



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

September 21, 1982

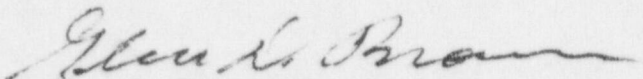
Holmes & Narver, Inc.
ATTN: R. Bruce Tippin, Manager
Process Engineering
4704 Harlan Street, Suite 515
Denver, Colorado 82012

Gentlemen:

This refers to the telephone discussion between Mr. D. B. Spitzberg of this office and Mr. R. Bruce Tippin of your organization on August 30, 1982. The subject of the discussion had to do with your letter of August 23, 1982, which reported the results of your survey for final closeout of license SUA-1307 in units corresponding to exposure rates. It appears that the instrumentation used during the survey will not detect alpha contamination levels, which we requested in our letter of May 25, 1982. It was agreed during the discussion that an additional survey for fixed and removable alpha contamination, using a suitable instrument, will be made and the results reported to this office.

We request that you give prompt attention to this matter.

Sincerely,


Glen D. Brown, Chief
Technical Program Branch

✓ cc: Vandy L. Miller, Chief
Licensing Management Branch, NMSS

Earl Wright:
Are you aware of
this license being closed
out? Is it expired?
This should go in license
file.
J. Kelly
9/29/82

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PDR ADDCK 04008550
C PDR

DISTRIBUTION
Docket No. 40-8550

PDR

Region IV

URFO w/f

URFO r/f

TFleming

JFisher

HPettengill

JLinehan

RSmith

JCollins

OCT 28 1982

04008550010E

URFO:TEF
Docket No. 40-8550

MEMORANDUM FOR: Docket File No. 40-8550

FROM: Thomas E. Fleming, Project Manager
Licensing Section II
Uranium Recovery Field Office

SUBJECT: TELECON REGARDING NRC REGION IV INSPECTION FOR
TERMINATION OF HOLMES AND NARVER, INC.'S LICENSE
NO. SUA-1307

Procedures for retiring the Holmes and Narver, Inc. License No. SUA-1307 are documented in a memorandum dated July 2, 1982. These procedures include the requirement that a decontamination survey of equipment be submitted to NRC, Office of Inspection and Enforcement (IE) by Holmes and Narver, Inc. IE would then review their survey report and, if appropriate, conduct a closeout inspection of the facility to determine whether the equipment is ready for unrestricted use.

The following is the status of the termination of the Holmes and Narver, Inc. license according to the procedures in the above referenced memorandum as stated by Mr. Blair Spitzburg, IE, in a phone conversation on October 18, 1982.

1. Holmes and Narver, Inc. submitted a decontamination survey to IE.
2. Holmes and Narver, Inc. were notified by IE that the survey was not adequate and consequently agreed to provide a revised survey.
3. Mr. B. Spitzburg, IE, inspected the equipment in Tucson, Arizona during the week of October 12, 1982 and found radiation levels to be above regulation levels.

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OCT 28 1982

4. Mr. B. Spitzburg, IE, is currently going to contact Holmes and Narver, Inc. to instruct them to perform additional decontamination cleanup and survey.

The license will not be terminated until a report is received from IE indicating that adequate decontamination and verification surveys have been performed.

/A/

Thomas E. Fleming, Project manager
Licensing Section II
Uranium Recovery Field Office

Approved by:

/A/

Harry J. Pettengill, Section Chief
Licensing Section II
Uranium Recovery Field Office

OFC :URFO 5E2 :URFO 10/22 :

NAME :TEFleming:me:HJPettengill:

DATE :82/10/22 :82/10/22 :

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URFO:BF
Docket 40-8550
SUA-1307

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DOCKET NO. 40-8550
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BFisher
HPettengill
JLinehan
RSmith
JCollins

Holmes & Narver, Inc.
ATTN: J. N. Palley
400 East Orangethorpe Ave.
Anaheim, CA 92801

Dear Mr. Palley:

