INSPECTION FILE

February 25, 1998

PPD Pharmaco
ATTN: Mr. Richard L. Tacey
Radiation Protection Officer
2240 Dabney Road
Richmond, VA 23230

SUBJECT: NRC INSPECTION REPORT NO. 45-25314-01/98-01

Dear Mr. Tacey:

On January 13, 1998, the NRC completed an inspection and confirmatory survey at your facility in Richmond, Virginia. The enclosed report presents the results of that inspection, which were discussed with you on February 10, 1998.

During the inspection records were reviewed, procedures were discussed with personnel, and direct confirmatory measurements were taken. The inspectors also obtained several samples which have been analyzed and found to meet the unrestricted use criteria. Based on those reviews, discussions, and measurements, no violations were identified and no residual contamination was found. Therefore, we can conclude that the area meets the release for unrestricted use criteria. We have no further concerns regarding the radiological status of the building located at 2246C Dabney Circle used under NRC License No. 45-25314-01.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please contact us.

Sincerely,

originial signed by Thomas Decker

Thomas R. Decker, Chief
Materials Licensing/Inspection Branch 1
Division of Nuclear Materials Safety

Docket No. 030-33656
License No. 45-25314-01

Enclosure: NRC Inspection Report
No. 45-25314-01/98-01

cc w/encl:
Commonwealth of Virginia

Distribution w/encl: (See page 2)

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	030-33656
License No.:	45-25314-01
Report No.:	45-25314-01/98-01
Licensee:	PPD Pharmaco
Location:	Richmond, Virginia
Date:	January 13, 1998
Inspectors:	Orysia Masnyk Bailey, Radiation Specialist John M. Pelchat, Senior Radiation Specialist
Approved by:	Thomas R. Decker, Chief Materials Licensing/Inspection Branch 1 Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

PPD Pharmaco
2246 C Dabney Circle
NRC Inspection Report No. 45-25314-01/98-01

This special, announced inspection was conducted to evaluate the licensee's closeout survey in support of releasing the building located at 2246C Dabney Circle for unrestricted use. All areas surveyed were found to be below the release criteria for unrestricted use as delineated in NRC Regulatory Guide 1.86 titled "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 August 1987. The conduct of this inspection included discussions with cognizant licensee representatives, review of documents, and direct observations and radiological surveys of the site.

Attachments:
List of Persons Contacted
Inspection Procedures Used
Confirmatory Survey Results

REPORT DETAILS

01. Scope

This routine, announced inspection was conducted to evaluate the current radiological status of the laboratory located at 2246C Dabney Circle in Richmond, Virginia, which was utilized by PPD Pharmaco under NRC License No. 45-25314-01, to determine if the building could be released for unrestricted use. The release criteria used were those delineated in Regulatory Guide 1.86 published in August 1987, titled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material." These limits are as follows: 5,000 dpm/100 cm^2 average and 15,000 dpm/100 cm^2 maximum for fixed contamination and 1000 dpm/100 cm^2 for removable contamination for beta/gamma emmitters and 100 dpm/100cm^2 average and 300 dpm/100 cm^2 maximum for fixed contamination and 20 dpm/100 cm^2 for removable contamination for Iodine 125. The method used for the NRC confirmatory survey was that described in NUREG/CR-5849, "Manual for Conducting Radiological Surveys in Support of License Termination," published in June 1992. The inspectors reviewed all records pertaining to the decommissioning of this facility. The affected area and portions of the unaffected area were surveyed. Selecting approximately ten percent of the licensee's data points, confirmatory fixed point measurements were made for fixed contamination and smears were taken for removable contamination.

02. Observations and Findings

By letter dated August 29, 1997, PPD Pharmaco requested an amendment to their license to remove the laboratory located at 2246C Dabney Road from their license. The licensee's results of its close-out survey were enclosed in this letter.

The close-out results report dated October 1997 was prepared by the licensee's contractor who performed the closeout survey. It stated that all radioactive materials were removed from the building including source vials, waste, and storage containers and that there were no reported spills, releases or unusual events. The isotopes of interest were iodine 125, carbon 14, and tritium. The report concluded that none of the direct measurements for fixed contamination or swipes for removable contamination exceeded Regulatory Guide 1.86 limits.

The inspectors reviewed the licensee's closeout report and determined that the survey method and instrumentation was correct and done in accordance with the methods described in NUREG/CR-5849. Licensee records were reviewed and the inspectors determined that contamination surveys were performed and smears taken daily as required and that no contamination was found. No events or unusual occurrences were recorded. No sealed sources were possessed at the facility.

The NRC's fixed point measurements and area scans (for "hot spots") were done using a Ludlum Model 3 and Ludlum 44-9 pancake probe. An Eberline ESP-2 and a HP-260 pancake probe was used for the C-14 scanning and fixed point measurements. The ESP-2 and LEG-1 low energy gamma probe were used for I-125 scanning. No areas of elevated activity were noted. All readings were comparable to those for background which were taken elsewhere in the building, that being 54 cpm/100 cm^2 and 10 uR/hr. Swipes were taken for removable contamination and counted on a liquid scintillation counter. All of the swipes were below the Regulatory Guide 1.86 release limits. The results of the measurements are listed in Attachment A.

