

317 BARONNE STREET • P. O. BOX 60340 NEW ORLEANS, LOUISIANA 70160 • (504) 595-3100

October 10, 1988

W3P88-1919 A4.05 OA

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

SUBJECT: Waterford Steam Electric Station - Unit Number 3

Docket Number 50-382

NRC Inspection Report 88-20

Gentlemen:

The subject Inspection Report (dentified unresolved item 8820-02 regarding transportation-related violations issued by the State of Nevada against low level radioactive waste shipments from Waterford 3 to the Beatty, Nevada disposal site. Messrs. D. Chaney and R. Baer, NRC Region IV, requested a letter summarizing the status of these violations during a conference call on September 9, 1988. This letter responds to their request.

Low level radioactive waste shipment numbers 88-1008 and 88-1009 arrived at the disposal site on May 31, 1988 and June 3, 1988, respectively; 88-1010 and 88-1011 both arrived on June 6, 1988. These shipments all arrived within a one week period and are the shipments for which violations were issued. The violations can be summarized as follows:

- 1. Manifests accompanying shipment numbers 88-1008, 1009, and 1011 each had an illegible copy attached;
- One of the placards on the front of the vehicle transporting shipment number 88-1008 was improperly displayed; and
- 3. Shipment number 88-1010 appeared to have shifted slightly during transport and a small hole was found on the front of one of the packages in the shipment.

Another violation had been issued against shipment number 88-1010, citing discrepancies between package dose rates indicated on the manifest and those measured at the disposal site. This violation was rescinded, however, after Louisiana Power & Light Company (LF&L) contacted the disposal site Radiation Safety Officer and demonstrated that the violation could not have been issued against LP&L's shipment.

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Page 2 W3P88-1919 October 10, 1988

LP&L instituted corrective actions, including procedural revisions and review of the violations, regulatory requirements and procedural revisions with personnel involved with radioactive waste shipments in response to these violations. These actions were detailed in letters to the State of Nevada dated July 5, 1988, July 25, 1988, and August 4, 1988. The State of Nevada acknowledged LP&L's corrective actions in letters dated July 12, 1988, August 1, 1988, and August 12, 1988; and provided clarification that LP&L could resume shipments to Beatty in a letter dated September 19, 1988. LP&L feels that it has appropriately addressed these violations, and based on correspondence from the State of Nevada, considers these violations closed.

Messrs. Chaney and Baer indicated during the aforementioned conference call that unresolved item 8820-02 could be closed based on documentation of resolution by the State of Nevada. Copies of all correspondence referenced in this letter, plus the letter rescinding the dose rate violation, and the letters citing the violations are attached for your review. These attachments comprise a complete package of all correspondence related to the violations and document the fact that this issue has been resolved with the State of Nevada, pending inspections of future shipments to Beatty to verify that the corrective actions have been effective. LP&L therefore requests that unresolved item 8820-02 be closed.

Specifics of the violations and corrective actions have not been reiterated in this letter as the information is fairly detailed and clearly presented in the attached correspondence. Should you wish to discuss this matter further or require additional information, please contact Chadi D. Groome at (504) 595-2846.

Yours very truly,

R.F. Burski

Manager

Nuclear Safety & Regulatory Affairs

RFB: CDG: ssf

Attachments

cc: E.L. Blake, W.M. Stevenson, J.A. Calvo, D.L. Wigginton, R.D. Martin, NRC Resident Inspector's Office (W3)

List of Attached Correspondence

State of Nevada to LP&L - 8 letters dated:

June 7, 1988 June 30, 1988 (3 letters) July 12, 1988 August 1, 1988 August 12, 1988 September 19, 1988

LP&L to State of Nevada - 3 letters dated:

July 5, 1988 July 25, 1988 August 4, 1988 STATE OF NEVADA



me ducity LAWRENCE P MATHEIS Administrator

> JOSEPH Q JARVIS, M.D. Health Officer

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DEPARTMENT OF HUMAN RESOURCES

HEALTH DIVISION Radiological Health Section 505 East King Street, Room 203 Carson City, Nevada 89710 (702) 885-3394

June 7, 1988

J.M. Cain Louisiana Power and Light Company 317 Baronne Street New Orleans, LA 70160

Dear Mr. Cain:

This letter is in reference to Louisiana Power and Light Company LLW shipment no. 88-1008 which arrived at the Beatty, NV disposal site on May 31, 1988 under Nevada Site User Permit No. Q446.

Inspection findings revealed the following violations:

1. 001.0446-4-1

Department of Transportation regulation 49 172.516(c)(4) requires each placard to be located away from any marking, such as advertising, that could substantially reduce its effectiveness, and in any case, at least 3 inches (76.0 mm.) away from such markings.

Contrary to this requirement, the placard located on the front of the transport vehicle was located within three (3) inches of a license plate holder which was displaying four license plates.

The top of the placard was also wrapped over the top of the vehicle bumper which should be prevented on future shipments. The entire placard must remain completely visible.

2. 001-0446-4-2

CFR 172.201(a)(2) states that the required shipping description on a shipping paper and all copies thereof use for transportation purposes, must be legible and printed (manually or meclanically) in English.

Contrary to this requirement, the carrier copy of the shipping manifest furnished with the shipment had several portions which were not clearly legible. The violation appears to be a result of an improper printer font or inadequate pressure on the printer.

You are required to advise this office in writing within 20 days of your receipt of this letter to indicate the actions that will be taken to correct these viclations, when the corrective actions will be implemented and the methods that will be taken to prevent recurrence of the violations.

Sincerely,

Stanley R. Marshall, Supervisor Radiological Health Section

Bureau of Regulatory Health Services

Enclosure

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Jal & Mancal

Virgil Autry, State of Louisiana Virgil Autry, State of South Carolina Earl Ingersoll, State of Washington



05-31-88 LOUSIANA POWER & LIGHT IMPROPERLY DISPLAYED PLACARD

LAWRENCE P MATHEIS
Administrator

JOSEPH Q. JARVIS. M.D. Health Officer



DEPARTMENT OF HUMAN RESOURCES

Radiological Health Section
505 East King Street, Room 203
Carson City, Nevada 89710
(702) 885-5394

June 30, 1988

J. M. Cain Louisiana Power and Light Company 317 Baronne Street New Orleans, LA 70160

RE: 003-Q446-2-1 003-Q446-3-1 003-Q446-3-2

Dear Mr. Cain:

This letter is in reference to the Louisiana Power and Light Company LLW shipment number 88-1010 which arrived at the Beatty site on June 6, 1988. The shipment was made under Nevada Site User Permit No. Q446 issued to Louisiana Power and Light Company, Waterford 3 SES.

