

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
ADMINISTRATIVE PROCEDURE NO. 0520025.
REVISION 1

1.0 Title:

Process Control Program

2.0 Review And Approval:

Reviewed by Facility Review Group December 28, 1982
Approved by J. H. Barrow (for) Plant Manager December 28, 1982

Revision 1 Reviewed by FRG March 1, 1983
Approved by C. Murphy Plant Manager 3-8-1983

3.0 Scope:

3.1 Purpose

The St. Lucie Plant Process Control Program (PCP) implements requirements of the St. Lucie Plant Unit 1 Technical Specifications and the St. Lucie Plant Unit 2 Technical Specifications. The PCP applies to the dewatering of radioactive bead resins for disposal at a low level radioactive waste disposal site.

3.2 Discussion

The PCP contains provisions to assure that dewatering of bead resins results in a waste form with characteristics that meet the requirements of 10 CFR 61 as implemented by 10 CFR 20 and of the low level radioactive waste disposal site. The Process Control Program includes in addition to this procedure the following related procedures:

- 3.2.1 St. Lucie Plant Operating Procedure No. 0520023, "Dewatering Radioactive Bead Resins".
- 3.2.2 CHEM-NUCLEAR SYSTEMS, INC. Test procedure for Dewatering Conical Bottom Demineralizers and Resin Liners - Project No. 11038, 10/05/81.
- 3.2.3 CHEM-NUCLEAR SYSTEMS, INC. Lab Record Sheet for Conical Bottom Demineralizers and Resin Liners - Project No. 11038; 10/01/81.

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3.0 Scope: (continued)

3.3 Authority

The authority and responsibility to perform the requirements of this procedure come from 10 CFR 20, 10 CFR 61, St. Lucie Plant Unit 1 Technical Specifications, St. Lucie Plant Unit 2 Technical Specifications, and from disposal site criteria.

3.4 Definitions

3.4.1 Dewatering - The process of removing "free standing" water from a final disposal package which contains radioactive bead resins.

3.4.2 "Free Standing" Water - Liquid which is not retained by the waste form.

3.4.3 Process Control Program (PCP) - The Process Control Program shall contain the provisions, based on full scale testing, to assure that dewatering of radioactive bead resins results in a waste form with the properties that meet the requirements of 10 CFR 61 (as implemented by 10 CFR 20) and of the low level radioactive waste disposal site at the time of disposal.

3.4.4 Visual Inspection - The direct observation of the bead resins during the entire period of resin transfer as they are packaged in the final disposal container.

4.0 Precautions:

4.1 Process Control Procedures used for the dewatering of radioactive bead resins that establish the conditions that must be met shall be based on full scale testing. This is to provide reasonable assurance that the dewatering of the resin and disposal container will result in volumes of free standing water, at the time of disposal, within the limits of 10CFR, Part 61 as implemented by 10CFR20 and of the low level radioactive waste disposal site.

4.2 In lieu of dewatering performed as per the Process Control Procedures, a visual inspection of the bead resin as it is transferred and of the final disposal container after loading may be performed if conditions permit. This inspection must be conducted in a manner that will assure that the free standing liquids will meet shipping, transportation and disposal site requirements.

4.3 All changes to the St. Lucie Plant Process Control Program must be reviewed and approved by the Facility Review Group before they become effective.

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4.0 Precautions: (continued)

4.4 All changes to the St. Lucie Plant Process Control Program must be submitted to the NRC in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal must contain the following:

- 4.4.1 Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information.
- 4.4.2 A determination that the change did not reduce the overall conformance of the dewatered bead resins to existing criteria for solid wastes.
- 4.4.3 Documentation of the fact that the change has been reviewed and found acceptable by the Facility Review Group.

5.0 Responsibilities:

- 5.1 It is the responsibility of the Plant Manager to assure that all necessary procedures, equipment and support are provided to properly implement the PCP.
- 5.2 It is the responsibility of the Health Physics Supervisor or his designee to assure that the radioactive bead resin will be dewatered in accordance with the PCP.

6.0 References:

- 6.1 Dewatering Procedure for CNSI Conical-Bottom EnviroSAFE™ High Integrity Containers (containing bead-type ion exchange resin) 12 free standing water - FO-OP-003
- 6.2 Lab Record Sheet for Conical Bottom Demineralizers and Resin Liners, Project No. 11038
- 6.3 Test Procedure for Dewatering Conical Bottom Demineralizers and Resin Liners, Project No. 11038

7.0 Records and Notifications:

- 7.1 Records shall be as per St. Lucie Plant Operating Procedure No. 0520023, "Dewatering Radioactive Bead Resins".
- 7.2 Notifications
 - 7.2.1 If it is suspected that the free standing water requirements may not be met for any container of radioactive bead resin shipped to a disposal site, notify the Plant Manager and the Health Physics Supervisor.
 - 7.2.2 If the process control procedures have not been followed or if free standing water may be present in the final shipping container of bead resin in amounts greater than allowed by regulations, notify the Health Physics Supervisor or his designee.

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8.0 Instructions:

- 8.1 Dispose of dewatered radioactive bead resins is limited to the following containers for which full scale dewatering test have been conducted:
- 8.1.1 CNSI Conical Bottom EnviroSAFE™ High Integrity Container - PL6-80CR.
 - 8.1.2 CNSI Conical Bottom EnviroSAFE™ High Integrity Container - PL14-195CR.
- 8.2 Dewater the container as per St. Lucie Plant Operating Procedure No. 0520023, "Dewatering of Radioactive Bead Resins".
- 8.3 In lieu of dewatering, radioactive bead resin may be shipped for disposal, in a different container, provided the radiological and regulatory conditions permit, if a visual inspection of the resin during transfer, and of final shipping container after loading, can be conducted in a manner that will assure that the free standing liquid volume present will meet shipping, transportation and disposal site requirements.
- 8.4 With dewatering not meeting disposal site, shipping and transportation requirements, suspend shipment of the inadequately dewatered bead resin and correct the process control program, the applicable procedures(s) and/or the dewatering system as necessary to prevent recurrence.
- 8.5 With dewatering not performed in accordance with the PCP:
(1) if the dewatered bead resin has not already been shipped for disposal, verify each container to ensure that it meets burial ground, shipping and transportation requirements and/or (2) take appropriate administrative action to prevent recurrence.
- 8.6 Close the container as per the manufacturer's instructions.