The Nuclear Regulatory Commission's Uranium Recovery Field Office (URFO) officially opened in Lakewood, Colorado on October 4, 1982. Presently, it is being manned by a very limited staff for the next several months since there is a period of transition for the relocation of personnel. As a matter of practicality and in order to assure the least disruption to the licensing process, URFO will continue to do most of the licensing work in Washington, D.C., through April of 1983. Therefore, I am requesting that you continue to send all correspondence to our Washington, D.C. address. Telephone calls should be placed to our Washington numbers as well. As the respective project managers are permanently relocated to the Denver area, we will notify you individually when to send your mail to the new Denver office.

Additionally, due in part to the regionalization effort, it will be necessary to reassign project managers for some of our licenses. Either Harry Pettengill or John Linehan of my staff will notify you by telephone regarding the project manager reassignments for your facility. Questions concerning technical aspects of your license should be directed to either of these individuals. If you need information regarding the general transition procedures, you may call my Licensing Assistant, Betty Fisher at 301/427-4540.

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The URFO staff and I are looking forward to completing the relocation of all the operations to the Denver Field Office. We thank you for your cooperation and understanding during the next few months while the staff is being transferred.

Sincerely yours,

Original Signed by

R. DALE SMITH

R. Dale Smith, Director
Uranium Recovery Field Office

40-8550/bpf/82/10/30/0

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NAME	:BFisher:bf	:RDSmith	:	:	:	:	:
DATE	:82/10/14	:82/11/1	:	:	:	:	:

MAY 16 1983

RETURN TO URFO - DENVER

40-8550/BPF/83/05/13

- 1 -

Docket 40-8550 (MC# 00200 3/30)
URFO Tech File INO-15-4 (w/o encl)
LFMB/DCS/PDR " "
Rev IV " "
URFO TM/f " "
URFO r/f " "

URFO:JPF
Docket 40-8550
04008550010E

MEMORANDUM FOR: G. Brown, Chief, TPB, RIV
FROM: H. Pettengill, Chief, LB2, URFO, RIV
SUBJECT: FINAL ALPHA SURVEY FOR HOLMES & NARVER

Attached is the decontamination report from Bechtel Civil & Minerals, Inc. for the final alpha survey on the Holmes and Narver License SUA-1307. Upon notification by your branch that the survey is acceptable, I will take the necessary licensing action for the termination of this license.

ORIGINAL SIGNED BY

Harry J. Pettengill, Chief
Licensing Branch 2
Uranium Recovery Licensing Branch

Attachment: As stated

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OFC	: URFO	: URFO	:	:	:	:	:
NAME	: BFisher:bf	: HPettengill:	:	:	:	:	:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
BOX 25325
DENVER, COLORADO 80225

OCT 28 1982

URFO:TEF
Docket No. 40-8550

MEMORANDUM FOR: Docket File No. 40-8550

FROM: Thomas E. Fleming, Project Manager
Licensing Section II
Uranium Recovery Field Office

SUBJECT: TELECON REGARDING NRC REGION IV INSPECTION FOR
TERMINATION OF HOLMES AND NARVER, INC.'S LICENSE
NO. SUA-1307

Procedures for retiring the Holmes and Narver, Inc. License No. SUA-1307 are documented in a memorandum dated July 2, 1982. These procedures include the requirement that a decontamination survey of equipment be submitted to NRC, Office of Inspection and Enforcement (IE) by Holmes and Narver, Inc. IE would then review their survey report and, if appropriate, conduct a closeout inspection of the facility to determine whether the equipment is ready for unrestricted use.

The following is the status of the termination of the Holmes and Narver, Inc. license according to the procedures in the above referenced memorandum as stated by Mr. Blair Spitzburg, IE, in a phone conversation on October 18, 1982.

1. Holmes and Narver, Inc. submitted a decontamination survey to IE
2. Holmes and Narver, Inc. were notified by IE that the survey was not adequate and consequently agreed to provide a revised survey.
3. Mr. B. Spitzburg, IE, inspected the equipment in Tucson, Arizona during the week of October 12, 1982 and found radiation levels to be above regulation levels.