Inspection findings revealed the following violations:

1. 003-Q446-2-1

U.S. Department of Transportation regulation 49 CFR 173.425(b)(l) requires materials to be packaged in strong, tight packages so that there will be no leakage or radioactive material under conditions normally incident to transportation.

Contrary to this requirement, package number 88-0111 was found to have a hole in the front of the package. The hole was approximately 1/4 inch in diameter and was located 20 inches from the left side and 20 inches from the bottom of the package. No loss of container contents was found as a result of the hole in the package.

2. 003-Q446-3-1

49 CFR 173.425(b)(6) requires the shipment to be braced so as to prevent shifting of lading under conditions normally incident to transportation.

49 CFR 173.448(a) requires each shipment of radioactive material to be secured in order to prevent shifting during normal transportation conditions.

Contrary to these requirements, the containers were found to have shifted to the front of the trailer as a result of the wooden wedges being released from between the containers during transit. The release of the wedges created approximately 6 inches of space between the rear floor bracing materials and the rear packages.

3. 003-Q446-3-2

Nevada Administrative Code 459.823(2) requires the manifest to contain a statement which is as complete as is practicable and includes a physical description of the waste, its volume, the identity and quantity of radionuclides, the total radioactivity and the principal chemical form.

Contrary to this requirement, three packages were found to have external radiation levels significantly different than the radiation levels indicated on the shipping manifest. The three packages, the indicated levels and measured radiation levels are as follows:

Package No.	Indicated rad. level	Measured rad. level
0111	800.0 mR/hr	550.0 mR/hr
0049	60.0 mR/hr	100.0 mR/hr
0047	80.0 mR/hr	110.0 mR/hr

Mr. Larry Simon from your company was present during confirmation of the findings above.

You are required to advise this office in writing within 20 days of your receipt of this letter of the actions that will be taken to correct the violations, when the corrective actions will be implemented and the methods that will be used to prevent recurrence of the violations.

Upon receipt of the corrective actions, we will review the response and advise you concerning resuming shipments to the Beatty site.

If you have any questions, please feel aree to contact me.

Sincerely,

Stanley R. Marshall, Supervisor Radiological Health Section Bureau of Regulatory Health Services

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CC: Bert Gray, Nevada Health Division
Virgil Autry, State of South Carolina
Earl Ingersoll, State of Washington
Jack Hornor, Region V, NRC
Bill Spell, State of Louisiana
Novelle Tucker, U.S. DOT

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LAWRENCE P MATHEIS

The Mulace

JOSEPH Q. JARVIS. M.D. Health Officer



DEPARTMENT OF HUMAN RESOURCES

Radiological Health Section
505 East King Street, Room 203
Carson City, Nevada 89710
(702) 885-5394

June 30, 1988

J. M. Cain Nouisiana Power and Light Company 317 Baronne Street New Orleans, LA 70160

RE: 002-Q446-4-2

Dear Mr. Cain:

This letter is in reference to the Louisiana Power and Light Company LLW shipment number 88-1009 which arrived at the Beatty site on June 3, 1988. The shipment had been made under Nevada Site User Permit No. Q446 issued to Louisiana Power and Light Company, Waterford 3 SES.

Inspection findings revealed the following violation:

1. 002-0446-4-2

U.S. Department of Transportation regulation 49 CFR 172.201(a)(2) requires the shipping description on a shipping paper and all copies thereof used for transportation purposes, to be legible and printed (manually or mechanically) in English.

Contrary to this requirement, the carrier copy of the shipping manifest furnished with the Louisiana Power and Light Company shipment number 88-1009 was not legible. This appears to have been caused in the printing style of the manifest printer.

You are required to advise this office within 20 days of your receipt of this letter of the actions that will be taken to correct the violation, when the corrective actions will be implemented and the methods to prevent recurrence of the violation.

If you have any questions, please feel free to contact me.

Sincerely,

Stanley R. Marshall, Supervisor Radiological Health Section Bureau of Regulatory Health Services

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CC: Bert Gray, Nevada Health Division
Jack Hornor, Region V, NRC
Virgil Autry, State of South Carolina
Earl Ingersoll, State of Washington
Bill Spell, State of Louisiana
Novelle, Tucker, U.S. DOT

STATE OF NEVADA

Mr Luciase

LAWRENCE P MATHEIS Administrator JOSEPH Q JARVIS M D Health Officer



DEPARTMENT OF HUMAN RESOURCES

HEALTH DIVISION
Radiological Health Section
505 East King Street, Room 203
Carson City, Nevada 89710
(702) 885-5394

June 30, 1988

J. M. Cain Louisiana Power and Light Company 317 Baronne Street New Orleans, LA 70160

RE: 004-Q446-4-3

Dear Mr. Cain:

This letter is in reference to the Louisiana Power and Light Company ILW shipment number 88-1011 which arrive at the Beatty site on June 6, 1988. The shipment had been made under Nevada Site User Permit No. Q446 issued to Louisiana Power and Light Company, Waterford 3 SES.

Inspection findings revealed the following violation:

1. U.S. Department of Transportation regulation 49 CFR 172.201(a)(2) requires the shipping description on a shipping paper and all copies thereof used for transportation purposes, to be legible and printed (manually or mechanically) in English.

Contrary to this requirement, the carrier copy of the manifest could not be read. This appears to have been caused by the printing style of the manifest printer.

You are required to advise this office within 20 days of your receipt of this letter of the actions that will be taken to correct the violation, when the corrective actions will be implemented and the methods to prevent recurrence of the violation.

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incerely,

Stanley R. Marshall, Supervisor Radiological Health Section

Bureau of Regulatory Health Services

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CC: Bert Gray, Nevada Health Division
Jack Hornor, Region V, NRC
Virgil Autry, State of South Carolina
Earl Ingersoll, State of Washington
Bill Spell, State of Louisiana
Novelle Tucker, U.S. DOT

JERRY GRIZPESTROG

Director



DEPARTMENT OF HUMAN RESOURCES

HEALTH DIVISION
Radiological Health Section

SC East King Street. Room 203
arson City, Nevada 89710
(702) 885-5394

July 12, 1988

R. F. Burski, Manager Nuclear Safety and Regulatory Affairs Louisiana Power and Light Company 9.0. Box 60340 Mail Unit N-17 New Orleans, LA `70160

Dear Mr. Burski:

Your letter dated July 5, 1988 is acknowledged. The letter describes the actions that have been taken to correct the violations documented during our recent inspection of Louisiana Power and Light Company LLW shipment number 88-1008.

