PROCESS CONTROL PROGRAM

TU ELECTRIC

COMANCHE PEAK STEAM ELECTRIC STATION

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SECTION 1.0

INTRODUCTION

1.1 PURPOSE

The purpose of the CPSES Process Control Program (PCP) is to establish a program which will provide reasonable assurance that all radioactive wastes generated at CPSES that are to be disposed of at a land disposal facility are processed and packaged such that applicable Federal regulations, State rules and regulations, and disposal site criteria are satisfied. The PCP contains a general description of the methods for controlling the processing and packaging of radioactive wastes, specific parameters for each method, and the administrative controls and quality assurance required to ensure compliance with applicable regulations and requirements.

1.2 SCOPE

This program defines criteria for the processing of the following waste streams for disposal at a land disposal facility:

(1) Wet Wastes

- (a) Resins (bead and powdered)
- (b) Cartridge Filters
- (c) Evaporator Concentrates
- (d) Sludge
- (e) Miscellaneous liquids

(2) Dry Active Wastes (DAW)

- (a) Compactible
- (b) Noncompactible

1.3 PRECAUTIONS/LIMITATIONS

Except as specifically described herein, the following general precautions and limitations apply to the processing and packaging of all radioactive wastes generated at CPSES for disposal at a land disposal facility. These precautions and limitations shall be included in appropriate station or vendor implementing procedures.

(1) No liquid materials within the scope of this program shall be packaged unsolidified for disposal.

(2) No package shall be loaded for shipment if it has any indication of a hole or failure. These packages shall either be repacked, or placed in an overpack.

(3) Radioactive waste shall not be packaged for disposal in cardboard or fiberboard boxes.

(4) Only High Integrity Containers (HIC) approved for burial at a land disposal facility shall be utilized for packaging dewatered wastes requiring waste form stability.

(5) No objects or materials shall be placed into HICs that may cause chemical or physical damage to the container.

(6) As much as practical, polyethylene HICs shall be kept out of direct sunlight to prevent ultraviolet light degradation. Protection from direct sunlight shall be provided when HICs are stored for extended periods.

(7) Radioactive waste shall not be packaged for disposal if it is pyrophoric. Pyrophoric materials contained in radioactive waste shall be treated, prepared, and packaged to be nonflammable prior to disposal.

(8) Radioactive waste in gaseous form shall not be packaged for disposal.

(9) Radioactive waste containing hazardous material shall be treated to reduce to the maximum extent practicable the potential hazard from the nonradiological materials. Biological, pathogenic or infectious material is not expected to be produced and will be handled on a case by case basis.

(10) Radioactive wastes shall not be packaged for disposal if it is readily capable of detonation or of explosive decomposition or reaction at normal pressures and temperatures, or of explosive reaction with water.

(11) Radioactive waste shall not be packaged for disposal if it contains, or is capable of generating quantities of toxic gases, vapors, or fumes harmful to persons transporting, handling or disposing of the waste.

(12) Samples shall be handled and collected in accordance with applicable CPSES procedures and in keeping with ALARA principles.

(13) Dewatering and solidification processes should be periodically monitored for adverse chemical reactions and temperature changes.

1.4 RESPONSIBILITIES

1.4.1 Vice President, Nuclear Operations

It is the responsibility of the Vice President, Nuclear Operations, to ensure that the requirements contained in this manual are achieved during the processing of radioactive waste by developing appropriate administrative and implementing procedures. An organizational chart showing specific station responsibilities for radioactive waste processing assigned by the Vice President, Nuclear Operations, is shown on Figure 1-1.

Administrative control of this manual is the responsibility of the Vice President, Nuclear Operations.

1.4.2 Station Operations Review Committee

The Station Operations Review Committee (SORC) shall review the Topical Reports and Process Control Programs of vendors selected for contracted solidification or dewatering servcies prior to their initial use at the station. Any subsequent revision to these documents shall also be reviewed by SORC prior to the initial use of the revision. These reviews shall ensure compatibility with Station equipment and operation.

Additionally, SORC is responsible for reviewing changes to this PCP prior to implementation. SORC also reviews station administrative and implementing procedures for radioactive waste processing activities.