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OCT 28 1982

4. Mr. B. Spitzburg, IE, is currently going to contact Holmes and Narver, Inc. to instruct them to perform additional decontamination cleanup and survey.

The license will not be terminated until a report is received from IE indicating that adequate decontamination and verification surveys have been performed.

Thomas E. Fleming

Thomas E. Fleming, Project manager
Licensing Section II
Uranium Recovery Field Office

Approved by:

Pete J. Garcia Jr.
for Harry J. Pettengill, Section Chief
Licensing Section II
Uranium Recovery Field Office

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40-8550/SEP/82/05/26/0

- 1 -

Docket File 40-8550

PDR
 NRC Region IV
 WMUR r/f
 WMUR w/f
 WM r/f
 NMSS r/f
 SEPantell
 JJLinehan
 PJ Pettengill
 RAScarano
 REBrowning
 JBMartin
BF. Shaw
Don Martin

WMUR:SEP
 Docket No. 40-8550

MEMORANDUM FOR: Dan E. Martin, Section Leader
 New Facilities Section
 Uranium Recovery Licensing Branch
 Division of Waste Management

FROM: Susan E. Pantell
 New Facilities Section
 Uranium Recovery Licensing Branch

SUBJECT: PROCEDURE FOR RETIRING THE HOLMES & NARVER, INC.
 LICENSE NO. SUA-1307

By letter dated April 21, 1982, Holmes & Narver, Inc. requested that their Source Material License No. SUA-1307 be terminated. The license, which expires on July 31, 1982, is for a mobile research and development heap leach facility. The licensee also submitted NRC Form 314, "Certificate of Disposition of Materials", on which they indicated that they have not procured any materials by license, and that their equipment was decontaminated and is presently stored at the Tucson, Arizona laboratory of the Hazen Corporation.

I spoke with Mr. P. G. Mahoney of Holmes & Narver by phone on May 13, 1982. He informed me that their facility was used for only two tests, at the Atlas Minerals mil. in Moab, Utah and at the Pathfinder Mines Co. mill in Gas Hills, Wyoming. He further stated that they did not produce any uranium and that all of the tailings and wastes that resulted from their operation were transported directly to the respective companies' licensed tailings impoundments. Their facility tested a total of no more than 200 tons of ore.

Due to the limited scale of operation, as described above, and in accordance with the Division of Waste Management Policy No. 21, dated October 30, 1981, I propose that the following procedure for license termination be followed:

- 1) I have notified the Office of Inspection and Enforcement (IE) of the licensee's intention to terminate their license and IE has requested

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DATE :82/06/17	:	:	:	:	:	:	:

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that the licensee send them a survey of the decontamination of their equipment. IE will then review their survey report and if appropriate conduct a closeout inspection of the facility to determine whether the equipment is ready for unrestricted use.

- 2) IE will submit an inspection report for NMSS/WMUR review.
- 3) NMSS/WMUR will review the IE inspection report and the licensee's decontamination survey report to determine if (1) IE concludes that the equipment is suitable for unrestricted use, and (2) if the licensee has met the decontamination requirements imposed by license condition.
- 4) Upon confirmation that the equipment is suitable for unrestricted use and that all decontamination requirements have been met, action will be taken to terminate the license by license amendment.

