

**ACKNOWLEDGMENT OF RECEIPT**

Page 1 of 2

TO: NRC WASHINGTON – DOC CONT DESK CONTROLLED DISTRIBUTION NO. 53

FROM: LACBWR Plant/ISFSI Supervisor

11/18/2014

SUBJECT: Changes to LACBWR Controlled Documents

1. The following documents have been revised or issued new.

QAPD      Issue 27      Quality Assurance Program Description

- ☒ Please file the documents in the appropriate controlled document binder and location. The superseded material shall be destroyed.
- ☒ The documents listed above shall be reviewed, and affected personnel shall be notified of the changes. Read and Heed Training shall be documented on Page 2 of 2 as required.

- 
2. The following documents have been CANCELLED. Please destroy all copies.
- 

/S/ \_\_\_\_\_ DATE \_\_\_\_\_

Please return this notification to the LACBWR Administrative Staff within ten (10) working days.

Dairyland Power Cooperative  
LACBWR  
4601 State Road 35  
Genoa, WI 54632-8846

**ACKNOWLEDGMENT OF RECEIPT**

Page 2 of 2

**LACBWR Read and Heed**

Date: 11/18/2014

	Category/ID	Issue	Title
<input type="checkbox"/>	QAPD	Issue 27	Quality Assurance Program Description
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

By signing below, the individual acknowledges comprehension of the above checked Read and Heed procedure topics.

This acknowledgment serves as proof of training and will be maintained on file as a permanent record.

☐ If this box is checked, instructor verification is required for Read and Heed Training.\*

Print Name	Signature	Title	Date

**Instructor Verification of Read and Heed (\* Required Only if Box is Checked Above)**

\_\_\_\_\_  
Instructor Name (print)

\_\_\_\_\_  
Instructor Signature

\_\_\_\_\_  
Date

**Record Retention**

Original to Administrative Staff Date: \_\_\_\_\_

**DAIRYLAND POWER COOPERATIVE**

**LA CROSSE BOILING WATER REACTOR**

**QUALITY ASSURANCE PROGRAM DESCRIPTION**

**REVISION 27**

PREPARED BY Edmund Martin DATE 8-26-2014  
Manager, Quality Assurance

APPROVED BY William L Berg DATE 8/29/2014  
President and CEO

2004  
NMSS

DAIRYLAND POWER COOPERATIVE  
LA CROSSE BOILING WATER REACTOR

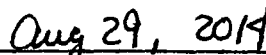
**STATEMENT OF QUALITY ASSURANCE POLICY**

The Quality Assurance Program Description (QAPD) described herein has been developed by Dairyland Power Cooperative (DPC) to provide a consolidated overview of the quality program controls that govern the operation and maintenance of the La Crosse Boiling Water Reactor (LACBWR) Independent Spent Fuel Storage Installation (ISFSI) and the Passive SAFSTOR decommissioning of the LACBWR plant. The QAPD describes the quality assurance organizational structure, functional responsibilities, levels of authority and interfaces.

The QAPD applies to the Passive SAFSTOR decommissioning activities performed under 10 CFR 50, Appendix B and all activities associated with structures, systems, and components which are Important to Safety under 10 CFR 72. The QAPD also applies to transportation packages licensed by the NRC under 10 CFR 71. Requirements of the QAPD are performed in a graded approach commensurate with an item's or an activity's importance to safety. This graded approach is responsive to NRC Regulatory Guide 7.10. The applicability of the requirements of the QAPD to other items and activities is determined on a case by case basis. The QAPD satisfies the requirements of 10 CFR 50 Appendix B, 10 CFR 71 Subpart H, and 10 CFR 72 Subpart G.

The Manager, Quality Assurance is responsible for the establishment and implementation of a quality assurance program which meets all regulatory requirements. The quality assurance program, as described in this QAPD, is implemented through the use of approved procedures (i.e., policies, directives, procedures, manuals, instructions, or other documents) which provide written guidance for the control of Important to Safety items and activities and provides for the development of documentation to demonstrate objective evidence of compliance with stated requirements.

  
\_\_\_\_\_  
President and CEO

  
\_\_\_\_\_  
Date

DAIRYLAND POWER COOPERATIVE  
LA CROSSE BOILING WATER REACTOR

**QUALITY ASSURANCE PROGRAM DESCRIPTION**

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
STATEMENT OF POLICY .....	i
0.0 INTRODUCTION .....	1
I. ORGANIZATION .....	2
II. QUALITY ASSURANCE PROGRAM .....	5
III. DESIGN CONTROL AND REVIEW .....	8
IV. PROCUREMENT DOCUMENT CONTROL .....	9
V. INSTRUCTIONS, PROCEDURES AND DRAWINGS .....	10
VI. DOCUMENT CONTROL .....	11
VII. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES .....	12
VIII. IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS .....	13
IX. CONTROL OF SPECIAL PROCESSES .....	14
X. INSPECTION .....	15
XI. TEST CONTROL .....	16
XII. CONTROL OF MEASURING AND TEST EQUIPMENT .....	17
XIII. HANDLING, STORAGE, AND SHIPPING .....	18
XIV. INSPECTION, TEST, AND OPERATING STATUS .....	19
XV. CORRECTIVE ACTION .....	20
XVI. QUALITY ASSURANCE RECORDS .....	21
XVII. AUDITS .....	23
XVIII. OPERATIONS REVIEW COMMITTEE .....	25
APPENDIX A – IMPORTANT TO SAFETY STRUCTURES, SYSTEMS, AND COMPONENTS .....	27
APPENDIX B – REGULATORY COMMITMENTS, ALTERNATIVES, AND EXCEPTIONS .....	29
APPENDIX C – ADMINISTRATIVE CONTROLS .....	30
TABLE 1 – REGULATORY COMPARISON MATRIX .....	34
FIGURE 1 – LACBWR FACILITY ORGANIZATION .....	35
FIGURE 2 – DAIRYLAND POWER COOPERATIVE MANAGEMENT ORGANIZATION .....	36

## 0.0 INTRODUCTION

### A. General

The LACBWR Quality Assurance Program Description (QAPD) is designed to meet the requirements of 10 CFR 50, Appendix B, 10 CFR 71, Subpart H, and 10 CFR 72, Subpart G and reflects the direction of applicable regulatory guides and industry standards, as they apply to the operation and maintenance of the LACBWR ISFSI and the Passive SAFSTOR phase of decommissioning the LACBWR plant, thereby assuring that risk to the health and safety of the public is not increased.

The quality assurance program described herein is applied by Dairyland Power Cooperative (DPC) to assure safe operation of the LACBWR ISFSI and safe Passive SAFSTOR decommissioning of the LACBWR plant. The QA program shall be applied to activities with a graded approach to quality that is commensurate with an item's or an activity's importance to safety such as design, engineering, procurement, installation, maintenance, modification, operations, and decommissioning by DPC or its contractors, and their subcontractors.

Quality Assurance (QA) as defined herein encompasses all those planned and systematic actions necessary to provide adequate confidence that an Important To Safety structure, system, or component will perform its intended function satisfactorily. QA is recognized as an interdisciplinary function and not the sole responsibility of QA personnel.

It is DPC's policy that the group performing and directly responsible for the work, such as project management, engineering, design, procurement, installation, maintenance, testing, and dismantlement shall be responsible for the quality of work. This includes quality control and verification that all work is performed in accordance with approved documents. QA personnel have responsibility for auditing these groups and assuring DPC management that the QA program is being fully and effectively implemented.

The requirements and commitments contained in this QAPD are mandatory and must be implemented, enforced, and adhered to by all individuals and organizations. Employees are encouraged to actively participate in the continued development of the QA program as well as its implementation.

### B. Terms and Definitions

The terms and definitions listed below are used frequently throughout this document.

COMPANY – Dairyland Power Cooperative (DPC)

LACBWR – La Crosse Boiling Water Reactor.

QUALITY ASSURANCE (QA) – All those planned and systematic actions necessary to provide adequate confidence that structures, systems, or components (SSCs) will perform satisfactorily in service.

QUALITY CONTROL (QC) – Those quality actions which provide a means

to control and measure the characteristics of an item, process or facility to established requirements.

ORC – Operations Review Committee.

FACILITY – Encompasses the plant site, which is undergoing decommissioning, and the ISFSI site where spent fuel is stored. Excluded are the DPC transmission substation adjacent to the plant site and power transmission apparatus located beyond the LACBWR switchyard.

