



Portland General Electric Company
Trojan Nuclear Plant
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January 21, 2005

VPN-001-2005

Trojan ISFSI
Docket No. 72-017
License No. SNM-2509

ATTN: Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Revision to PGE-8010, "Trojan Nuclear Quality Assurance Program," to
Reflect Termination of the Trojan Nuclear Plant License Issued Under 10 CFR 50

Pursuant to 10 CFR 72.140(b) and (c) and 10 CFR 71.101(b) and (c), this letter submits for Nuclear Regulatory Commission (NRC) approval proposed Revision 28 to PGE-8010, "Portland General Electric (PGE) Nuclear Quality Assurance [QA] Program For Trojan Independent Spent Fuel Storage Installation (10 CFR 72) Operations And Radioactive Material Packaging And Transportation (10 CFR 71) Activities" (Trojan Nuclear QA Program). This letter also requests an associated revision to PGE QA Program Approval for Radioactive Material Packages No. 0327, Docket No. 71-0327, to reflect NRC approval of the proposed Revision 28 to the Trojan Nuclear QA Program enclosed with this letter. The current PGE QA Program Approval for Radioactive Material Packages No. 0327 is Revision 14, which expires April 30, 2009.

The primary reason for the changes incorporated into the proposed Revision 28 to the Trojan Nuclear QA Program is to reflect the upcoming termination of the Trojan Nuclear Plant license issued and maintained pursuant to 10 CFR 50. Specifically, as a 10 CFR 50 licensee and operator of the Trojan Nuclear Plant, PGE maintains a Trojan Nuclear QA Program that is previously approved by the NRC as satisfying the requirements of 10 CFR 50, Appendix B. Pursuant to 10 CFR 72.140(d), PGE applies this NRC-approved program to Trojan ISFSI and spent fuel storage cask activities, thus satisfying the 10 CFR 72, Subpart G, QA Program

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requirements for ISFSI and storage cask activities as specified in 10 CFR 72.140(b).¹ Similarly, pursuant to 10 CFR 71.101(f), PGE applies this NRC-approved program to Trojan radioactive material package transportation activities, thus satisfying the applicable 10 CFR 71, Subpart H, QA Program requirements for radioactive material transportation packages as specified in 10 CFR 71.101(b).²

Following termination of the Trojan Nuclear Plant 10 CFR 50 license, the regulatory requirements of 10 CFR 50, Appendix B, applicable to applicants for and holders of licenses issued under 10 CFR 50, will no longer apply to PGE. Therefore, in preparation for Trojan Nuclear Plant license termination, PGE has prepared Revision 28 to the Trojan Nuclear QA Program that eliminates the portions of the program specifically related to Trojan Nuclear Plant 10 CFR 50 activities and that specifically refer to 10 CFR 50, Appendix B. Additional changes are incorporated into the proposed Revision 28 to eliminate requirements that no longer are appropriate given the limited activities that will be conducted by PGE staff at the Trojan ISFSI during the spent fuel storage period. Following the implementation of these and other administrative and/or editorial clarifications detailed further in the enclosures to this letter, the Trojan Nuclear QA Program will become a "standalone" program governing quality-related activities under the purview of 10 CFR 72, Subpart G, and 10 CFR 71, Subpart H.

Enclosure I to this letter provides a redline version of the proposed Revision 28 to the Trojan Nuclear QA Program, PGE-8010, with strikethroughs, insertions, and sidebars annotated. Enclosure II to this letter provides a clean version of the proposed Revision 28 with sidebars annotated. A detailed description of and reason and justification for each change incorporated into proposed Revision 28 of the Trojan Nuclear QA Program is provided as Enclosure III to this letter.

