

USNRC REGION II
ATLANTA, GEORGIA

83 AUG 1 AII : 14



July 25, 1983
L-83-427

James P. O'Reilly
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street NW, Suite 2900
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335, 50-389
Inspection Report 83-21/45

Florida Power & Light Company has reviewed the subject inspection report and a response is attached.

There is no proprietary information in the report.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Robert E. Uhrig", is written over the typed name.

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/js

Attachment

cc: Harold F. Reis, Esquire

8309090383 830825
PDR ADOCK 05000335
Q PDR

ATTACHMENT

RE: ST. LUCIE UNITS 1 AND 2
DOCKET NOS. 50-335, 50-389
INSPECTION REPORT 83-21/45

FINDING:

10 CFR 20.301 specifies authorized methods for disposal of licensed material and prohibits disposal by other means. One authorized method is by transfer to an authorized recipient.

Contrary to the above, the licensee transferred radioactive waste containing byproduct material under conditions other than those specified. Specifically, the licensee consigned for land burial twelve metal boxes, of low specific activity radioactive waste, one of which contained 20 milliliters of liquid, to a person (Chem-Nuclear Systems, Inc., Barnwell, South Carolina) whose license (South Carolina) did not authorize him to accept liquid waste for burial.

RESPONSE:

We concur that the container of radioactive waste was not in compliance with 10 CFR 30.41(a), specifically pertaining to Condition 26 of the South Carolina radioactive materials license no. 097, but that this noncompliance should not constitute a violation in accordance with 10 CFR 2, Appendix C for reasons discussed below.

On May 2, 1983, FPL received a letter from the South Carolina Department of Health and Environmental Control (DHEC), citing a violation of Condition 26 to the Barnwell Site Radioactive Materials License, due to approximately 20 milliliters of liquid found to be contained in a package of compacted trash from the St. Lucie plant. FPL acknowledge this violation in our response to the South Carolina letter. Copies of our response dated May 20, 1983, and the related South Carolina correspondence are attached.

Based upon our own investigation, which was conducted pursuant to the South Carolina Notice of Violation, we concluded that there was a reasonable probability that the approximately 20 milliliters of liquid found in the St. Lucie waste was caused by matters beyond our control (i.e., condensation). To prevent this condition from recurring, FPL proposed as a primary corrective action the use of an absorbent in the bottom of these containers. This was approved by DHEC on May 12 and was implemented immediately by the plant.

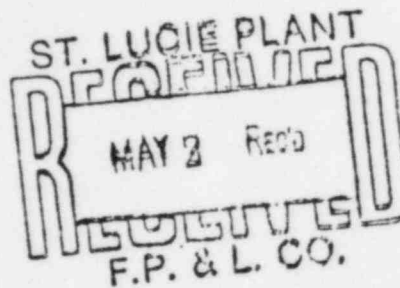
Recognizing the industry-wide potential for such occurrences, DHEC authorized the general use of absorbent material to "absorb incidental and unintentional amounts of liquids that have accumulated during waste packaging and transport". A statement to this effect was issued by the site operator on May 20. A copy of this statement is attached. It should be noted that prior to this approval, the use of absorbents for this purpose was prohibited.

Based upon the above, it is our opinion that the NRC's finding in this case is not consistent with the intent of 10 CFR 2, Appendix C, General Policy and Procedure for NRC Enforcement Actions, which states, "Licensees are not ordinarily cited for violations resulting from matters not within their control, ...". Pursuant to these provisions of 10 CFR 2, we hereby request NRC to withdraw the violation.

Should our request for withdrawal be denied, it is our opinion that this finding should be downgraded to Severity Level V. It should be noted that the NRC Notice of Violation incorrectly states that Barnwell is not authorized to accept liquids for burial. While freestanding liquids are not allowed in solid radioactive waste (i.e., the St. Lucie waste package), conditions 26 and 31 of the South Carolina radioactive materials license do permit disposal of liquids up to 0.5% of the waste volume for "solidified" waste or for dewatered resins or filter media in non-high integrity containers. Consequently, if the amount and activity of the liquid in the St. Lucie waste is compared to the amounts and activity of liquids permitted in other waste forms (i.e., dewatered resins), and evaluated with respect to radiological health and safety of the public, the conclusion would be that this finding represents a minor safety or environmental significance.

Our response to items 2 through 4, pursuant to the provisions of 10 CFR 2.201, is addressed in our May 20 response to DHEC which is attached. In response to item 5 compliance with the proposed corrective actions was achieved on May 20, 1983. The referenced procedure changes were approved by the Facility Review Group on June 13, 1983.

South Carolina
Department of
Health and
Environmental
Control



BOARD
J. Lorin Mason, Jr., M.D., Chairman
Gerald A. Kaynard, Vice-Chairman
Leonard W. Douglas, M. D., Secretary
Oren L. Brady, Jr.
Moses H. Clarkson, Jr.
Barbara P. Nuessle
James A. Spruill, Jr.

