

November 8, 1996

MEMORANDUM TO: Donald A. Cool, Director  
Division of Industrial and Medical Nuclear Safety  
Office of Nuclear Material Safety and Safeguards

FROM: Bruce S. Mallett, Director (original signed by DM Collins)  
Division of Nuclear Materials Safety

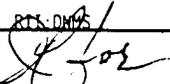
SUBJECT: STATUS REPORT OF REGION II REVIEW OF OAK RIDGE NATIONAL  
LABORATORY (ORNL) LIST OF POTENTIALLY CONTAMINATED SITES

The quarterly status reports for those Region II sites contained on the ORNL list of formerly licensed sites identified as potentially contaminated are contained in Attachments 1 through 4. The status reports for those sites with an ORNL final score greater than 300 which remain open are in Attachment 1 and **those with a score** from 5 to 300 which Region II has reviewed and remain open are listed in Attachment 2. The status reports for those sites which are **recommended** for deletion are listed in Attachment 3. The sealed source files which have been reviewed and are recommended for deletion are listed in Attachment 4. The information required for the Monthly Information Status Report is in Attachment 5. A tabular summary of all files assigned to Region II is in Attachment 6.

If you have any questions regarding these reports or our evaluations, please contact Mr. Jay L. Henson of my staff at (404) 331-0344.

- Attachments: (1) Reports for sites >300 (remain open)  
(2) Reports for sites <300 (remain open)  
(3) Reports for sites <300 (recommend deletion)  
(4) Sealed Sources (recommend deletion)  
(5) Monthly Information Status Report  
(6) Tabular summary for all Region II sites

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W., SUITE 2900  
ATLANTA, GEORGIA 30323-0199

November 8, 1996

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Division of Industrial and Medical  
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Office of Nuclear Material Safety  
and Safeguards

FROM: *for* Bruce S. Mallett, Director *BSM*  
Division of Nuclear Materials Safety

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STATUS REPORTS FOR SITES REVIEWED WITH SCORES <300

(REMAIN IN OPEN STATUS)

1. SUB-00081 Homer Laughlin China Co.
2. 16-00380-03 Army Medical Research Center
3. STB-00058 Du Pont
4. C-04327 Fostoria Glass Company  
SUC-00628
  
5. 45-10085-03Roanoke College

REGION 11 TERMINATED SITES LIST

SITE STATUS REPORT

OCTOBER 23, 1996

Docket No. 030-09859

License No. 45-10085-03

Licensee Name: Roanoke College

Site Name: Physical Science and Life Science Buildings

Site Address: North College Avenue

City: Salem                      State: VA              Zip: 24153  
Regional Contact: Jay L. Henson              Phone: (404) 331-0344

Status Summary:

ORNL Final Ranking: 66

Background

In June, 1974, Roanoke College was issued Byproduct Material License 45-10085-03 authorizing the possession of the following:

- (1) any byproduct material between Atomic Nos. 3 and 83, inclusive, in any form, with a possession limit of 10 mCi of each, inclusive, except 1 mCi each of Strontium 90 and Iodine 131, and a total possession limit of 100 mCi for all materials
- (2) Americium 241 as sealed sources or electroplated discs with an activity limit of 1 microcurie
- (3) Cobalt 60 as foils with an activity limit of 30 mCi

The authorized use for (1) and (2) was instruction and laboratory research and for (3) was experiments in surface physics and sputtering.

In December, 1979, this license was amended to a storage only license pending disposition of the licensed materials.

A NRC-314 form dated November 3, 1981, indicated that all materials procured and/or possessed under this license were transferred to the Virginia Polytechnic Institute and State University under their license (45-09475-30). The license was not formally terminated but was simply allowed to expire in July, 1981. There are no records of a final survey performed by the licensee of the facilities where licensed activities were conducted in the docket file and no indication that the NRC performed a closeout survey.