The corrective actions will be reviewed during future inspections.

You are requested to respond to the violation letters concerning shipment numbers 88-1009, 88-1010 and 88-1011 prior to resuming shipments to the Beatty site.

If you have any questions, please feel free to contact this office.

in crely,

St bley R. Marshall, Supervisor Radio ogical Health Section

Bureau of Regulatory Elalth Services

CC: Bert Gray, Nevada Health Division
Bill Spell, State of Louisiana
Virgil Autry, State of South Carolina
Earl Ingersoll, State of Washington
Jack Hornor, Region V, NRC
Novelle Tucker, U.S. Dept. of Transportation

RICHARD H. BRYAN Governor JERRY GRIEPENTROG Director STATE OF NEVADA



LAWRENCE P. MATHEIS

JOSEPH Q. JARVIS, M.D. Health Officer

DEPARTMENT OF HUMAN RESOURCES

HEALTH DIVISION
Redielogi al Health Section
505 East Klag Street, Room 203
Carson Zity, Nevada 89710
(702) 885-5394

August 1, 1988

R. F. Burski, Manager Nuclear Safety and Regulatory Affairs Louisiana Power & Light 317 Baronne Street New Orleans, LA 70160

RE: 002-Q446-4-2 004-Q446-4-3

Dear Mr. Burski:

Your letter dated July 25, 1988 is acknowledged. The letter describes the actions that have been or will be taken to correct the violations documented during recent inspections of LLW shipments from Louisiana Power & Light.

The corrective actions will be reviewed during future inspections to determine their effectiveness. We are still awaiting a response to our letter dated June 30, 1988 concerning your LLW shipment number 88-1010.

Upon receipt of the response, we will consider reinstatement of permission to ship to the Beatty site.

If you have any questions, please feel free to contact me.

Sincerely,

Stanley R. Marshall, Supervisor Radiological Health Section Bureau of Regulatory Health Services

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CG: Bert Gray, Nevada Health Division
Jack Hornor, Region V, NRC
Virgil Autry, State of South Carolina
Earl Ingersoll, State of Washington
Bill Spell, State of Louisiana
Novelle Tucker, U.S. Dept. of Transportation

Director

JOSEPH Q JARVIS M D. Health Officer



DEPARTMENT OF HUMAN RESOURCES

HEALTH DIVISION
Radiological Health Section
505 East King Street, Room 203
Carson City, Nevada 89710
(702) 885-5394

August 12, 1988

R. F. Burski, Manager Nuclear Safety & Regulatory Affairs Louisiana Power & Light 317 Baronne Street New Orleans, LA 70160

RE: 003-Q446-2-1, 003-Q446-3-1

Dear Mr. Burski:

letter dated August 4, 1988 i3 acknowledged. The letter de ibed actions that will be taken to correct the violations doc ented during the recent inspection of LLW shipment no. 88-1010 from Louisiana Power & Light. The corrective actions were in response to violation numbers 003-Q446-2-1 and 003-Q446-3-1 cited in our letter dated June 30, 1988.

The corrective actions will be reviewed during future inspections to determine their effectiveness.

If you have any questions, please feel free to contact me.

Sincerely,

Stanle hall, Supervisor Radiolog alth Section Bureau of Regulatory Health Services

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W. Och

cc: Bert Gray, Nevada Health Division
Earl Ingersoll, State of Washington
Virgil Autry, State of South Carolina
Novelle Tucker, U.S. Dept. of Transportation
Bill Spell, State of Louisiana

RICHARD M. BRYAN Goodfoor MRRY GRIEPENTROG Director

STATE OF NEVADA



LAWRENCE P. MATHEIS
Administrator

JOSEPH Q. JARVIS, M.D.
Health Officer

RECEIVED SUPPORT

DEPARTMENT OF HUMAN RESOURCES

SEP 20 1988

HEALTH DIVISION
Radiological Health Section
505 East King Street, Room 203
Carson (219, Nevada 89710
(702) 885-5294

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September 19, 1988

Chadi Groome Louisiana Power and Light Company P.O. Box 60340 Mail Unit N-17 New Orleans, LA 70160

Dear Ms. Groome:

This letter is in response to the request from your management concerning LLW shipments to the Beatty, NV site under Nevada Site User Permit No. Q446 issued to Louisiana Power and Light Company.

Your letters dated July 5, 1988, July 25, 1988 and August 4, 1988 to this office described the corrective actions for recent LLW shipments to the Beatty site. Our letters dated July 12, 1988, August 12 and August 13,1988 advised that the corrective actions would be reviewed during future inspections of shipments from Louisiana Power and Light Company. I regret that our review of the corrective actions and acknowledgments in writing were not interpreted by your management to include permission to resume shipments to the Beatty site.

You are advised that Louisiana Power and Light Company is permitted to resume LLW shipments to the Beatty site.

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If you have any further questions, please feel free to contact me.

Sincerely,

Stanley R. Marshall, Supervisor Radiological Health Section

Bureau of Regulatory Health Services

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CC: Bert Gray, Nevada Health Division Virgil Autry, State of South Carolina Earl Ingersoll, State of Washington Bill Spell, State of Louisiana

July 5, 1988

W3P88-1631 A4.06 QA

Mr. Stanley R. Marshall Department of Human Resources Health Division Radiological Health Section 505 East King Street, Room 203 Carson City, Nevada 98710

SUBJECT:

Waterford Steam Electric Statio' - Unit Number 3

Nevada Radioactive Waste Dispos-1 Site User's Permit

Number Q446

Low Level Waste Shipment Number 88-1008

REFERENCE:

Department of Human Resources Letter from

Stanley R. Marshall to J.M. Cain dated June 7, 1988

Dear Mr. Marshall:

Louisiana Power & Light Company (LP&L) is in receipt of the referenced letter indicating that two transportation-related violations were issued against LP&L's low level waste shipment number 88-1008. This shipment arrived at the Boatty, Nevada disposal site on May 31, 1988. The referenced letter was received on June 14, 1988, and requires a response within 20 days of receipt. As is discussed in detail below, LP&L has reviewed the violations and has initiated corrective actions to prevent their recurrence.

Violation number 001-Q446-4-1 indicates that the placerd on the front of the transport vehicle was placed within three (3) inches of the license plate holder, and therefore not in conformance with the requirements of 49CFR172.516(c)(4). Photographic documentation was included in the referenced letter to substantiate this finding.