COMMISSIONER
Robert S. Jackson, M.D.
2600 Bull Street
Columbia, S.C. 29201

April 26, 1983

CERTIFIED MAIL

Mr. C.M. Wethy, Plant Manager
Florida Power & Light Co.
St. Lucie Plant
P.O. Box 128
Fort Pierce, Florida 33450

Dear Mr. Wethy:

An investigation conducted on April 21, 1983, 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. 0483-261-A, classified as Radioactive Material, LSA, n.o.s., described as solid metal oxides on compacted trash, and contained in metal dumpsters, was found to have liquid in container No. 83-154, contrary to the requirements of Condition No. 26, S.C. Radioactive Material License No. 097, issued to Chem-Nuclear Systems, Inc.

This constitutes a violation of Section 1.2, Department Regulation 61-83.

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.

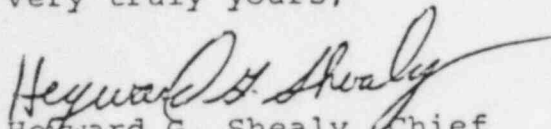
Mr. C.M. Wethy, Plant Manager
Page Two
April 26, 1983

CERTIFIED MAIL

If you do not wish to appeal this decision, payment of the civil penalty shall be submitted no later than May 23, 1983, 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,


Heyward G. Shealy, Chief
Bureau of Radiological Health

HGS:kn

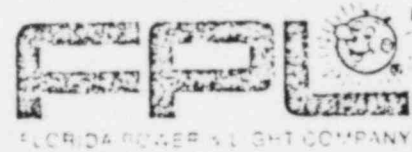
cc: Robert S. Jackson, M.D.
Commissioner

Ms. Barbara Hamilton, Esq.
DHEC Legal Counsel

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

Mr. Al Gibson, USNRC
Region II

Mr. Uray Clark
State of Florida



May 20, 1983
PNS-RC-83-81

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

Dear Mr. Shealy:

Re: Notice of violation, Mr. Heyward G. Shealy to Mr. C. M. Wethy, dated
April 26, 1983
Radioactive Waste Shipment No. 0483-261-A

This letter provides information pertaining to our investigation of the
following notice of violation.

"Radioactive Waste Shipment No. 0483-261-A, classified as Radioactive
material, LSA, n.o.s., described as solid metal oxides on compacted
trash, and contained in metal dumpsters, was found to have liquid in
container No. 83-154, contrary to the requirements of Condition No. 26,
S.C. Radioactive Material License No. 097, issued to Chem Nuclear
Systems, Inc."

Based on our evaluation, we believe that the presence of the small quantity of
unintentional liquid in the St. Lucie waste package was an isolated case and
that this condition can be prevented from reoccurring by the addition of
absorbent medium in the bottom of each container. A copy of our evaluation
along with the corrective measures we are instituting is herewith attached.

We further believe that this violation constitutes a minor non-radiological
violation of the Barnwell Site Radioactive Materials License as provided in
Section 7.3 of the Department's Regulation No. 61-83 and hereby request that
the Department reconsider this violation for the purpose of rescinding or
reducing the civil penalty.

Pursuant to this request and our discussions with your office on May 12, we
are not remitting payment of the civil penalty at this time.

Sincerely yours,

Alan J. Gould
Nuclear Energy Specialist

AJG/mpc

Attachment

cc: J. W. Williams, Jr., C. M. Wethy

EVALUATION REPORT

Subject: Water in St. Lucie Waste Container

On April 23, FPL received notification from the Barnwell Site Operators, Chem Nuclear Systems, Inc., that one of two packages from St. Lucie Plant Shipment No. 0483-26-A had been found to contain approximately 20 ml of drainable liquid (2.2×10^{-3} uci/ml). Subsequently we were informed that three additional packages from the same shipment were also inspected and that no additional liquids were detected.

Pursuant to the above notification, the following actions were immediately initiated.

All St. Lucie Plant compactor operators and H.P. supervisors were notified of the violation and precautions were stressed concerning the importance of excluding liquids from solid radioactive waste packages.

Administrative actions were taken to preclude any material being compacted which might contribute to the presence of liquids.

An evaluation was initiated into the adequacy of applicable procedures and practices related to compliance with Condition 26 of the Barnwell Site license.

Based upon our evaluation we believe that the small quantity of liquid found in the St. Lucie shipment can best be explained by one of the following possible causes.

Condensation - We believe that there is a reasonable probability that condensation or sweating may be occurring on the metal surface inside the waste package. Such condensation may not show up in all of the packages because much of the material within these containers is absorbent.

Damp Materials - St. Lucie procedures provide that free standing liquids shall not be included in any containers of dry radioactive waste. Damp material, however, is permitted provided that it is "wrung out before compaction." It is possible that because of the large compaction forces applied to these containers, a small amount of absorbed liquids is being squeezed out.

