _____, do hereby certify that I am Secretary of [insert name of licensee], a [insert state of incorporation] corporation, and that the resolution listed below was duly adopted at a meeting of this Corporation's Board of Directors on _____, _____.

RESOLVED, that this Board of Directors hereby authorizes the President, or such other employee of the Company as he may designate, to commence decommissioning activities at [insert name of facility] in accordance with the terms and conditions described to this Board of Directors at this meeting and with such other terms and conditions as the President shall approve with and upon the advice of Counsel.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the seal of this Corporation this ____ day of _____, _____.

Secretary

SCHEDULE A

This Agreement demonstrates financial assurance for the following cost estimate for the following licensed activities:

U.S. Nuclear Regulatory Commission Byproduct License Number: 06-00217-06
Docket Number: 030-03754

Name and Address of
Licensee:

ABB Combustion Engineering Nuclear Power, Inc.
2000 Day Hill Road
Windsor, CT 06095

Address of Licensed
Activity:

ABB Combustion Engineering Nuclear Power, Inc.
2000 Day Hill Road
Windsor, CT 06095

Cost estimates for regulatory assurances demonstrated by this agreement:
\$3,600,000.

The cost estimates listed here were last adjusted and approved by the NRC on
September 5, 1996.

Schedule B

Initial Funds in Trust

None

Schedule C

Trustee Fees

- Prior to Funding of Trust – \$2,500.00 per annum
- After Funding of Trust – per attached table of Escrow Fees



CHUBB GROUP OF INSURANCE COMPANIES

15 Mountain View Road, P. O. Box 1615, Warren, New Jersey 07061-1615

Payment Surety Bond

This bond replaces & supercedes bond [] executed 5/24/90

Date bond executed: June 15, 1999

Effective Date: June 15, 1999

*Principal: ABB Combustion Engineering Nuclear Power Inc.
2000 Day Hill Road
Windsor, CT 06095*

Type of Organization: Corporation

State of Incorporation: Delaware

NRC license number, name and address of facility, and amount(s) for decommissioning activity guaranteed by this bond:

*ABB Combustion Engineering Nuclear Power Inc.
2000 Day Hill Road
Windsor, CT 06095
Byproduct License 06-00217-06*

*Surety: Federal Insurance Company
15 Mountain View Road
Warren, New Jersey 07059*

Type of organization: Corporation

Surety's qualification in jurisdiction where licensed facility(ies) is (are) located.

Surety's bond number: []

Total penal sum of bond: \$3,600,000

Know all persons by these presents, that we, the Prinipal and surety (ies) hereto, are firmly bound to the U.S. Nuclear Regulatory Commission (hereinafter called NRC), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety; but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, the U.S. Nuclear Regulatory Commission, an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part (30, 40, 70 or 72), applicable to the Prinicipal, which require that a license holder or an applicant for a facility license provide financial assurance that funds will be available when needed for facility decommissioning;

NOW, THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of decommissioning of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility;

Or, if the Principal shall fund the standby trust fund in such amounts(s) after an order to begin facility decommissioning is issued by the NRC or a U.S. district court or other court of competent jurisdiction;

Or, if the Principal shall provide alternative financial assurance and obtain the written approval of the NRC of such assurance, within 30 days after the date a notice of cancellation from the Surety(ies) is received by both the Principal and the NRC, then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the NRC that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the NRC provided, however, that cancellation shall not occur during the 90 days beginning on the date of receipt of the notice of cancellation by both the Principal and the NRC, as evidenced by the return receipts.

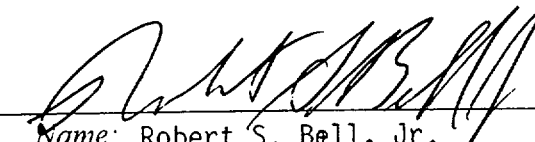
The Principal may terminate this bond by sending written notice to the NRC and to Surety(ies) 90 days prior to the proposed date of termination, provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond from the NRC.

If any part of this agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

In Witness Whereof, the Principal and Surety(ies) have executed this financial guarantee bond and have affixed their seals on the date set forth above.


The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies).

ABB Combustion Engineering Nuclear Power Inc.