Violation number 001-Q446-4-2 indicates that several portions of the carrier copy of the shipping manifest were not clearly legible, and

Page 2 W3P88-1631 July 5, 1988

therefore violated the requirements of 49CFR172.201(a)(2). This regulation specifies that:

The required shipping description on a shipping paper and all copies thereof used for transportation purposes, must be legible and printed (manually or mechanically) in English.

LP&L was aware prior to the shipment leaving Waterford 3 that the carrier copy of the manifest was not entirely legible, and took what it considers appropriate compensatory action. The manifest required by the disposal site is a five part carbon form, the last copy of which generally does not print clearly. As LP&L has been doing for quite some time, the first page of the manifest was photocopied and designated as the carrier copy in lieu of the last page of the five part manifest. In fact, both the State of Nevada Site Inspector and disposal site personnel suggested substituting photocopies for illegible carbon copies when LP&L questioned them about resolving the legibility concern. To avoid future confusion regarding which copies are used for transportation purposes, any copies which may be deemed illegible and are replaced by photocopies will be removed from the manifest.

Radwaste Department Technical Procedure number RW-2-501, "Radioactive Waste Shipments" provides instructions regarding Department of Transportation, Nuclear Regulatory Commission and disposal site requirements for radioactive waste shipments. The procedure requires completion of checklists to insure that the proper paperwork and notifications have been completed, and that the shipments and transport vehicles meet the applicable regulations prior to leaving Waterford 3. In light of these violations, the procedure has been reviewed, and is being revised to be more specific with regard to both placarding and shipping paper legibility requirements. Appread of the changes is expected within the next two weeks, but in any case will be received prior to the next radioactive waste shipment. In addition, these violations and applicable regulatory requirements have been reviewed with personnel involved with radioactive waste shipments.

To insure timely responses, please address future correspondence to me. My address is:

P.O. Box 60340 Mail Unit N-17 New Orleans, Louisiana 70160 Page 3
W3P88-1631
July 5, 1988

Should you require additional integrated please contact Ms. Chadi D. Groome

Should you require additional information regarding these violations, please contact Ms. Chadi D. Groome at (504)595-2846.

Very truly yours,

R.F. Burski

Nuclear Safety & Regulatory Affairs Manager

RFB/CDG/tsy

cc: J.G. Dewease, R.P. Barkhurst, N.S. Carns, P.V. Prasankumar, W.T. LaBonte, L.R. Simon, D.B. Stevens, M.J. Meisner, G.E. Wilson, W.H. Spell, V. Autry, E. Ingersoll, J. Hornor, B. Gray, Waterford 3 kecords Center, Administrative Support (1), Licensing Library

July 25, 1988

W3P88-1623 A4.06 OA

Mr. Stanley R. Marshall Department of Human Resources Health Division Radiological Health Section 505 East King Street, Room 203 Carson City, Nevada 98710

SUBJECT:

Waterford Steam Electric Station - Unit Number 3 Nevada Radioactive Waste Disposal Site User's Permit Mumber Q446 Low Level Waste Shipment Numbers 88-1009 and 88-1011

- REFERENCES: (1) State of Nevada Department of Human Resources Letter from Stanley R. Marshall to J.M. Cain dated June 30, 1988 Regarding Louisiana Power & Light Company Low Level Waste Shipment Number 88-1009
 - (2) State of Nevada Department of Human Resources Letter from Stanley R. Marshall to J.M. Cain dated June 30, 1988 Regarding Louisiana Power & Light Company Low Level Waste Shipment Number 88-1011
 - (3) Louisiana Power & Light company Letter W3P88-1631 from R.F. Burski to Stanley R. Marshall dated July 5, 1988
 - (4) State of Nevada Department of Human Resources Letter from Stanley R. Marshall to R.F. Burski dated July 12, 1988

Dear Mr. Marshall:

Louisiana Power & Light Company (LP&L) is in receipt of references 1 and 2 which descript transportation-related violations issued against LP&L's low level waste shipment numbers 88-1009 and 88-1011 which arrived at the Beatty, Nevada disposal site on June 3, 1938 and June 6, 1988, respectively. As both violations ar the same, they are being addressed together in this letter. Also, we woul . . to note that these violations are the same as violation number 001-44: 6-2, for which corrective action has been initiated, as described in reference 3 and acknowledged in reference 4.

Page 2 W3P88-1623 July 25, 1988

These two violations indicate that several portions of the carrier copy of the shipping manifests were not clearly legible, and therefore violated the requirements of 49CFR172.201(a)(2). This regulation specifies that:

The required shipping description on a shipping paper and all copies thereof used for transportation purposes, must be legible and printed (manually mechanically) in English.

LP&L was aware prior to the shipments leaving Waterford 3 that the carrier copies of the manifests were not entirely legible, and took what it considers appropriate compensatory action. The manifest required by the disposal site is a five part carbon form, the last copy of which generally does not print clearly. As LP&L has been doing for quite some time, the first page of the washingert was photocopied and designated as the carrier copy in lieu of the last page of the five part manifest. In fact, both the State of Nevada Site Inspector and disposal site personnel suggested substituting photocopies for illegible carbon copies when LP&L questioned them about resolving the legibility concern. To avoid future confusion regarding which copies are used for transportation purposes, any copies which may be deemed illegible and are replaced by photocopies will be removed from the manifest.

Radwaste Department Technical Procedure number RW-2-501, "Radioactive Waste Shipments" provides instructions regarding Department of Transportation, Nuclear Regulatory Commission and disposal site requirements for radioactive waste shipments. The procedure requires completion of checklists to insure that the proper paperwork and notifications have been completed, and that the shipments and transport vehicles meet the applicable regulations prior to leaving Waterford 3. In light of these violations, the procedure has been revised to be more specific with regard to shipping paper legibility requirements. In addition, these violations and applicable regulatory requirements have been reviewed with personnel involved with radioactive waste shipments.

Should you require additional information regarding these violations, please contact Ms. Chadi D. Groome at (504)595-2846.

