SOLID WASTE
PROCESS CONTROL PROGRAM
FOR
SHOREHAM NUCLEAR POWER STATION - UNIT 1
REVISION 0

LONG ISLAND LIGHTING COMPANY
Docket No. 50-322

December 18, 1984

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Chairman, Review of Operations Committee

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1.0 PURPOSE

The Shoreham Nuclear Power Station (SNPS) Process Control Program (PCP) describes the administrative and process controls which provide reasonable assurance of a consistent quality radioactive waste product which is acceptable for shipment and burial. Implementation of this PCP will:

- Provide assurance that waste types produced at SNPS will be classified satisfactorily in accordance with the requirements of 10CFR61.

- Provide assurance that the requirements of 10CFR61 and specific disposal site criteria for Class A unstable waste to be solidified are met by the use of a mobile solidification system supplied by a qualified contractor. When additional sample solidification data becomes available, this PCP will be modified to demonstrate the qualification of the in-house solidification system for processing of Class A unstable waste.

- Provide assurance that the waste form stability requirements of 10CFR61 for Class B and C wastes are met. This will be accomplished through the use of a mobile solidification system supplied by a qualified contractor. Until such time as the contractor's Topical Report has been approved by the NRC, qualification is based on the contractor's past record of producing acceptable BWR waste packages for waste streams similar to those produced at SNPS. The contractor's Process Control Programs are referenced in Section 8.2 of this document. SNPS management shall ensure that the contractor's waste processing operations are performed in accordance with procedures.

- Provide assurance that dewatered Class A waste products meet the applicable burial site criteria for free standing water when the in-house or contractor's dewatering equipment and procedures are used.

- Provide assurance that the processing and packaging of solid radioactive wastes meet the requirements of federal and state regulations and disposal site criteria.

- Ensure that the quality assurance requirements delineated in 10 CFR 71.101, 71.103 and 71.105 are met for both in-house and mobile contractor processing.

2.0 WASTE SOURCES

2.1 EVAPORATOR BOTTOMS

2.1.1 Waste Evaporator

The Waste Evaporator receives liquid waste which is collected by the High Conductivity Liquid Radwaste System from floor drains and stored in the Floor Drain Collector Tanks (FDCT).

The design output of the Waste Evaporator is an 18 weight percent concentrate of dissolved and suspended solids.

2.1.2 Regenerant Evaporator

The Regenerant Evaporator receives liquid chemical wastes produced by the acid/caustic regeneration of the condensate demineralizer resins.

The waste is collected, neutralized, and sampled in the Regenerant Liquid and Evaporator Feed Tanks, and then pumped to the Regenerant Evaporator for concentration to a 25 weight percent mixture of sodium sulfate and other dissolved and suspended solids.

2.1.3 Bottoms Transfer

Each evaporator is a forced circulation design with a reboiler providing process heat and an overhead entrainment separator and rectifying column which minimizes liquid droplets in the vapor. When the desired specific gravity has been reached, the concentrated evaporator bottoms are cooled and sent to the Evaporator Bottoms Tank or directly to the Evaporator Bottoms Metering Pump for solidification according to the contractor's procedure F458-P002, "Operating Procedures for Mobile In-Container Solidification of Sodium Sulfate Slurries."

In order to provide maximum flexibility, each evaporator can be used as a back-up for the other.

2.2 FLOOR DRAIN FILTER

The Floor Drain Filter processes effluents from the floor and laundry drains. The filter is a horizontal traveling screen, precoat type, designed for air drying and air-aided discharge of the cake (without backflushing) into a shipping container for further dewatering. The waste may contain filter media such as diatomaceous earth or a powdered resin/fiber blend type material.

Class A waste which is dewatered using in-house equipment is processed according to SP 23.710.02, "Dewatering of Spent Radwaste Media." Waste which is dewatered by the contractor's mobile equipment will be processed according to references 8.2.6 or 8.2.8.

2.3 RADWASTE FILTER

The Radwaste Filter is used to process the following combined liquid radwaste streams:

- Low conductivity equipment drains
- Low conductivity wastes from the condensate demineralizer regeneration systems
- Ultrasonic resin cleaner backwash

- Decanted liquid from the Phase Separator and the Spent Resin Tank

- Blowdown from the reactor water cleanup, residual heat removal, and fuel pool cooling and cleanup systems.

