Florida Power & Light Company

Turkey Point Nuclear Plant

This procedure may be affected by an O.T.S.C. (On The Spot Change) notify information prior to use.
Date verified ______ Initials ______

0-HPS-042.8

Title:

Dewatering Controls for Radioactive Waste Liners

Safety Related Procedure

Responsible Department:	Health Physics
Reviewed by PNSC:	91-282
Approved by Plant Manager-N:	10/22/91
Periodic Review Due:	4/21/95

RTSs 90-2869P

*/RKR/ms/bc

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1.0 PURPOSE

1.1 This procedure provides instructions for the removal of free-standing water from liners containing radioactive bead resin, powdex resin, or charcoal.

2.0 REFERENCES/RECORDS REQUIRED/COMMITMENT DOCUMENTS

2.1 References

2.1.1 Turkey Point Units 3 and 4 Technical Specifications 3.11.3

2.1.2 0-HPA-040, Receiving Radioactive Material

2.1.3 0-HPA-042, Process Control Program

2.1.4 0-HPA-042.1, Use of Westinghouse RADLOK Containers

2.1.5 0-HPS-042.2, RADLOK Inspection

2.1.6 0-HPS-042.3, Westinghouse RADLOK High Integrity Container Fill Port Closure

2.1.7 0-HPS-042.4, Westinghouse RADLOK Manway Assembly Closure and Sealing

2.1.8 0-HPS-042.5, Transfer and Dewatering Bead Resin in RADLOK High Integrity Containers

2.1.9 OP-05333.1, WDS - Transferring Spent Storage Tank to Shielded Shipping Cask

2.1.10 Westinghouse Radiological Services, Inc., procedure STD-P-03-046, Transfer and Dewatering Ion Exchange Resin and/or Activated Charcoal Filter Media Using the Hittman Rapid Dewatering System, SDC Controlled Vendor Manual AA693

2.1.11 Westinghouse Radiological Service, Inc., procedure STD-P-03-052, Transfer and Dewatering Ion Exchange Resin and/or Filter Media Using the Press Pak System, SDC Controlled Vendor Manual AA693

2.1.12 Westinghouse Radiological Service, Inc., Process Control Program STD-PCP-03-003, Westinghouse Hittman Mobile Incontainer Dewatering and Solidification Systems

2.1.13 45 CFR

2.1.14 10 CFR 61

2.2 Records Required

2.2.1 Completed copies of the below listed item(s) constitute Quality Assurance records and shall be transmitted to Site Document Control QA Records Section for retention in accordance with Quality Assurance Records Program requirements:

1. Form HP-72C, Specification Container Shipping Release
2. Form HP-72-L, Powdex Resin Liner Shipping Release Form

2.3 Commitment Documents

2.3.1 Quality Assurance Audit QAO-PTN-89-996

3.0 RESPONSIBILITIES

3.1 The Radwaste Supervisor is responsible for ensuring all liners are dewatered in accordance with Reference Step 2.1.3, 0-HPS-042, Process Control Program.

3.2 The Health Physics Radwaste Shift Supervisor is responsible for ensuring the instructions of this procedure are followed.

3.3 The Radiation Protection Man (RPM) is responsible for being familiar with and ensuring all provisions of this procedure are adhered to and carried out by direct action and surveillance.

4.0 DEFINITIONS

4.1 None

5.0 PREREQUISITES

5.1 None

6.0 PRECAUTIONS/LIMITATIONS

6.1 Class B and C radioactive waste may be transferred to the disposal site in a High Integrity Container (HIC) approved for disposal by the licensing agency for the disposal site. No other containers may be used without PNSC approval.

6.2 Disposal of radioactive bead resin which is Class A having a concentration of radionuclides with half-lives greater than five years, exceeding one microcurie per cubic centimeter, Class B, or Class C is limited to HICs with an approved certificate of compliance issued by the licensing agency for the disposal site. [Commitment - Step 2.3.1]

6.3 Radioactive bead resin or charcoal filter media which is Class A, and which has a concentration of radionuclides with half-lives greater than five years not exceeding one microcurie per cubic centimeter, may be packaged in HICs or disposable carbon steel cask liners.

6.4 Disposal of radioactive charcoal filter media which is Class B, Class C, or has a concentration of radionuclides with half-lives greater than five years and exceeding one microcurie per cubic centimeter, is limited to HICs with an approved certificate of compliance issued by the licensing agency for the disposal site.

6.5 HICs shall not be use for radioactive material that could chemically or physically damage or otherwise exceed the allowable limits of the HIC.

6.6 Disposal of condensate polishing resin is permitted in HICs or disposable carbon steel cask liners.

6.7 Strong oxidizing agents such as nitric acid, when in contact with organic ion-exchange material and in the presence of air, may produce a slightly degraded resin in an exothermic reaction, up to an explosion.