By: 
Name: Robert S. Bell, Jr.
Title: Vice President, Secretary
and General Counsel

Federal Insurance Company
15 Mountain View Road
Warren, New Jersey 07059

State of Incorporation: Indiana
Liability Limit: \$3,600,000

By: 
Name: Theresa Giraldo
Title: Attorney - In - Fact

Bond Premium: \$7,200 per annum



OF
ATTORNEY

FEDERAL Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company

Surety Department
15 Mountain View Road
Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint **Jeremy H. Wilder, James P. Holland, Kelly R. Bratton, Migdalia Otero, Beverly A. Woolford, Jennifer Caldarella Tracey D. Watson, Terry Ann Gonzales-Selman, Robyn Walsh, Paula Yip-Ying, Vincent Moy, Ana W. Oliveras, Theresa Giraldo, Kimberly A. Bruno and Mariagrace Egan of New York, New York**

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds (other than bail bonds) and undertakings given or executed in the course of its business (but not to include any instruments amending or altering the same, nor consents to the modification or alteration of any instrument referred to in said bonds or obligations).

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on **September 1st, 1998**.

Kenneth C. Wendel, Assistant Secretary

Gerardo G. Mauriz, Vice President

STATE OF NEW JERSEY } ss.
County of Somerset

On **September 1st, 1998**, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with Gerardo G. Mauriz, and knows him to be Vice President of said Companies; and that the signature of Gerardo G. Mauriz, subscribed to said Power of Attorney is in the genuine handwriting of Gerardo G. Mauriz, and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal



SHERYL E. ROBERTS
Notary Public, State of New Jersey
No. 2178957
Commission Expires July 5, 2000

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By-Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U. S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U. S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

JUN 15 1999

Given under my hand and seals of said Companies at Warren, NJ this _____ day of _____, 19 _____.



Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY
Telephone (908) 903-3485 Fax (908) 903-3656 e-mail: surety@chubb.com

ACKNOWLEDGMENT OF SURETY

**STATE OF NEW YORK
COUNTY OF NEW YORK**

On this **15th** of **June**, 19 **99** before me personally came **Theresa Giraldo** who, being by me duly sworn, did depose and say that he/she is an Attorney-In-Fact of **Federal Insurance Company** and knows the Corporate seal thereof; that the seal affixed to said annexed instrument is such corporate seal, and was thereto affixed by authority of the Power of Attorney of said Company, of which a Certified Copy is hereto attached, and that he/she signed said Instrument as an Attorney-In-Fact of said Company by like authority.

ANA M. OLIVERAS
NOTARY PUBLIC, State of New York
No. 02-4076178
Qualified in Bronx County
Commission Expires Jan. 14, 2001

Acknowledge and Sworn to before me
on the date above written

Ana M. Oliveras

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

DECEMBER 31, 1998

(in thousands of dollars)

ASSETS

Cash.....	\$ (173,856)
United States Government, State and Municipal Bonds	6,266,088
Other Bonds.....	1,488,358
Stocks.....	495,285
Short Term Investments.....	582,620
Other Invested Assets.....	258,781

TOTAL INVESTMENTS .. 8,918,196

Investments in Affiliates:

Pacific Indemnity Company.....	545,749
Vigilant Insurance Company.....	318,087
Great Northern Insurance Company.....	143,234
Crubb Insurance Company of Europe.....	101,771
CC Canada Holdings Ltd	94,780
Other Affiliates.....	102,226
Net Premiums Receivable.....	641,836
Other Assets.....	619,842

TOTAL ADMITTED ASSETS .. \$ 11,386,701

LIABILITIES AND SURPLUS TO POLICYHOLDERS

Outstanding Losses and Loss Expenses..	\$ 8,348,318
Unearned Premiums.....	1,803,791
Provision for Reinsurance.....	61,891
Other Liabilities.....	384,481

TOTAL LIABILITIES.. 8,598,482

Capital Stock.....	13,987
Paid-in Surplus.....	378,890
Unassigned Funds.....	2,282,121
Unrealized Appreciation of Investments	133,221

SURPLUS TO POLICYHOLDERS . 2,788,219

TOTAL LIABILITIES AND SURPLUS
TO POLICYHOLDERS . \$ 11,386,701

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners
Investments valued at \$23,771 are deposited with government authorities as required by law.

State, County & City of New York, ss.

of the Federal Insurance Company

being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of said Federal Insurance Company on December 31, 1998 is true and correct and is a true abstract of the Annual Statement of said Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 1998.

Subscribed and sworn to before me
this _____ day of _____, 1999

Elba Santiago
Notary Public

ELBA SANTIAGO
Notary Public, State of New York
No. 01SA4846450
Qualified in Bronx County
Commission Expires Jan. 31, 2000

[Signature]



CHUBB GROUP OF INSURANCE COMPANIES
NORTHEAST DIVISION
POST OFFICE BOX 6952
BRIDGEWATER, NJ 08807-6952

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JULY 9, 1999

PRINCIPAL NAME: COMBUSTION ENGINEERING, INC.