PLANT – Encompasses the buildings that functionally supported the operation of the LACBWR nuclear power facility.

ADMINISTRATIVE CONTROL PROCEDURE (ACP) – A document which establishes the guidelines and requirements governing functional activities.

QA MANUAL – A manual comprised of the QA Program Description.

SRC – Safety Review Committee.

SCHEDULE INTERVAL – A time frame within which a scheduled activity shall be performed with a maximum allowable extension not to exceed 25 percent of the schedule interval.

IMPORTANT TO SAFETY (ITS) – A classification given to structures, systems, and components (SSCs) that provide nuclear safety design functions. (See Appendix A for complete details).

PASSIVE SAFSTOR – Requires thorough initial clean-up, but allows intermittent inspection of the site and shutdown of active systems such as radiation monitoring.

## I. ORGANIZATION

### A. General Requirements

Figure 1 shows the organizational structure for the LACBWR facility and establishes the functional lines of authority and responsibility of various groups and individuals participating in the LACBWR QA program. The authority and duties of persons or groups responsible for the direction, implementation, and auditing of this program are as follows:

1. DPC President and CEO has corporate responsibility for all quality assurance matters relating to decommissioning the LACBWR plant and operation and maintenance of the LACBWR ISFSI. This individual has delegated the authority and responsibility for administration of quality assurance for LACBWR to the Manager, Quality Assurance.
2. Vice President (VP), Generation reports directly to the President and CEO and has corporate responsibility for the administration and operation of the LACBWR decommissioning and operation and maintenance of the LACBWR ISFSI.
3. Site Manager, Genoa (SMG) has the overall responsibility for the administration and operation of the LACBWR ISFSI, the maintenance

of the LACBWR plant in Passive SAFSTOR, and the operation of the Genoa 3 coal-fired plant. The SMG is the Chairman of the Operations Review Committee (ORC), a member of the Safety Review Committee and reports directly to the VP, Generation on all LACBWR ISFSI or Plant matters. As ORC Chair, the SMG approves all procedures that implement the requirements of NRC-approved programs and plans.

4. Plant/ISFSI Supervisor who reports directly to the Site Manager, Genoa, has on-site responsibility for LACBWR plant decommissioning and operation and maintenance of the LACBWR ISFSI within the limits set forth in the Decommissioning Plan, Technical Specifications and this QAPD. This individual has responsibility for implementing the quality assurance requirements at the operating ISFSI and decommissioning plant through administrative control procedures and procedures required to fulfill the requirements of this program. Activities performed by outside individuals or groups, including SRC, outside consultants, and representatives of NRC activities, with regard to the LACBWR facility are performed under the authority and responsibility of the Plant/ISFSI Supervisor.

The Plant/ISFSI Supervisor has daily responsibility for the groups designated in the organizational chart for the facility, including maintenance and training activities. The Plant/ISFSI Supervisor is the ISFSI Security Supervisor and has access to the DPC President and CEO if necessary for security matters, and is responsible for implementation and administration of the LACBWR ISFSI Physical Security Program.

5. Manager, Quality Assurance reports directly to the VP, Generation, with direct access to the DPC President and CEO, if necessary, for quality assurance matters. This individual has responsibility for establishing a quality assurance program and performing audits of the program to determine its effectiveness. This individual has the authority and organizational freedom to verify activities affecting quality and is independent of undue influences and responsibilities for schedules and costs. The Manager, Quality Assurance has the responsibility and authority to stop unsatisfactory work and control further processing, delivery, or installation of nonconforming materials. This individual also has the responsibility and authority to identify quality problems, to recommend or provide solutions, and to verify their implementation. The individual is responsible for administration of the corrective action program.
6. Health Physics Supervisor reports directly to the Plant/ISFSI Supervisor and is responsible for the administration, maintenance, and implementation of the Radiation Protection Program, Process Control Program, Offsite Dose Calculation Manual, Radioactive Effluent Controls Program, and Radiological Environmental Monitoring Program.



7. Safety Manager functionally reports directly to the Site Manager, Genoa and has responsibility for industrial safety practices at the plant in accordance with applicable regulations.
8. ISFSI Security Project Manager reports directly to the Plant/ISFSI Supervisor and has responsibility for ensuring regulatory requirements are adequately met. This individual ensures that the Security Plan, related procedures, training and contingency requirements are developed and maintained current.
9. Technical Engineer reports directly to the Plant/ISFSI Supervisor and has responsibility for facility licensing during decommissioning, and eventual license termination activities. This individual is the principle liaison on behalf of the Genoa Site Manager and the Plant/ISFSI Supervisor for contact with the NRC and other regulatory agencies.
10. Operations Review Committee (ORC) is an advisory committee to the Site Manager, Genoa and Plant/ISFSI Supervisor and has responsibility for performing independent safety reviews of ISFSI and plant activities prior to implementation of the proposed activity requiring the review. The safety review shall be a thorough review conducted by qualified independent safety reviewers who are knowledgeable in the subject area being reviewed.
11. Safety Review Committee (SRC) is an advisory committee responsible to the President and CEO for providing independent safety review and audit of designated activities on all matters pertaining to ISFSI nuclear safety and existing procedures which are a part of the ISFSI regulatory compliance requirements.
12. Administrative Staff reports directly to the Site Manager. Genoa and is responsible for maintenance of QA records, procedures, indexes, and providing general administrative support.

B. LACBWR Facility Organization Requirements

Figure 1 shows the organization structure for the LACBWR facility which consists of the ISFSI staff and Passive SAFSTOR decommissioning team. Job descriptions have been provided for key supervisory and some support positions and identify the authority and responsibility that are associated with that position.

C. Dairyland Power Cooperative Management Organization

Figure 2 shows the organization structure for Dairyland Power Cooperative. The LACBWR facility is a responsibility of the President and CEO. The responsibility for all purchases as they apply to all generating stations, including LACBWR, and responsibility for control, identification, and issuance of all materials, parts, and components is the responsibility of the Vice President and Chief Financial Officer.

## **II. QUALITY ASSURANCE PROGRAM**

### **A. General**

The QA program described herein sets forth the requirements for the QA organization, personnel responsibilities, controls, and measures established to achieve, maintain, and document quality. These requirements include, but are not limited to, the following:

1. Incorporation of applicable regulatory criteria, codes, standards, and design bases for ITS SSCs into the ISFSI operations and maintenance procedures.
2. Performance of all installation, calibration, and testing on all necessary ITS SSCs in accordance with approved ISFSI procedures.
3. Approved procedures being used in the operation, maintenance, repair, and modification of the ISFSI in compliance with licensing regulations and consistent with quality practices established by DPC.
4. Maintenance of QA recordkeeping, including reports, test results, records, and logs.
5. Resolution of items identified as adverse to quality with appropriate notifications made to DPC Corporate Management.
6. Performance of audits and surveillances by QA personnel to verify that ISFSI administrative controls, procedures, and procurement documents contain the necessary QA input requirements and appropriate documentation thereof.

### **B. Applicability**

The LACBWR QAPD applies to plant Passive SAFSTOR decommissioning activities (10 CFR 50, Appendix B) and all activities associated with the ISFSI (10 CFR 72) and ITS SSCs. The QAPD also applies to transportation packages licensed by the NRC under 10 CFR 71. Requirements of the QAPD are performed in a graded approach to quality which is commensurate with an item's or an activity's importance to safety. This graded approach is responsive to NRC Regulatory Guide 7.10. The QAPD satisfies the requirements of 10 CFR 50 Appendix B, 10 CFR 71 Subpart H, and 10 CFR 72 Subpart G.

The LACBWR QA program utilizes the Important To Safety (ITS) classification process to apply and enforce a graded approach to quality in tasks related to ISFSI SSCs (refer to Appendix A for details).

### **C. Regulatory Commitments**

Except when alternatives or exceptions are identified, the implementing procedures for the QAPD shall comply with the quality assurance guidance documents listed in Appendix B. Additionally, the following clarifications apply to all guidance documents listed in Appendix B:

1. If the guidance in any of the listed documents is in conflict with the

QAPD, the guidance provided in the QAPD is the controlling document.

2. Standards, guides, codes, etc., identified in any commitment document are not quality assurance program requirements unless that document is also listed in the Appendix.
3. Guidance applicable to safety related items and activities (10 CFR 50) are applicable to comparable items and activities (Important To Safety) required by 10 CFR 71 and 10 CFR 72.