As detailed above, the primary reason for the changes incorporated into the proposed Revision 28 to the Trojan Nuclear QA Program is to reflect the upcoming termination of the Trojan Nuclear Plant license issued and maintained pursuant to 10 CFR 50. As such, this revision and the associated revision of QA Program Approval for Radioactive Material Packages No. 0327 cannot be made effective prior to termination of the Trojan Nuclear Plant 10 CFR 50 license. PGE anticipates receipt of NRC approval for Trojan Nuclear Plant license termination on or about

¹ By PGE Letter No. VPN-054-95 dated October 9, 1995, PGE notified the NRC of its intent to apply its 10 CFR 50, Appendix B, QA program to Trojan ISFSI activities. In a March 31, 1999, Safety Evaluation Report (SER) documenting the NRC's review and approval of the Trojan ISFSI license application and accompanying issuance of Trojan ISFSI License No. SNM-2509, the NRC concluded that "[g]iven the existing...[Trojan Nuclear] QA program that satisfies Appendix B to 10 CFR Part 50 and PGE's stated intent to apply that program to the ISFSI, ...PGE has met the conditions of 10 CFR 72.140(d) and, therefore, satisfies the requirements of 10 CFR 72.140(b)."

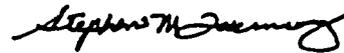
² The NRC has approved the application of PGE's 10 CFR 50, Appendix B, Trojan Nuclear QA Program to the procurement, maintenance, repair, and use of radioactive material transportation packagings, as documented in QA Program Approval for Radioactive Material Packages No. 0327, currently Revision No. 14. Other activities (i.e., design, fabrication, assembly, testing, and modification) are not conducted under the current QA Program Approval, but rather are satisfied by obtaining certifications from packaging suppliers that these activities are conducted in accordance with an NRC-approved QA Program.

March 31, 2005. Therefore, PGE requests that the NRC approve the enclosed proposed Revision 28 to the Trojan Nuclear QA Program and issue the associated revision to the PGE QA Program Approval for Radioactive Material Packages No. 0327 on or before March 31, 2005, to be made effective concurrently with the termination of the Trojan Nuclear Plant 10 CFR 50 license.

Upon receipt of the NRC approvals requested in this letter and concurrent with Trojan Nuclear Plant license termination, PGE will issue the approved Trojan Nuclear QA Program, Revision 28, concurrently with necessary revisions to other Trojan ISFSI licensing basis documents and procedures. These licensing document and procedure revisions will be performed pursuant to 10 CFR 72.48 to ensure effective implementation of the approved program. In the event that PGE-8010 is revised pursuant to 10 CFR 50.54(a) prior to the enclosed Revision 28 being made effective, editorial and/or administrative changes will be made to the enclosed PGE-8010 Revision 28 as necessary to reflect the next sequential revision number and to incorporate changes made effective since Revision 27.

If there are any questions regarding this letter, please contact Mr. Jerry D. Reid of my staff at (503) 556-6474.

Sincerely,



Stephen M. Quennoz
Vice President, Generation

Enclosures (3)

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ENCLOSURE I TO VPN-001-2005

PROPOSED REVISION 28 TO PGE-8010,
“PORTLAND GENERAL ELECTRIC (PGE) NUCLEAR QUALITY ASSURANCE
PROGRAM FOR TROJAN INDEPENDENT SPENT FUEL STORAGE INSTALLATION
(10 CFR 72) OPERATIONS AND RADIOACTIVE MATERIAL PACKAGING AND
TRANSPORTATION (10 CFR 71) ACTIVITIES”

(Redline Version with Strikethroughs, Insertions, and Sidebars Annotated)

PGE-8010

PORTLAND GENERAL ELECTRIC (PGE)
NUCLEAR QUALITY ASSURANCE PROGRAM
FOR
TROJAN ~~NUCLEAR PLANT~~ INDEPENDENT SPENT FUEL STORAGE INSTALLATION
(10 CFR 72) OPERATIONS AND RADIOACTIVE MATERIAL PACKAGING AND
TRANSPORTATION (10 CFR 71) ACTIVITIES