1.4.3 Radiation Protection Manager

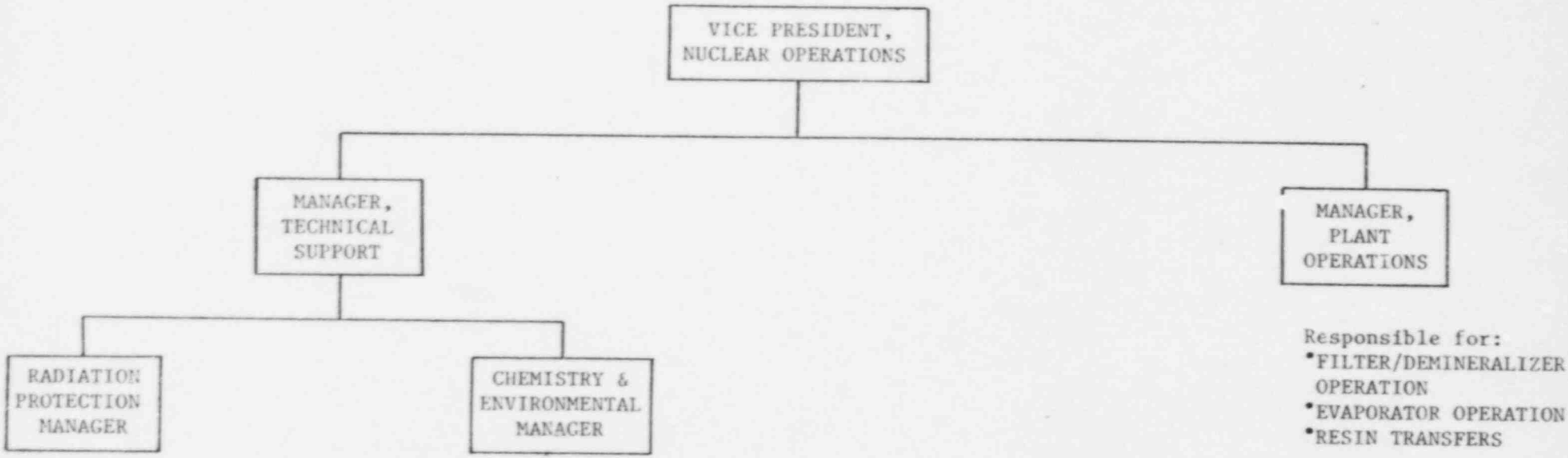
The Radiation Protection Manager (RPM) is responsible for coordinating the review of, and for approving, vendor procedures for dewatering, solidification, and/or DAW processing prior to the initial use of the documents at the station. He shall also approve any revisions to these documents prior to initial use of the revision. Review of vendor procedures for dewatering and/or solidification shall include technical review by the Operations, Chemistry, and Results Engineering departments.

1.4.4 Other Responsibilities

The Manager, Plant Operations, and the Chemistry and Environmental and Results Engineering Managers shall support the RPM in reviewing vendor procedures for solidification and dewatering.

FIGURE 1-1

CPSES RADIOACTIVE WASTE MANAGEMENT
ORGANIZATIONAL RESPONSIBILITIES



SECTION 2.0

PROGRAM DESCRIPTION

2.1 PROCESSING OF WET RADIOACTIVE WASTE

2.1.1 Processing Methods

Wet radioactive waste generated at CPSES shall be processed into a form acceptable for disposal at a licensed facility by solidification, encapsulation, or dewatering. All processing shall be performed utilizing vendor supplied services and equipment operating in accordance with the vendor's Process Control Program (PCP) and procedures. Any vendor selected to provide such services shall have a topical report under review or approved by the NRC. When a vendor is initially selected, this document shall be revised to incorporate by reference the vendor's Topical Report and PCP. The Topical Reports and PCPs of multiple vendors may be referenced in this PCP even if all vendors are not actively providing services at CPSES. However, if any vendor is selected whose documents are not referenced, this document shall be revised to reference them.

2.1.2 Processing System Description

Detailed descriptions of the vendor's processing system shall be included in the vendor's Topical Report.

2.1.3 Prequalification Testing

Prequalification tests shall be performed on each type of wet radioactive waste stream to demonstrate the ability of the process to produce an acceptable waste form per the requirements of 10 CFR 61. This prequalification testing is performed by the vendor and documented in the vendor's Topical Report.

2.1.4 System Qualification Tests

Prior to the initial processing of a given waste stream type using a specified process, a test shall be conducted to demonstrate the ability of the process system to produce an acceptable waste form over the range of critical parameters identified during the prequalification testing. Bounds for critical parameters and specific operating limits shall be specified in the vendor's PCP.

These tests shall be performed on laboratory scale or full scale specimens and shall ensure that the acceptance criteria specified in Section 2.1.8 are achieved. These tests apply to solidification and dewatering processes.

2.1.5 Equipment/System Operability Requirements

Prior to each processing evolution, the vendor shall demonstrate operability of the processing equipment which shall include but not be limited to the following:

(1) Control Panel
(2) Instrumentation and Controls
(3) Mechanical Equipment
(4) Electrical Equipment

The operability test shall be performed in accordance with station procedures and the vendor's PCP and procedures.

2.1.6 Batch Preprocessing Sampling

Each batch of waste offered for processing shall be sampled and analyzed, as appropriate, in accordance with station procedures and the vendor's PCP.

(1) For batches offered for solidification or dewatering, this sampling shall provide necessary data to estimate curie content and perform the waste classification analysis.

(2) In addition to (1) for batches offered for solidification, this sampling shall provide data necessary to:

(a) Ensure that waste stream parameters are within the bounds for critical parameters established in the vendor's PCP.

NOTE: Results of waste stream chemical analyses shall be reviewed by the solidification vendor to ensure chemical constituents do not exist which could react adversely with solidification agents (see Reference 6.5.7).

(b) Verify the applicability of pre-established mix ratios.

2.1.7 Surveillance Testing

To satisfy the requirements of the CPSES Radioactive Effluent and Environmental Monitoring Manual (REEMM), solidification of at least one representative test specimen from at least every tenth batch of each type of wet radioactive waste offered for solidification shall be verified in accordance with the vendor's PCP. The purpose of this testing is to provide assurance that an acceptable waste form is produced using the pre-established formulations provided in the vendor's PCP.

This test shall be performed on a laboratory scale or full scale test specimen which is similar both chemically and physically to the unadjusted waste stream to be processed. After the sample

is collected, it should be conditioned in accordance with the vendor's PCP. The sample should then be mixed with the binder and additives in ratios determined using the vendor's pre-established formulations. The specimen should be observed to ensure the applicable acceptance criteria specified in Section 2.1.8.2(2) are achieved.