Very truly yours,

R.f. Buch

R.F. Burski

Nuclear Safety & Regulatory Affairs

Manager

RFB/CDG/Lsy

cc: J.G. Dewease, R.P. Barkhurst, N.S. Carns, P.V. Prasankumar, W.T. LaBonte, L.R. Simon, D.B. Stevens, M.J. Meisner, G.E. Wilson, W.H. Spell, V. Autry, E. Ingersoll, J. Hornor, B. Gray, N. Tucker, Waterford 3 Records Center, Administrative Support (1), Licensing Library

August 4, 1988

W3P88-1630 A4.06 OA

Mr. Stanley R. Marshall Department of Ruman Resources Health Division Radiological Health Section 505 East King Street, Room 203 Carson City, Nevada 98710

SUBJECT:

Waterford Steam Electric Station - Unit Number 3 Nevada Isdicactive Waste Disposal Site Peer's Permit Number Q446 Low Level Waste Shipment Number 88-1010

- REFERENCES: (1) State of Nevada Department of Human Resources Letter from Stanley R. Marshall to J.M. Cain dated June 30, 1988 Regarding Louisiana Power & Light Company Low Level Waste Shipment Number 88-1010
 - (2) State of Nevada Department of Human Resources Letter from Stanley R. Marshall to Chadi Groome dated July 18, 1988

Dear M., Marshall:

Louisiana Power & Light Company (LP&L) is in receipt of the referenced letters discussing transportation-related violations issued against LP&L's low level waste shipment number 88-1010. This shipment arrived at the Beatty, Nevada disposal site on June 6, 1988. As is discussed in detail below, LP&L has reviewed the violations and has initiated corrective actions to prevent their recurrence.

Violation number 003-446-2-1 indicates that contrary to 49CFR173.425(b)(1), which requires that "Materials must be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation", package number 88-0111 was found to have a hole approximately & inch in diameter on the front of the package. The violation continues that "No loss of container contents was found as a result of the hole in the package." While LP&L is not minimizing the seriousness of a breach of integrity in a shipping package, it is important to note that this small hole did not result in leakage of radioactive material, and therefore the package met the intent of the cited regulation.

As a result of this violation, LP&L has taken several steps to insure the integrity of its shipping packages. Packages already on site were reinspected. Radwaste Department Technical Procedure numbers RW-2-501, "Radioactive Waste Shipments", and RW-2-300, "Receipt, Storage and Loading of Shipping Containers", have been revised to clarify acceptance criteria and focus both receipt and final (prior to shipment) inspections on box integrity. Furthermore, while not a regulatory requirement for this type of container, procurement specifications have been upgraded to Quality Class II which imposes more stringent controls on both the vendor and LP&L.

Vi. ation number 003-Q446-3-1 indicates that the subject shipment did not meet the requirements of 49CFR173.425(b)(6) and 49CFR173.448(a) in that "the containers were found to have shifted to the front of the trailer as a result of the wooden wedges being released from between the containers during transit. The release of the wedges created approximately 6 inches of space between the rear floor bracing materials and the rear packages." The cited regulations specify, respectively:

Shipment must be braced so as to prevent shifting of lading under conditions normally incident to transportation.

and

O

Each shipment of radioactive materials shall be secured in order to prevent shifting during normal transportation conditions.

In response to this violation, LP&L has thoroughly reviewed its loading practices and discussed the incident with personnel involved with radioactive waste shipments. Extreme care was taken in preparing this shipment for transportation. The methods employed to secure the boxes should have been adequate to prevent the cargo from shifting to any appreciable degree, and an explanation of the loading procedures is in order at this time. The shipment consisted of ten boxes. The boxes were centered in the trailer, one behind the other, with the first box placed flush against the front wall of the trailer, and each subsequent box abutting the box in front of it. (Because the boxes bow slightly when full, the tops of the boxes could not be placed squarely against each other.) Two by fours were nailed to the floor of the trailer around each box to keep the boxes in place during transit. A restraining device (a metal bar and ratchet mechanism) secured to the sides of the r siler (approximately three-fourths up from the bottom of the box) was in called behind the fourth box to further inhibit movement and another was installed behind the last box to keep the cargo from moving backward toward the trailer doors. In addition, cargo straps were strung from side to side in the trailer behind every other box. Because the boxes were slightly bowea and the tops could not abut, wooden wedges were driven between the boxes to further maintain the existing spacing and provide shock absorption.

Apparently some of these wedges vibrated free and gave the appearance that the load may have shifted. As the wedges were not recessary to secure the shipment, they will not be used for future shipments.

As reference 2 rescinded violation number 003-Q446-3-2, the third violation cited in reference 1, this violation does not require a response. However, LP&L wishes to point out that its efforts in investigating the violation identified the differences between the information presented in the violation and LP&L's documentation for the subject shipment. These differences were confirmed by the U.S. Ecology Site Radiation Safety Officer during a telephone call with LP&L personnel. The violation cites discrepancies between radiation levels measured at the disposal site and those indicated on the shipping manifest for three boxes. Two box numbers, 047 and 049, do not match any box numbers on LP&L's manifest. The third box number, Olll, was indicated on the manifest. However, the violation specifies that the manifest indicated a radiation level of 800 mR/hr for this box, while the highest radiation level of any box in the subject shipment was 500 mR/hr contact. As the documentation clearly indicates, these radiation level discrepancies could not have been cited against the subject shipment, and LP&L appreciates your letter rescinding this violation.

Should you require additional information regarding these violations, please contact Ms. Chadi D. Groome at (504) 595-2846.

Yours very truly,

R.F. Burski

Manager

Nuclear Safety & Regulatory Affairs

RFB/CDG!plm

cc: J.G. Dewease, R.P. Barkhurst, N.S. Carns. P.V. Prasankumar, W.T. LaBonte, J. Ridgel, L.R. Simon, D.B. Stevens, M.J. Meisner, G.E. Wilson, W.H. Spell, V. Autry, E. Ingersoll, J. Hornor, B. Gray, N. Tucker, Wat Tford 3 Records Center, Administrative Support, Licensing Library

DOCUMENTATION OF TELEPHONE COMMUNICATIONS

DATE: Septe	ember 9, 1988	TIME:	1000	A.M. RXX.	
PARTY CALLING:	B.G. Morrison, C.D. (J.A. Ridgel, L.K. Siz (Nata)	4 //		LP&L Company)	
PARTY ANSWERING	H.D. Chaney R.E. Baer (Name)			NRC, Region IV (Company)	
SUBJECT:	IR 88-20		FILE:	A7.09	
				QA	
	SUMMARY: (INC	LUDING DECIS	IONS AND/OR	COMMENTS)	
Chadi discusse	d the Nevada violatio	ons and indic	ated that a	11 items had been taken	
care of. The	NRC wants a summary o	f the proble	ms and reso	lutions in a formal letter	*
document our c	ed the training respo ommitment to IEB 79-1 raining up-to-date.	nse required 9 items 5 an	by IR 88+2 id 6 and how	O. He wants us to formall we are going to keep	у
		ACTION REQU	UIRED:		
Chadi will sub	omit a letter on Nevac	da questions	. Barbara a	and Marcy Langan will	
Torrier .					
DISTRIBUTION:	Records Center, Adm	inistrative	Support, Lic	censing Library, Site Licer	SIRE
	Support File				