Original Signed By:

Susan E. Pantell, Project Manager
New Facilities Section
Uranium Recovery Licensing Branch

OFC	: WMUR	: WMUR	:	:	:	:	:	:
NAME	: SEPantell:mne	: DEMartin	:	:	:	:	:	:
DATE	: 82/06/17	: 82/06/23	:	:	:	:	:	:

40-08550

MAY 25 1982 40-9550
Bf 7/4

Holmes and Narver, Inc.
ATTN: E. Brim, Technical Consultant
P. O. Box 6240
Orange, CA 92667-1240

License: SUA-1307
Expiration Date: July 31, 1982

Gentlemen:

SUBJECT: LICENSE TERMINATION

This refers to the telephone discussion between Mr. D. B. Spitzberg of this office and Mr. E. Brim of your organization on May 18, 1982. The discussion had reference to the information we need in order to terminate your active Source Material License. In addition to your request for termination and Form NRC-314 dated April 21, 1982, and submitted to the NRC Material Licensing Branch, we need the results of the final surveys performed on equipment which came in contact with licensed material.

For equipment to be released for unrestricted use, it must be below the limits for fixed and removable alpha contamination as set forth in the enclosed Guidelines for Decontamination. This information should be sent to this office, Region IV, U. S. Nuclear Regulatory Commission, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas, 76011, Attention: Glen D. Brown, Chief, Technical Program Branch.

We request that you give prompt attention to this matter.

Sincerely,

"Original Signed by:
G. D. BROWN"

Glen D. Brown, Chief
Technical Program Branch

Enclosure: As stated

cc: Vandy L. Miller, Chief
Licensing Management Branch, NMSS

Susan Pantell, Uranium Recovery Licensing

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MRPSTDS
BSpitzberg/de
5/19/82

MRPS
JEverett
5/20/82

TPB
GBrown
5/20/82

DIES
EJohnson
5/24/82

RA/RIV
JCollins
5/27/82

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info only
IE-07
5/10

FEB 17 1978

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✓ Docket File 40-8550

NMSS:R/F

FCPF:R/F

PDR

IE-HQ (2)

JB Martin

LC Rouse

JE Rothfleisch

RA Scarano

DOCKET NO.: 40-8550 (file temporarily under this docket)

LICENSEE: Cotter Corporation

SUBJECT: NOTES ON MEETING BETWEEN NRC, COTTER CORPORATION, AND
HOLMES AND NARVER, INC., ON FEBRUARY 3, 1978

Attendees: NRC - R. A. Scarano
J. E. Rothfleisch

Cotter Corp. - W. B. Tobey, Chief Engineer
T. Smith, Environmental Engineer
E. J. McGrath, Legal Counsel
J. Beaudry, Legal Counsel

Holmes and Narver - J. N. Palley, V.P. Metallurgical Plants

At the request of Cotter Corporation, a meeting was held at the NRC offices in Silver Spring, Maryland, on February 3, 1978, to discuss specific procedures to be followed in filing an application for a special R&D source material license. The license desired is to cover the short-term testing of a patented Holmes and Narver leaching process in the recovery of uranium from Cotter Corporation ores in the Powder River Basin of Wyoming. The proposed test will involve the processing of about 2000 tons of ore in about 60 days over a 90-day period to determine the feasibility of utilizing the Holmes and Narver TL leaching process for treating the Cotter ore body on a commercial scale. The proposed plan calls for Cotter to provide the ore and to dispose of the resulting solutions and ore tailings while Holmes and Narver will have full responsibility for operation of the facility.

Cotter desires to conduct the proposed test starting about August 1, 1978, in order to avoid severe weather conditions. Holmes and Narver estimates that construction of the test facility should be started by May 1, 1978, to meet this time frame.

In view of the significant differences between the conditions of this proposed test and those covered in the current Holmes and Narver License SUA-1307, it was decided that rather than considering an amendment to the existing license, Cotter Corporation would file an application for a source material license to cover the new study.

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DATE ➤

NRC committed to provide Cotter Corporation with guidance for preparing the required safety and environmental information to accompany the license application by February 15, 1978, and to attempt to complete their review in time to issue the license by the target date of May 1, 1978.

Cotter Corporation committed to submit a complete application as soon as possible after receiving NRC guidance to provide the maximum time for review.