If the surveillance test results fail to meet the acceptance criteria, the following steps, as per the REEMM, shall be followed:

(1) 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 subsequent testing verifies solidification. Solidification of the batch may then be resumed using the alternative solidification parameters.

The vendor's PCP shall provide the method for determining the alternative solidification parameters. Alternative solidification parameters shall be approved by the Radwaste Coordinator or his designee and shall be documented in accordance with the vendor's PCP.

(2) Testing shall be performed on representative test samples from each consecutive batch of the same waste type until three consecutive initial test specimens demonstrate solidification using the alternative parameters. The vendor's PCP shall be modified as required to assure solidification of subsequent batches of waste.

(3) If the surveillance test results failure is due to malfunction of the processing equipment or the processing equipment is inoperable, the equipment shall be returned to an operable condition or an alternate vendor shall be obtained to process waste as necessary to satisfy applicable transportation and disposal requirements.

Similar surveillance testing of batches of wet wastes offered for dewatering is not required since the applicable waste form stability requirements are achieved by the container and since a specified end point for the dewatering process is verified for each dewatering evolution.

2.1.8 Acceptance Criteria

2.1.8.1 Dewatering Acceptance Criteria

(1) Non-Stable Waste Form -

For wastes dewatered in non-HICs, the acceptance criteria shall be less than or equal to one-half of one percent (0.5%) of the internal volume of the container for free standing water.

(2) Stable Waste Form -

For wastes dewatered in HICs, the acceptance criteria shall be less than or equal to one percent (1%) of the internal volume of the HIC for free standing water.

Vendor documents for the dewatering process shall include a specified end-point for each dewatering evolution which ensures that these acceptance criteria are achieved.

2.1.8.2 Solidification Acceptance Criteria

(1) Solidification of each liner of solidified wastes shall be verified by visual observation that the waste slurry has hardened and that there is no apparent free standing water.

(2) The following acceptance criteria apply to evaluation of the test samples as specified in Section 2.1.4 and 2.1.7.

(a) Non-Stable Waste Form -

The acceptance criteria shall be a hard, free standing monolith that is resistant to penetration and that contains no more than one-half of one percent (0.5%) free standing water by volume of the container. Criteria for defining "resistant to penetration" shall be established in station and/or vendor procedures.

(b) Stable Waste Form -

The acceptance criteria shall be a hard, free standing monolith that is resistant to penetration and that contains no more than one-half of one percent (0.5%) free standing water by volume of the container. Additionally, it shall be verified that the waste is processed by a method which produces a stable waste form as documented by a prequalification testing program as required per Section 2.1.3 of this manual.

2.1.9 Corrective Actions

With solidification or dewatering not meeting the above acceptance criteria or otherwise not meeting disposal site and shipping and transportation requirements, suspend shipment of

the inadequately processed waste and correct the Process Control Program, the procedures, and/or the waste processing equipment as necessary to prevent a recurrence. Additionally, an evaluation of similar wastes processed since the last successful surveillance test shall be conducted to determine the extent of the inadequately processed waste. If such wastes have been shipped for disposal, the disposal site operator shall be contacted and the problem addressed.

If solidification or dewatering is not performed in accordance with this PCP, the improperly processed waste shall be tested to ensure that it meets burial ground and shipping requirements. Appropriate corrective actions shall be taken to prevent recurrence.

Disposition of inadequately processed wastes will be handled on a case-by-case basis.

2.2 PROCESSING OF DRY ACTIVE WASTE

Dry Active Waste (DAW) generated at CPSES shall be processed by segregation, sorting, and/or compaction. Processing of DAW is performed to accomplish the following functions:

(1) Package DAW in a fashion acceptable for disposal at a licensed disposal facility.

(2) Remove constituents not acceptable for disposal as DAW.

(3) Minimize volumes of DAW shipped for disposal by:

(a) removing reuseable and uncontaminated items; and
(b) reducing shipped volumes by compaction.

All processing of DAW at CPSES shall be performed in accordance with approved station procedures or vendor procedures that have been reviewed by the Radiation Protection Manager. Vendor equipment, personnel and procedures may be used for DAW processing and packaging.

The segregation of uncontaminated waste from DAW is performed to minimize volumes of DAW shipped for disposal. In order to provide reasonable assurance that radioactive materials are not released as clean waste, the following requirements shall be included in the segregation program, as discussed in Reference 6.5.3:

(1) Surveys, using equipment and techniques for detecting low levels of radioactivity, shall be made of materials that may be contaminated and that are to be disposed of as clean wastes.

(2) Surveys may be conducted on individual items using portable survey instruments, such as pancake GM probes. However, in all cases, final measurements of each package (e.g., bag or box) of aggregated

waste to be released as clean waste shall be performed to ensure that there has not been an accumulation of radioactive material due to the buildup of multiple quantities of contamination which were nondetectable with portable instrumentation. Final measurements shall be performed using sensitive detectors in a low background area, such as scintillation detectors.

2.3 MIXED WASTE

Mixed Waste is defined as waste that contains constituents that satisfy the definition of radioactive waste, subject to the Atomic Energy Act, and contains hazardous waste that either (1) is listed as hazardous waste in 40CFR261, Subpart D, or (2) causes the waste to exhibit any of the hazardous waste characteristics identified in 40CFR261, Subpart C. Under current federal law, this waste is subject to dual regulation by the NRC and EPA where both agencies have control over the same waste. Due to the complex regulatory issues that must be resolved pertaining to mixed waste, there are currently no authorized disposal sites in the United States which are licensed to receive and dispose of mixed hazardous and radioactive waste.