NUCLEAR REGULATORY

REGION IV

1

UNITED STATES

611 RYAN PLAZA DRIVE, SUITE 1000 ARLINGTON, TEXAS 3 ... 11

AUG 2 4 1988

In Reply Refer To: Docket: 50-382/88-20

RECEIVED (+2 ADMINISTRATIVE SUPPORT

SEP 1 1988

Louisiana Power & Light Company ATTN: J. G. Dewease, Senior Vice President Nuclear Operations 317 Baronne Street New Orleans, Louisiana 70160

Gentlemen:

This refers to the inspection conducted by Mr. H. D. Chaney of this office during the period July 10-15, 1988, of activities authorized by NRC Operating License NPF-38 for the Waterford Steam Electric Station, Unit 3, and to the discussion of our findings with Mr. N. Carns and other members of your staff at the conclusion of the inspection.

Areas examined during the inspection included transportation of radioactive materials and low-level solid radioactive waste management. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the NRC inspector. The imspection findings are documented in the enclosed inspection report.

Within the scope of the inspection, no violations or deviations were identified. However, we are concerned about the inactivity of your training program for radinactive waste (radwaste) workers and personnel involved in radioactive material transportation activities.

Accordingly, you are requested to respond, in writing, within 30 days of the date of this letter, outlining steps taken to ensure that initial training and retraining programs are fully implemented for personnel in the onsite radwaste group that satisfies NRC Inspection and Enforcement Bulletin 79-19 commitments and current industry practices. Your response should address the root causes of why the previously established program was allowed to become inactive, and the short and long term actions to be taken to improve and maintain the training program in the future.

One unresolved item is identified in paragraph 8 of the enclosed inspection report.

The response directed by this letter is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

L. J. Callan, Director Division of Reactor Projects

Enclosure: Appendix - NRC Inspection Report 50-382/88-20

cc w/enclosure: Louisiana Power & Light Company ATTN: G. E. Wuller, Onsite Licensing Coordinator P.O. Box B Killona, Louisiana 70066

Louisiana Power & Light Company ATTN: N. S. Carns, Plant Manager P.O. Box B Killona, Louisiana 70066

Middle South Services ATTN: Mr. R. T. Laliy P.O. Box 61000 New Orleans, Louisiana 70181

Louisiana Power & Light Company
ATTN: R. F. Burski, Acting Manager
Nuclear Safety and Regulatory
Affairs
317 Baronne Street
P.O. Box 60340
New Orleans, Louisiana 70160

Louisiana Radiation Control Program Director

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION REGION IV

NRC Inspection Report: 50-382/88-20

Operating License: NPF-38

Docket: 50-382

Licensee: Louisiana Power & Light Company (LP&L)

317 Baronne Street

New Orleans, Louisiana 70160

Facility Name: Waterford Steam Electric Station, Unit 3 (WAT-3)

Inspection At: WAT-3 site, Taft, St. Charles Parish, Louisiana

Inspection Conducted: July 10-15, 1988

Inspector:

H. D. Chaney Radiation Specyalist, Facilities

Radiological Protection Section

Approved:

, Facilities Radiological

Protection Section

Inspection Summary

Inspection Conducted July 10-15, 1988 (Report 50-382/88-20)

Areas Inspected: Routine, unannourced inspection of transportation of radioactive materials and low-level radioactive waste (LLRW) management.

Results: Within the areas inspected, no violations or deviations were identified. One unresolved item concerning the transportation of radioactive materials was identified (see paragraph 8).

DETAILS

1. Persons ('ontacted

LP&L

*N. Carns, Plant Manager

*S. Alleman, Quality Assurance Manager

F. Davis, Nuclear Operations Support and Assessment Engineer G. Espenan, Nuclear Operations Support and Assessment Engineer R. Kenning, Nuclear Operations Support and Assessment Engineer

*W. LaBonte, Radiation Protection Superintendent

J. Ladet, Security Supervisor, Operations

*M. Langan, Technical Support Training Supervisor

D. Landeche, Health Physics (HP) Supervisor

M. Marler, HP Trainer

R. McLendon, Dosimetry Supervisor

- *P. Prasankumar, Assistant Plant Manager, Plant Technical Services
- S. Ramzy, Assistant Radiation Protection Superintendent *J. Ridgel, Assistant Radiation Protection Superintendent

*D. Stevens, Radwaste Supervisor

Others

*T. Staker, NRC Resident Inspector

*Denotes attendance at the exit interview.

The NRC inspector also contacted other licensee personnel including administrative, security, and quality assurance (QA) personnel.

2. NRC Inspector Observations

The following are observations that the NRC inspector discussed with the licensee during the exit interview on July 15, 1988 and (observation b. which was discussed with R. Kenning) by phone on July 19, 1988. These observations are not violations, deviations, unresolved items, or open items. These observations were identified for licensee consideration for program improvement, but the observations have no specific regulatory requirement. The licensee stated that the observations would be reviewed (no commitment was made in regard to observation b.).

a. Clean Waste Release The procedure currently in use for the testing of gamma scintillation counting of bulk paper and plastic wastes to be released for unrestricted use is not signed or dated. b. Radwaste Program Assessments - Neither the Corporate Nuclear Support Services Section nor the onsite Operations Support and Assessment Group routinely performs assessments on low-level solid radwaste and transportation activities.

Open Item Identified During This Inspection

An open item is a matter that requires further review and evaluation by the NRC inspector. Open items are used to document, track, and ensure adequate follow-up on matters of concern to the NRC inspector. The following open item was identified:

Open Item	Title	See Paragraph
382/8830-01	Retraining of Radwaste Staff	6

4. Unresolved Item Identified During This Inspection

An unresolved item is a matter about which more information is required to ascertain whether it is an acceptable item, a deviation, or a violation. The following unresolved item was identified:

Open Item	Title	See Paragraph
382/8820-02	State of Mevada Identifi Transportations Regulati Violations	

Organization and Management Controls - Transportation/Radwaste (83522/83722)

The NRC inspector inspected the licensee's staff assignments including: organization, assignment of responsibilities, authorities, staffing, identification and correction of problems, audits and surveillances, communication to employees, documentation and implementation relating to radioactive effluents and solid wastes, and the transportation of radioactive materials to determine adherence to commitments contained in Sections 11 and 13 of the Updated Final Safety Analysis Report (UFSAR), and NRC Inspection and Enforcement Bulletin (IEB) 79-19 and compliance with Technical Specification (TS) 6.2, 6.8, and 6.13.