STREET: 1000 PROSPECT HILL ROAD
CITY: WINDSOR CONNECTICUT 06095

OBLIGEE NAME: U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF LOW LEVEL WASTE MANAGEMENT & DECOMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY & SAFEGUARD
WASHINGTON DISTRICT OF COLUMBIA 20555

RE:
BOND NUMBER: *C*
DESCRIPTION: BOND GUARANTEEING PAYMENT OF FINANCIAL ASSURANCE FOR
DECOMMISSIONING LICENSED NUCLEAR FACILITY, WINDSOR, CT.
BYPRODUCT LICENSE 06-00217-06

BOND DATE: MAY 24, 1990
BOND AMOUNT: \$3,600,000.00

GENTLEMEN:
PLEASE BE ADVISED THAT IN ACCORDANCE WITH THE TERMS AND CONDITIONS
OF THE ABOVE-DESCRIBED BOND, FEDERAL INSURANCE COMPANY AS SURETY,
HEREBY CANCELS THE BOND EFFECTIVE 90 DAYS AFTER YOUR RECEIPT OF THIS
LETTER.

VERY TRULY YOURS,

FEDERAL INSURANCE COMPANY

Maria Calvi
SURETY DEPARTMENT

CC: PRODUCER

127133
AUG 12 1999

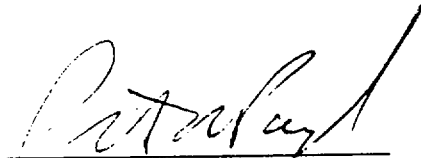
ACKNOWLEDGEMENT

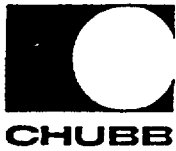
STATE OF NEW YORK

COUNTY OF MANHATTAN

CITY OF NEW YORK

On this 14 day of January, 2000, before me, a notary public in and for the city and state aforesaid, personally appeared Debbie DeMarco, and she/he did depose and say that she/he is the Asst. Vice President, of Citibank, N.A., Trustee, which executed the above instrument, that she/he knows the seal of said association; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of said trustee; and that she/he signed her/his name thereto by like order.


Notary Public
PETER M. PAVLYSHIN
Notary Public, State of New York
No. 41-4991297
Qualified in Queens County
Certificate Filed in New York County
Commission Expires January 27, 2002



CHUBB GROUP OF INSURANCE COMPANIES

100 William Street, New York, New York 10038-4568

FEDERAL INSURANCE COMPANY

RIDER to be attached to and form a part of
Bond No. [REDACTED] wherein
ABB Combustion Engineering Nuclear Power, Inc.
is named as Principal, and FEDERAL
INSURANCE COMPANY, as Surety, in favor of
U.S. Nuclear Regulatory Commission
in the amount of \$3,600,000.00
effective June 15, 1999

IT IS HEREBY STIPULATED AND AGREED THAT effective 01/11/2000 said
bond is hereby amended as follows:

The principal's name has changed

From: ABB Combustion Engineering Nuclear Power, Inc.

To: ABB C-E Nuclear Power, Inc.

and that ABB C-E Nuclear Power, Inc. shall be held and firmly bound
and hereby binds itself, its successors and assigns, as Principal, and
FEDERAL INSURANCE COMPANY hereby binds itself, its successors and
assigns, as Surety, in accordance with the terms, provisions and
conditions of said bond as so amended.

IN WITNESS WHEREOF, the said Principal and said Surety have signed
or caused this Rider to be duly signed and their respective seals to
be hereunto affixed this 11th day of January 2000.

ABB C-E Nuclear Power, Inc.

By: [Signature]

FEDERAL INSURANCE COMPANY

By: [Signature]

Tracey D. Watson, Attorney-in-Fact

ACKNOWLEDGMENT OF ANNEXED INSTRUMENT

STATE OF NEW YORK

COUNTY OF NEW YORK

On this 11th day of January, 2000 before me personally came Tracey D. Watson to me known who being by me duly sworn, did depose and say that he/she is an Attorney-in-Fact of the FEDERAL INSURANCE COMPANY and knows the corporate seal thereof: that the seal affixed to said annexed instrument is such corporate seal, and was thereto affixed by authority of the Power of Attorney of said Company, of which a Certified Copy is hereto attached, and that he/she signed said Instrument as an Attorney-in-Fact of said Company by like authority.