Since there is currently no avenue for disposal of mixed waste, efforts shall be made to reduce the generation of such waste at CPSES. To accomplish this, station procedures for chemical control and radioactive waste processing shall include the following requirements:

(1) The Station chemical control program shall include a method to identify hazardous constituents of chemicals/chemical products and to evaluate and authorize any usage of these products in areas where mixed waste generation is likely to occur. This evaluation shall consider the substitution of products which are evaluated as non-hazardous per 40CFR261.

(2) Radioactive waste processing procedures shall include provisions for segregation and removal of non-radioactive hazardous constituents. Upon removal, such constituents would be handled as hazardous waste as required by the EPA.

(3) Mixed low-level radioactive waste generated at CPSES shall not be shipped for disposal to a low-level radioactive waste disposal facility unless specific approval for such disposal is granted by the appropriate regulatory agencies. Such wastes shall be stored at CPSES until regulatory changes allow for disposal or they are otherwise approved for disposal by appropriate regulatory agencies.

SECTION 3.0

WASTE CLASSIFICATION AND CHARACTERIZATION

3.1 WASTE CLASSIFICATION

Radioactive waste generated at CPSES shall be classified as Class A, B, or C in accordance with the requirements of 10 CFR 61, Section 61.55, using one or more of the classification methods given in the USNRC's "Low-Level Waste Licensing Branch Technical Position on Radioactive Waste Classification (May 1983)". Waste classification shall be performed in accordance with approved station procedures.

The following specific requirements shall be incorporated in the program for sampling and analysis for waste classification:

(1) Annual analyses shall be performed on representative samples of each waste stream or, alternatively, a process stream associated with the generation of the waste, for the nuclides listed in Table 1 and Table 2 of 10 CFR 61, Section 61.55.

(2) The results of these annual analyses shall be used to develop isotopic abundances and scaling factors for difficult to measure nuclides (i.e., beta emitters and transuranics) based on correlations between those nuclides and more easily measured gamma emitters.

(3) Gamma spectroscopy or gross radioactivity measurements shall made for each container of waste processed for disposal. Calculational methods for determining the total activity in each container shall be developed which use the results of the gamma spectroscopy or gross activity measurements, and the percent isotopic abundances and scaling factors from the annual analyses.

(4) The classification program shall establish criteria and include provisions for increased frequency for the sampling and analysis required by paragraph (1), above, if the failed fuel fraction changes by a factor of 10.

(5) Each package of waste shall be clearly labeled as Class A, Class B, or Class C.

3.2 WASTE CHARACTERISTICS

Waste processed for disposal at CPSES shall meet the applicable characteristics specified in 10 CFR 61, Section 61.56. Waste classified as Class B or Class C shall be processed into a stable waste form. This may be accomplished by placement into a HIC (waste container meets the stability requirements) or by solidification using

a process which produces a product that meets the stability requirements of 10 CFR 61.56, per Section 2.1 of this manual. The vendor's topical report shall include documentation of testing which verifies that the solidified product meets these stability requirements.

SECTION 4.0

SPECIFIC WASTE STREAM PROCESSING DESCRIPTIONS

4.1 WET RADIOACTIVE WASTE STREAMS

4.1.1 Resins

Resins will be accumulated from one or more of the following systems:

(1) Chemical and Volume Control System (CVCS)
(2) Spent Fuel Pool Cooling and Purification System
(3) Liquid Waste Processing System (including the filter/demineralization system)
(4) Boron Recycle System
(5) Boron Thermal Regeneration System
(6) Steam Generator Blowdown System (SGBS)
(7) Condensate Polishing Demineralizer System
(8) Other miscellaneous ion exchange medium as generated

Spent NSSS and SGBS system resins are collected in their respective Spent Resin Storage Tanks (SRSTs). These resins may be transferred directly to the vendors processing skid from the SRSTs or, if desired, routed through the Waste Conditioning Tank. If it is necessary to process secondary condensate polishing powdex resins, they are transferred from the Hot Phase Separator Tank, through the Waste Conditioning Tank, to the vendor's processing skid.

Normally, spent resins will be processed for disposal by dewatering. The curie content and waste classification of each resin batch shall be estimated prior to sluicing of the spent resin to the vendor dewatering skid. Based on these estimates, the proper liner or HIC and cask for transportation and disposal are selected. The resin is transferred to the liner or HIC where it is dewatered utilizing vendor supplied dewatering services per Section 2.1 of this manual. A representative sample of the resin is collected for final calculations of curie content and waste classification. Containers are sealed, surveyed, and labeled, as appropriate, and stored in a designated storage area until they are shipped for disposal.

Alternatively, resins may be processed for disposal by solidification. Resins are transferred from the SRSTs or Hot Phase Separator Tank to the Waste Conditioning Tank where they are isolated and sampled for PCP parameters and isotopic content. If necessary, the resins are chemically conditioned. The isotopic analysis results are used to estimate the waste classification, determine the proper waste from stability

requirements, and select the proper container for transportation and disposal. Then the resins are transferred to the vendor's processing skid where they are solidified per Section 2.1 of this manual. Containers are sealed, surveyed, and labeled, as appropriate, and stored in a designated storage area until they are shipped for disposal.

