

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number

34-16305-01

Docket or Reference Number

030-10767

Amendment No. 11

Perfection Services, Inc.  
P. O. Box 77  
Stone Creek, Ohio 43840

In accordance with a November 22, 1996 memorandum from B. L. Jorgensen to B. J. Holt of the Region III Office of the United States Nuclear Regulatory Commission, letter dated October 18, 1996, signed by Cynthia D. Pederson, Director, Division of Nuclear Materials Safety, and Inspection Report Number 030-10767/96001(DNMS), License Number 34-16305-01 is hereby terminated.

TERMINATED

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date 12/5/96

By

Kevin A. Rhee  
Nuclear Materials Licensing Branch, Region III

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PDR ADOCK 03010767  
C PDR

COPY

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SD

BETWEEN:

License Fee Management Branch, ARM  
and  
Regional Licensing Sections

(FOR LFMS USE)  
INFORMATION FROM LTS

Program Code: 03110  
Status Code: 2  
Fee Category: 5A  
Exp. Date: 19940430  
Fee Comments: 399954 STG ABANDONED  
Decom Fin Assur Req'd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: PERFECTION SERVICE INCORPORATED  
Received Date: 961122  
Docket No: 3010767  
Control No.: 302098  
License No.: 34-16305-01  
Action Type: Termination

2. FEE ATTACHED

Amount: \_\_\_\_\_  
Check No.: Ø

3. COMMENTS

Signed \_\_\_\_\_  
Date 12/3/96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / ☒)

1. Fee Category and Amount: 5A Termination

2. Correct Fee Paid. Application may be processed for:  
Amendment \_\_\_\_\_  
Renewal \_\_\_\_\_  
License \_\_\_\_\_

3. OTHER \_\_\_\_\_

Signed SC  
Date 12/9/96

1206 DEC -9 PM 2:16

Log	<u>Dec 4 III</u>
Remitter	_____
Check No.	_____
Amount	_____
Fee Category	<u>5A</u>
Type of Fee	<u>AMD</u>
Date Check Rec'd	_____
Date Completed	<u>12/9/96</u>
By:	<u>SC</u>



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION III  
801 WARRENVILLE ROAD  
LISLE, ILLINOIS 60532-4351

November 22, 1996

MEMORANDUM TO: B. J. Holt, Chief, Materials Licensing Branch

FROM: B. L. Jorgensen, Chief, Decommissioning Branch

SUBJECT: TERMINATION OF LICENSE NO. 34-16305-01  
(DOCKET NO. 030-10767)

Based on the surveys and support activities that were conducted at Perfection Services, Inc., License No. 34-16305-01, by RIII inspectors, we believe no significant health or safety hazards currently exist at the Premises and the license can be terminated. Perfection Services, Inc. located at 110 Marietta Street, Ste. Creek, Ohio was licensed by the NRC in 1975 for the possession and use of sealed sources incident to well logging activities. In February 1996, the licensee ceased principal operations under the license, abandoned the business and declared bankruptcy. Because of the bankruptcy, many of the requirements of 10 CFR 30.36 were not fulfilled, i.e., the licensee failed to notify the NRC that principal activities under the license had ceased; the licensee made no attempt to decommission the facility or submit a decommissioning plan; and the licensee did not request that the license be terminated.

When the licensee abandoned the business, he locked the premises and left nineteen NRC-licensed sealed sources and other equipment within the building. Following the declaration of bankruptcy, the bankruptcy court entered a court order authorizing the sale of the sources to another NRC licensed well logger, and provided that the remaining equipment in the building would be deemed abandoned after the sale was completed. In July 1996, the sealed sources were inventoried and leak tested by a contractor in preparation for their sale and transfer to the NRC-licensed well logger. These activities revealed two sources, a nominal two curie cesium-137 sealed source and a three curie americium-241 sealed source, that were leaking radioactive material in excess of NRC limits. Previous leak tests of these sources had not indicated that they were leaking. Based on conversations with the contractor and the surveys that were conducted, we believe the actions taken by the contractor may have inadvertently caused the contamination that was later found on a workbench and table used by the contractor to conduct leak tests and on the floor immediately surrounding the workbench.