The radwaste filter units are each composed of stacked horizontal filter discs assembled on an axially located hollow shaft. After draining the filter vessel and air-drying the filter cake, the filter assembly is spun to remove the filter cake from the filter discs and discharged directly into a waste shipping container for disposal.

The waste resulting from the filters may contain diatomaceous earth, Ecodex or similar powdered resin/fiber blend material. If Class A waste is being dewatered using in-house equipment, it is processed according to SP 23.710.02, "Dewatering of Spent Radwaste Media." All classes of waste may be dewatered by the contractor using procedures referenced in 8.2.6 or 8.2.8.

2.4 SPENT RESIN TANK

The Spent Resin Tank accepts resin/sludge slurries (via the Phase Separator Tanks) from the reactor water cleanup (RWCU) filter demineralizers, in addition to spent bead resin from the condensate demineralizers, the fuel pool demineralizers, and the radwaste demineralizers. The resin is allowed to settle before excess water is decanted to the waste collector tanks.

Mixed powdered and bead resin can be pumped to the Waste Dewatering Tank for conditioning, followed by solidification or dewatering by in-house equipment or the contractor's mobile unit using procedures referenced in Section 8.0 of this PCP.

2.5 FILTER CARTRIDGES AND MISCELLANEOUS WASTES

Solid wastes, such as filter cartridges from the Laundry Drain System and pump suction filters and strainers, solidification samples or other radioactive debris will be immobilized in cement which may be mixed with evaporator bottoms wastes.

Miscellaneous solids are placed within a holding device located in the approximate center of the liner and suspended off the bottom so that the cement mixture will totally surround the wastes in the basket. Liners that contain solid objects are specifically identified.

2.6 TRASH COMPACTOR

The drum compactor is used to compress low level dry waste such as rags, paper, shoe covers, floor sweepings, and plastic gloves into 55 gallon steel drums for shipment offsite. Compaction force is rated at 18,000 lbs. for an approximate 4:1 compaction ratio.

A box compactor will be installed which compresses waste into 96 cu. ft. metal boxes. This is a self-contained unit with its own HEPA filtering system. The compaction force is rated at 60,000 lbs.

3.0 IN-HOUSE SOLIDIFICATION SYSTEM

SNPS has a permanently installed Atcor radioactive waste solidification system which, when additional test data is available, will be used to package either radioactive evaporator bottoms or resins/sludges for disposal as Class A waste. Until that time, all wastes for solidification will be transferred to the contractor's mobile equipment.

The following is a description of the in-house system. Waste and cement flows are fixed by preset metering pumps using flow rates recommended by Atcor and verified by full scale testing. Flows are also monitored by tachometers installed on the control panel. The resin/sludge is processed from the Waste Dewatering Tank and evaporator bottoms are processed from the evaporator bottoms system.

Cement and evaporator bottoms or resin/sludge are introduced into the mixer/feeder unit for thorough mixing and discharge into a container. The small-volume continuous mixer limits the surface contact of the wet cement and also limits the quantity of wet cement in the system at any time. A manual handcrank is provided to permit emptying the mixer/feeder by the operator in case of power loss or equipment malfunction.

Flush water connections are provided inside the mixer/feeder to remove cement residue.

Safety features include:

- Filling cannot take place unless the fill pipe is properly inserted into the container fill opening.
- An ultrasonic level sensor, and timer monitor waste level in the container to prevent overflowing. Cement-bearing flush water cannot be discharged unless a receptacle is in place.
- Failure to initiate a flush sequence within 20 minutes after filling stops prompts an alarm.

The system is operated according to SP 23.713.01, "Solid Radwaste System." A simplified functional diagram appears in Figure 1.

4.0 IN-HOUSE DEWATERING

As an alternative to solidification, Class A unstable waste may be dewatered in liners which are equipped with internal cuno filters at four levels to which a pump may be attached. Pumping continues at each level from top to bottom until no additional water can be collected in an external tank.

Dewatering is conducted in accordance with plant procedure SP 23.710.02, "Dewatering of Spent Radwaste Media," to assure a consistently acceptable product.

5.0 MOBILE SOLIDIFICATION AND DEWATERING SERVICES

5.1 Wastes classified as Class B or Class C must be transferred to the mobile solidification/dewatering equipment which is provided and operated by a qualified contractor. Class A dewatered wastes may be processed by the mobile services contractor at the discretion of the Radwaste Engineer. Class A solidified wastes will be processed by the contractor until qualification of the in-house solidification system is complete.