The NRC inspector reviewed the organization of the licensee's radwaste department which is responsible for management of solid radioactive waste processing and transportation of radioactive materials (RAM). The NRC inspector also reviewed the LP&L Corporate support (Nuclear Support Services Section) provided the WAT-3 radwaste program.

The NRC inspector reviewed the licensee's senior management policies (Nuclear Operations Management Manual), which included the assignment of responsibility for RAM shipments, implementing procedures for control of LLRW processing and transportation of RAM, the NRC approved Process

Control Program (PCP) (Procedure RW-01-210), field quality control activities, and the NRC approved QA program (Docket: 71-0604) for transportation activities. The licensee utilizes an ancillary special scope QA program in conjunction with their 10 CFR Part 50, Appendix B, QA program for ensuring quality in RAM transportation activities. Procedures and other documents reviewed during the inspection are listed in the Attachment to this report.

The NRC inspector reviewed the licensee's audit program including current and planned audits for LLRW and RAM transportation activities. The following audits and surveillances were reviewed:

- Surveillance QS-88-055, Purchase Orders and Receipt Inspection of Shipping Packages
- Audit SA-87-024.1, Radwaste Processing
- Audit SA-87-003E.1, Radwaste Training and Qualification
- Audit A39.356-87.1, Container Products Corporation (Vendor Audit)

The licensee's audits were found to be comprehensive and included an adequate amount of performance based objectives. The NRC inspector noted that while the Nuclear Operations Support and Assessment (NOSA) Group performed operational assessments on most other activities at WAT-3, NOSA does not perform assessments in the area of radwaste operations.

No violations or deviations were identified.

6. Training and Qualification - Transportation/Radwaste (83523/83723)

The NRC inspector reviewed the licensee's training program including adequacy of training, employee knowledge, qualification requirements, position descriptions, technician, contract technician screening and training, audits, and training not covered by INPO accreditation to determine agreement with commitments in Section 13.2.2.8 of the UFSAR, and NRC IEB 79-19, and compliance with the requirements of Technical Specification (TS) 6.3 and 6.4.

The NRC inspector observed work practices and interviewed radwaste group personnel. The licensee's biennial republification program for personnel involved in radwaste processing and the sportation activities was reviewed for adequacy. Training records for the plant staff (approximately 21 radwaste and HP individuals) involved in the processing and transportation of RAM were reviewed for completeness. The NRC inspector also reviewed the licensee's implementing procedures and lesson plans for the training of radwaste personnel. The NRC inspector noted (this was also identified during a QA audit) that at least four radwaste personnel have not received any formal radwaste training since hiring on at WAT-3. None of these persons appeared to have performed radwaste processing activities other than collection of waste. The last training for many

radwaste personnel was the completion of on-the-job training checklists in 1986. The NRC inspector noted that the licensee had provided many individuals with required reading of procedural changes and vendor provided training on radwaste and transportation activities in 1986 and 1987 which satisfies the biennial requalification requirements. The NRC inspector also noted that the lesson plans for the radwaste training program were not current (1984 vintage) in the areas of regulatory requirements and licensee facilities. The licensee training program for radwaste workers was an item of concern in NRC Inspection Report 50-382/85-26 and resulted in the issuance of a Notice of Violation (NOV) for the failure to ensure that a contract worker received proper training. This area was strengthened as a result of the NOV. The Nuclear Training Department (NTD) staff positions responsible for radwaste group training activities have had a high turnover rate in the past which has resulted in the program not being maintained in a current status. The licensee's NTD had filled the vacant position of instructor for the radwaste group around July 1, 1988. The licensee's radwaste training program will be considered an open item pending liceusee implementation of an upgraded training and requalification program for radwaste workers (382/8820-01).

No violations or deviations were identified.

7. Solid Radioactive Waste (84522/84722)

The NRC inspector reviewed the licensee's program for the control, classification, characterization, and shipment of low-level radioactive waste to determine agreement with the commitments contained in Section 12 of the UFSAR and compliance with the requirements contained in TS 3.11.3, 4.11.3; 10 CFR Parts 20.301, 20.311, 61.55, and 61.56; and the recommendations of NRC Branch Technical Position (BTP) papers on LLRW classification and waste form.

The NRC inspector reviewed the licensee's computerized program for management of waste processing and packaging activities (RADMAN). The licensee's biannual evaluation of waste streams and development of isotope correlation factors were reviewed. The licensee's LLRW characterization and classification program is well documented. The NRC inspector reviewed the licensee's vendor provided processes for dewatering of filters and resins. The licensee's PCP and the licensee's vendor's PCP for the processing of various waste streams were reviewed for management control over changes and revisions. The NRC inspector reviewed selected records of waste processing activities (resin solidification, filter dewatering, dry active waste compaction, and oil solidification) for 1987.

The NRC inspector reviewed the licensee's records for LLRW shipped since 1985. The following tabulation shows the total volume of LLRW shipped for the 1985 through 1987.

Volume Shipped (Cubic feet)

Year	<u>Goal</u>	Actual	Curie Content	
1985	5,000	9,997	33.5	
1986	6,227	6,138	37.5	
1987	8,000	13,530*	178.2	

^{*}Included approximately 5,000 cubic feet of boric acid concentrator bottoms held over from 1985 due to licensee efforts in evaluating onsite burial.

No violations or deviations were identified.

8. Transportation (86721/86740)

The NRC inspector reviewed the licensee's program for transportation of RAM, program audits, procurement and evaluation of packaging, determination of package activity, preparation of packages for shipment, maintenance of packages, delivery of packages to carrier, and the receipt of RAM for compliance with the requirements of 10 CFR Parts 20.205 and 20.311; 10 CFR Part 71; and Department of Transportation (DOT) regulations (49 CFR) incorporated by 10 CFR Part 71.

The NRC inspector reviewed 30 shipping records from the 1986 and 1987 period for completeness and accuracy. The licensee's authorization to utilize specific shipping packages was verified. The NRC inspector reviewed the documentation including advanced notification, package opening and closing checklists, hazardous waste manifests, sole use instructions, and survey records. The NRC inspector noted that the licensee routinely used extensive checklists for accomplishing shipments of RAM.