In view of the abandonment of the business, the filing of the bankruptcy petition and the terms of the court order, the radiological concerns precipitated by the discovery of the leaking sources in July prompted the NRC's direct involvement to ensure the continued security of the radioactive material within the building and the health and safety of the public. Beginning in late July 1996, NRC inspectors conducted health and safety

*Perfection*  
FEE EXEMPT

RECEIVED

NOV 22 1996

REGION III

302098

surveys at the facility that consisted of limited direct surveys and smears for removable contamination. All smears were collected for NRC laboratory analysis to determine the extent of residual cesium-137 and americium-241 contamination from formerly licensed activities at the facility. Smear analyses revealed residual levels of cesium-137 within the building that exceeded the unrestricted release guidelines in 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"*. The contamination was found on the surfaces of a workbench and a table, and on isolated areas of the floor beneath the workbench. One area on the surface of the workbench also indicated the presence of trace amounts of americium-241. Areas exhibiting removable contamination were subsequently decontaminated by the building owner to levels below the guidelines. No other areas with radioactivity in excess of the NRC's unrestricted use guidelines were identified.

In August and September 1996, the nineteen sealed sources previously possessed by Perfection Services were removed from the premises and transferred to authorized recipients. The leaking americium-241 source (Serial No. 71-1-557B) was transferred to the Department of Energy (DOE) for storage at Los Alamos National Lab and the leaking cesium-137 source (Serial No. A-861) was transferred to a contractor for disposal at the Barnwell, South Carolina, Radioactive Waste Burial Site. The seventeen non-leaking sources were transferred to Best Wireline, Inc., an NRC licensee. All of the sources arrived at their proper destinations without incident.

Based on health and safety surveys and radiological support activities for the removal of licensed material, residual contamination, and radiological waste performed at the Premises during the period July 31, 1996, through September 26, 1996, the NRC concluded that there were no remaining significant health or safety hazards at the Premises. To fulfill one of the provisions of the court order, letters dated October 18, 1996, were sent to the parties identified in the court order to notify them of the results of our surveys. Those written notifications allowed the parties to remove their personal property from the Premises and released the Premises for unrestricted use.

Attached to this memo are the results of the smears taken at Perfection Services, Inc.. The results include smears that were taken on all surfaces that may have been in contact with the leaking sources, on the floors where sources may have been handled and on surfaces within trucks that were used to transport the sources. In all cases, the smear results demonstrated that there were no contamination levels on any surfaces that were surveyed that exceeded the unrestricted release guidelines in 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"*. In addition to the smears, direct surveys were performed on the



same surfaces that were smeared as well as on 100% of the floor surfaces. Dose rate surveys were also performed one meter from the floor as well as the wall surfaces up to two meters. Those direct surveys indicated that there were no areas where the exposure rates exceeded twice the background exposure rate.

The decision not to require the licensee or any other party to perform additional decommissioning activities per the requirements of 10 CFR 30.36 was based on the quality and quantity of the surveys conducted at Perfection Services, Inc., by the NRC Region III inspectors. Region III management concluded after discussions with NRC headquarters and the Office of General Counsel that the surveys were performed, in part, within the guidance provided in NUREG/CR-5849 "Manual for Conducting Radiological Surveys in Support of License Termination" and were sufficient to meet the criteria in 10 CFR 30.36 for conducting decommissioning activities, performing a final closeout survey and terminating the license. We believe that based on these findings and conclusions that the license for Perfection Services, Inc. can be terminated.