5.2 Section 8.2 lists those procedures in use by the mobile services contractor to ensure that waste products meet all requirements for shipment and burial offsite.

5.3 The mobile equipment is installed on elevation 15' of the Radwaste Building which is a Seismic Category I structure. Spills are contained by installing the equipment in areas where sloping floors will carry liquids to floor drain sumps. The building ventilation system provides for filtering of particulate airborne contamination and monitoring of radiation before it enters the station vent.

6.0 SOLIDIFICATION PROCESS CONTROL PARAMETER DETERMINATION

When additional samples have been tested for solidification, this section will contain a summary of qualification test results for the in-house solidification system. During the interim, the in-house system will not be used to solidify waste for shipment offsite.

7.0 SOLIDIFICATION AND DEWATERING PRODUCT CONTROL

7.1 SAMPLING AND ANALYSIS

7.1.1 Samples shall be obtained and analyzed according to SP 74.002.18, "Radwaste Sampling for Disposal," and SP 73.014.01, "Radwaste Sample Solidification Test," prior to each solidification or dewatering operation.

1. The waste tank to be sampled shall be recirculated for a minimum of three tank volumes prior to sampling, unless the tank has been on recirculation continuously since it began filling.

2. The Waste Dewatering Tank is equipped with an agitator rather than a recirculating pump. Agitation is continued for at least 25 minutes prior to sampling.

3. Funda and flat bed filter wastes must be sampled from the liner. These will not be mixed prior to sampling.

7.1.2 The waste tank sampled shall remain isolated and in recirculation or agitation, as applicable, until the solidification process is started. If it becomes necessary to add material to the tank being processed, a new batch number

will be initiated and a new sample will be taken after an appropriate mixing time.

7.1.3 Samples will be analyzed for pH and gamma emitters. Visual inspection will be made for oil.

7.1.4 For waste streams to be solidified, test solidifications will be performed according to the schedule described in Section 7.3.

7.1.5 Sampling requirements apply to all waste, whether it is being processed by permanently installed equipment or by the contractor's mobile equipment.

7.1.6 The analysis number will be added to the Solidification or Dewatering Record Sheet (Section 7.8) which is prepared for each waste container (liner or HIC). In this way the containers which belong to a particular batch can be easily identified.

7.2 CONDITIONING

7.2.1 Waste conditioning is required when any of the following conditions exist:

1. A high or low pH condition, outside of the acceptable range according to the contractor's PCP (Section 8.2).

2. Liquid content of the batch is above or below the acceptable envelope for solidification as indicated in Section 8.2 documents.

7.2.2 Waste conditioning will be performed in accordance with procedures referenced in Section 8.0.

7.3 BATCH TEST SOLIDIFICATION

7.3.1 Test solidification shall be performed according to the following schedule:

1. One sample initially from each type of wet waste, and then from every tenth batch of each type of wet waste;

   NOTE: Batch is defined as the total volume of waste contained in a waste mixing tank that has been prepared for solidification.

2. When sample analyses fall outside the acceptable envelope established by the mobile services contractor, indicating a change in waste type;

3. If it is believed that some other contaminant may be present (for example, when an unusual chemical is in use at SNPS and may reach Radwaste).

7.3.2 If any test specimen fails to solidify, the solidification of the batch under test shall be suspended until such time as additional test specimens can be obtained, alternative solidification parameters can be determined, and a subsequent test verifies solidification. Solidification of the batch may then be resumed using the alternative solidification parameters determined.

Representative samples shall be obtained and tested from each consecutive batch of the same type of wet waste until at least three consecutive initial test specimens demonstrate solidification. The process control program shall be modified as required to assure solidification of subsequent batches of waste. The contractor shall modify his own PCP's as necessary to accommodate unusual waste streams.

7.3.3 The test specimen shall be judged to have solidified successfully if, when its container has been removed, it remains a free standing monolith with no visible free liquid.

7.3.4 If a cement and water mixture (without waste) is used to solidify miscellaneous objects, this mixture will be tested for solidification prior to use.