During the past two weeks, approximately one third of the fifty or so packages containing compacted waste, which were on hand at the time we received the violation notice, have been checked for liquid. The procedure used to check these packages for liquid is as follows:

The box is tilted (approximately 5° incline) with the bottom drain plug placed in a low point position.

The drain plug is removed and the boxes are left in this position for 24-48 hours or more.

Except for one drop from one box, no liquids have been found in any of the packages checked to date. All of the remaining packages will be similarly checked.

Currently we have no reason to believe that the small quantity of unintentional liquid detected in the St. Lucie shipment represents anything more than an isolated case. We also believe that this condition can be prevented from reoccurring by the use of small amounts of absorbent medium in the bottom of the container. Pursuant to our discussions with SCDHEC officials on May 12, we have already started using an absorbent in this manner.

In addition to the use of an absorbent, the following procedural changes will be implemented.

A statement will be provided clarifying that free standing liquids in solid radioactive waste must be "zero" (none drainable).

The statement pertaining to damp materials will be revised to reflect that prior to packaging any material which has been used to absorb liquids, it must be thoroughly squeezed, wrung out or otherwise dried so it will not result in any free standing liquids in the package.

The statement concerning the inspection of compacted LSA boxes will be revised to reflect that an inspection will be conducted with the box tilted and should be conducted as close as possible to the date of shipment. If there is any evidence of liquid, the H.P. supervisor should be notified. A determination can be made regarding repackaging of any such container.

We believe that the steps described herein will be sufficient to preclude a reoccurrence of the situation which resulted in the violation of Condition 26 to S.C. Radioactive Materials License No. 097.

South Carolina Department of Health and Environmental Control

BOARD
J. Lorin Mason, Jr., M.D., Chairman
Gerald A. Kaynard, Vice-Chairman
Leonard W. Douglas, M. D., Secretary
Oren L. Brady, Jr.
Moses H. Clarkson, Jr.
Barbara P. Nuessle
James A. Spruill, Jr.

COMMISSIONER
Robert S. Jackson, M.D.
2600 Bull Street
Columbia, S.C. 29201

NUCLEAR ENERGY

JUN - 3 1983

May 31, 1983

Mr. Alan J. Gould
Nuclear Energy Specialist
Florida Power & Light Company
P.O. Box 529100
Miami, Florida 33152

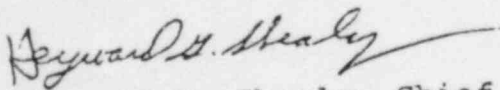
Dear Mr. Gould:

This is in reference to your letter of May 20, 1983, which outlines your findings and corrective actions for a shipment of radioactive waste to the Barnwell waste facility found in non-compliance with applicable requirements.

We have reviewed your corrective action and find it satisfactory to the Department. Further, in consideration of your request, we have reviewed your findings and hereby reduce the civil penalty to Five Hundred Dollars (\$500.00).

Should you have any questions, please do not hesitate to contact Mr. Virgil R. Autry at (803) 758-7951.

Very truly yours,



Heyward G. Shealy, Chief
Bureau of Radiological health

HGS:kn

Update:



Chem-Nuclear

May 20, 1983
ED-286-3

I. CLARIFICATION OF FREE STANDING WATER REQUIREMENTS IN DRY SOLID WASTE

License Condition 26 states:

NUCLEAR ENERGY
MAY 23 1983

Unless otherwise specified in this license, the licensee shall not receive any liquid radioactive waste regardless of the chemical or physical form. Solidified radioactive waste shall have no detectable free standing liquids. For purposes of this condition, the terminology "no detectable free standing liquids" means one-half percent (0.5%) by waste volume of non-corrosive liquids per container.

Solid waste does not fall under this criterion. This criterion only applies to solidified liquids and dewatered resins or filter media. Therefore, all other solid waste received at the Barnwell Site must contain "no" free standing liquids.

To help ensure that the solid wastes meet the requirements of this condition, absorbent material (vermiculite, diatomaceous earth, Speedi-dry, etc.) may be placed in the waste packages. This material may only be used to absorb incidental and unintentional amounts of liquids that have accumulated during waste packaging and transport. The use of absorbent material is not intended as a substitute for solidification media, when solidification is required.

II. FLUIDIZED TRANSFER DEMINERALIZATION SYSTEM

Chem-Nuclear is pleased to re-introduce our Fluidized Transfer Demineralization (FTD) System to the nuclear industry. This innovative concept of liquid waste treatment offers an alternative to current processing practices.

The FTD System is simple in concept. Vessels are loaded with ion exchange media specifically optimized to achieve maximum performance based on the waste stream composition. Upon depletion of the ion exchange media, resin is sluiced, using remotely operated equipment, to disposable containers.

This concept is not new to Chem-Nuclear. In 1980, Chem-Nuclear designed, fabricated and put into service an FTD System.