Attachment: As stated

cc w/o att: C. Pederson, DNMS

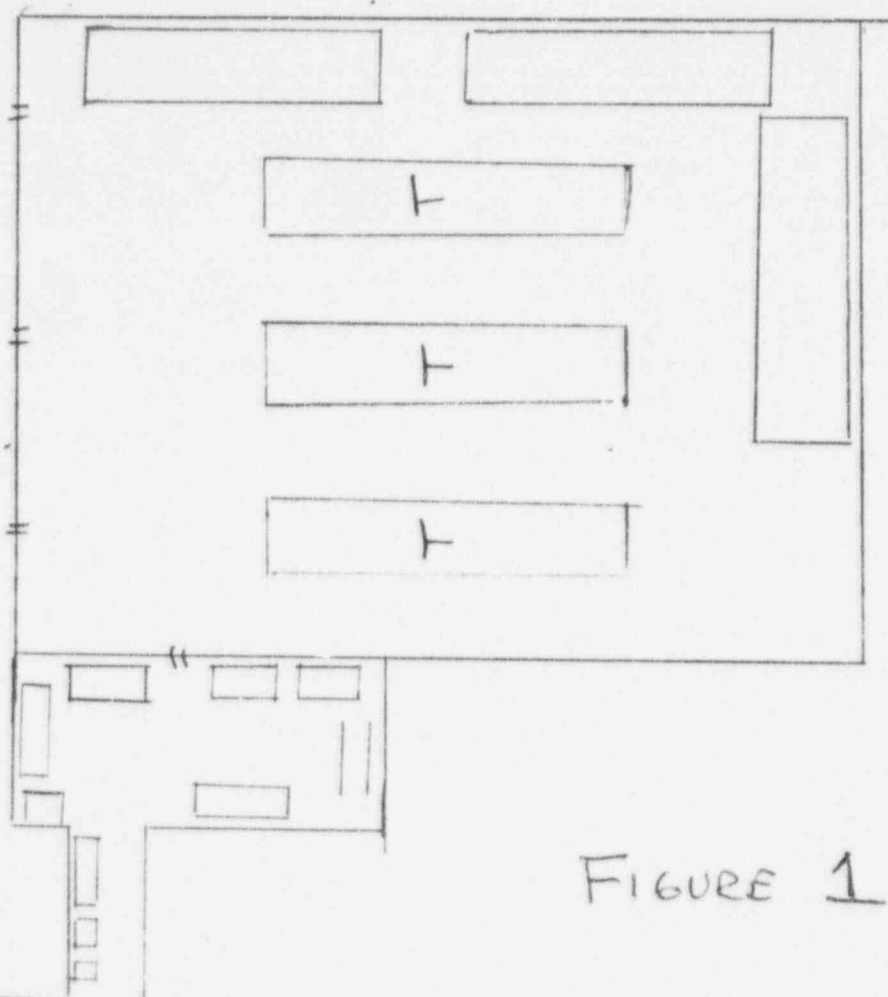
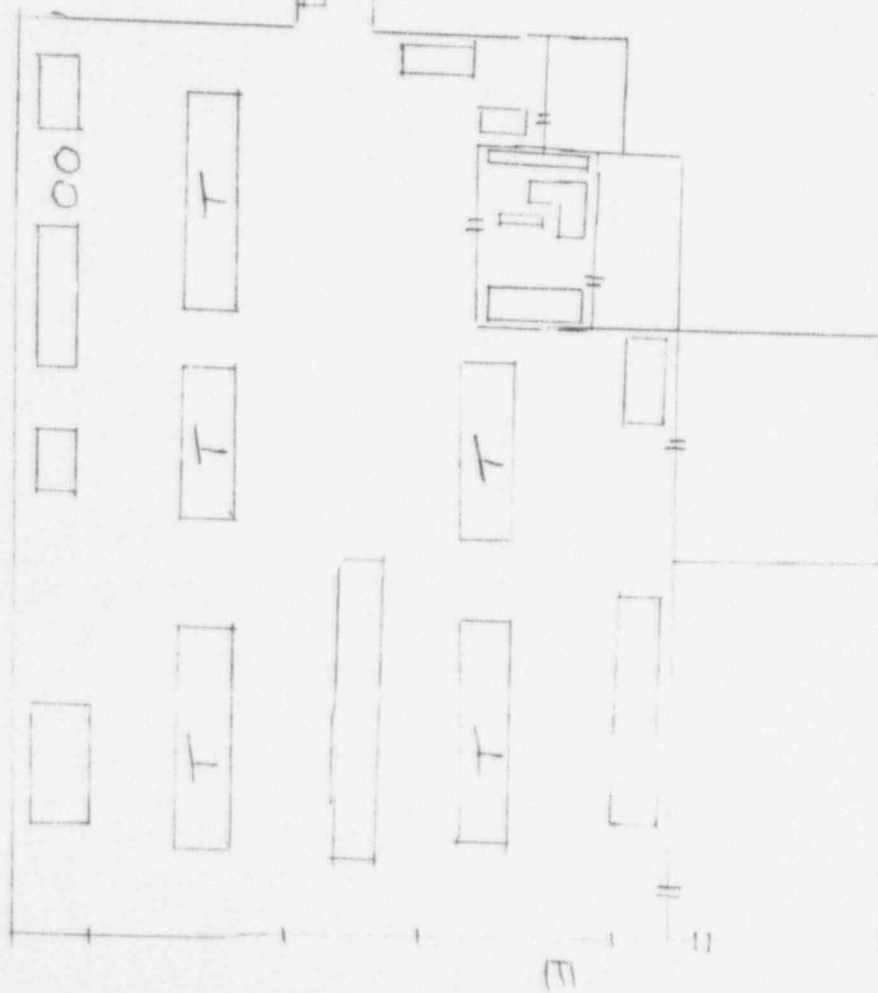