**D. Administrative Controls**

The Administrative Controls defined in Appendix C were developed to support operation of the LACBWR plant while in SAFSTOR (dismantlement). These requirements were previously included in the Technical Specifications and were relocated to this QAPD during active decommissioning. These requirements are being maintained to support Passive SAFSTOR decommissioning activities and will also be required when decommissioning of the LACBWR plant reconvenes in the future. The remaining Administrative Controls will be only applicable to the LACBWR ISFSI.

**E. Implementation**

Individuals that are assigned responsibilities as described in Section I, "ORGANIZATION," shall prepare administrative and quality assurance procedures as necessary to implement the requirements of this program in support of operation and maintenance of the LACBWR ISFSI. Procedures shall include appropriate quantitative and qualitative acceptance criteria necessary to determine that the activity is being properly performed. Audit or surveillance reports are distributed to DPC management for their review and assessment of the QA program, as to effectiveness, scope, adequacy, and implementation. Indoctrination in the QA program requirements shall be provided to all facility personnel and contractors performing activities that could affect the quality of structures, systems, or components.

**F. Personnel Training and Qualification**

Each member of the facility staff (including audit, surveillance and inspection personnel) shall have sufficient qualifications to perform their assigned duties. Regulatory Guide 1.8 (Revision 1 dated 5/77) is used for determining and assessing appropriate staff qualifications.

Training programs are established and implemented to ensure that personnel achieve and maintain suitable proficiency. Additionally, personnel training and qualification records are maintained in accordance with procedures.

In addition to the above, the following specific qualification requirements are required:

1. The position of the Manager, Quality Assurance shall meet the following minimum qualifications:
  - a. Graduate of a four-year accredited engineering or science college

or university, or the equivalent in practical experience plus five (5) or more years in positions of leadership, such as lead engineer, project engineer, audit team leader, etc.

- b. At least two years of this experience should be associated with nuclear quality assurance activities, and at least one year of this experience shall be in a quality assurance organization. An additional two years of quality assurance program implementation may be substituted for the one-year experience within a quality assurance organization.
  - c. A master's degree in engineering or business management is considered equivalent to two years of experience.
2. The position of Health Physics Supervisor shall meet the following minimum qualifications:
- a. Academic degree in an engineering/science field or equivalent as provided for in paragraph (c), below.
  - b. Minimum of five years professional experience in the area of radiological safety, three years of which shall be in applied radiation work in a nuclear facility.
  - c. Technical experience in the area of radiological safety beyond the five year minimum may be substituted on a one-for-one basis towards the academic degree requirement (four years of technical experience being equivalent to a four year academic degree).
  - d. Academic and technical experience must total a minimum of nine years.
3. The position of Operations Review Committee member shall meet the following minimum qualifications:
- a. Knowledgeable of the regulatory requirements and operational aspect of an ISFSI.
  - b. At least 5 years of professional experience and either a Bachelor's Degree in Engineering or the Physical Sciences or shall have equivalent qualifications in accordance with ANSI 18.1-1971.
  - c. Knowledge in the subject areas requiring review.

The Site Manager, Genoa shall evaluate potential committee member's qualifications and document the appointment of a committee member(s) based on their qualifications.

### **III. DESIGN CONTROL AND REVIEW**

#### **A. General**

This section establishes the requirements to assure that Important To Safety (ITS) structures, systems, and components (SSCs) of the LACBWR ISFSI are added, deleted, changed or modified in accordance with the codes, standards, and regulations that governed the original design, except as amended and approved. Measures shall be established for the review, evaluation, and approval of all design changes governing ISFSI SSCs. Design control and review for ITS SSCs shall be performed by a Design Authority utilizing their approved 10 CFR 50 Appendix B or 10 CFR 72 Subpart G Quality Assurance Program.

Design, fabrication, or modification of storage and shipping casks used for shipment of radioactive materials will not be conducted under this section.

#### **B. Responsibilities**

1. The LACBWR staff is responsible for establishing procedures to implement design control and the incorporation of design documents into work orders, procedures and instructions.
2. The Plant/ISFSI Supervisor is responsible for the review of design drawings, specifications, calculations, and procurement documents to assure that quality standards are included or referenced.
3. The Design Authority is responsible for the incorporation of design bases, regulatory requirements, codes and standards into drawings and specifications related to ITS SSCs design and changes thereto.
4. The ORC is responsible for reviewing all proposed changes and recommending approval or disapproval to the Plant/ISFSI Supervisor for ISFSI related changes. The review shall determine whether the proposed modifications require prior NRC approval.
5. The Site Manager, Genoa and Plant/ISFSI Supervisor are responsible for reviewing the recommendations for ISFSI related activities from the ORC and taking appropriate action. If prior NRC approval is needed, any license amendment request shall be referred to the SRC.
6. The SRC is responsible for providing an independent review of changes to the ISFSI. They shall provide assurance that the modification meets the design bases, regulatory requirements, and applicable codes and standards.
7. The Technical Engineer is responsible for the Owner's review of proposed changes to the design of the LACBWR ISFSI to ensure full compliance to the LACBWR design basis, regulatory requirements and applicable codes and standards.

#### **C. Requirements**

1. A Work Order shall be initiated for all modifications to ITS SSCs and systems maintained operational during ISFSI activities. Work Orders

may be initiated by any knowledgeable person.

2. Design bases, regulatory requirements, and applicable codes and standards shall be delineated and specify appropriate quality standards and requirements for all proposed ISFSI modifications to ITS SSCs and systems maintained operational during ISFSI activities. These conditions shall be incorporated into drawings, specifications, procurement documents, and procedures.
3. The Owner's Acceptance Review procedure and Work Control procedure shall describe and control design changes to ISFSI ITS SSCs.
4. All proposed ISFSI modifications shall be reviewed to determine whether they require prior NRC approval.

#### **IV. PROCUREMENT DOCUMENT CONTROL**

##### **A. General**

This section establishes the measures to assure that procurement documents (purchase requisitions and orders) covering material, equipment, and services for ISFSI ITS SSCs specify appropriate quality requirements. The purchase order specifies or references the applicable requirements, design bases, codes, and standards to assure quality.

##### **B. Responsibilities**

1. The LACBWR staff is responsible for developing procedures to control the preparation, review, and approval of purchase orders for material, equipment, and services covered by the QA program.
2. The LACBWR staff is responsible for initiation of purchase requisition worksheets for material, equipment, and services required for maintenance, repair, and modifications.
3. The Design Authority is responsible for preparing engineering specifications which detail the technical and quality requirements for ITS material, equipment, and services.
4. The LACBWR staff is responsible for preparing purchase requisition worksheets for material, equipment, and services.
5. Purchasing is responsible for preparing, reviewing, approving, issuing, and controlling purchase orders.
6. QA personnel are responsible for review of ITS procurement documents to ensure inclusion of appropriate quality requirements.

##### **C. Requirements**

1. Purchase requisitions for new material, equipment, and services and for spare or replacement parts shall be initiated by any department personnel. The purchase requisition shall contain the information such as quantity, item description, and technical and quality requirements

necessary for procurement of the item.

2. Purchase orders shall include specifications that contain all the information necessary to assure material, equipment, and services are of adequate quality. This shall include material selection, design data, equipment description, source inspection and testing requirements, cleaning and packaging requirements, and required documentation as deemed necessary.
3. Documentation that is required to provide evidence that materials, equipment, and services are of adequate quality shall be clearly delineated in purchase orders. This shall include a listing of each item of documentation to be submitted, when it is to be submitted, what requires approval prior to manufacture, and to whom it shall be submitted.
4. To the extent necessary, ITS procurement documents shall require suppliers of material, equipment, and services to have a quality assurance program complying with the pertinent provisions of 10 CFR 21, 10 CFR 50, Appendix B, and/or 10 CFR 72, Subpart G. Suppliers shall be required to provide DPC access to their facilities and records for inspection and audit, as required, to determine compliance with provisions of the purchase order. These requirements shall extend to lower tier procurements, as determined by DPC management.
5. ITS purchase requisitions shall be reviewed by QA personnel to assure that all necessary quality requirements are included or referenced.
6. Formal purchase orders that have been prepared from the purchase requisition shall be reviewed to assure all required information is correctly incorporated.
7. Changes in technical content in procurement documents shall be initiated and reviewed in accordance with the same procedures utilized in preparation of the original document.