7.4 WASTE CLASSIFICATION

7.4.1 In compliance with 10 CFR 20.311, wastes are classified as Class A, B or C, or greater than Class C, based on the presence of particular radionuclides and their activities as specified in 10 CFR 61.55. Plant procedures SP 72.713.05, "Shipment of Radioactive Materials by Exclusive Use," and SP 72.713.06, "Calculations for Radwaste Curie Content," provide the methodology for this determination as used at SNPS.

7.4.2 Waste streams will be sampled at 6-month intervals (or more frequently, if plant parameters indicate a change in waste characteristics) and analyzed for fission and activation products, including transuranics. Scaling factors developed from these complete analyses will be used with gamma spectra from each batch of waste to infer the concentrations of non-gamma emitting radionuclides).

7.4.3 During initial plant operation when the results of actual analyses are not yet available, generic BWR radionuclide concentrations will be taken from the Impell Corporation report entitled, "Methodologies for Classification of Low-Level Radioactive Wastes from Nuclear Power Plants."

7.4.4 The curie content of waste streams (such as trash) for which representative sampling is difficult may be inferred based on gamma analysis of representative smears and an external dose rate measurement (SP 72.713.06).

7.5 CONTAINER CONTROL

7.5.1 A quality assurance program shall be established to inspect the container to be used for dewatering (and solidification) using SP 72.713.30, "Radwaste Container Control."

7.5.2 This program shall assure that prior to use, the containers to be used for dewatering are intact and free of any visual damage that would prevent the dewatering of waste to required limits.

7.6 DECONTAMINATION

Prior to shipment, containers will be swiped for removable contamination and examined for general condition. Decontamination will be conducted as necessary to meet shipping requirements.

7.7 CHANGES TO THE PROCESS CONTROL PROGRAM

Any changes to the Solid Waste Process Control Program for the Shoreham Nuclear Power Station shall be approved by the Review of Operations Committee and reported to the NRC in the Semiannual Radioactive Effluent Release Report.

7.8 RECORDS AND INVENTORY CONTROL

7.8.1 A Solidification Record Sheet (Appendix A) shall be completed for each liner filled for solidification.

7.8.2 A Dewatering Record Sheet (Appendix B) shall be completed for each container filled with dewatered waste.

7.8.3 If more than one liner results from a batch, then the initial liners will not be shipped until all liners for that batch have verified solidification. Those liners will be identified by a common analysis number (paragraph 7.1.6).

7.8.4 The Solidification and Dewatering Record Sheets and the attached isotopic analysis shall be forwarded to the Radwaste Engineer for retention until such time as the liner identified on the Record Sheet is shipped for final disposition.

7.8.5 When the identified liner is shipped, the Solidification and Dewatering Record Sheets and other documents concerning the shipment shall be forwarded to SR2 for permanent record storage.

8.0 REFERENCES

8.1 LILCO OPERATING PROCEDURES

8.1.1 SP 23.710.01, Low Conductivity Liquid Radwaste
8.1.2 SP 23.710.02, Dewatering of Spent Radwaste Media
8.1.3 SP 23.711.01, High Conductivity Liquid Radwaste

8.1.4 SP 23.712.01, Regenerant Chemical Liquid Radwaste
8.1.5 SP 23.713.01, Solid Radwaste System
8.1.6 SP 23.718.01, Liquid Radwaste Spent Resin
8.1.7 SP 23.719.01, Liquid Radwaste Evaporator Bottoms
8.1.8 SP 72.002.01, General Sampling Techniques
8.1.9 SP 72.713.01, General Requirements for Shipping Radioactive Materials
8.1.10 SP 72.713.02, General Packaging, Marking and Labeling Requirements for Radioactive Materials for Shipment
8.1.11 SP 72.713.05, Shipment of Radioactive Materials by Exclusive Use
8.1.12 SP 72.713.06, Calculations of Radwaste Curie Content.
8.1.13 SP 72.713.24, Sampling, Treatment and Disposal of Radioactive Waste Oil
8.1.14 SP 72.713.30, Radwaste Container Control
8.1.15 SP 72.713.35, Storage of Packaged Radwaste Liners and DAW
8.1.16 SP 74.014.01, Radwaste Sample Solidification Test
8.1.17 SP 74.002.18, Radwaste Sampling for Disposal
8.1.18 SP 78.030.30, Lab pH Meter Standardization and Use
8.1.19 SP 73.033.10, Gamma Spectrometer System Operation

8.2 MOBILE SERVICE CONTRACTOR DOCUMENTS

8.2.1 STD-R-05-007, Topical Report, Cement Solidified Wastes to Meet the Stability Requirements of 10CFR61, Westinghouse Hittman Nuclear, Inc., April 1984.