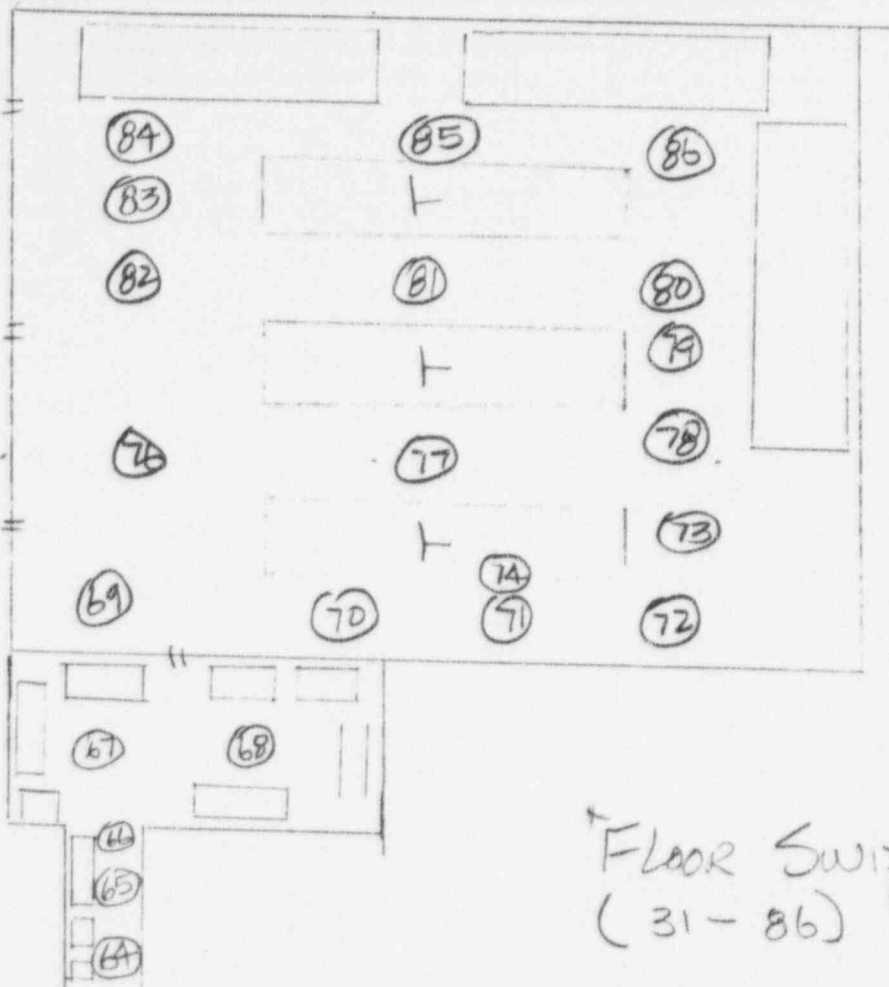
FIGURE 1

2

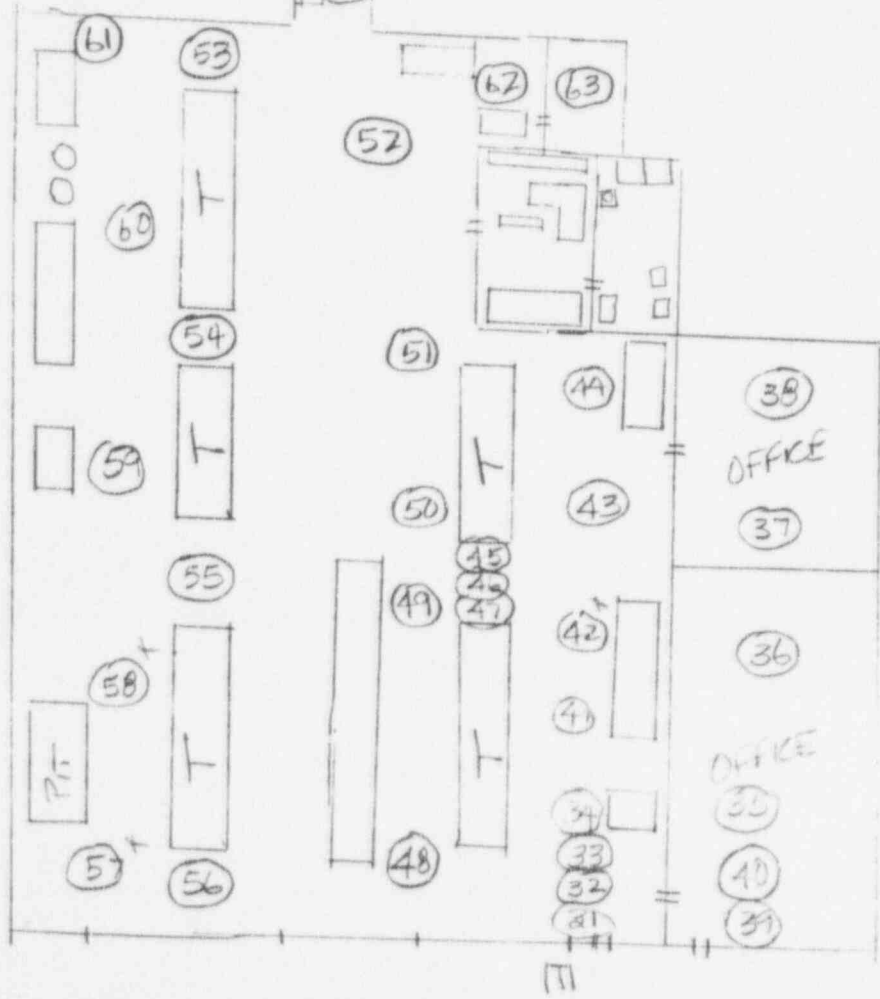


W

STREET



FLOOR SWIPES  
(31-86)



POSITIVE RESULTS

- (42) 277 dpm  $\beta$
- (57) 9.1 dpm  $\beta$
- (58) 3.8 dpm ALPHA
- 5.2 dpm  $\beta$