Original Signed by

J. E. Rothfleisch
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

2/17/78

OFFICE ➤	FCPF					
SURNAME ➤	JRothfleisch:ng					
DATE ➤	2/17/78					

JUN 30 1977

Distribution:

FCPF

NMSS

✓ Docket 40-8550

LCRouse

JB Martin

EY Shum

WTCrow

IE/HQ

DOCKET NO.: 40-8550

APPLICANT: Holmes & Narver, Inc.

FACILITY: R&D TL Leaching Mobile Demonstration Plant for the
Extraction of Uranium from Uranium Bearing Ore

SUBJECT: ENVIRONMENTAL REVIEW ON HOLMES & NARVER, INC.'S REQUEST
FOR SOURCE MATERIAL LICENSE COVERING THE RESEARCH &
DEVELOPMENT ACTIVITIES OF THE ABOVE FACILITY

REVIEWER: E. Y. Shum

I. Background

By letter dated July 28, 1976, Holmes & Narver, Inc. (the applicant) requested a Source Material License covering the research and development activities to be conducted in the applicant's TL Leaching Mobile Demonstration Plant for the extraction of uranium from uranium bearing ore. In connection with the license application the applicant provided NRC with information submitted on July 28, 1976. Since the applicant's proposed action only covers a small scale R&D activities involving a small quantity of source material (with maximum possession limit of 3000 lbs. U₃O₈), this license action is not deemed to be a major federal action significantly affecting the quality of human environment and thus, pursuant to 10 CFR 51, Section 51.5(d)(4) an environmental impact statement, negative declaration, or an environmental impact appraisal need not be prepared.

II. Discussion

A. Site Location

The TL leaching demonstration facility is mobile and will be used for testing ores in both Agreement and Non-Agreement States. Figure 1 shows an artist's rendering of the applicant's mobile TL leaching demonstration unit. The equipment will be transported on a flat-bed trailer to the location of the ore to be tested.

B. Description of Plant Operation

Figure 2 shows a quantitative process flow sheet for the TL leaching demonstration plant. The ore to be processed will

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have been already crushed to 1/2" through existing licensed facility operations prior to the involvement of the demonstration plant. Any transport of uranium-bearing ores to the demonstration site will be the responsibility of the ore supplier in compliance with 49 CFR 173.392d of the Transportation Code.

TL leaching is a 2-step process consisting of a curing step and a leaching step. The ore is fed into a hopper where it is metered into a mixing drum and admixed with water and sulfuric acid. The wetted ore is then transported by conveyor belt and stacked on cure pads (step 1). After 24 hours the ore is removed by front end loader and spread into layers on leach pads, over which dilute sulfuric acid, plant raffinate and/or water are successively sprayed (step 2). The concentrated uranium liquor from the initial dilute sulfuric acid spray, is drained into holding tanks and pumped to trailer-mounted storage tanks, to be operator transferred to a licensed site facility SX circuit or to poly-lined drums or other suitable containers for transport by the ore supplier to an existing licensed mill in accordance with 49 CFR 173.394-.396. The raffinate and/or water solutions are recycled. The tailings are transported by the ore supplier to an existing licensed mill's tailings site.

Figure 3 shows the plot plan of the TL leaching demonstration plant. The equipment while in operation will be contained within a maximum area of 10,000 square feet. A period of about 4 weeks will be required per demonstration on any one ore source involving about 300 tons of ore per test.

C. Environmental Impact of Plant Operation

1. Gaseous Effluents

During operation, gases or mist generated are CO₂ which is not a regulated emission, and sulfuric acid mist. The acid mist generated by acid spray, occurs in, and is contained within the mix drum where it is scrubbed by water and particulates. No acid mist is anticipated from the leach pad area as the weak acid spray has coarse droplets and the spray nozzles are recessed three feet below the top of the pad. Therefore, acid mist (if any) that are vaporized and released to the environment should be expected to be minimum.