7.0 SPECIAL TOOLS/EQUIPMENT

7.1 None

8.0 PROCEDURE

8.1 Perform dewatering in accordance with the applicable vendor or plant procedure for each liner or High Integrity Container (HIC).

8.2 If the dewatering is not performed in accordance with the applicable procedure, terminate the process.

8.2.1 Do not ship the package for disposal until it is dewatered in accordance with the applicable procedure.

8.3 If the final waste form is found to contain free-standing liquid in excess of 0.5 percent of the waste volume for steel liners or 1.0 percent for HICs, terminate the processing and shipping preparation until the procedures and/or dewatering equipment are corrected to prevent recurrence.

8.4 Dewater Westinghouse RADLOK HICs containing bead type ion exchange resin in accordance with Reference Step 2.1.8, 0-HPS-042.5, Transfer and Dewatering Bead Resin in RADLOK High Integrity Containers.

8.5 Dewater Westinghouse RADLOK HICs or carbon steel liners containing powdered ion exchange resin in accordance with Reference Step 2.1.10.

8.6 Notifications

8.6.1 If it is suspected that the free-standing water requirements have not been met for any container shipped to a disposal site, notify the Plant Manager and the Health Physics Supervisor.

8.6.2 If free-standing water is suspected in the final shipping container in amounts greater than allowed by regulations, notify the Radwaste Supervisor.

END OF TEXT

ATTACHMENT 1
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SPECIFICATION CONTAINER SHIPPING RELEASE

Rev. 10/22/91 Form HP-72C

A. Shipment Identification:

Barnwell Ship. I.D. No. _____ FP&L Ship. No. _____

Volume this Shipment: _____ ft^3

B. Vehicle Information:

Tractor License No. _____ I.D. No. _____

Trailer License No. _____ I.D. No. _____

C. Container Information (Health Physics):

HIC Model Number: _____ Serial Number: _____

PTN Registered User: Yes _____ No _____

HIC Certificate of Compliance: Number: _____

Expiration Date: _____

Material Type: _____

Quantity: Type A _____ Type B _____ HRCQ _____ LSA _____

Contents Volume: _____ ft^3

HIC dewatered to <1% free-standing liquid: _____ (Initials)

HIC number marked on at least two sides and top _____ (Initials)

Waste Class marked on at least two sides and top _____ (Initials)

Stability marked on at least two sides and top _____ (Initials)

Weight marked on at least two sides and top _____ (Initials)

Activity of HIC within authorized limits for cask _____ (Initials)

Notification shall be made for any Highway Route Controlled Quantity Shipment of Source, By-Product, or Special Nuclear Material, to the Governors or their designees of the states that the shipment will travel through. _____ (Initials)

Notification shall be made for any Highway Route Controlled Quantity Shipment of Source, By-Product, or Special Nuclear Material, to the Nuclear Regulator Commission. _____ (Initials)

Date the HIC is Sealed: _____

Scheduled Arrival Date: _____

Verify less than 10 days between above dates: _____ (Initials)

Radwaste HPSS _____ _____ _____
(Signature) *(Print)* *(Date)*

*/RKR/ms/bc

RTS No.

REQUEST FOR PROCEDURE REVIEW

ORIGINATOR

1. Procedure Title: Solidification Process Control Procedure

Procedure Number: PT-51 Current Revision Date: 7/3/91

Check One: ☐ Safety Related ☐ Quality Related ☐ Non-Safety Related

2. Request Type: ☐ Proc Chg Req. ☐ New Proc ☐ TP No.____ ☐ Periodic Review ☐ POP ☒ Cancellation ☐ Other: ____ | OTSC No.: ____ | ☐ One Time Only ☐ Incorporate ☐ Prior PNSC Required

3. Commitment Source: ☐ NRC ☐ QA/QC ☐ INPO ☐ OTHER ☐ CTRAC____ ☐ PC/M No.____ ☐ Incorp. OTSC No.____ | Commitment Date: ____ for: ☐ PM-N Approval/PNSC Review ☐ Distribution

Reason for Request:

Vendor is no longer on site.

4. Describe Details of Request: (If no changes are recommended as a result of a periodic review, write NONE

Cancel Vendor Procedure

5. Submitted by: [signature] (Signature) A. A. Horvath (Print) / H.P. (Department) Date: 9/24/91

6. Safety Review:

	YES	NO
A. Does this request affect the facility or procedures as described in the FSAR?	☐	☐
B. Does this request involve a test or experiment not described in the FSAR?	☐	☐
C. Could this request affect nuclear safety in a way not previously evaluated in the FSAR?	☐	☐
D. Is a change in Technical Specifications involved?	☐	☐

(If YES is checked for any question above, then refer to the instructions for necessary actions.)