Revision 2728

Portland General Electric Company
121 SW Salmon Street
Portland, Oregon 97204

PGE NUCLEAR QUALITY ASSURANCE PROGRAM
FOR
~~TROJAN NUCLEAR PLANT~~INDEPENDENT SPENT FUEL STORAGE INSTALLATION
(10 CFR 72) OPERATIONS AND RADIOACTIVE MATERIAL PACKAGING AND
TRANSPORTATION (10 CFR 71) ACTIVITIES

Approval: _____ Date _____
ISRC Member Responsible for
Managing Nuclear Oversight Resources
~~_____~~ ~~Manager, Nuclear Oversight~~ ~~_____~~ Date

Approval: _____ Date _____
~~Trojan Site~~Corporate Executive
Responsible for Trojan

Portland General Electric Company
121 SW Salmon Street
Portland, Oregon 97204

TABLE OF CONTENTS

	<u>Page</u>
TITLE PAGE	i
APPROVAL PAGE	ii
TABLE OF CONTENTS	iii
POLICY STATEMENT LIST OF EFFECTIVE PAGES	iv
LIST OF EFFECTIVE PAGES POLICY STATEMENT	v
 PROGRAM	
1.0 ORGANIZATION	1-1 - 1-5
2.0 QUALITY ASSURANCE PROGRAM	2-1 - 2-2
3.0 DESIGN CONTROL	3-1—3-2
4.0 PROCUREMENT DOCUMENT CONTROL	4-1
5.0 INSTRUCTIONS, PROCEDURES, AND DRAWINGS.....	5-1
6.0 DOCUMENT CONTROL	6-1—6-2
7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES.....	7-1 - 7-2
8.0 IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS	8-1
9.0 CONTROL OF SPECIAL PROCESSES	9-1
10.0 INSPECTION	10-1
11.0 TEST CONTROL	11-1
12.0 CONTROL OF MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION.....	12-1—12-2
13.0 HANDLING, STORAGE, AND SHIPPING.....	13-1
14.0 INSPECTION, TEST, AND OPERATING STATUS	14-1
15.0 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS	15-1—15-2
16.0 CORRECTIVE ACTION	16-1
17.0 QUALITY ASSURANCE RECORDS.....	17-1
18.0 AUDITS.....	18-1
 APPENDIX A - QUALITY ASSURANCE AND ADMINISTRATIVE	 A-1 - A-4
CONTROLS FOR PACKAGING RADIOACTIVE MATERIAL FOR TRANSPORT	

~~APPENDIX B — QUALITY ASSURANCE AND ADMINISTRATIVE B-1 — B-3~~
~~CONTROLS FOR THE INDEPENDENT SPENT FUEL~~
~~STORAGE INSTALLATION (ISFSI)~~

~~APPENDIX C — ADDITIONAL ADMINISTRATIVE CONTROLS FOR~~
~~—— TROJAN NUCLEAR PLANT 10 CFR 50 LICENSED ACTIVITIES C-1 — C-10~~

GLOSSARY G1-1 – G1-4

PGE
NUCLEAR QUALITY ASSURANCE PROGRAM

List of Effective Pages

<u>Page</u>	<u>Revision</u>
i (title page)	28
ii	28
iii	28
iv	28
v	28
1-1 through 1-5	28
2-1 and 2-2	28
3-1	28
4-1	28
5-1	28
6-1	28
7-1 and 7-2	28
8-1	28
9-1	28
10-1	28
11-1	28
12-1	28
13-1	28
14-1	28
15-1	28
16-1	28
17-1	28
18-1	28
G1-1 through G1-4	28

PORTLAND GENERAL ELECTRIC COMPANY
NUCLEAR QUALITY ASSURANCE PROGRAM

POLICY STATEMENT

Portland General Electric Company implements a Quality Assurance (QA) Program which directs quality-related activities at the Trojan Nuclear Plant/Independent Spent Fuel Storage Installation (ISFSI).