Dust will be generated during stock-piling of the ore. This dust will be controlled by water sprays which will wet the ore to a maximum 7% moisture as it is unloaded. There are no crushing and grinding of ore since it will be performed off-site at a licensed facility. Therefore, little airborne dust

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is anticipated during operation and the environmental impact associated with the airborne dust is expected to be insignificant. In addition, dust will be monitored down-wind from within 25 feet of points of maximum dust generation. If the measured amount exceeds 20% of the maximum permissible concentration as specified in 10 CFR Part 20, Appendix B, Table I, additional monitoring will take place in close proximity to employee working area..

2. Liquid Effluents

There is no liquid waste generated in the TL leaching demonstration process since the raffinate and/or water solutions are recycled.

3. Solid Wastes

For any one demonstration about 300 tons of solids containing up to 14% moisture will be produced as tailings. This material will be transported by the ore supplier to an existing licensed facility's tailings pile for disposal.

Any contaminated equipment generated will be transported with the tailings to an existing licensed facility's tailings disposal area.

Prior to removal of the demonstration plant from a site after a demonstration period, the plant will be decontaminated in compliance with 49 CFR 173.397b as will any auxiliary and rented equipment. The site will be restored to its original state. Therefore, the environmental impact on the land use is negligible.

III. Conclusion

Based on the above discussion, it is concluded that the proposed license action is non-substantive and insignificant from the standpoint of environmental impact and pursuant to subparagraph 51.5(d)(4) of 10 CFR 51, no environmental impact statement, negative declaration, or environmental impact appraisal need be prepared. Issuance of the R&D license is therefore recommended subject to the following conditions:

1. The licensee shall obtain written approval from NRC for each specific site prior to starting operation.
2. All employees engaged in processing uranium ore for more than six months in a year, at the Mobile TL Leaching Demonstration Plant, shall be in vivo counted at least annually to evaluate their exposure.

OFFICE ➤						
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DATE ➤						

3. Release of equipment and materials from the plant to off-site or from controlled to uncontrolled areas on-site shall be in accordance with the attached Annex C, dated 1976.

In addition, the ground areas where the ore and tailings are temporarily stored shall be decontaminated to the point where the radium content in the soil is less than twice background.

4. The tailings generated shall be transported to an active uranium tailings pile for disposal. This arrangement shall be made prior to processing ore.

The above conditions shall be incorporated in the applicant's license.

Original Signed by

E. Y. Shum
Fuel Processing & Fabrication Branch
Division of Fuel Cycle and
Material Safety

OFFICE ➤	FCPF					
SURNAME ➤	EYShum					
DATE ➤	6/30/77					



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011
NOV 03 1982

467-SS

40-8550

Holmes & Narver, Inc.
ATTN: Robert C. Beers
Principal Process Engineer
4704 Harlan Street, Suite 515
Denver, Colorado 82012

License: SUA-1307

Gentlemen:

This refers to the confirmatory survey measurements performed by Mr. D. B. Spitzberg on October 12, 1982, of the process equipment authorized by License SUA-1307, and to the telephone discussion of our findings held between Messrs. C. L. Cain and D. B. Spitzberg of this office with Mr. R. C. Beers of your organization on October 21, 1982.

Mr. Spitzberg was able to confirm that survey locations included in your report dated September 15, 1982, were below the levels specified in the "Guidelines for Decontamination" for both fixed and removable alpha contamination. Additional surveys, however, indicated that five areas not included among your survey locations showed fixed contamination levels exceeding 5000 dpm/100cm² (see enclosed diagram). Therefore, these areas will require additional decontamination and surveys as may be necessary to reduce the levels below the limits of the Guideline. Please report all survey results in units of dpm/100cm².

We request that you give prompt attention to this matter so that we can continue our review.

