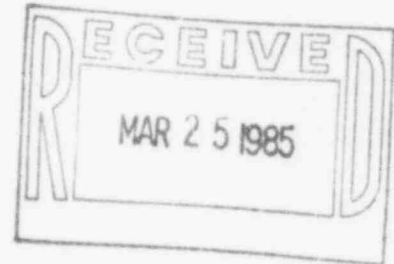


Omaha Public Power District
1623 Harney Omaha, Nebraska 68102
402/536-4000

March 19, 1985
LIC-85-036

Mr. Robert D. Martin
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011



- References:
- (1) Docket No. 50-285
 - (2) Letter from State of South Carolina to OPPD dated January 2, 1985 (Attachment 1)
 - (3) Letter from OPPD to the State of South Carolina dated January 22, 1985 (EP-85-15) (Attachment 2)
 - (4) Letter from South Carolina Department of Health and Environmental Control to OPPD dated January 25, 1985 (Attachment 3)

Dear Mr. Martin:

Radioactive Waste Shipment
Number 1284-299-S

The Omaha Public Power District received a letter from the State of South Carolina, Reference (2), identifying a possible radioactive waste shipment violation. Upon receipt of Reference (2), the District conducted a detailed investigation. After completion of the investigation, District representatives met on January 9, 1985 with representatives of the Bureau of Radiological Health for the State of South Carolina to discuss the results. Based on the information presented by the District at the January 9, 1985 meeting, representatives of the State of South Carolina requested that the information be formally submitted and the State of South Carolina would then reconsider their action. That submittal has been made ((Reference (3))).

The District subsequently received Reference (4), which stated that the South Carolina Department of Health and Environmental Control had, based on their investigation and Reference (3), withdrawn the assessment of the

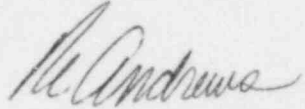
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violation and the corresponding civil penalty.

Sincerely,



R. L. Andrews
Division Manager
Nuclear Production

RLA/JJF/dao

Attachments

cc: Dr. J. Nelson Grace
Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, GA 30323

LeBoeuf, Lamb, Leiby & MacRae
1333 New Hampshire Avenue, N.W.
Washington, DC 20036

Mr. E. G. Tourigny, NRC Project Manager
Mr. L. A. Yandell, NRC Senior Resident Inspector

South Carolina Department of Health and Environmental Control

2400 Bull Street
Columbia, S.C. 29201

Commissioner
Robert S. Jackson, M.D.



Board
Moses H. Clarkson, Jr., Chairman
Leonard W. Douglas, M.D., Vice-Chairman
Gerald A. Kaynard, Secretary
Barbara P. Noessle
Oren L. Brady, Jr.
James A. Spruill, Jr.
William H. Weaver, M.D.

January 2, 1985

CERTIFIED MAIL

Mr. Allen D. Bilau
Radioactive Waste Coordinator
Omaha Public Power District
Fort Calhoun Station
P.O. Box 399
Fort Calhoun, Nebraska 68023

Dear Mr. Bilau:

An investigation conducted on December 28, 1984 by the South Carolina Department of Health and Environmental Control revealed that a shipment of radioactive waste received at the Chem-Nuclear Systems, Inc. burial facility in Barnwell, South Carolina was in noncompliance with applicable state and federal regulations.

The violation is identified as follows:

Radioactive Waste Shipment No. 1284-299-S classified as Radioactive Material, LSA, N.O.S., described as liquids solidified in cement and dry compacted waste, and contained in 55 steel drums was found to have liquids released from the containers onto the floor of the trailer and ground at the burial facility. The drums had been inverted in an apparent effort to circumvent regulatory requirements for radiation levels underneath the trailer. We find this unacceptable. The drums did not serve as a strong tight container and maintain the radioactive contents as required by 49 CFR 173.425(b)(1), even though the amount of liquid was minimal and contamination incidental.

Please be informed that pursuant to Section 13-7-180, S.C. Code of Laws, 1976 (as amended) and Section 7.3 of the Department's Regulations for the Transportation of Radioactive Waste Into or Within South Carolina, you are hereby assessed a civil penalty of One Thousand Dollars (\$1,000.00).

In addition to the civil penalty, you are hereby required to submit to the Department evidence that adequate measures have been implemented to ensure compliance with all applicable provisions of federal and state law.