This QA Program complies with *and applies to Important-to-Safety activities conducted under Title 10, Code of Federal Regulations, Part 5072, Appendix B Subpart G, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants/Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste."* These activities include managerial and administrative controls used to ensure safe operation of the ISFSI.

~~In addition to 10 CFR 50 activities,~~ This QA Program *also complies with and applies to Important-to-Safety activities covered by conducted under 10 CFR 71, Subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material," and 10 CFR 72, Subpart G, "Quality Assurance for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste."*

The approval of this document commits the Portland General Electric Company to the requirements of the QA Program described herein and its successful implementation. Portland General Electric Company personnel who perform quality-related *and/or Important-to-Safety* functions are responsible for complying with the requirements of this QA Program.

Changes to the QA Program must be ~~documented and approved by the Nuclear Regulatory Commission Manager, Nuclear Oversight,~~ *the ISFSI Safety Review Committee member assigned the management oversight function for Nuclear Oversight resources, and the Trojan Site Corporate Executive Responsible for Trojan prior to implementation.*

Trojan Site Corporate Executive
Responsible for Trojan
Portland General Electric Company

(Date)

PGE
NUCLEAR QUALITY ASSURANCE PROGRAM

List of Effective Pages

<u>Page</u>	<u>Revision</u>
i (title page)	27
ii	27
iii	26
iv	27
v	27
1-1 through 1-3	27
1-4	25
1-5	27
2-1 and 2-2	26
3-1 and 3-2	16
4-1	21
5-1	16
6-1 and 6-2	16
7-1	26
8-1	16
9-1	16
10-1	16
11-1	16
12-1	25
12-2	16
13-1	16
14-1	16
15-1 and 15-2	16
16-1	16
17-1	16
18-1	26
A-1	16
A-2	25
A-3	23
A-4	26

B-1	19
B-2	25
B-3	26
C-1 through C-10	26
G1-1	21
G1-2	16
G1-3 and G1-4	26

1.0 ORGANIZATION

1.1 PURPOSE/INTRODUCTION

The Portland General Electric Company (PGE or Company), as a licensee under the purview of 10 CFR 72 and 10 CFR 71, is responsible for the establishment and execution of this Nuclear Quality Assurance Program (hereafter referred to as the QA Program) for activities conducted in support of the Trojan Independent Spent Fuel Storage Installation (ISFSI) that affect the functions of structures, systems, and components (SSCs) that are important to safety. These activities include managerial and administrative controls used to ensure safe operation of the ISFSI, as well as the performance of functions associated with assuring that the QA Program is effectively implemented. ~~executive management is responsible for the safety of the Trojan Nuclear Plant (TNP) and the Trojan Independent Spent Fuel Storage Installation (ISFSI). The Nuclear Quality Assurance Program (hereafter referred to as the QA Program) deals specifically with management of quality-related activities pertaining to the operation, maintenance, design, modification, and decommissioning of the TNP (until the 10 CFR 50 license is terminated) and the design, fabrication, construction, testing, operation, modification, and decommissioning of the ISFSI.~~

Pursuant to 10 CFR 72.142 and 10 CFR 71.103, the purpose of ~~T~~this chapter is to ~~describes~~ delineate the ~~functions,~~ authorities, responsibilities, and interfaces of persons and organizations ~~the PGE management organizations performing activities in support of spent fuel storage and/or radioactive material transport at the Trojan ISFSI that affect the functions of SSCs that are important to safety involved with the TNP and the ISFSI.~~

1.2 ORGANIZATION/ASSIGNMENT OF FUNCTIONAL RESPONSIBILITIES

~~The management organization for control of the TNP and the ISFSI is shown in Figure 1.0-1~~ illustrates the functional authorities, responsibilities, and interfaces of persons and organizations performing activities that are governed by and/or required to effectively implement the QA Program. The functional responsibilities indicated in Figure 1.0-1 are further described below.