8.2.2 STD-R-05-005, Waste Qualification Program Report for Cement Solidified Wastes, Westinghouse Hittman Nuclear, Inc., October 25, 1983.

8.2.3 F458-P-001, Process Control Program for the In-Container Solidification of 20-25 Weight Percent Sodium Sulfate Slurries

8.2.4 F458-P-002, Operating Procedure for Mobile Incontainer Solidification of Sodium Sulfate Slurries

8.2.5 F458-P-003, Process Control Program for Incontainer Solidification of Bead Resin - Powdered Resin Mix

8.2.6 F458-P-004, Dewatering Powdered Resin Slurries in Hittman HN-100 Steel Liners with a Three Layer Flexible Underdrain Assembly to Less Then 1/2% Drainable Liquid

8.2.7 F458-P-005, Dewatering Bead Resins Mixed with Powdered Resin in Hittman HN-100 Steel Liners with a Three Layer Flexible Underdrain Assembly to Less Than 1/2% Drainable Liquid

8.2.8 F458-P-006, Dewatering Container Resin Slurries in Hittman RADLOK™-100 Container with a Three Layer Flexible Underdrain Assembly to Less Than 1% Drainable Liquid

8.2.9 F458-P-007, Dewatering Bead Resin Mixed with Powdered Resin in Hittman RADLOK™-100 Containers with a Three Layer Flexible Underdrain Assembly to Less Than 1% Drainable Liquid

8.2.10 F458-P-008, Process Control Program for the Incontainer Solidification of Powdered Resin

8.2.11 F458-P-009, Process Control Program for the Incontainer Solidification of Radwaste Filter Cake

8.2.12 F458-P-010, Operating Procedure for Mobile Incontainer Solidification of Mixed Bead Resin - Powdered Resin Slurry

8.2.13 F458-P-011, Operating Procedure for Mobile Incontainer Solidification of Powdered Resin Slurry

8.2.14 F458-P-012, Operating Procedure for Mobile Incontainer Solidification of 50% Powdered Resin/50% Diatomaceous Earth Filter Sludge

8.2.15 F458-P-013, Dewatering Filter Sludge Cakes in Hittman HN-100 Steel Liners with a Three Layer Flexible Underdrain Assembly to Less than 1/2% Drainable Liquid

8.3 GENERAL REFERENCES

8.3.1 NRC Standard Review Plan 11.4, "Solid Waste Management Systems" (NUREG-0800)

8.3.2 NRC Branch Technical Position ETSB 11-3, "Design Guidance for Solid Waste Management Systems Installed in Light-Water-Cooled Nuclear Power Reactor Plants", July 1981

8.3.3 Code of Federal Regulations, Title 10, Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste"

8.3.4 Code of Federal Regulations, Title 49, "Transportation"

8.3.5 South Carolina Department of Health and Environmental Control, Radioactive Material License No. 097, as amended.

8.3.6 NRC Special Nuclear Material License No. 12-13536-01, as amended, for Barnwell, SC.

8.3.7 State of Washington Radioactive Materials License #WN-1019-2, as amended, for Richland, Washington.

8.3.8 NRC Special Nuclear Material License No. 16-19204-01, as amended, for Richland, Washington.

8.3.9 ANSI/ANS-55.1/1979, American National Standard for Solid Radioactive Waste Processing System for Light Water Cooled Reactor Plants.

8.3.10 AIF/NESP-027, Methodologies for Classification of Low-Level Radioactive Wastes from Nuclear Power Plants, Impell Corporation, January 1984.