## **V. INSTRUCTIONS, PROCEDURES, AND DRAWINGS**

### **A. General**

This section establishes the measures to assure that activities relating to ISFSI activities are performed in accordance with approved instructions, procedures, and drawings.

### **B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for preparing or reviewing all procedures that are required for implementation of the QAPD.
2. The Site Manager, Genoa is responsible for approval of ISFSI related procedures that implement NRC-approved programs and plans.
3. The ORC is responsible for reviewing all initial and revised procedures that affect ISFSI operations and shall determine whether changes to these procedures require prior NRC approval.

4. The SRC shall review new procedures or changes to existing procedures when it is determined by the ORC that prior NRC approval is required.

C. Requirements

1. Detailed instruction for ISFSI activities shall be contained in procedures and checklists covering the following activities:
  - a. administrative control,
  - b. general security system operation,
  - c. Security Plan implementation,
  - d. quality assurance,
  - e. surveillance and test activities of equipment,
2. For activities other than those within normal craft expertise, instructions for maintenance and repair of ISFSI equipment or systems shall be contained in procedures. These procedures shall contain instructions for preparation, performance, testing, and return to service. The procedures may reference manufacturer's instruction manuals, drawings, and other sources, as applicable.
3. Instructions, procedures, or drawings for ITS activities shall delineate methods and sequences when an activity is to be performed. These documents shall include appropriate quantitative or qualitative acceptance criteria for determining that the activity has been satisfactorily performed.
4. The department responsible for an activity shall be required to provide the necessary technical input and review of changes to instructions, procedures, or drawings.
5. Changes to or deviations from established instructions, procedures, or drawings will require the same review and approval as the original document. However, temporary changes to procedures that do not change the intent of the original procedure may be made in ink, dated, and approved by two people of the management staff.
6. Procedures will be reviewed periodically as set forth in administrative procedures.

VI. DOCUMENT CONTROL

A. General

This section establishes the requirements for document control as it applies to the LACBWR ISFSI.

B. Responsibilities

1. The LACBWR ISFSI staff is responsible for preparing a standard



procedure for controlling the issuance of procedures and for preparing procedures for controlling the distribution of operating, maintenance, repair, and modification procedures for the ISFSI.

**C. Requirements**

1. Procedures shall be established for the issuance of procedures, drawings, and specifications. A document control procedure shall be prepared to provide a uniform system of document identification.
2. All documents shall have an identification number, title, date, and revision number. Documents shall be filed and controlled by use of this identification. Each type of document shall be filed in a central location identified in a document control procedure.
3. Drawings, specifications, and procedures, including revisions, shall be reviewed for adequacy and approved for release by authorized personnel. The required reviews and approvals shall be specified in a document control procedure.
4. The Administrative Staff shall assure that current documents are distributed to and used at the location where the prescribed activity is performed. Documents and revisions shall be distributed as specified in a document control procedure. Preliminary and superseded documents shall be clearly identified and closely controlled to preclude their misuse.
5. An index of each type of document shall be established and maintained to provide the current status of documents.

**VII. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES**

**A. General**

This section establishes the requirements to assure that purchased ITS material, equipment, and services for the ISFSI, whether purchased directly or through contractors and subcontractors, conform to the procurement documents.

**B. Responsibilities**

1. QA personnel are responsible for developing procedures for supplier evaluation and qualification and for coordinating supplier evaluation, qualification, and evaluating supplier quality programs. QA personnel are responsible for developing procedures for receiving inspection of material and equipment.
2. LACBWR ISFSI staff shall be responsible for evaluating supplier manufacturing and technical capabilities.

**C. Supplier Qualification**

1. Qualification of suppliers shall consist of DPC's experience with the supplier, supplier's reputation and experience in the field, and in the nuclear industry, a QA program and/or other factors, as appropriate.

2. Suppliers of casks used for shipment and storage of radioactive material shall be evaluated to ensure that the design and fabrication of packaging are performed under the control of an NRC-approved and DPC-accepted QA program.

**D. Source Inspection**

1. When appropriate, suppliers shall be requested to furnish DPC with sufficient information concerning their manufacturing and inspection plan to permit DPC or their designated agent to plan and implement a source inspection plan.
2. When appropriate, inspection plans shall include witness and hold points for inspection of items, witnessing of processes or tests, audit of required quality documentation, and verification that vendors have complied with the specification requirements and have documented any deviation from the specifications.

**E. Receiving Inspection**

1. Items shall be examined by appropriately trained staff upon receipt for shipping damage, correctness of identification, and specified quality documentation, in accordance with approved instructions.
2. Documentary evidence attesting that items conform to purchase order requirements shall be available at the ISFSI prior to installation or use of the item.
3. Documentary evidence shall be sufficient in order to identify that the specific requirements, such as codes, standards, and specifications, can be confirmed for the purchased item. This requirement shall be satisfied by having available copies of the purchase order and appropriate documents referenced therein.
4. All ITS materials, parts, and components will be segregated upon receipt and will be placed in a receiving inspection hold area separate from storage facilities. After acceptance, the material will be identified as acceptable and placed in specified storage.
5. During receiving inspection, if a nonconformance or discrepancy exists, the material shall be placed on hold and will remain in a hold status until final disposition is determined. A Corrective Action Report (CAR) shall be initiated.
6. Items dispositioned as unacceptable for use shall be rejected and removed from the controlled receiving inspection area.

**VIII. IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, AND COMPONENTS**

**A. General**

This section establishes the requirements for identification and control of ITS material, parts, and components, based on the ISFSI system designation, from receipt at the facility through installation or use.

## **B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for establishing the overall requirements for the identification and control of materials, parts, and components from receipt through installation or use, and/or developing procedures and instructions for the control and issuance of quality related materials, parts, and components.
2. The Plant/ISFSI Supervisor shall approve and ensure implementation of procedures or instructions for the identification and control of materials, parts, and components.
3. Appropriately trained ISFSI staff is responsible for control of, identification, and issuance of all ITS material, parts, and components.

## **C. Requirements**

1. Approved instructions and procedures shall be implemented for the identification and control of materials, parts, and components from receipt through installation or use. An identification system utilizing purchase order numbers shall be implemented for identification of material, parts, and components.
2. Specifications shall require that materials, parts, and components are identified in accordance with purchase order numbers and shall require that documentation have identification providing traceability to an item.
3. Physical identification by purchase order number shall be used to the maximum extent possible for relating an item at any time to applicable documentation. Identification shall be either on the item or records traceable to the item. Where physical identification is impractical, physical separation, procedural control, or other appropriate means shall be employed.

# **IX. CONTROL OF SPECIAL PROCESSES**

## **A. General**

This section establishes the measures to assure special processes, including welding, heat treating, and non-destructive testing that are identified as ISFSI ITS, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

## **B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for establishing procedures that describe how personnel and procedures are qualified for special processes.
2. QA personnel are responsible for reviewing of procedures for welding, heat treating, cleaning, non-destructive examination, and filler metal control and for assuring maintenance, repair, and modification work involving special processes is performed by qualified personnel in accordance with qualified procedures.

3. The Plant/ISFSI Supervisor is responsible for assuring the qualification of personnel in special processes and maintaining records of qualified personnel and procedures performing ISFSI activities.

C. Requirements

1. Welding, heat treating, cleaning, and non-destructive examination shall be accomplished under controlled conditions in accordance with applicable codes, standards, criteria, and other special requirements, using qualified personnel and procedures. Qualification of personnel and procedures shall comply with the requirements of applicable codes and standards.
2. Welders and welding procedures shall be qualified, as appropriate, in accordance with Section IX of the ASME Boiler and Pressure Vessel Code and/or appropriate American Welding Society (AWS) Welding Codes.
3. Non-destructive examination personnel shall be qualified in accordance with the American Society for Non-destructive Testing Standard SNT-TC-1A.
4. Procedures shall be established to describe the method used to control the receipt, storage, baking, drying, and disbursal of welding filler metals.
5. Equipment used for accomplishing special processes shall be calibrated, maintained, stored, handled, and issued in accordance with applicable procedures or instructions.

X. INSPECTION

A. General

This section establishes a program for inspection of ISFSI activities to verify conformance with approved procedures, drawings, and specifications.