Sincerely,

Glen D. Brown
Glen D. Brown, Chief
Technical Program Branch

Enclosure: As stated

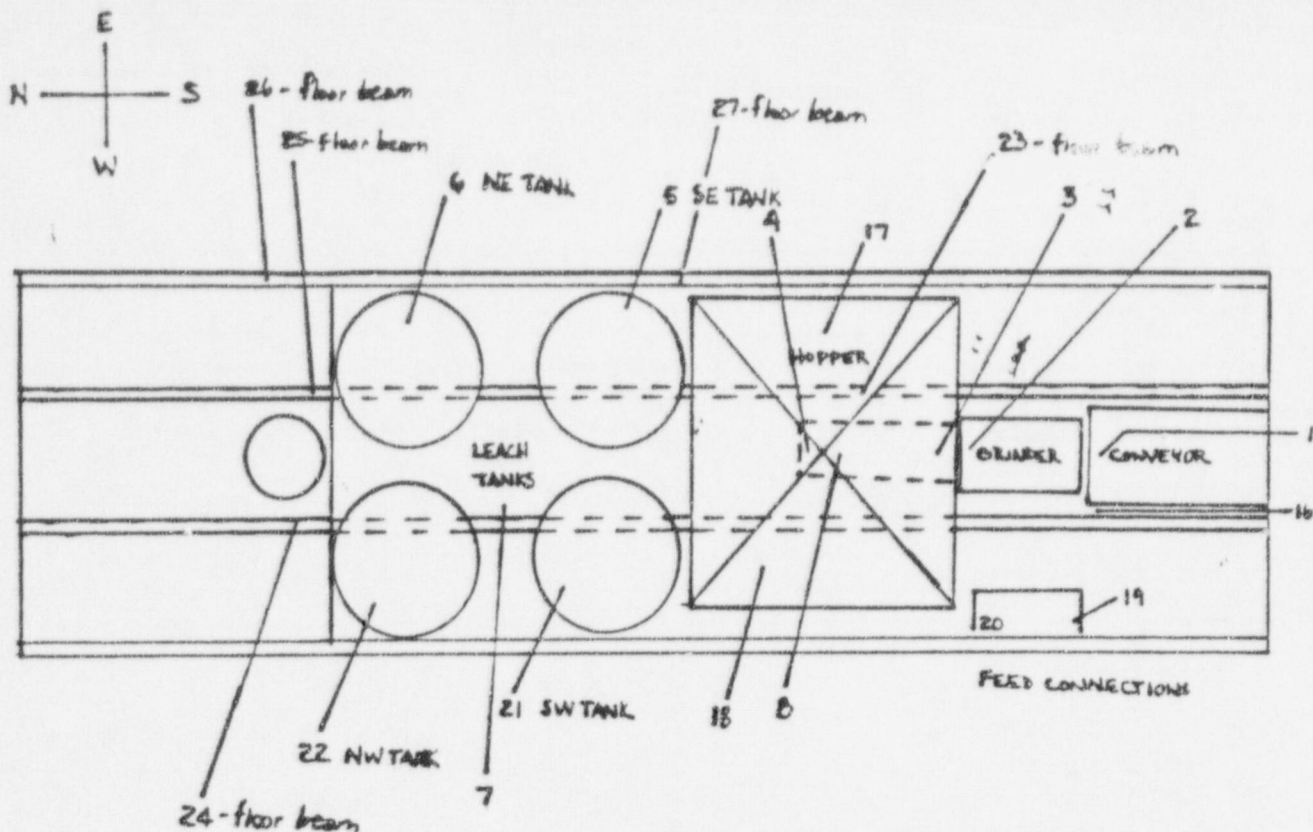
cc:
Vandy L. Miller, Chief
Licensing Management Branch, NMSS
Tom Fleming, WMUR

Holmes & Narver, Inc.
ATTN: Mr. Richard Waldron
999 Town and Country Road
Orange, CA 92668

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info only



Sample	dpm/100cm ²
23 trailer bed- floor beam	16200
24 " " " "	5175
25 " " " "	6900
26 " " " "	34500
27 " " " "	20700

Date of survey- 10/12/82

Instrument- Ludlum model 60 Alpha Survey (air proportional)

Detector area- 58cm²

Detector efficiency- 0.50 (Flu-239)