Flow charts of typical dewatering and solidification processing paths are shown on Figures 4-1 and 4-2, respectively.

4.1.2 Cartridge Filters

Cartridge filters will be accumulated from one or more of the following systems:

(1) Chemical and Volume System
(2) Spent Fuel Pool Cooling and Purification System
(3) Liquid Waste Processing System (including filter/demineralization system)
(4) Boron Recycle System
(5) Boron Recovery System
(6) Steam Generator Blowdown System
(7) Miscellaneous

Spent filter cartridges are surveyed for dose rate upon removal from the system. The measured dose rate is used to calculate isotopic content using a dose-to-curie conversion factor and scaling factors per section 3.1 of this manual. Based on the calculated isotopic content, the waste classification and the appropriate process and container for disposal are determined. Normally filters are placed in a liner or HIC and dewatered. However, filters may be dried and handled as DAW, if conditions allow, or encapsulated in an appropriate solidification agent. Upon completion of the processing, containers are sealed, surveyed, and labeled, as appropriate, and stored in a designated storage area until they are shipped for disposal.

For purposes of waste classification, isotopic concentrations of filters dewatered in a liner or HIC should be determined as calculated over the volume of the cartridge filter itself, rather than averaged over the gross volume of the container. When filters are encapsulated by solidification in a container, isotopic concentrations may be determined by averaging over the volume of the solidified mass.

Flow charts of typical dewatering and solidification processing paths are shown on Figures 4-1 and 4-2, respectively.

4.1.3 Evaporator Concentrates

Evaporator concentrates result from operation of evaporators for processing of liquid wastes (e.g., floor drains) and boron recovery. Normally, liquid waste streams are processed through the filter/demineralizer system for release to the environment. The liquid waste evaporator is available as an alternate processing method. The boron recovery evaporator is used to remove boron from reactor grade water and the boric acid concentrates are normally recycled. Therefore, volumes of evaporator concentrates from liquid waste processing and boron recovery, that must be solidified, are expected to be relatively small.

Concentrates are transferred from the evaporators to the Waste Conditioning tank where batches are isolated and sampled for PCP parameters and isotopic content. If necessary, the concentrates are chemically conditioned. The isotopic analysis results are used to estimate the waste classification, determine the proper waste form stability requirements and select the proper container for transportation and disposal. Then the concentrates are transferred to the vendor's processing skid where they are solidified per section 2.1 of this manual. Containers are sealed, surveyed, and labeled, as appropriate, and stored in a designated storage area until they are shipped for disposal.

A flow chart of a typical solidification processing path is shown on Figure 4-2.

4.1.4 Sludge

Radioactive sludge is accumulated and handled on a case-by-case basis by periodically removing the sludge from various tanks and sumps throughout the plant. Each batch of sludge is sampled for PCP parameters and isotopic content, chemically conditioned, if necessary, and solidified per section 2.1 of this manual. Containers are sealed, surveyed, and labeled, as appropriate, and stored in a designated storage area until they are shipped for disposal.

A flow chart of a typical solidification processing flow path is shown on Figure 4-2.

4.1.5 Miscellaneous Liquids

Miscellaneous liquids generated in the station will be collected and processed on a case-by-case basis. Such wastes may include decontamination wastes and chemical wastes collected from the Chemistry Labs. Batches of such waste are isolated, sampled for PCP parameters and isotopic content, chemically conditioned, if necessary, and transferred to the vendor's processing skid where it is solidified per section 2.1 of this manual. Containers are sealed, surveyed, and labeled, as appropriate, and stored in a designated storage area until they are shipped for disposal.

4.2 DRY ACTIVE WASTE

Dry Active Waste (DAW) consists of radioactively contaminated or activated waste which contains no liquids. DAW may be compactible, such as paper, plastic and protective clothing, or non-compactible, such as tools or plant equipment. This waste is segregated by station workers at the point of generation into receptacles designated for "clean" or "contaminated" trash. "Clean" receptacles are used to collect trash that is potentially not contaminated. "Contaminated" containers are used to collect waste that is known or suspected to be contaminated. However, for purposes of DAW processing, all waste collected in Radiation Controlled Areas (i.e., that collected in both the "clean" and "contaminated" receptacles) is assumed to be contaminated until it is surveyed and proven clean. Bags are collected from the receptacles, surveyed for external dose rate, and taken to a designated sorting area for processing. Bags below a specified dose rate level, per station procedures, may be opened and the contents surveyed individually for radioactivity. Items found to be not contaminated per station procedures, reusable items, and items not acceptable for disposal as DAW are removed. In general, the contents of bags above the specified dose rate level are not surveyed for contamination, but are examined for reusable items and items not acceptable for disposal as DAW. Contaminated items are then disposed of as DAW. Compactible items are collected and compressed into approved strong, tight containers. Noncompactible items are placed directly into approved strong, tight containers. Containers are sealed, surveyed, and labeled, as appropriate and stored in a designated storage area until they are shipped for disposal.

A flow chart of the DAW processing path is shown on Figure 4-3.