SAMPLE

SOLIDIFICATION RECORD SHEET

PART I Sampling and Pre-Solidification Analysis

1. Type of Waste _____

2. Waste tank placed on recirc. _____
Date/Time

3. Waste Tank sampled _____ analysis ID# _____
Date/Time

4. Waste Stream pH _____

5. Oil Content

Less than 1% (Visual Inspection) _____
Initials

6. Isotopic Analysis Attached _____ ___
Check

7. Estimated Curie Concentration (SP 72.713.06) _____ uci/cc

8. Test Solidification Required _____ _____
Yes No

9. Acceptable Test Solidification performed (if required) _____
Initials

10. The above waste tank has been analyzed and is acceptable for solidification.

_____ _____
Radiochemistry Engineer Date
or designee

SAMPLE

SOLIDIFICATION RECORD SHEET

PART II System Preparation and Processing
(Use Part IIa. if vendor supplied system is used)

1. Container _ _____ and _____ (SP 72.713.30).
   Type ID#
2. Container Properly Positioned Under Fill Pipe _____
   Check
3. Fill Flange Properly Mated to Container __ _____
   Check
4. Sufficient Cement Available _____
   Check
5. Waste Dewatering Tank Level _____ inches
   Evap. Bottoms Tank Level _____ inches
6. Authorization to commence process

   _____ _____
   Radwaste Supervision Date
7. Time process started _____
8. Time process stopped _____
9. Tachometer reading (Metering Pump) _____
10. Waste Dewatering Tank Level _____ inches
11. Evap. Bottoms Tank Level _____ inches
12. Process Completed

    _____ _____ _____
    Operator Date Time
13. Waste Class: A ____ B ____ C ____
14. Liner Check for free standing water _____ _____
    Initials Date/Time
15. Liner Capped _____ _____
    Date Time
16. Container Weight _____ lbs.

SAMPLE

SOLIDIFICATION RECORD SHEET

PART IIa Contractor System Preparation and Processing

1. Container ID Number _____ Type _____

2. Applicable connections made to liner for transferring waste and cement to liner _____
   Initials

3. Connections made to liner for mixing contents, if applicable _____
   Initials

4. Process parameters

   Waste to be added to liner _____ cu. ft.
   Cement to be added to liner _____ cu. ft.
   Water to be added to liner _____ cu. ft.

5. Authorization to commence processing

   _____ _____ _____
   Radwaste Supervision Date Time

6. Time processing started _____

7. Time processing stopped _____

8. Waste Class

   Class A _____ Class B _____ Class C _____

9. Container checked for free standing water _____ _____
   Initials Date/Time

10. Liner capped _____ _____
    Date Time

11. Liner Weight _____lbs.

SAMPLE

SOLIDIFICATION RECORD SHEET

PART III Filled Liner Data

1. Filled Liner Radiation Levels

   a. Contact Dose Rate _____ mr/hr 1 Meter Dose Rate _____ mr/hr

   b. Smearable Activity
      4 Quadrants 1 _____ dpm/100 cm^2
      2 _____ dpm/100 cm^2
      3 _____ dpm/100 cm^2
      4 _____ dpm/100 cm^2

   c. Liner decon performed _____ Yes/No

   d. Smearable activity after decon (if performed) _____ dpm/100cm^2

   e. Liner ready for shipping or transfer to storage

      _____ Health Physics Supervision _____ Date _____ Time

2. Storage Location _____

   _____
   Radwaste Supervision

Forward this document to Radwaste Shipping Folder (per SP 72.713.01)

SAMPLE

DEWATERING RECORD SHEET

PART I Sampling and Pre-Dewatering Analysis

1. Type of Waste _____

2. Waste Tank (or Liner) Sampled _____ Analysis ID# _____
   Date/Time

3. pH of Liquid _____

4. Oil Content (Visual Inspection)

   Verify Less than 1% _____
   Initials

5. Isotopic Analysis Attached _____
   Check

6. The above waste tank/container has been sampled and found to contain the isotopes and properties as indicated on the attached data sheets.

_____ _____
Radiochemistry Supervision Date

DEWATERING RECORD SHEET

PART II Dewatered Container Data

1. Container _____ and _____
   Type ID#

2. Container Radiation Levels

   a. Contact Dose Rate _____ Mr/hr
      1 Meter Dose Rate _____ Mr/hr

   b. Smearable Activity
      4 Quadrants
      1 _____ dpm/100 cm^2
      2 _____ dpm/100 cm^2
      3 _____ dpm/100 cm^2
      4 _____ dpm/100 cm^2

   c. Container decon performed _____
      Yes/No

   d. Smearable activity after washdown/decon _____ dmp/100cm^2

   e. Liner ready for shipping or transfer to storage

      _____ _____ _____
      Health Physics Supervision Date Time

3. Waste Class A _____ B _____ C _____ _____
   Initials

4. Storage Location _____

   _____
   Radwaste Supervision

Forward this document to Radwaste Shipping Folder (per SP 72.713.01).