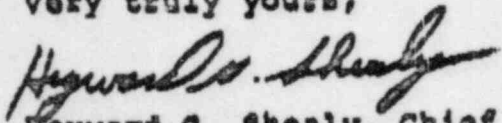
Mr. Allen D. Bilau
Page 2
January 2, 1985

CERTIFIED MAIL

If you do not wish to appeal this decision, payment of the civil penalty shall be submitted no later than January 16, 1985 and made payable to the "S.C. Department of Health and Environmental Control". Information concerning corrective measures and procedural modifications shall be submitted accordingly.

You are entitled to a full administrative hearing upon request. However, should you wish to discuss this matter with us in an informal setting, representatives of this Bureau will be made available to meet with you at a mutually convenient time. Should you desire such a conference or wish to request a formal administrative hearing, please contact Mr. Virgil R. Autry of the Bureau of Radiological Health, (803) 758-5548.

Very truly yours,



Hayward G. Shealy, Chief
Bureau of Radiological Health

HGS:VRA:bb

cc: Ms. Jennifer Peters, Esq.
DHEC Legal Counsel

Mr. David Reid, Exec. Asst.
Office of the Governor

-- Mr. Robert Trojanowski, USNRC
Region II

Michael T. Ryan, Ph.D.
Chem-Nuclear Systems, Inc.

Omaha Public Power District
1623 Harney Omaha, Nebraska 68102
402/536-4000

January 22, 1985
EP-85-15

Mr. Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Dear Mr. Shealy:

This letter is in response to your memorandum dated January 2, 1985, identifying a possible radioactive waste shipment violation and the subsequent discussion conducted at the South Carolina Department of Health and Environmental Control on January 9, 1985. The Omaha Public Power District (OPPD) herein presents additional information to support its position that a strong tight radioactive waste shipping container was provided and respectfully requests that South Carolina reconsider its action by withdrawal of the noncompliance violation.

Radioactive waste shipment number 1284-299-S is identified in Fort Calhoun Station records as Shipment 84-49 and consisted of concentrated evaporator liquids solidified in cement and dry compacted waste contained in new 55 gallon steel drums. The processing and solidification of these wastes were performed under OPPD approved procedures HP-3 Solid Waste Shipment and RPP-15 Verification of Liquid Free Solid Waste. These two procedures describe and control each step of the waste shipment program, have been in effect for years and, we believe, have contributed to a very successful program. Radioactive waste shipment 84-49, the shipment under review, conformed to all steps of the procedures and pertinent shipping regulations. No free standing liquid was present in drums during final inspection. No abnormalities were encountered during the solidification process. However, the loading of this trailer was accomplished outside of the Fort Calhoun Station auxiliary building during adverse winter conditions. Preparation and loading of shipment 84-49 was completed as follows:

Radioactive Waste Shipment #84-49 was prepared for shipment in the same manner as previous shipments. The containers were allowed to cure for a minimum of five days prior to inspection. Contamination and radiation surveys were performed for each drum and determined to be within regulatory requirements for shipment. The radiation reading and smear results were marked on each processing drum lid as required. The change from processing to shipment drum lids was accomplished

individually. Each new drum lid was inspected for defects and for properly transferred data. The interior of each solidified drum was inspected for free standing liquid, water saturated material and any evidence that liquid was otherwise present. The drum lids were reapplied and tightened to specifications. After all drums were inspected and resealed, selected drums were inverted. All drums were temporarily stored in the Station Railroad Siding for an additional four days prior to loading.

The shipment trailer was located out-of-doors near the railroad siding roll-up door. Drums were transferred from the railroad siding to the trailer by forklift. Each drum was visually inspected for any evidence of internal moisture and for proper positioning in the trailer. The railroad siding where the drums were temporarily stored was inspected for moisture. No moisture was detected. Workers passed into and out of the trailer many times during the loading operation tracking into the trailer recently fallen snow. It is known that drums were placed on snow covered sections of the trailer bed as loading progressed.

The tracking of snow into the trailer is the key point in this description and we believe is the source of the non-radioactive liquid noted in the trailer during unloading. As substantiated in the photographs viewed in your office, the drum circumference marks indicate the water was trapped within the floor area under the drum prior to completion of loading. The dried water tracking marks which can also be seen on the floor of the trailer indicate water in the trailer before drum placement. It is our conclusion that this snow, which had been trapped under the drums caused the rusting on the trailer floor and was the brown liquid present under several drums.