03. Conclusions

The levels of fixed and removable contamination are below release limits, consistent with background. The building may be released for unrestricted use.

EXIT MEETING SUMMARY

The inspectors discussed the inspection results with the RSO by telephone on February 11, 1998, after the swipes were counted. The licensee was advised that there was no residual contamination found in the building and that the building could be released for unrestricted use.

ATTACHMENT

LIST OF PERSONS CONTACTED

R. Tacey, Radiation Safety Officer

INSPECTION PROCEDURES USED

IP 83890	Closeout Inspection and Summary
IP 87104	Decommissioning Inspection Procedure for Materials Licensees

CONFIRMATORY SURVEY RESULTS
PPD PHARMACO - RICHMOND, VIRGINIA
JANUARY 13, 1998

Location/Grid	Fixed Point Measurement (dpm/100 cm²)	mrem/hr at one meter	Liquid Scintillation (dpm/100 cm²)		
			C-14	H-3	I-125
A-2	<MDA	<MDA	<MDA	8	11
A-4	<MDA	<MDA	<MDA	7	3
A-11	<MDA	<MDA	<MDA	8	4
A-16	<MDA	<MDA	<MDA	6	18
B-4	<MDA	<MDA	5	8	10
B-9	1000	<MDA	<MDA	7	5
B-11	<MDA	<MDA	<MDA	11	8
B-14	<MDA	<MDA	<MDA	8	13
B-16	<MDA	<MDA	<MDA	7	8
C-2	<MDA	<MDA	<MDA	8	0
C-4	<MDA	<MDA	<MDA	9	10
C-8	<MDA	<MDA	<MDA	6	0
C-9	<MDA	<MDA	<MDA	6	13
C-13	<MDA	<MDA	<MDA	6	3
C-14	<MDA	<MDA	<MDA	6	7
D-2	<MDA	<MDA	<MDA	7	3
I-11	<MDA	<MDA	<MDA	9	7
J-11	<MDA	<MDA	<MDA	6	11
K-1	<MDA	<MDA	<MDA	0	0
K-6	<MDA	<MDA	<MDA	6	3
K-11	<MDA	<MDA	<MDA	9	10
H-2	<MDA	<MDA	<MDA	7	0
BENCH 249	<MDA	<MDA	<MDA	7	0
BENCH 245	<MDA	<MDA	<MDA	7	7
BENCH 266	<MDA	<MDA	<MDA	9	11

Location/Grid	Fixed Point Measurement (dpm/100 cm²)	mrem/hr at one meter	Liquid Scintillation (dpm/100 cm²)		
			C-14	H-3	I-125
BENCH 262	<MDA	<MDA	<MDA	5	5
FUME HOOD 48	<MDA	N/A	33	9	20
FUME HOOD 28	<MDA	N/A	6	8	13
FUME HOOD 33	<MDA	N/A	<MDA	9	7
FUME HOOD 20	<MDA	N/A	<MDA	5	7
LAB SINK 286	<MDA	<MDA	<MDA	7	5
LAB SINK 287	<MDA	<MDA	<MDA	6	8
COUNTER TOP 440	<MDA	<MDA	<MDA	7	5
HVAC AIR RETURN	5000*	<MDA	4	25	11
MEN'S ROOM 422	<MDA	<MDA	<MDA	9	0
AIR HOOD CONTROL	<MDA	<MDA	<MDA	7	1
WOMEN'S ROOM SINK	<MDA	<MDA	<MDA	9	17
MEN'S ROOM SINK	<MDA	<MDA	<MDA	8	5
AIR AND N2 CONTROLS	N/A	N/A	<MDA	6	1

*Review of the licensee's analysis confirmed this was radon.

SURVEY INSTRUMENTS USED FOR CONFIRMATORY SURVEY

PPD PHARMACO - 2246C Dabney Road
January 13, 1998

1. Ludlum Model 3 Rate meter with 44-9 "pancake" probe
   Serial No.: 102129 Calibrated: May 8, 1997
   Background: 20 cpm Efficiency: 4% C-14
   MDA: 10.000 dpm/100cm^2 (scanning mode)

2. Eberline ESP-2 with Eberline "pancake" HP-260 probe
   Serial No.: 22794 Calibrated: September 22, 1997
   Background: 29 cpm Efficiency: 4% C-14
   MDA: 14.500 dpm/100cm^2 (scanning mode) 4.629 dpm/100cm^2 (scaler mode)

   Eberline ESP-2 with LEG-1 probe
   Background: 360 cpm Efficiency: 27% I-125
   MDA: 7.886 dpm/100cm^2

3. Eberline Micro R/hr meter with internal probe
   Serial No.: 101708
   Background: 7uR/hr

4. The removable contamination smears were counted for C-14, H-3, and I-125 on a United Technologies Packard 2000 CA/LL Liquid Scintillation Laboratory Analyzer. The efficiency counting for H-3 was 70% and 80% for C-14. The H-3 efficiency was used conservatively for the I-125 analysis.