1.2.1 TROJAN SITE CORPORATE EXECUTIVE RESPONSIBLE FOR TROJAN

~~The Trojan Site Corporate Executive Responsible for Trojan is the corporate executive with responsibility for nuclear activities and has overall authority and responsibility for nuclear safety at the facility,~~ and is responsible for promulgating PGE's QA policies; maintaining a continuing involvement in QA matters; maintaining management controls for effectively implementing

applicable QA Program elements; and resolution of disputes between organizational elements that may arise related to quality-related activities.

~~The General Manager, Trojan; Manager, Nuclear Oversight; ISFSI Manager; and the ISFSI Safety Review Committee (ISRC) report to the Corporate Executive Responsible for Trojan Site Executive.~~ ISFSI Staff personnel and/or contractors, agents, and/or consultants providing Nuclear Oversight services, including establishing and/or implementing the QA Program, also report directly to the Corporate Executive Responsible for Trojan when conducting (1) audits of ISRC activities; and/or (2) the biennial audit of past QA audits of ISFSI Department (including support personnel) activities that have been performed pursuant to Chapter 18 of this QA Program.

1.2.2 ~~General Manager, Trojan~~

~~The General Manager, Trojan, reports to the Trojan Site Executive and has overall authority and responsibility for radiation protection, decommissioning, decommissioning planning, nuclear regulation, and for execution of this QA Program to ensure safety.~~

~~Managers of Personnel/Radiation Protection, Decommissioning, Decommissioning Planning, and Licensing, report to the General Manager, Trojan.~~

1.2.2 ~~1.2.3~~—ISRC

The ISRC performs review and audit functions as required by the ISFSI Safety Analysis Report, and advises the Corporate Executive Responsible for Trojan on matters relating to the safe storage of spent nuclear fuel. As the ISRC reports directly to the Corporate Executive Responsible for Trojan, ISRC review and audit functions are independent of the ISFSI line organization responsibilities.

~~Additionally~~With the exception of audits of ISRC activities and/or the biennial audit of past QA audits of ISFSI Department activities, which as indicated in Section 1.2.1 are the responsibility of the Corporate Executive Responsible for Trojan, the ISRC is responsible for ~~conducting a biennial audit of the Nuclear Oversight Department~~ensuring the conduct of QA audits of ISFSI Department activities pursuant to Chapter 18 of this QA Program. The ISRC also ensures that the adequacy of QA Program implementation is assessed biennially.

~~The results of the biennial audit of the Nuclear Oversight Department and audits of the ISRC are~~

~~forwarded to the Trojan Site Executive.~~

1.2.3 NUCLEAR OVERSIGHT

Nuclear Oversight services are provided as needed by qualified contractors, agents, and/or consultants. These resources report directly to a designated ISRC Member as detailed below.

1.2.3.1 ISRC Member Responsible for Managing Nuclear Oversight Resources

One ISRC Member reports directly to and is designated by the Corporate Executive Responsible for Trojan as the position having the authority and responsibility for maintaining and implementing the QA Program. This individual directs Nuclear Oversight resources in the overall implementation of the QA Program, including oversight and evaluation of work that is assigned to Nuclear Oversight resources to verify the adequate implementation of the QA Program. The ISRC Member responsible for managing Nuclear Oversight resources, together with the Corporate Executive Responsible for Trojan, is responsible for approving revisions to the QA Program.

Nuclear Oversight resources report directly to this ISRC Member, unless the Nuclear Oversight resources are conducting audit(s) of ISRC activities or are conducting the biennial audit of Nuclear Oversight internal QA audit activities that have been performed pursuant to Chapter 18 of this QA Program. In these instances, the auditing resources report directly to the Corporate Executive Responsible for Trojan. This organizational structure ensures that persons assigned responsibility for assuring effective implementation of any portion of the QA Program (e.g., review and audit functions) have direct access to levels of management, and the required authority and organizational freedom, as necessary to perform required functions.