B. Responsibilities

1. The LACBWR ISFSI staff is responsible for assuring adequate inspection requirements are included in engineering specifications, and reviews of any inspection procedures implementing this section are completed.
2. QA personnel are responsible for establishing inspection procedures and assuring adequate inspection requirements are included in procedures. They are also responsible for coordinating the assignments of qualified inspection personnel.
3. The Plant/ISFSI Supervisor shall be responsible for approving ISFSI inspection procedures or instructions and shall ensure sufficient inspections are performed to provide adequate confidence that project activities meet predetermined requirements.

### **C. Requirements**

1. Inspections shall be performed only by qualified personnel. In no case shall an acceptance inspection be performed by the individual who performed the activity.
2. Provisions to ensure inspection planning is properly accomplished are to be established. Planning activities shall identify the characteristics and activities to be inspected, the inspection techniques, the acceptance criteria, and the organization responsible for performing the inspections.
3. Mandatory inspection hold points, which require witnessing or inspecting of an activity before proceeding, shall be indicated in the appropriate procedure, specification, or work order. The inspection shall be documented to indicate approval and release prior to continuation of the activity.
4. Inspection requirements shall apply to all activities whether performed by company personnel or contractor personnel, and shall require that inspection procedures and instructions, along with necessary drawings, are provided prior to commencing inspection activities.
5. Inspection requirements governing modifications, repairs, and replacement shall be in accordance with the original design and inspection requirements or as amended by approved changes to the original design.

## **XI. TEST CONTROL**

### **A. General**

This section establishes the requirements for an ISFSI test program to demonstrate that ITS SSCs will perform satisfactorily in service. The test program shall include, but not be limited to, surveillance testing, special tests, post maintenance testing, and testing following ISFSI modification or significant changes in procedures.

### **B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for establishing the requirements to control the test program and for preparation and review of test procedures, surveillance during testing, and review and documentation of test results. The LACBWR staff is also responsible for establishing specifications, requirements and acceptance criteria for testing following ISFSI modifications or installation activities and the review and approve of results for testing following modifications.
2. The Plant/ISFSI Supervisor is responsible for the approval of ISFSI test procedures or instructions.
3. The ORC is responsible for review of all ITS proposed test procedures, special testing procedures, performance testing procedures following ISFSI modification and 10 CFR 72.48 evaluations.

4. The SRC is responsible for reviewing 10 CFR 72.48 evaluations to verify that ISFSI tests do not require prior NRC approval.

**C. Requirements**

1. A program shall be established to assure all testing required to demonstrate that ITS SSCs will perform satisfactorily in service is identified and documented.
2. Testing shall be performed in accordance with approved test procedures that incorporate or reference the requirements and acceptance criteria contained in applicable design documents and Technical Specifications.
3. Test procedures shall incorporate, but not be limited to, requirements for such items as: hold points, witness points, caution notes, emergency requirements, and test jumper logs.
4. Test procedures shall include, as a minimum, provisions for assuring that:
  - a. Prerequisites have been completed that include, as a minimum:
    - 1) Control of systems status as necessary.
    - 2) Availability of calibrated instrumentation and special equipment.
  - b. Test objectives and applicable acceptance limits are stated.
  - c. Test results are documented.
  - d. Detailed instructions for performing the test are included.
  - e. Test results are reviewed and approved.
5. Test reports shall include identification of the inspector, individual conducting the test, the data recorder, the type of observation made, the equipment used, the test results, the acceptability of the test results, and approved disposition for any deviations.
6. Test results which fail to meet the requirements and acceptance criteria shall be properly noted and appropriate corrective action taken.

**XII. CONTROL OF MEASURING AND TEST EQUIPMENT**

**A. General**

This section establishes the requirements for written procedures for the control, calibration, and periodic adjustment of tools, gauges, instruments, and other measuring and test equipment used to verify conformance to established ISFSI technical requirements.

**B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for establishing requirements

for a program for the control, calibration, and periodic adjustment of tools, gauges, instruments, and other measuring and test equipment used.

2. Personnel using Measuring and Test Equipment are responsible for ensuring tools, gauges, instruments, and other measuring and test equipment are calibrated to assure compliance with the implementing procedures.
3. The Plant/ISFSI Supervisor is responsible for ensuring implementation of the requirements of this section of the manual for ISFSI activities and for approving ISFSI procedures or instructions.

**C. Requirements**

1. Inspection, test, and work procedures shall include provisions to assure tools, gauges, instruments, and other inspection, measuring, and test equipment and devices used in activities affecting quality are of the proper range, type, and accuracy to verify conformance to established requirements and test parameters.
2. To assure equipment accuracy, inspection, measuring, and test equipment shall be controlled, calibrated, adjusted, and maintained periodically, or prior to use. Calibrations are performed against certified measurement standards that are traceable to nationally recognized standards. Where national standards do not exist, provisions will be established to document the basis for calibration. Control measures and procedures shall prevent the use of calibrated tools, gauges, instruments, and other measuring and test equipment by unauthorized personnel. Special calibration and control measures are not required for devices when normal commercial practices provide adequate accuracy.
3. When an item of measuring and test equipment is found to be out of calibration, an investigation will be conducted and documented to determine the validity of previous inspections, tests, or calibrations which were performed with the use of that item.
4. Records or logs of the calibration history of measuring and test equipment shall be maintained.
5. Measuring and test equipment shall be controlled by a permanently affixed serial number. Calibration decals, tags or stickers shall be displayed prominently on each device and shall reflect the date of calibration, due date of the next calibration (for recurring calibration) and identity of person performing the calibration.

**XIII. HANDLING, STORAGE, AND SHIPPING**

**A. General**

This section establishes the requirements for ISFSI procedures to control the handling, storage, shipping, cleaning, packaging, and preservation of ITS material and equipment to prevent damage, deterioration, or loss

through shipment, installation or use.

**B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for establishing requirements for the handling, storage, and shipping of materials, parts, and components covered by the QA program.
2. The Plant/ISFSI Supervisor is responsible for approval of all implementing procedures or instructions related to the ISFSI and ensuring the implementation of the requirements of this section of the QAPD.

**C. Requirements**

1. The requirements for handling, storage, shipping, cleaning, and preservation of materials, and equipment shall be documented in approved procedures.
2. Procurement documents shall include instructions for the handling, storage, shipping, cleaning, and preservation of the item being supplied, as applicable.
3. Procurement documents specify marking requirements, special covering, and protective environments, such as inert gas atmosphere, moisture content levels, and temperature levels, as applicable.
4. Specifications and procedures establish the requirements for special handling tools and equipment to ensure safe and adequate handling of critical, sensitive, or radioactive items.
5. Special handling tools and equipment will be inspected and tested in accordance with approved procedures, at specified intervals, to verify that tools and equipment are adequately maintained.
6. Materials and equipment will normally be handled by materials handling personnel. Other special shipments which require special equipment and handling will be handled by knowledgeable and trained personnel.
7. Storage of material and equipment will be in areas free from fumes, vapors, and dust. Storage will be in areas protected from the weather, as appropriate, and in which chemical storage is excluded, except as may be specifically authorized in writing. Storage will be in areas which satisfy the handling and storage requirements specified for the item.

**XIV. INSPECTION, TEST, AND OPERATING STATUS**

**A. General**

This section describes the system for indicating the inspection, test, and operating status of ITS components and systems at the ISFSI.

**B. Responsibilities**



1. The LACBWR ISFSI staff is responsible for ensuring that the status of operating equipment or systems to be removed from service for maintenance, test, inspection, repair, or modification is in accordance with the approved LACBWR procedures and shall monitor the status of activities for compliance with approved procedures and shall ensure inspection results are properly logged. They shall establish the procedures for implementing the work inspection or status sheets during maintenance, repair, and modifications and shall ensure inspection results are properly logged. The LACBWR ISFSI staff is also responsible for the control of ISFSI status during modifications.

C. Requirements

1. Equipment or systems not ready for normal service shall be clearly identified by use of tags.
2. Equipment or system inspection and test status shall be indicated.
3. SSCs that are found to be unacceptable during or after testing shall have their status clearly identified.

XV. CORRECTIVE ACTION

A. General

This section establishes measures to assure that conditions adverse to quality at the ISFSI, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. This includes the control of materials, parts, or components that do not conform to requirements, thereby preventing their inadvertent use or installation.