As further evidence that no drum leakage occurred, was the extremely low concentration of radioactive material present in both the floor liquid and the contamination smears measured from the trailer and the drums. The waste liquid which was solidified with cement into the drums was concentrated waste evaporator bottoms which had been isotopically analyzed and contained 0.6 microcurie per milliliter of radioactivity. Any liquid leakage from the interior of these drums would be approximately 1,300,000 dpm per milliliter. The contamination surveys performed on the floor of the trailer at the Barnwell site and posted on the Chem-Nuclear, Inc. unloading record document were 114 dpm/100 cm² as the maximum quantity present. This large difference substantiates our position that the snow lying on the floor of the trailer during loading and transport was in contact with minimal contamination from the floor and external surface of the drums which is normal, expected and acceptable. The low contamination level detected and the verification by your site inspector of the acceptable interior of an opened drum indicate to us in our review that at no time was there either free standing liquid within the drum or liquid leakage from this container.

The waste classification of Shipment 84-49 is "low specific activity" (LSA) and allows for packaging in any strong, tight container. As is our normal

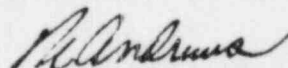
practice, Fort Calhoun Station utilized new DOT Specification 17-H steel drums to contain the solidified evaporator waste. This package is much stronger than required and with the sealing ring much tighter than required for conformance to regulation CFR 173.425(b)(1). However, it is utilized as a demonstration of the Omaha Public Power District's conservative corporate policy to always be well within full compliance of all Federal regulations, pertinent State laws and industrially accepted safety standards.

Your letter states in the second paragraph: "the drums had been inverted in apparent effort to circumvent regulatory requirements." Please be assured this is not accurate. As discussed during the meeting, our use of inverted drums is intended to further lower radiation levels during transport as an application of the "as low as reasonably achievable" (ALARA) radiation protection concept. This is similar to the placement of the lowest radiation exposure drums near the transport tractor for driver exposure reduction. At no time has this District knowingly sanctioned deliberate evasion of any regulatory requirement either Federal, State or local. As a governmental subdivision of the State of Nebraska, Omaha Public Power District has a public commitment to operate Fort Calhoun Station in an unequalled manner of excellence for safety, efficiency and compliance.

In summary, the State of South Carolina performs a vital service to the entire nation for the land disposal of solid radioactive waste. Omaha Public Power District is very appreciative of this help and the opportunity to respond to the observations of your investigation and initial conclusion. Your administration of this incident has been impartial and open. We have presented these additional facts and details to support our request for reconsideration and cancellation of the apparent violation reported.

Please contact me if you need any further clarification or information.

Sincerely,



R. L. Andrews
Division Manager
Nuclear Production

RLA/FFF/rh

South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, S.C. 29201

Commissioner
Robert S. Jackson, M.D.



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Moses H. Clarkson, Jr., Chairman
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Gerald A. Kaynard, Secretary
Barbara P. Nussle
Oren L. Brady, Jr.
James A. Spruill, Jr.
William H. Hester, M.D.

January 25, 1985

Mr. R.L. Andrews
Division Manager
Nuclear Production
Omaha Public Power District
1623 Harney Street
Omaha, Nebraska 68102

RE: Department letter dated January 2, 1985 to
Mr. Allen B. Bilau, Ft. Calhoun Station

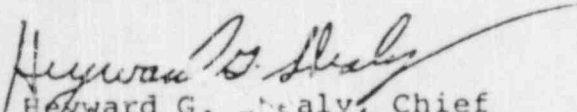
Dear Mr. Andrews:

This is in response to your letter of January 22, 1985, concerning your request for reconsideration of the civil penalty and violation determined by the Department for a shipment of low-level radioactive waste received at the Barnwell burial facility.

Based upon our further investigation of this matter, discussions with your staff, and the results of their investigation as submitted in your letter, we are in agreement with your findings. We therefore withdraw our assessment of the violation and corresponding civil penalty.

We appreciate your continued cooperation in these matters.

Very truly yours,


Hayward G. Healy, Chief
Bureau of Radiological Health

HGS:VLA:kn

cc: Ms. Jennifer Peters, Esq.
DHEC Legal Counsel

Mr. David M. Reid, Exec. Asst.
Office of the Governor

Mr. Robert Trojanowski, USNRC
Region II

Michael T. Ryan, Ph.D.
Chem-Nuclear Systems, Inc.