ANA W. OLIVERAS
NOTARY PUBLIC, State of New York
No. 02-078173
Qualified in Essex County
Commission Expires Jan. 14, 2001

Acknowledge and Sworn to before me
on the date above written


Notary Public

127736



**POWER
OF
ATTORNEY**

**Federal Insurance Company
Vigilant Insurance Company
Pacific Indemnity Company**

**Ar Surety Department
15 Mountain View Road
Warren, NJ 07059**

v All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint James P. Holland, ly R. Bratton, Migdalia Otero, Beverly A. Woolford, Jennifer Caldarella, Tracey D. Watson ry Ann Gonzales-Selman, Robyn Walsh, Paula Yip-Ying, Vincent Moy, Ana W. Oliveras, resa Giraldo, and Kimberly A. Bruno of New York, New York-----

as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and ir behalf as surety thereon or otherwise, bonds (other than bail bonds) and undertakings given or executed in the course of its business (but not ude any instruments amending or altering the same, nor consents to the modification or alteration of any instrument referred to in said bonds or tions).

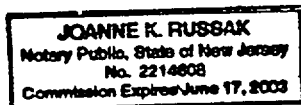
Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have xecuted and attested these presents and affixed their corporate seals on this 2nd day of August, 1999

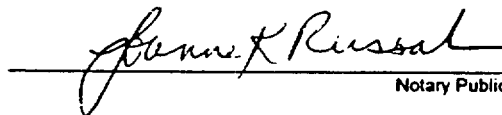

th C. Wendel, Assistant Secretary


Frank E. Robertson, Vice President

OF NEW JERSEY } ss.
of Somerset

On this 2nd day of August, 1999, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the lies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel being by me duly sworn, did depose and say that he is Assistant ry of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with Frank E. Robertson, and knows him to be esident of said Companies; and that the signature of Frank E. Robertson, subscribed to said Power of Attorney is in the genuine handwriting of Frank E. on, and was thereto subscribed by authority of said By-Laws and in deponent's presence.




Notary Public

CERTIFICATION

from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the airman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, unde: their pective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following pers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the npany may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or rmeys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with xect to any bond or undertaking to which it is attached."

th C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY NY (the "Companies") do hereby certify that

the foregoing extract of the By-Laws of the Companies is true and correct,
the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U. S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U. S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and the foregoing Power of Attorney is true, correct and in full force and effect.

under my hand and seals of said Companies at Warren, NJ this 11TH day of JANUARY, 2000




Kenneth C. Wendel, Assistant Secretary

EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR Y US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903-3485 Fax (908) 903-3656 e-mail: surety@chubb.com

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statement made

DECEMBER 31, 1998

(in thousands of dollars)

ASSETS

Cash	170,156	Outstanding losses and loss expenses	5,542,316
United States Government Securities	6,254,166	Unearned Premiums	1,609,751
Municipal Bonds	1,482,356	Reserve for future losses	61,651
Other Bonds	491,225	Other Liabilities	354,481
Stocks	542,620		
Short Term Investments	255,761		
Other Invested Assets	255,761		
TOTAL INVESTMENTS	8,814,196	TOTAL LIABILITIES	2,597,462

Investments in Affiliates	545,745	Proportionate Share of Investments	376,850
Participating Insurance Company	212,667	Unassigned Funds	2,597,121
General Insurance Company	142,734	Unassigned Appraisal of Investments	123,221
United Insurance Company of Europe	101,771		
CC Casualty Insurance Ltd	94,786		
Other Affiliates	102,226		
Net Premiums for reinsurance	541,636		
Other Assets	615,842		
TOTAL ADMITTED ASSETS	11,356,701	TOTAL LIABILITIES AND SURPLUS TO POLICYHOLDERS	11,356,701

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners. Investments valued at \$25,771 are deposited with government securities as required by law.

State, County & City of New York - ss.

of the Federal Insurance Company

being duly sworn, deposes and says that the foregoing Statement of Assets, Liabilities and Surplus to Policyholders of the Federal Insurance Company on December 31, 1998 is true and correct and is true and correct as of the Annual Statement of the Company as filed with the Secretary of the Treasury of the United States for the 12 months ending December 31, 1998.

Signed and sworn to before me
11TH day of JANUARY 2000.

ELBA SANTIAGO
Notary Public, State of New York
No. 013A46450
Qualified in Bronx County
Commission Expires Jan. 31, 2000

Elba Santiago
Notary Public



RECEIVED
REGION 1

200 FEB -2 PM 4: 10

U.S. Nuclear Regulatory Commission
Region I Nuclear Materials Safety Branch 2
475 Allendale Road
King of Prussia, PA 19406-1415

27 January 2000
Licamd45.doc

Attention: Mr. John R. McGrath
Senior Health Physicist

Dear Mr. McGrath:

In reference to our telecon of today, please consider this letter as a formal request to amend License 06-00217-06, Docket No. 030-03754 to change our name to;

ABB C-E Nuclear Power, Inc.