B. Responsibilities

1. The LACBWR ISFSI staff is responsible for establishing procedures for the identification, review, and correction of conditions adverse to quality which includes the control, evaluation, and disposition of deficient materials, parts, and components.
2. The LACBWR ISFSI staff is responsible for reviewing nonconforming items that cannot be corrected by vendor action and recommending disposition. The LACBWR ISFSI staff is also responsible for preparing procedures for repair and rework of nonconforming items.
3. The LACBWR ISFSI staff is responsible for reviewing conditions adverse to quality to determine the cause of the condition and for recommending corrective action to preclude repetition.
4. The ORC is responsible for reviewing significant conditions adverse to quality and recommending corrective action.

C. Requirements

1. Conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, shall be

reported on a Corrective Action Report (CAR). Materials, parts, or components that do not conform to requirements shall be identified and placed in a hold status. Nonconforming items shall remain in a segregated area until approved disposition has been determined.

2. The CAR shall identify the condition, the cause of the condition, and the corrective action taken.
3. For vendor-supplied items or services, the vendor shall be notified of all nonconforming items and requested to correct the deficiencies. LACBWR ISFSI staff with assistance from Purchasing shall be responsible for coordinating the disposition of deficient items with vendors. QA personnel are responsible for inspecting and accepting or rejecting items that have been corrected by vendors.
4. Deficiencies which cannot be corrected by the vendor shall be reviewed by the LACBWR ISFSI staff who will recommend repair, rework, accept, or reject. Items shall be repaired or reworked only in accordance with approved procedures and shall be re-inspected after repair by QA personnel. LACBWR ISFSI staff shall ensure that documented and approved procedures are available prior to repair or rework.
5. Items which are accepted for use with a known deficiency shall be fully documented with the specification requirement, justification for acceptance, and effect of such use. All such items shall be approved by the Plant/ISFSI Supervisor prior to use.
6. Conditions adverse to quality which involve design deficiencies, or recommended corrective actions that involve a design change, shall be reviewed by LACBWR ISFSI staff or applicable Design Authority.

## **XVI. QUALITY ASSURANCE RECORDS**

### **A. General**

This section establishes measures for maintaining ISFSI records which cover all documents and records associated with the operation, maintenance, installation, repair, and modification of SSCs covered by the QAPD. Also included are historical records gathered and collected during plant and ISFSI operations which are either required to support the dry cask storage systems stored at the ISFSI or ultimate shipment to a federal repository.

### **B. Responsibilities**

1. The LACBWR ISFSI staff is responsible for establishing the requirements of this section.
2. The Site Manager, Genoa is responsible for approving and ensuring implementation of procedures for this section.

### **C. Storage Requirements**

1. Originals of special process records are stored in a fire-retardant area

designed to accommodate such records.

2. On-site storage facility is constructed in such a manner as to safeguard the contents from fire, extreme temperature, and moisture variations.
3. Entry to the record storage areas is controlled, and only authorized personnel are permitted access.
4. Storage requirements shall meet ANSI N45.2.9, "Requirements for Collection, Storage, and Maintenance of Quality Assurance Records."

**D. System Requirements**

1. A system shall be established to identify all documents that must be kept permanently (lifetime records). An index of non-permanent records shall be established.
2. An approved document listing will be reviewed on a regular basis to verify that the record file contains the latest revisions of all required documents.
3. A system will be established to control the issuance and return of all records.

**E. Record Retention**

In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

1. The following records shall be retained for at least five years:
  - a. Records and logs of ISFSI operation.
  - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
  - c. All Reportable Events submitted to the Commission.
  - d. Records of surveillance activities, inspections, and calibrations required by the NAC-MPC CoC and FSAR.
  - e. Records of changes made to the procedures required by the NAC-MPC CoC and FSAR.
  - f. Record of changes made to programs and procedures required by Appendix C.
  - g. Records of radioactive shipments.
  - h. Records of sealed source and fission detector leak tests and results.

- i. Records of annual physical inventory of all sealed source material of record.
  - j. QA Audits.
2. The following records shall be retained for the duration of the LACBWR license:
- a. Facility design modification packages and work order packages.
  - b. Records of new and irradiated fuel inventory, fuel transfers and assembly burn-up histories.
  - c. Records of radiation exposure for all individuals entering radiation control areas.
  - d. Records of facility radiation and contamination surveys.
  - e. Records of gaseous and liquid radioactive material released to the environs, and records of analyses required by the Radiological Environmental Monitoring Program.
  - f. Records of training and qualification for current members of the facility staff.
  - g. Records of in-service inspections performed pursuant to Technical Specifications.
  - h. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59 and 10 CFR 72.48.
  - i. Records of meetings of the ORC and the SRC.
  - j. Records of decommissioning and/or dismantlement of the facility.
  - k. Records of reviews performed for changes to the Offsite Dose Calculation Manual and the Process Control Program.
  - l. Records of the test results obtained in welding procedures and welder performance qualifications and a listing of qualified personnel and procedures.
  - m. Records of training, test results, and a listing of qualified personnel.

## **XVII. AUDITS**

### **A. General**

This section establishes the requirements for a system of planned and documented audits to verify compliance with all aspects of the QA program and to assess the effectiveness of the program as it applies to the ISFSI. The system provides for the reporting and review of audit results by appropriate levels of supervision and management.

**B. Responsibilities**

1. QA personnel are responsible for developing audit checklists, designating and training audit personnel, and conducting audits.
2. The SRC performs independent review and audit to verify that the ISFSI is being maintained consistent with company safety, administrative, and licensing provisions. The evaluations of ISFSI activities shall be performed by QA personnel or a qualified offsite entity under the cognizance of the SRC.

**C. Requirements**

Implementing procedure(s) for the internal audit/survey program shall include controls to ensure that the following are met:

1. Audits shall be performed in accordance with written procedures or checklists by appropriately trained personnel having no direct responsibilities in the area audited. Deficiencies from previous audits shall be reviewed and re-audited, as appropriate. The checklists are used as guides to the auditor.
2. Audits may be conducted by QA personnel or other qualified personnel, such as technical specialists from other company departments and outside consultants.
3. Audit and surveillance results shall be documented and reviewed with supervision responsible for the area audited, who shall take necessary action to correct reported deficiencies. Follow-up action, including re-audit/re-survey of deficient areas, is initiated as deemed appropriate.
4. QA personnel shall assess the following:
  - a. evaluation of quality assurance practices, procedures, and instructions;
  - b. effectiveness of implementation; and
  - c. conformance with approved procedures.
5. Audit schedules assure that the following areas are audited at the indicated frequencies or more frequently as performance dictates.
  - a. The conformance of ISFSI operation to provisions contained within the NAC-MPC CoC Technical Specifications and applicable license conditions is audited at least once every 24 months. The audit shall include elements such as:
    - Training and qualifications of the staff.
    - Actions taken to correct deficiencies occurring with equipment, structure, systems, or method of operation that affect nuclear safety.
    - Performance of activities required by the QA program to

meet the criteria of 10 CFR 50, Appendix B, 10 CFR 71, Subpart H and 10 CFR 72, Subpart G.

- Implementation of the programs required by Appendix C, 1.0 through 2.5.
  - b. Other activities/documents as requested by the President and CEO or SRC.
7. Deficiencies or nonconformances identified during an audit shall be documented and brought to the attention of the Site Manager, Genoa and the Plant/ISFSI Supervisor. Follow-up shall be performed to verify that corrective actions have been taken to correct the deficiencies or nonconformances.
  8. Audit reports are sent to DPC management for their review and assessment of the QA program.
  9. Audit reports shall be forwarded to the President and CEO, and to the management positions responsible for the areas audited, within 30 days after completion of the audit.
  10. External audits or surveys of suppliers providing Important To Safety materials, parts, equipment or services are performed at the indicated frequency or more frequently as performance dictates.
  11. Suppliers providing commercial grade calibration services who are accredited by a nationally recognized accrediting body, using procedures consistent with those found in ANSI/ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories", do not have to be periodically surveyed if the conditions of the NRC Safety Evaluation dated September 28, 2005 are met (see Appendix B). Controls shall be established in applicable procedures to ensure the requirements of the NRC Safety Evaluation are satisfied.

#### **XVIII. OPERATIONS REVIEW COMMITTEE**

##### **A. General**

This section establishes the requirements for the Operations Review Committee (ORC) for ISFSI activities which shall consist of thorough reviews conducted by qualified independent safety reviewers. Persons performing these reviews shall be knowledgeable in the subject area being reviewed. Independent safety reviews must be completed prior to implementation of the proposed activity requiring the review.