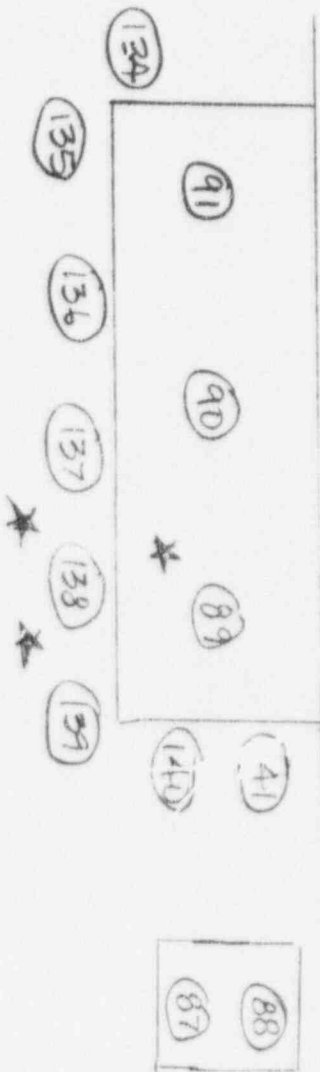




88 55 dpm  $\beta$   
 89 2566 dpm  $\beta$   
 90 50 dpm  $\beta$   
 91 175 dpm  $\beta$

N

OFFICE



N

Positive Results

- (138) 865 dpm B
- (89) 39 dpm B
- (140) 9 dpm B
- (141) 10 dpm B

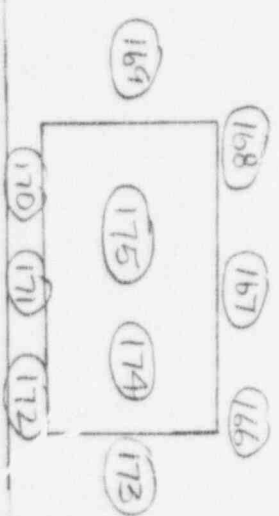
P.T.

TUBES WITH SWIPE LOCATIONS

FLOOR SWIPES (134-141)

★ HOT SPOTS (GEIGEE w RANGE ROBE)  
MAX 50,000 cpm

P.T. SWIPES (166-175)



S

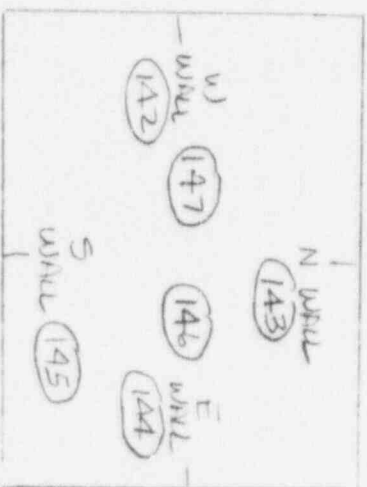
E

N

Flock & Sides PT

Flock Sweepers (47 & 146)

3



E

5

Sample	$\alpha/\beta$	CPM / DPM	
42	B	219 / 277	Floor below (lowest bench)
57	B	10 / 9.1	} near pit + (floor)
<del>57</del>	$\alpha$	3 / 3.8	
58	B	7 / 5.2	
88	B	46 / 55	- bench top
89	B	2005 / 2566	- bench top - 332 p.m. $\rightarrow$ 2566 dpm
90	B	42 / 50	"
91	B	140 / 175	"
138	B	678 / 865	} floor under bench top.
139	B	34 / 39	
140	B	10 / 9	
141	B	11 / 10	