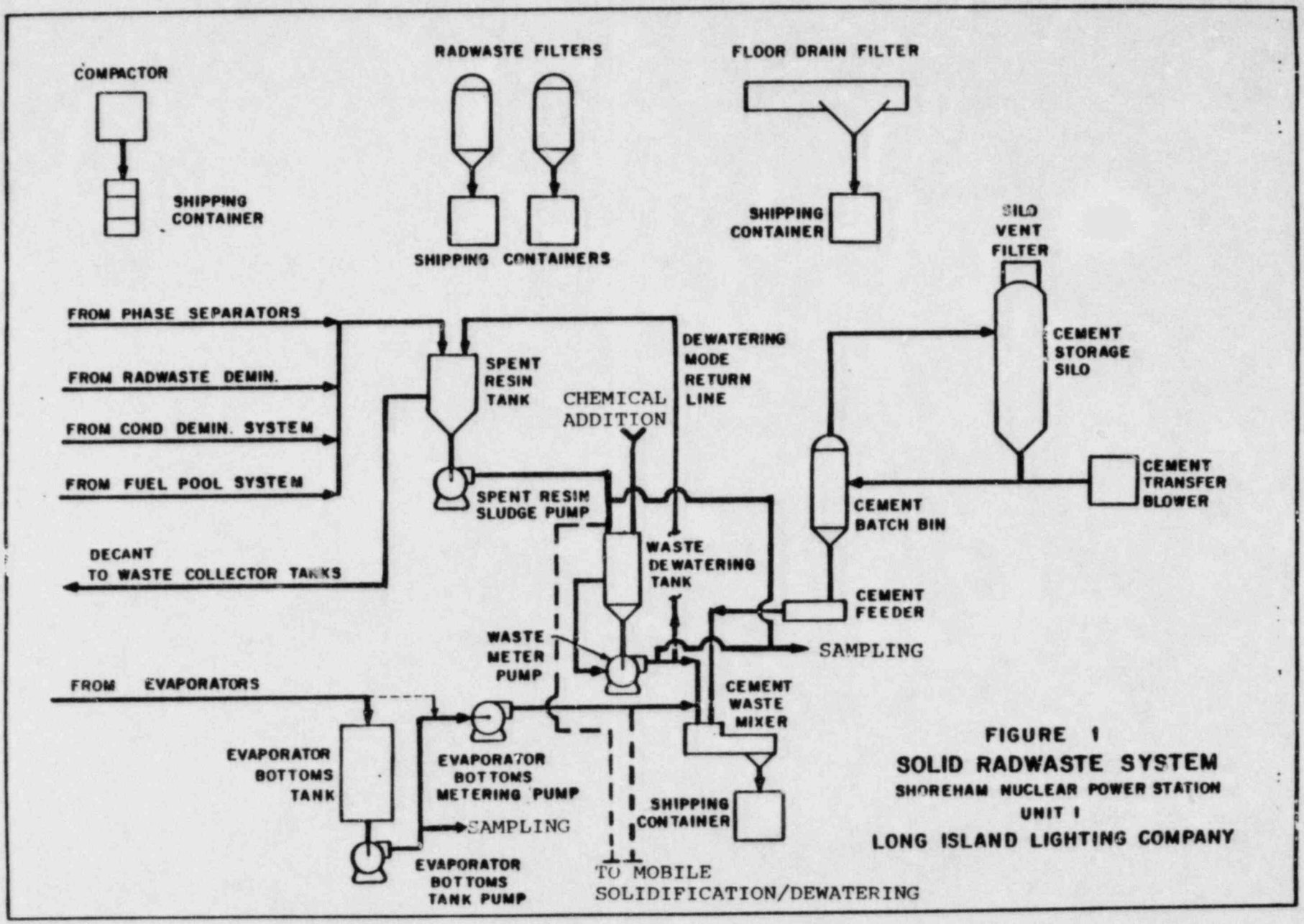

FIGURE 1

SOLID RADWASTE SYSTEM

SHOREHAM NUCLEAR POWER STATION

UNIT 1

LONG ISLAND LIGHTING COMPANY