##### **B. Responsibilities**

ORC members shall be individuals without direct responsibility for the performance of the activities under review. These reviewers may be from the same functionally cognizant organization as the individual or group performing the original work.

##### **C. Requirements**

The following subjects shall be independently reviewed by a qualified ORC member:

1. Review of proposed changes to the LACBWR Technical Specifications, and review of those changes submitted to LACBWR by the Certificate Holder for the NAC-MPC System for implementation consideration.
2. Review of proposed tests and experiments not described in the NAC-MPC FSAR.
3. Review of proposed changes or modifications to the ISFSI site, ISFSI SSCs, or equipment that affect nuclear safety.
4. Review of all procedures and programs required by Appendix C and changes thereto that require an evaluation in accordance with 10 CFR 72.48.
5. Render determination in writing to the Site Manager, Genoa if any items considered under 1 through 4 above, as appropriate and as provided for in 10 CFR 50.90 or 10 CFR 72.48 as requiring prior NRC approval.

**APPENDIX A**  
(Page 1 of 2)

**IMPORTANT TO SAFETY STRUCTURES, SYSTEMS AND COMPONENTS**

The pertinent quality assurance requirements of 10 CFR 50, Appendix B, 10 CFR 71 Subpart H and 10 CFR 72 Subpart G will be applied, as a minimum, to all quality activities affecting the Important To Safety (ITS) Structures, Systems and Components (SSCs) associated with spent fuel storage and transportation package.

**NOTE**

*The safety classification of SSCs of the LACBWR ISFSI facility may be revised based on engineering evaluations and a revision to the NAC-MPC FSAR. These modifications are controlled in accordance with the Design Control process and are not considered a reduction in the commitments to the QAPD.*

*The quality classification of NRC-licensed Dry Spent Fuel Storage Components and Transportation Packages may not be revised using the LACBWR Design Control process. These modifications must be made by the Certificate Holder. The Certificate Holder is responsible for design and licensing controls for these components under their NRC-approved Quality Assurance Program. DPC utilizes these types of components and packages under the provisions of a NRC General License for Radioactive Material Transportation Packages (10 CFR 71) and Spent Fuel Storage (10 CFR 72).*

Items and services associated with Packaging and Transportation of Radioactive Material as described in 10 CFR 71, and Independent Storage of Spent Nuclear Fuel as described in 10 CFR 72, will also fall under the requirements of the QAPD.

ITS SSCs associated with spent fuel storage and radioactive material transportation packages are defined below:

**IMPORTANT TO SAFETY AS DEFINED BY 10 CFR 71 AND 10 CFR 72**

**A. Dry Spent Fuel Storage (10 CFR 72)**

SSC	Quality Category	Design/License Responsible
Transportable Storage Canister and Fuel Basket Assembly	A	NAC Intl.
Vertical Concrete Cask	B	NAC Intl.
Transfer Cask and Adapter Plate	B	NAC Intl.
ISFSI Pad	C	LACBWR
Lifting Yoke	B	NAC Intl.
Damaged Fuel Can	A	NAC Intl.



**APPENDIX A**  
(Page 2 of 2)

**IMPORTANT TO SAFETY STRUCTURES, SYSTEMS AND COMPONENTS**

**B. Transport of Spent Fuel and GTCC Waste (10 CFR 71)**

SSC	Quality Category	Design/License Responsible
Transportable Storage Canisters and Fuel Basket Assembly	A	NAC Intl.
Damaged Fuel Can	A	NAC Intl.
Transportable Storage Canister and Basket Assembly For GTCC Waste Containers	A	NAC Intl.
Storage Transport Cask (STC)	A	NAC Intl.

**C. Radioactive Material Transport Packages (10 CFR 71)**

Radioactive Material Transport Packages subject to the provisions of 10 CFR 71, Subpart C, "General Licenses," are Important To Safety and subject to the applicable requirements of the QAPD.

**NOTES:**

1. See NAC-MPC Final Safety Analysis Report for additional classification information.
2. See NAC Storage Transport Cask (STC) Final Safety Analysis Report and associated NAC specifications for additional classification information.
3. For the definition of Quality Categories A, B, and C refer to NUREG/CR-6407.

## **APPENDIX B**

### **REGULATORY COMMITMENTS, ALTERNATIVES AND EXCEPTIONS**

#### **1.0 REGULATORY COMMITMENTS**

- 1.1 Regulatory Guide 1.8, 1-R-5/77, Personnel Selection and Training, Endorses ANSI N18.1-1971.
- 1.2 Regulatory Guide 7.10, Revision 2 (3/05), "Establishing Quality Assurance Programs for Packaging Used in the Transportation of Radioactive Material."
- 1.3 NUREG/CR-6407, "Classification of Transportation Packaging and Dry Fuel Storage System Components According to Important to Safety (2/96)."

#### **2.0 ALTERNATIVES**

- 2.1 Letter from NRC to Arizona Public Service Company titled "Palo Verde Nuclear Generating Station, Units 1, 2 and 3 – Approval of Change to Quality Assurance Program (Commercial-Grade Calibration Services) TAC Nos. MC4402, MC4403, and MC4404" and associated NRC Safety Evaluation dated September 28, 2005.

#### **3.0 EXCEPTIONS**

None

### **ADMINISTRATIVE CONTROLS**

These Administrative Controls were developed to support operation of the LACBWR plant while in SAFSTOR (dismantlement). These requirements were previously included in the Technical Specifications and were relocated to this QAPD during active decommissioning. These requirements are also being maintained to support Passive SAFSTOR decommissioning activities and will also be required when decommissioning of the LACBWR plant reconvenes in the future. The remaining Administrative Controls will only be applicable to the LACBWR ISFSI.

#### **1.0 PROCEDURES**

- 1.1 Written procedures shall be established, implemented, and maintained covering the activities referenced below:
  - 1.1.1 ISFSI operations and maintenance.
  - 1.1.2 All programs specified in Section 2 of this Appendix.
  - 1.1.3 Fire Protection Program implementation.
  - 1.1.4 Radiation Protection Program implementation.
  - 1.1.5 Physical Security Plan implementation.
  - 1.1.6 Emergency Plan implementation.
  - 1.1.7 Procedure for controlling temporary changes.
- 1.2 Each procedure required by Section 1.1 above and programs listed in Section 2.1 through 2.5, and any changes thereto, shall be independently reviewed in accordance with Section XVIII and approved by the designated manager (i.e., Plant/ISFSI Supervisor) or designee prior to implementation.

#### **2.0 PROGRAMS AND MANUALS**

##### **2.1 Process Control Program (PCP)**

The PCP shall be maintained on-site and will be available for NRC review. Licensee-initiated changes to the PCP shall be submitted to the NRC in the annual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:

- 2.1.1 Information to support the rationale for the change;
- 2.1.2 A determination that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and
- 2.1.3 Documentation of the fact that the change has been reviewed and found acceptable by the ORC.

**ADMINISTRATIVE CONTROLS**

**2.2 Offsite Dose Calculation Manual (ODCM)**

The ODCM shall be maintained by the licensee. Changes to the ODCM will be outlined in the annual Radioactive Effluent Release Report per Section 2.5.2. This submittal shall contain:

- 2.2.1 Detailed information to support the rationale for the change. Information submitted should consist of a package of those pages of the ODCM changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s); and
- 2.2.2 A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations.

**2.3 Radioactive Effluent Controls Program**

A program shall be provided conforming to 10 CFR 50.36a for control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by health physics procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 2.3.1 Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation, including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;
- 2.3.2 Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas conforming to 10 CFR 20, Appendix B, Table 2, and Column 2;
- 2.3.3 Monitoring, sampling and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20 and with the methodology and parameters described in the ODCM.
- 2.3.4 Limitations on the annual and quarterly doses or dose commitment to a member of the public from radioactive materials in liquid effluents released to unrestricted areas conforming to 10 CFR Part 50, Appendix I;
- 2.3.5 Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every year;

**ADMINISTRATIVE CONTROLS**

- 2.3.6 Limitations on the annual and quarterly doses to a member of the public from tritium and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released to areas beyond the site boundary conforming to 10 CFR 50, Appendix I;
- 2.3.7 Limitations on the annual dose or dose commitment to any member of the public due to release of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

**2.4 Radiological Environmental Monitoring Program**

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide representative measurements of radioactivity in the highest potential exposure pathways. The program shall (1) be contained in the ODCM; (2) conform to the guidance of 10 CFR 50, Appendix I; and (3) include the following:

- 2.4.1 Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters described in the ODCM.
- 2.4.2 Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive material in the environmental sample matrices are performed as part of the Quality Assurance Program for environmental monitoring.