## ATTACHMENT

## PERFECTION SERVICES RADIOLOGICAL SURVEY DATA

## ACTIVITY IN DPM/100 SQUARE CENTIMETERS

SMEAR NUMBER	ALPHA	BETA
96-833	< MDA	277
96-879	< MDA	55
96-880	34	2567
96-881	< MDA	50
96-882	< MDA	176
96-929	< MDA	866
96-930	< MDA	40
96-1252	< MDA	213
96-1266	< MDA	2435
96-1267	< MDA	181
96-1272	< MDA	935
96-1273	< MDA	26
96-1274	< MDA	3964
96-1275	< MDA	868
96-1276	< MDA	2186
96-1277	< MDA	56
96-1279	36	4848
96-1280	< MDA	24
96-1282	< MDA	3425
96-1285	< MDA	1399
96-1286	< MDA	13
96-1301	< MDA	55
96-1304	< MDA	30
96-1305	< MDA	32
96-1309	< MDA	318
96-1313	< MDA	39
96-1318	< MDA	1212
96-1321	< MDA	19
96-1323	< MDA	146
96-1327	< MDA	18
96-1351	< MDA	54
96-1352	< MDA	17
96-1354	< MDA	45
96-1355	< MDA	28
96-1356	< MDA	14
96-1366	< MDA	1398
96-1388	440	237
96-1390	8	< MDA
96-1425	< MDA	17
96-1428	< MDA	59
96-1429	< MDA	51
96-1433	< MDA	14
96-1440	< MDA	62
96-1452	< MDA	14

96-1463	< MDA	16
96-1476	< MDA	17
96-1477	< MDA	23
96-1479	< MDA	33
96-1480	< MDA	31
96-1481	< MDA	528
96-1484	< MDA	22

-----  
 Activity is in disintegrations per minute (DPM) per 100  
 centimeters square area smeared.

Over 600 smears were taken at Perfection Services. This  
 table documents those smears with Alpha or Beta activity  
 greater than the minimum detectable activity (MDA). All  
 remaining smears were less than the MDA.

Minimum Detectable Activity:

Alpha 6 DPM  
 Beta 11 DPM

Areas where removable activity (smears) was greater than the  
 release limit were decontaminated. Subsequent smears of  
 these areas indicated that the activities were less than the  
 release limit or below the MDA.



☐ VISIT☒ CONFERENCE☐ TELEPHONE☐ INCOMING☐ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT

Dave Nelson

ORGANIZATION (OFFICE, DEPT. ETC.)

Decommissioning Branch

TELEPHONE NO.

## SUBJECT

Termination of Perfection Services, Inc. license and 11/22/96 memo from Decommissioning Branch.

## SUMMARY

In order to complete our review of final survey of Perfection Services facilities and equipment, and take final action via termination of the license, additional information and/or clarification is needed as follows:

Based upon review of the 11/22 memo, the following was noted:

- ☒ 1. Define the limits for release for unrestricted use for Beta, Gamma and Alpha emitters.
- ☒ 2. Top of page 2 of 11/22 memo discusses Cs-137 contamination that exceeded 1987 guidance table. Contamination was found on workbench, table, and isolated areas on floor below workbench. Also, Am-241 was found on workbench. All areas were cleaned to below guidance values. Bottom of page 2 a statement is made that attached to the memo are results of smears, and that in all cases the results indicate that there were no contamination levels on any surfaces that were surveyed that exceeded the guidance. Are these survey results after decontamination? If so, I need the results of smears before decon. Also, after a review of the attached results it does appear that some do exceed the guidelines. Please clarify. *Per our discussion on 12/1, Dave stated that the results →*
- ☒ 3. Correlate results of smears to locations identified on the facility diagram.
- ☒ 4. Submit results of direct surveys taken. Provide the value of background, as well as a description of where background readings were taken.
- ☒ 5. What was MDA for both Beta and Alpha?
- ☒ 6. In the memo a statement is made that it is believed that the sources which were discovered to be leaking may have been caused by the contractor. What activities were being performed by the contractor that would have caused the leaking? Also, was the contractor aware that they could have caused the sources to leak and therefore taken possession of leaking sources, contaminated their own equipment, personnel, etc.?