Safety Review by: ____ (Signature) ____ (Print) Date: ____

7. Approved by: ____ (Signature) ____ (Print) Date: ____

Responsible Dept. Plant Staff member for OTSCs; Responsible System Engineer for others (See instructions)

8. Approved by: [signature] (Signature) JD LINDSAY (Print) Date: 9-25-91

Plant Supervisor - Nuclear for OTSCs; Responsible Department Head for others.

9. PCP Review by: ____ (Signature) ____ (Print) Date: ____

Check One: ☐ No Basis Document ☐ No Basis Document change necessary ☐ Basis Document change necessary and attached

10. Reviewed by PNSC Subcommittee No. ____ Approved by: ____ Date: ____ *Technical Dept. Supv.*

Reviewed by PNSC No. ____ Approved by: ____ Date: ____ *Plant Manager-Nuclear or Site Services Manager* (for Security Implementing Procedures)

11. Disposition: ☐ Cancelled ☐ Approved ☐ Tabled to: ____ ☐ Other: ____

☐ Immediate Distribution Required as required per AP 0190.56. Date: ____

☐ Immediate Implementation Required as required per AP 0190.56. Date: ____

#F 034 dt bc sw Form 3714A - PNSC 4-4-91

REQUEST FOR PROCEDURE REVIEW

RTS No.________

ORIGINATOR

1. Procedure Title: Solidification Process Control Procedure

Procedure Number: PT-51 Current Revision Date: 3-30-88

Check One: ☐ Safety Related ☐ Quality Related ☐ Non-Safety Related

2. Request Type: ☐ Proc Chg Req. ☐ New Proc ☒ TP No. RO3-1-91 ☐ Periodic Review ☐ POP ☐ Cancellation ☒ Other: ______ OTSC No.: ______ ☐ One Time Only ☐ Incorporate ☒ Prior PNSC Required

3. Commitment Source: ☐ NRC ☐ QA/QC ☐ INPO ☐ OTHER ☐ CTRAC______ ☐ PC/M No.______ ☐ Incorp. OTSC No.______ Commitment Date:______ for: ☐ PM-N Approval PNSC Review ☐ Distribution

Reason for Request:

Provide the necessary process controls to ensure proper solidification of radwaste using NuPac Services radwaste solidification system.

4. Describe Details of Request: (If no changes are recommended as a result of a periodic review, write NONE).

See attached pages

5. Submitted by: [signature] (Signature) R K Rowe (Print) / HP (Department) Date: 7-1-91

TECH DEPT

6. Safety Review:

	YES	NO
A. Does this request affect the facility or procedures as described in the FSAR?	☐	☒
B. Does this request involve a test or experiment not described in the FSAR?	☐	☒
C. Could this request affect nuclear safety in a way not previously evaluated in the FSAR?	☐	☒
D. Is a change in Technical Specifications involved?	☐	☒

(If YES is checked for any question above, then refer to the instructions for necessary actions.)

Safety Review by: [signature] (Signature) E. Lyons (Print) Date: 7-3-91

7. Approved by: [signature] (Signature) E. Lyons (Print) Date: 7-3-91

Responsible Dept. Plant Staff member for OTSCs; Responsible System Engineer for others (See instructions)

8. Approved by: [signature] (Signature) JAMES R BATES, JR (Print) Date: 7/1/91

Plant Supervisor - Nuclear for OTSCs; Responsible Department Head for others.

9. PUP Review by: [signature] (Signature) G. Peters (Print) Date: 7-3-91

Check One: ☒ No Basis Document ☐ No Basis Document change necessary ☐ Basis Document change necessary and attached

10. Reviewed by PNSC Subcommittee No.______ Approved by: ______ (Technical Dept. Supv.) Date:______ Reviewed by PNSC No. 91-130 Approved by: [signature] (Plant Manager - Nuclear) Date: 7-3-91

11. Disposition: ☐ Cancelled ☒ Approved ☐ Tabled to:______ ☐ Other:______

☐ Immediate Distribution Required (as required per AP-0190.86) Date:______

☐ Immediate Implementation Required (as required per AP-0190.86) Date:______

ATTACHMENT 2
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POWDEX RESIN LINER SHIPPING RELEASE FORM

Rev. 10/22/91 Form HP-72L

A. Shipment Identification:

Barnwell Ship. I.D. No. _____ FP&L Ship. No. _____

Volume this Shipment: _____ ft^3

B. Vehicle Information:

Tractor License No. _____ I.D. No. _____

Trailer License No. _____ I.D. No. _____

C. Health Physics Inspection Checklist:

1. Liner number marked on at least two sides and top.
2. Waste Class marked on at least two sides and top.
3. Stability marked on at least two sides and top.
4. Weight marked on at least two sides and top.
5. Liners dewatered to <0.5% free-standing liquid (1% for HICs)

Radwaste HPSS _____ _____ _____
(Signature) *(Print)* *(Date)*

FINAL PAGE

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