**2.5 Reporting Requirements**

In addition to applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted prior to March 1 of each year in accordance with 10 CFR 50.4.

**2.5.1 Annual Radiological Environmental Monitoring Report**

An Annual Radiological Environmental Monitoring Report which shall include summarized and tabulated results, including interpretations and analysis of data trends, of environmental samples taken during the previous calendar year. In the event that some results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

**ADMINISTRATIVE CONTROLS**

The report shall also include the following: a summary description of the Radiological Environmental Monitoring Program; a map of all sampling locations keyed to a table giving distances and directions from the plant; the results of the Interlaboratory Comparison Program; and a discussion of all analyses in which the lower limit of detection (LLD) was not achievable.

**2.5.2 Annual Radioactive Effluent Release Report**

Paragraph (a)(2) of 10 CFR 50.36a, "Technical Specifications on Effluents from Nuclear Power Reactors," requires that a report be made to the Commission annually. The report shall specify the quantity of each of the principal radionuclides released to unrestricted areas by liquid or gaseous effluents during the previous year. With the exception of the collection of hourly meteorological data, the information submitted shall be in accordance with Appendix B of Regulatory Guide 1.21 (Revision 1) dated June 1974 with data summarized on at least a quarterly basis.

This same report shall include an assessment, performed in accordance with the ODCM, of radiation doses to members of the public from radioactive liquid and gaseous effluents released beyond the effluent release boundary. This report shall contain any changes made to the ODCM during the previous twelve months.

**TABLE 1**  
**REGULATORY COMPARISON MATRIX**

LACBWR QUALITY ASSURANCE PROGRAM (SECTION)	REGULATORY GUIDE 7.10		
	IMPLEMENTING PROCEDURES	REGULATORY GUIDE 7.10 (SECTION)	10 CFR 50 APPENDIX B (SECTION)
0.0 INTRODUCTION			
I. ORGANIZATION	ACP-03.01	1.1, 1.2	I
II. QUALITY ASSURANCE PROGRAM	ACP-03.01, ACP-07.01	2.1, 2.2, 2.3, 2.4, 2.5	II
III. DESIGN CONTROL AND REVIEW	ACP-03.03, ACP-04.01, ACP-07.03	3.1, 3.2, 3.3	III
IV. PROCUREMENT DOCUMENT CONTROL	ACP-05.01	4.1, 4.2, 4.3	IV, V, VI
V. INSTRUCTIONS, PROCEDURES, AND DRAWINGS	ACP-07.01, ECP-02	5.1, 5.2	V
VI. DOCUMENT CONTROL	ACP-07.01, ECP-02	6.1, 6.2, 6.3, 6.4	VI
VII. CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES	ACP-05.0, ACP-11.01	7.1, 7.2, 7.3, 7.4	VII, VIII
VIII. IDENTIFICATION AND CONTROL OF MATERIALS, PARTS, & COMPONENTS	ACP-09.01	8	VIII
IX. CONTROL OF SPECIAL PROCESSES	ACP-10.01	9	IX
X. INSPECTION	ACP-11.01	10.1, 10.2	X
XI. TEST CONTROL	ACP-12.01	11.1, 11.2, 11.3, 11.4, 11.5	XI
XII. CONTROL OF MEASURING AND TEST EQUIPMENT	ACP-13.01	12.1, 12.2	XII
XIII. HANDLING, STORAGE, & SHIPPING	ACP-05.01	13.1, 13.2	XIII
XIV. INSPECTION, TEST AND OPERATING STATUS	ACP-11.01, ACP-12.01, ACP-15.04	14	XIV
XV. CORRECTIVE ACTION PROGRAM	ACP-16.0, ACP-17.02, ACP-17.04	15, 16.1, 16.2	XV, XVI
XVI. QUALITY ASSURANCE RECORDS	ACP-18.01	17.1, 17.2, 17.3, 17.4, 17.5	XVII
XVII. AUDITS	ACP-03.01	18.1, 18.2, 18.3, 18.4, 18.5, 18.6, 18.7	XVIII
XVIII. OPERATIONS REVIEW COMMITTEE	ACP-02.13	N/A	N/A

**FIGURE 1**  
**LACBWR FACILITY ORGANIZATION**

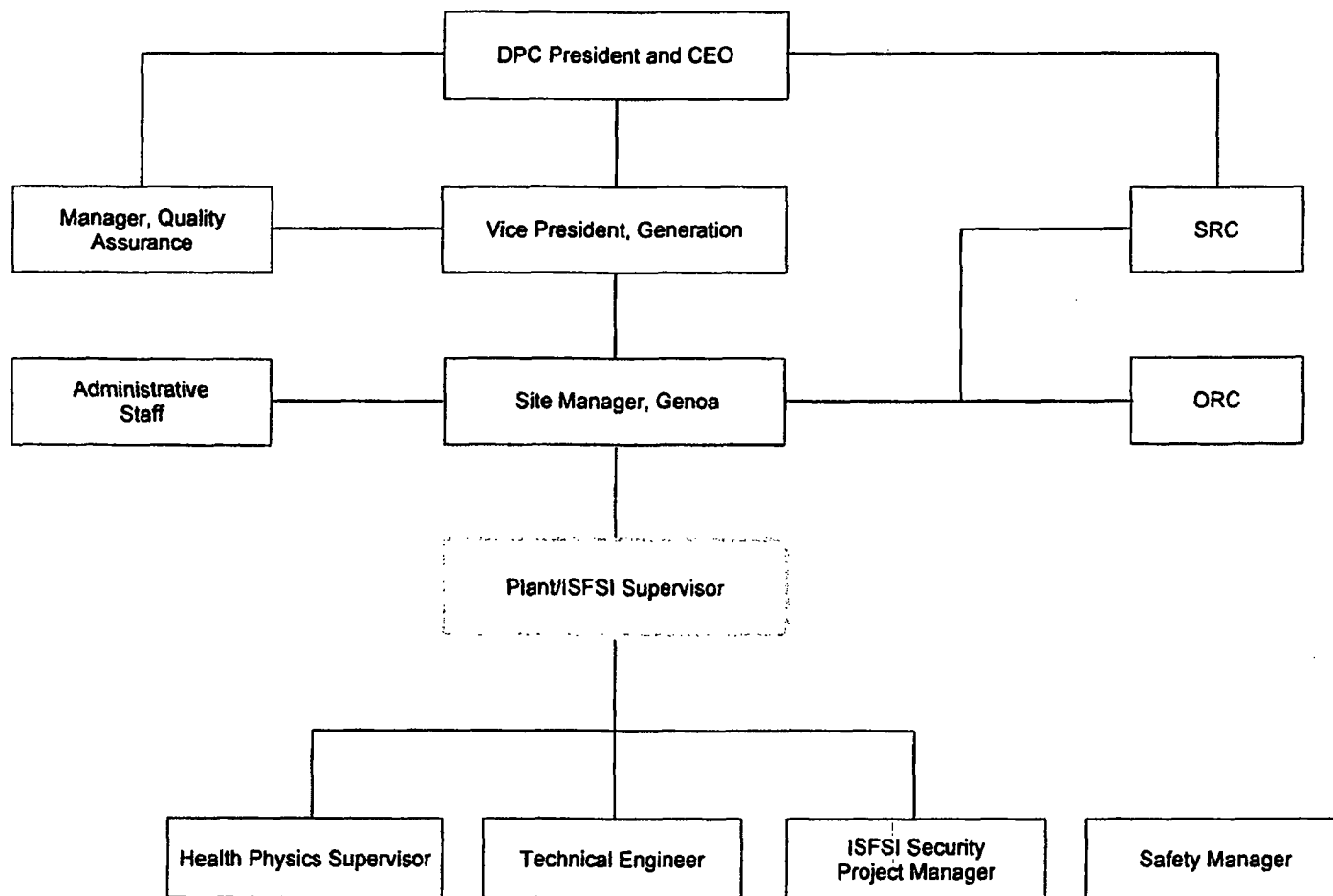




FIGURE 2

DAIRYLAND POWER COOPERATIVE MANAGEMENT ORGANIZATION