Based upon a review of the lice file, the following was noted:

- ☒ 1. Page 11 of the radiation safety manual identifies a steel cabinet in the electronics room where sources, possibly some check sources, may have been stored. Was the cabinet checked and surveyed? All sources removed?
- ☒ 2. There is an equipment list on page 21 and tools listed on page 44 of the manual. Were these surveyed prior to release? Submit results.
- ☒ 3. Diagram submitted with 11/22 memo differs slightly from that in the file. The file *As per discussion & Dave on 12/1, the sketch he submitted & the memo depicts badly the layout at the time they did the surveys.*

2. associated <sup>the</sup> last paragraph on p. 2 of memo were after they  
decontaminated the contaminated areas. All areas that were found to  
exceed guidelines were decontaminated to levels at or below  
those required for removal. A second set of samples were not taken

diagram identifies a lounge next to the rest room. Please clarify. Was this area surveyed?

4. 10/29/74 letter from license in the file discusses Radium sources that were used. Were these sources also transferred? Were they present at the facility, or were there records available to indicate they were previously transferred/disposed?

5. License also authorized I-131 and Ir-192. Was there any contamination/sources present at time of survey? Transferred, decayed and disposed of, or any records indicating as such?

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Kevin A. Rice

12/2/96

ACTION TAKEN

SIGNATURE

TITLE

DATE

TO: Kevin Null  
FROM: David Nelson  
SUBJECT: PSI COMMENTS

This memorandum is in response to your Conversation Record requesting additional information regarding the 11/22/96 memo to B.J. Holt.

1. The limits are defined in the unrestricted release guidelines in 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"*. A copy of those guidelines is included as an attachment in Inspection Report No. 030-10767/96001(DNMS).
2. The inspectors did find contamination during their surveys. All of the contaminated areas were subsequently decontaminated to below the release guidelines.
3. We decided not to include the locations of the smears because the areas that were contaminated were subsequently decontaminated to levels below the guidelines. A general description of the locations for the smears is included in the Inspection Report.
4. The direct survey results were included in the Inspection Report.
5. The MDAs are addressed in the attachment to the 11/22 memo as well as in the Inspection Report.
6. The contractor removed the sources from the storage pit, removed the individual sources from their bull plugs and swiped the sources. He was unaware, until he got the smear results, that several of the sources were leaking. The contractor did not survey the areas that were used to conduct the wipe tests, the NRC inspectors found the contamination.

#### Part 2

1. The sources found at the facility were the sources used for well logging. No check sources were found. All cabinets including the cabinets in the electronics room were surveyed.
2. All equipment and tools that could have come in contact with the sources were surveyed. None were found to be contaminated.
3. What diagram? All areas in the building were surveyed.
4. We never found a Radium source. There were no records indicating the disposition of that or any other sources.
5. We found no I-131 or Ir-192 sources. Please note that we surveyed almost every square inch of the building. If there were sources present we would have found them.

DEC 06 1996

Dennis Traver  
TRAVER, WORTH & FOX  
305 Huntington Bank Bldg.  
232 N. 3rd Street  
Dover, OH 44622

SUBJECT: TERMINATION OF NRC LICENSE NUMBER 34-16305-01 ISSUED TO  
PERFECTION SERVICES, INC.

Dear Mr. Traver:

Enclosed for your information is Amendment No. 11 which terminates NRC License  
Number 34-16305-01, issued to Perfection Services, Inc.

If you have any questions on any of the information stated above, please contact me at  
(630) 829-9854.

Sincerely,

Original Signed By  
Kevin G. Null  
Nuclear Materials Licensing Branch

License No. 34-16305-01  
Docket No. 030-10767

Enclosure: Amendment No. 11

DOCUMENT NAME: M:\03010767.T6

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Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII								
NAME	KGNull:brt	KN							
DATE	12/5/96								

OFFICIAL RECORD COPY

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