In August, 1985, Roanoke College was issued Byproduct Material License No. 45-10085-04 which authorized them to possess 1 mCi of Carbon 14 in any form for use in laboratory research studies. In December, 1986, their license was amended to authorize a maximum possession limit of 2 mCi. This license is currently active.

REGION 11 TERMINATED SITES LIST

SITE STATUS REPORT

OCTOBER 23, 1996

Roanoke College  
Salem, VA

License No. 45-10085-03  
Docket No. 030-09859

The authorized locations of use under the 45-10085-03 license compared to those locations authorized under License No. 45-10085-04 are listed below:

Building	45-10085-03	45-10085-04
Physical Science	176, 177A, 177B, 178, 179 266B, 266C, 266D	266B, 266C, 266D
	462	
Life Sciences	215, 217	215, 217, 201, 201A, 201B, 217A, 218E
	410	410, 409A, 410A

In a December, 1986, amendment to the current license

(45-10085-04), the licensee deleted rooms 266C and 266D in the Physical Science Building and room 409A in the Life Sciences building as areas of use.

Assessment

Many of the facilities where licensed activities were performed under License No. 45-10085-03 continue to be utilized for similar activities authorized under the current license (45-10085-04). In a December 4, 1979, letter contained in the 45-10085-03 docket file, the licensee stated that it would submit a report of the surveys conducted in the areas where materials have been stored when all materials were disposed or transferred. This report, if submitted, is not in the docket file.

Region II will send Roanoke College a letter requesting that they send copies of any reports of final surveys performed in those facilities where licensed activities were performed under License No. 45-10085-03 to demonstrate that when this license expired, all facilities met the criteria for unrestricted release. If Roanoke College cannot produce these reports, then Region II will request that Roanoke College perform these surveys in those facilities where licensed activities were performed under License No. 45-10085-03, excluding those facilities where licensed activities are currently performed under License No. 45-10085-04. Copies of the Region II and Roanoke College correspondence regarding this matter will be placed in the 45-10085-04 docket file for reference regarding the future decommissioning of these facilities.

Region II forwarded a letter to Roanoke College on March 30, 1995, requesting information on the radiological status of those facilities used under this terminated license which are not being used under their current license (License No. 45-10085-04). As of June 30, 1995, Roanoke College has not responded to this letter. After several attempts, on October 25, 1995, Region II personnel were able to telephonically reach an individual at Roanoke College who will respond to the letter.

## SITE STATUS REPORT

OCTOBER 23, 1996

Roanoke College  
Salem, VA

License No. 45-10085-03  
Docket No. 030-09859

Licensee personnel were contacted on February 6, 1996, for update on status. Licensee has contacted former employees who used material under the terminated license. Licensee is waiting for information from one user before determining what further action to take. Licensee is considering performing additional surveys of formerly utilized laboratories.

In a telephone conversation on May 8, 1996, licensee personnel reported that they had completed their investigation into the status of the former use areas and would submit a report of their findings by the end of the month. They stated that based upon their investigation, only short half-life materials was used in the areas in question.

As of August 6, 1996, the report had not been received. Mr. Jay Henson of the RII staff contacted the licensee on August 6 to determine the status of the response. Licensee staff stated that they would try to submit a response by the end of August. RII staff will contact the licensee at that time to verify status of response.

In a letter dated August 14, 1996, the licensee described its efforts to determine the radiological status of those rooms under the former license (45-10085-03) which are not used under their current license (45-10085-04). The licensee was able to contact the primary authorized user under the former license. This individual stated that: (1) all of the sources were produced by *neutron activation* and used in sputtering experiments; (2) all of the sources were initially less than one millicurie in activity; (3) all sources had relatively short half-lives (longest lived was cobalt-57, 270 days). The licensee stated it had been more than 28 half-lives since the material was last used under the former license.

The licensee did not provide any survey documentation that supports its conclusion that these rooms meet the release for unrestricted use criteria. Therefore, *Region I1* will perform a survey of these rooms before *rendering a final decision on* release of the rooms for unrestricted use.