New decommissioning documents were sent under separate cover on January 24, 2000.

If you have any questions or require additional information, please contact me at your convenience on 860-285-5285 or steve.m.sorensen@us.abb.com

Thank you for your attention in this matter

Regards,
ABB C-E Nuclear Power, Inc.

Stephen M. Sorensen, Manager
Radiological Protection Services

~~Xc: R.S. Bell Jr. (w/o attachments)~~
~~D.A. Cirelli (w/o attachments)~~ SMS

ABB Combustion Engineering Nuclear Power

1 2 7 7 3 5

Combustion Engineering Inc.

P.O. Box 500
2000 Day Hill Road
Windsor, Connecticut 06095

Telephone (860) 688-1911

ITEM # 162



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

February 4, 2000

Docket Nos. 030-03754
030-03754
Control Nos. 127735
127736

License Nos. 06-00217-06
~~06-00217-06~~ day

Stephen M. Sorensen
Manager, Radiological Protection Services
ABB C-E Nuclear Power, Inc.
P.O. Box 500
2000 Day Hill Road
Windsor, CT 06095

Dear Mr. Sorensen:

This refers to your license amendment request. Enclosed with this letter is the amended license.

With regard to your letter dated January 24, 2000, which forwarded the Surety Bond Rider and revised Standby Trust Agreement, we have no further questions at this time.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original signed by John R. McGrath

John R. McGrath
Senior Health Physicist
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 45

ITEM # 103

ML 003681101

B/118
NMS/RC-N-001

S. Sorensen
ABB C-E Nuclear Power, Inc.

2

DOCUMENT NAME: G:\Docs\Current\Lic Cvr Letter\L06-00217-06.127735.wpd

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To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/end "E" = Copy w/ attach/end "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI		DNMS/RI			
NAME	JMcGrath							
DATE	2/4/00							

OFFICIAL RECORD COPY



October 30, 1990

Docket No. 70-1100
License No. SNM-1067

Dr. Malcolm R. Knapp, Director
Division of Radiation Safety and Safeguards
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

Subject: Radiological Health and Safety Program Results at
the Windsor Nuclear Fuel Manufacturing Facility

Dear Dr. Knapp:

In my presentation to you and your staff on October 23, 1990, I showed several slides that exhibited the demonstrable impact, over the past several years, of our improved radiological controls at the Windsor Nuclear Fuel Manufacturing Facility. Those slides are provided herewith (Enclosure) because I wish to re-emphasize the positive impacts that the various programs in radiological safety and control have had. It is also my intention to emphasize our common efforts to further improve upon our performance in the future.

In the vernacular of our new quality culture, the process is never ending. To achieve a high level of performance one must always strive to meet all requirements, the first time, every time! We feel that our culture, has become firmly entrenched and that our integrated system of management controls will not only prevent any backsliding, but assure our continued progress into the future.

ITEM # 165 ABB Combustion Engineering Nuclear Power

Combustion Engineering, Inc.

1000 Prospect Hill Road
Post Office Box 500
Windsor, Connecticut 06095-0500

Telephone (203) 688-1911
Fax (203) 285-9512
Telex 99297 COMBEN WSOP

B/1119

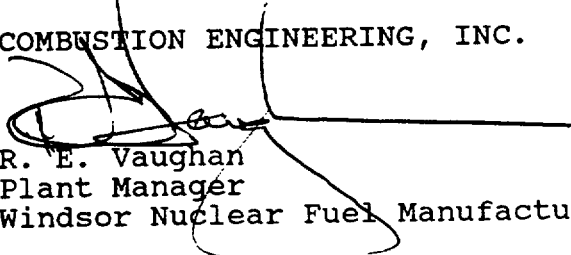
Dr. Malcolm R. Knapp

October 30, 1990
Page 2

If there are any questions or comments on this subject,
please contact me or Mr. John F. Conant, our Nuclear
Materials Licensing Manager, at (203) 285-5002.

Very truly yours,

COMBUSTION ENGINEERING, INC.



R. E. Vaughan
Plant Manager
Windsor Nuclear Fuel Manufacturing

REV:dd

Enclosure: As stated

cc: T. Martin (NRC -Region I)
J. Joyner (NRC - Region I)
S. Soong (NRC)
J. Roth (NRC - Region I)
B. Bores (NRC - Region I)