FIGURE 4-1
DEWATERING PROCESS FLOW CHART

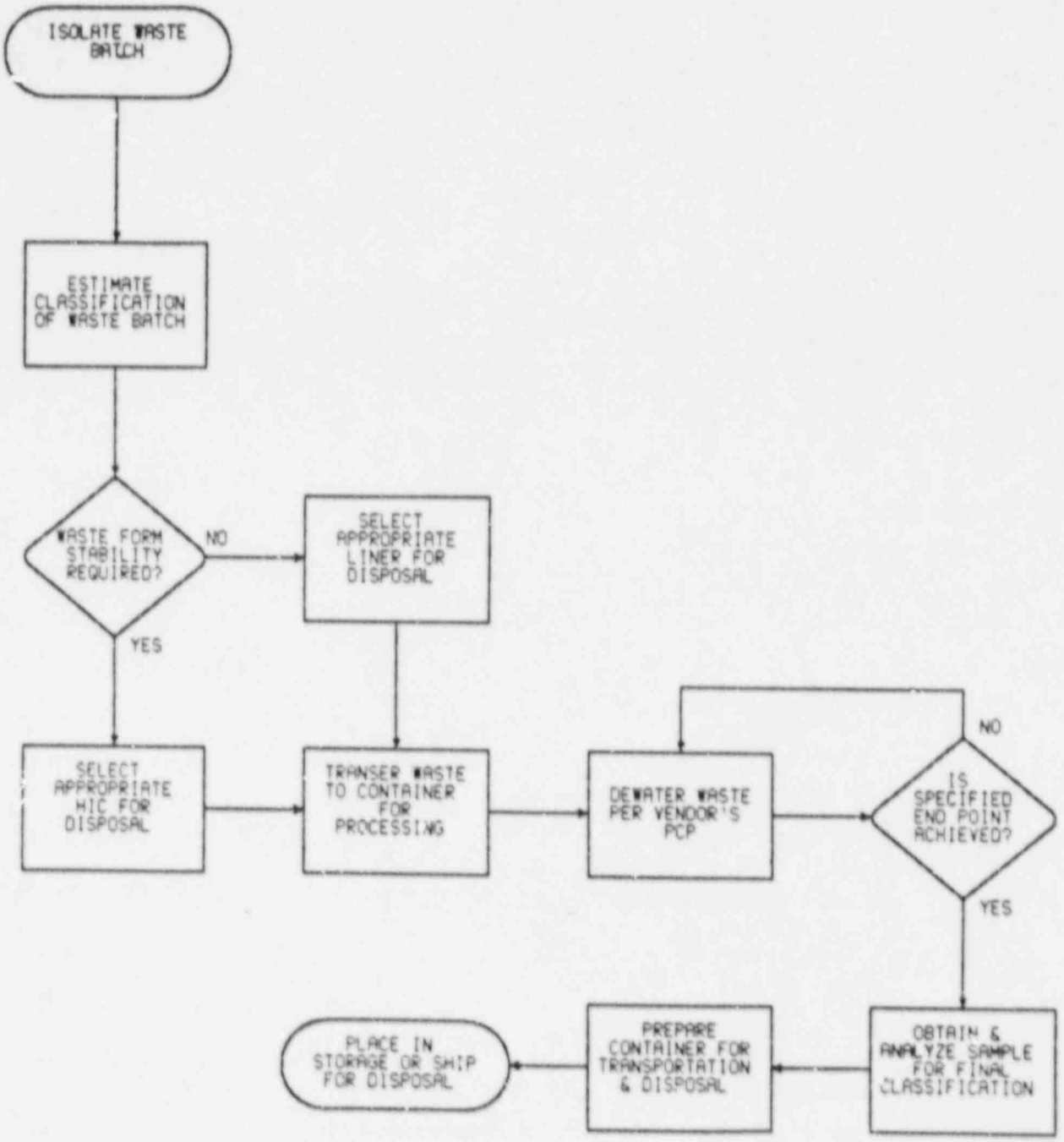


FIGURE 4-2
SOLIDIFICATION PROCESS FLOW CHART

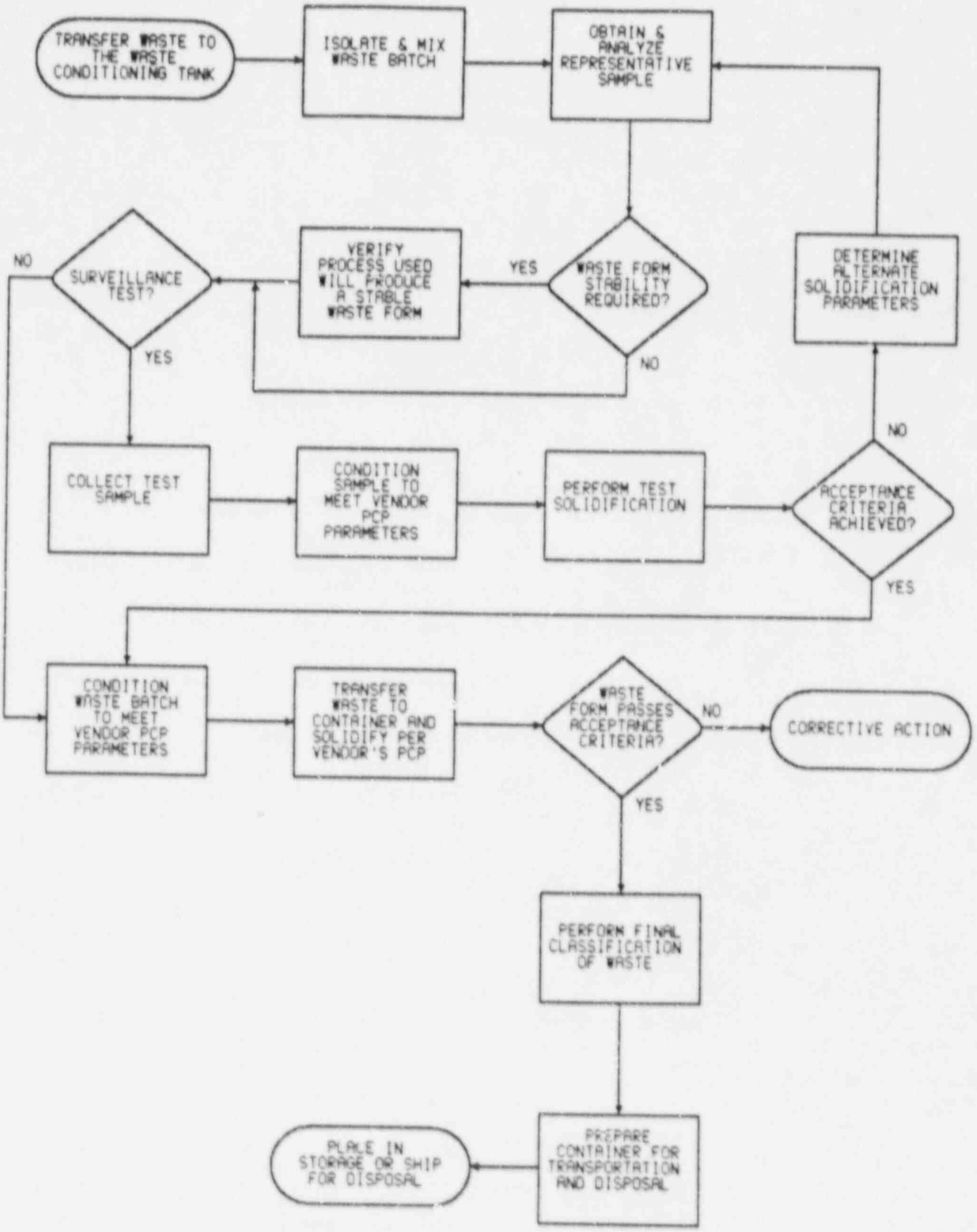
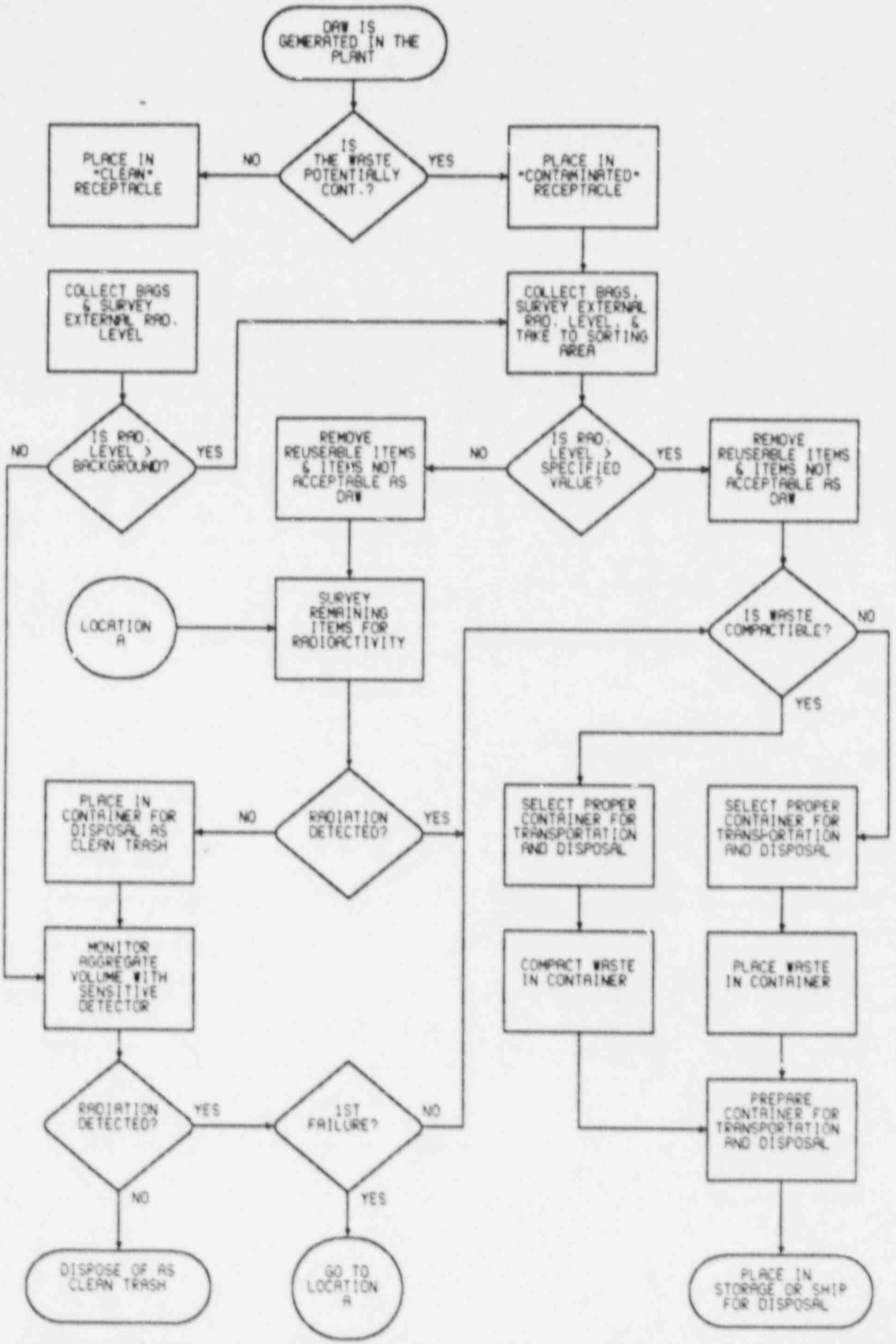


FIGURE 4-3
DAW PROCESS FLOW CHART



SECTION 5.0

ADMINISTRATIVE CONTROLS

5.1 PROCEDURES

Activities associated with the implementation of the requirements of this program shall be conducted in accordance with approved station procedures or vendor documents and procedures that have been reviewed and approved per sections 1.4 and 2.2.