The NRC inspector was informed, on July 11, 1988, by the licensee, that LP&L had been notified by the state of Nevada that several violations of DOT and burial site requirements had be identified during inspection of two of the licensee's waste shipments to the Beatty, Nevada, burial site (May 1988, Radioactive Shipment Record (RSR) 88-1008 and June 1988, RSR 88-1010). The viclations identified by the state of Nevada included radiation dose rates on waste containers significantly greater than shipping records indicated, a waste container [strong tight package for low-specific-activity shipment(s)] was found to have a k-inch hole in it (manufacturing defect), improper location of DOT required placard, illegible manifest copies, and the bracing used in a sole-use enclosed trailer-van came loose and allowed the load to shift. The licensee had not fully investigated each of the apparent violations at the time of this inspection. The licensee had instituted an immediate inspection of waste containers used for the shipment of dry active waste (DAW). The licensee determined that several of the onsite ready for use Container Product Corporation's 8-25 containers (steel boxes of approximately 95 cubic feet capacity) contained manufacturing defects. These containers are not required to be COT approved or NRC certified. The hole in the B-25

container, found by the state of Nevada, was the result of a weld burn-through that was painted over at the manufacturing facility and was not readily identifiable during the licensee's proceduralized preuse inspection of the container. At the time of this NRC inspection, the licensee had already instituted corrective actions concerning potential defects in waste containers used for DAW packaging and had revised their receipt inspection program for strong, tight containers of all makes. The licensee informed the NRC inspector by telephone on July 18, 1988, that preliminary investigation of the apparent high dose rates on waste containers may be the result of a state of Nevada mix up involving another shipper's material and not LP&L's. NRC enforcement will be deferred until all of the state of Nevada's violations have been resolved. The licensee's apparent violation of NRC and DOT regulations will be considered an unresolved item pending further review by the NRC during a future inspection (382/8820-02).

The NRC inspector noted that the licensee's QA department had just completed a surveillance of waste packaging procurement and receipt inspection. The draft results of the surveillance indicated that several deficiencies were identified in the licensee's program for these materials.

The licensee had not experienced any transportation incidents which caused a reduction in the effectiveness of an NRC or DOT certified packaging since the previous inspection.

No violations or deviations were identified.

9. Review of Periodic and Special Reports (90713)

The NRC inspector reviewed the licensee's semiannual effluent reports for 1986 through 1987 for compliance with the requirements of TS 6.9.1.8, 6.13, and 6.15 and the recommendations of RG 1.21.

The licensee's semiannual reports for the years 1985, 1986, and 1987 were reviewed and compared to the licensee's documentation concerning radioactive material shipments (solid LLRW disposal), PCP changes, and modifications to the solid LLRW processing systems.

No violations or deviations were identified.

10. Exit Interview

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The NRC inspector met with the NRC resident inspector and licensee representatives denoted in paragraph 1 on July 15, 1988, and summarized the scope and findings of the inspection as presented in this report. The licensee agreed to provide the NRC with all correspondence involving the state of Nevada's 1988 inspection and enforcement actions concerning LP&L.

TO MAC INSPECTION REPORT 50-382/88-20

DOCUMENTS REVIEWED

TITLE	BEAISTON	DATE
Noclear Operations Management Manual		
Section VI. Special Scope Quality Policies		
Chapter 5. Radioactive Waste Management	2	12-21-87
Flant_Opgretions_Medual		
Volume 20. Radioactive Waste Management Procedure	•	
RW-01-100, Radioactive Waste Reduction	2	02-18-87
RW-01-200, Record Preparation, Filing,		06-25-87
and Storage		07-10-87
RW-01-210. Process Control Program RW-02-100. Waste Material Collection and		
Handling	4	03-25-88
RW-02-110. Waste Sample Collection and		
Isotope Evaluation	3	05-18-87
RW-02-120. Handling Used Protective Clothing	0	07-14-86
RW-02-200. Packaging Radioactive Solid Waste		
(DAW) for Disposal	5	08-20-86
RW-02-210. Radioactive Waste Solidification	6 2 3	10-26-87
RW-02-220, Radwaste Filter Disposal	2	01-07-86
RW-02-230. Waste Material Segregation		06-20-88
RW-02-231. Granulating Material for Disposal	2	03-29-88
RW-02-240, Blowdown Demineralizer Resin		
Transfer	0	04-07-86
RW-02-300. Receipt. Storage and Loading of		48.07.04
Shipping Containers	2	05-23-86
W-02-310, Storage of Loaded Shipping		09-15-86
Containers	2	04-12-00
RW-02-320, Packaged Radioactive Waste		06-26-87
Control and Inventory	5	02-18-86
RW-02-330. Radioactive Waste Tracking	0	08-27-87
RW-02-401, Use of Radman Operating Program	0 .	09-10-87
RW-02-411. Use of Radman Data Manager		
RW-02-420, Operation of the Filtrk Computer	0	05-04-87
Program		
RW-02-430, Operation of the RAMSHP Computer	1	06-01-88
Program Material Shipment	3	. 09-15-87
RW-02-500, Radioactive Material Shipment	i	04-08-88
RW-02-501. Radioactive Waste Shipment RW-02-521. Type and Quantity Determination	0	05-05-87
RW-02-521. Type and odantity better mineral RW-02-530. Decay Heat Calculations for		*
USNRC Certified Containers	0	05-05-87
RW-02-541. Hydrogen Gas Calculation	0	05-04-87
RW-02-800. Dose to Curie Conversion	1	02-18-86
RW-02-810, Waste Classification	1	02-18-86
MA-05-DIAL MESSE SISSELLISE		

T501-000-00.	Basic Radwaste	-	05-02-86
	Radwaste Equipment Operation	*	09-08-86
T502-000-00.	Handling and Control of DAW	-	05-02-86
	Packaging of DAW	-	05-02-86
T510-000-00.	Radioactive Material/Radwaste		
	Shipping	*	05-02-86
Y511-000-00.	Contract Decon Technician Quals	*	07-30-86

Vendors Manuals and NEC Cert. 2.01 Compliance

Chem-Nuclear Cask 14-195H. Co+C 5094 Chem-Nuclear Cask 8-120B. CofC 57:8 LN Technologies Cask USA/9151/A. Co+C 9151 NUS Cask 7-100. Co+C 9080

Licensee_Correspondence

Inter-Office Correspondence, S. Develle (LF&L) to file. Subject: "IE Bulletin 79-19. Fackaging of Low-Level Radioactive Waste for Transport and Burial". dated July 19, 1983. Serial No. W3F83-2488