5.2 QUALITY ASSURANCE

Quality Assurance related activities for radioactive waste processing are implemented as described in the TU Electric CPSES Quality Assurance Manual. Such activities include:

(1) Review of documents and procedures affecting the processing, packaging, handling, and transportation of radioactive waste.

(2) Review of procurement documents or services.

(3) Perform inspections as designated in applicable processing, packaging, and shipping procedures.

(4) Review applicable vendor QA programs for compliance with Regulatory and TU Electric requirements.

(5) Perform audits of the radioactive waste management program at least once per 24 months.

(Note: Technical Specification Administrative Control 6.5.2.8.i requires that audits of the Process Control Program and implementing procedures be performed under the cognizance of the Operations Review Committee at least once per 24 months.)

(6) Documentation and retention of documentation of waste processing, packaging and shipping activities.

These activities provide assurance that the final waste form, packaging, labeling, and transportation are in accordance with applicable regulations and requirements.

5.3 CHANGES TO THE PCP

Changes to this PCP shall be reviewed and found acceptable by SORC prior to implementation. Changes shall be submitted to the NRC in the Semiannual Radioactive Effluent Release Report for the period in which the changes were made. This submittal shall contain the information specified in Technical Specification Administrative Control 6.13.2.

5.4 DOCUMENTATION

Procedures for radioactive waste processing, packaging, and transportation shall include requirements for maintaining and retaining LLW processing, packaging, and transportation records. Detailed records for each container of waste shall be maintained.

5.5 TRAINING

TU Electric and vendor personnel responsible for waste processing, packaging and transportation activities shall be trained and qualified to ensure that waste processing is performed in accordance with applicable requirements. Training programs shall establish a schedule for periodic requalification of at least once every two years. TU Electric shall verify the training of vendor personnel.

SECTION 6.0

REFERENCES

6.1 Code of Federal Regulations:

6.1.1 Title 10, Parts 20, 61, and 71
6.1.2 Title 49, Part 173
6.1.3 Title 40, Part 261

6.2 USNRC, Low-Level Waste Licensing Branch, Technical Position on Radioactive Waste Classification, May 1983

6.3 USNRC, Low-Level Waste Licensing Branch, Technical Position on Waste Form, May 1983

6.4 USNRC, Guidelines for Preparation and Implementation of a Solid Waste Process Control Program (Proposed), Draft Revision 3, September 1986

6.5 USNRC, Office of Inspection and Enforcement, IE Information Notices:

6.5.1 IEN 79-09, "Spill of Radioactively Contaminated Resins"
6.5.2 IEN 83-14, "Dewatered Spent Ion Exchange Resin Susceptibility to Exothermic Chemical Reaction"
6.5.3 IEN 85-92, "Surveys of Wastes Before Disposal from Nuclear Reactor Facilities"
6.5.4 IEN 86-20, "Low-Level Radioactive Waste Scaling Factors, 10 CFR Part 61"
6.5.5 IEN 87-03, "Segregation of Hazardous and Low-Level Radioactive Wastes"
6.5.6 IEN 87-07, "Quality Control of Onsite Dewatering/Solidification Operations By Outside Contractors"
6.5.7 IEN 88-08, "Chemical Reactions With Radioactive Waste Solidification Agents"

6.6 Shockley, Vernon E. and Veitenheimer, Steven J., "Actions Toward Resolving the Mixed Waste Issue", a paper presentation at the INPO Radiation Protection Managers' Workshop, Atlanta, Georgia, June 7-8, 1988

6.7 CPSES Technical Specifications, Sections 6.5.2.8.i and 6.13

6.8 CPSES Radioactive Effluent and Environmental Monitoring Manual, Section 4.0

6.9 CPSES Station Administrative Procedure STA-614, "Radioactive Waste Control"

6.10 CPSES Radiation Protection Instructions:

6.10.1 RPI-203, "Shipment of Radioactive Materials"
6.10.2 RPI-204, "Liquid Waste Processing"
6.10.3 RPI-205, "DAW Processing"
6.10.4 RPI-209, "Radioactive Waste Classification"

6.11 CPSES Chemistry Procedures:

6.11.1 CHM-517, "Chemistry Control of Liquid Waste Systems"
6.11.2 CHM-518, "Radionuclide Verification and Correlation Program"

6.12 CPSES Radioactive Waste Systems Procedure RWS-301, "Radwaste Solidification Systems"

6.13 Vendor Documents

No vendor documents have currently been reviewed and approved by the CPSES SORC. This section shall be revised to reference specific vendor documents approved for use at CPSES upon review and approval by the SORC.

6.14 TU Electric CPSES Quality Assurance Manual