The ISRC Member responsible for managing Nuclear Oversight resources must be knowledgeable of the QA Program; 10 CFR 72, Subpart G; and 10 CFR 71, Subpart H, and maintain up-to-date knowledge of applicable regulatory guides, codes, and standards related to Trojan ISFSI QA. Qualifications of this individual must include eight years of experience in the field of QA or equivalent number of years of nuclear plant and/or fuel storage facility experience in a supervisory position or a combination of the two. Graduation from a four-year accredited engineering or science college or university may be substituted for four years of this experience. At least one year of this experience shall be nuclear power plant and/or fuel storage facility experience in the implementation of an approved QA Program.

1.2.3.2 ~~1.2.3.1~~ Nuclear Oversight Department Resources

Nuclear Oversight resources include contractors, agents,¹ and/or consultants who are independent of the ISFSI line organization. The primary role of Nuclear Oversight resources is to conduct audits of ISFSI Department activities in accordance with Chapter 18 of this QA Program. These resources may also augment the ISFSI Staff in performance of other QA/QC activities, including the performance of audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities that have been performed pursuant to Chapter 18 of this QA Program; source and receipt inspections, surveys, or audits of contractors and suppliers of quality-related items; QC inspections; and/or procurement document/record reviews.

~~The Nuclear Oversight Department is~~resources are under the management direction of the ISRC Member responsible for managing Nuclear Oversight resources~~Manager, Nuclear Oversight,~~ unless the Nuclear Oversight resources are conducting audit(s) of ISRC activities or are conducting the biennial audit of past QA audits of ISFSI Department activities that have been performed pursuant to Chapter 18 of this QA Program. In these instances, the auditing resources report directly to the Corporate Executive Responsible for Trojan. These auditing resources must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited.

~~The~~With this organizational structure, Nuclear Oversight ~~Department~~-auditing resources are ensured to be independent of the Trojan ISFSI Department ~~other departments~~-representatives performing quality-related activities. As such, Nuclear Oversight resources have the authority and independence to identify quality problems; initiate, recommend, or provide solutions to quality problems through designated channels; and verify implementation of solutions to quality problems.

To control deviations from QA Program requirements, contractors, agents, and/or consultants providing ~~the Nuclear Oversight Department has~~services have the authority and responsibility to initiate stop work orders, as necessary, for any condition adverse to quality that has occurred or is developing.

1.2.3.1.1 ~~Manager, Nuclear Oversight~~

~~The Manager, Nuclear Oversight, together with the Trojan Site Executive, is responsible for approving revisions to the QA Program. The Nuclear Oversight Department has the authority~~

and independence to identify quality problems; initiate, recommend, or provide solutions to quality problems through designated channels; and verify implementation of solutions to quality problems. The Manager, Nuclear Oversight, directs the Nuclear Oversight staff in the implementation of the overall QA Program, including contractor QA involvement.

1.2.3.1.2 Qualification Requirements for the Manager, Nuclear Oversight

The Manager, Nuclear Oversight, must be knowledgeable of the QA Program and 10 CFR 50, Appendix B, and maintain up-to-date knowledge of applicable regulatory guides, codes, and standards related to quality assurance.

The Manager, Nuclear Oversight, must meet the following qualifications:

Eight years of experience in the field of quality assurance or equivalent number of years of nuclear plant experience in a supervisory position or a combination of the two. Graduation from a four-year accredited engineering or science college or university may be substituted for four years of this experience. At least one year of this experience shall be nuclear power plant experience in the implementation of the quality assurance program.

1.2.4 PLANT ISFSI STAFF DEPARTMENT

1.2.4.1 ISFSI Manager

The ISFSI Manager is responsible for the day-to-day implementation of the QA Program. The ISFSI Manager reports directly to the Corporate Executive Responsible for Trojan.

1.2.4.2 ISFSI Staff

The ISFSI Staff reports to the ISFSI Manager. The plant organization described in procedures details the functional areas and responsibilities, qualifications, and training required for ISFSI staff personnel performing quality-related activities are detailed in the Trojan ISFSI SAR and associated implementing procedures. ISFSI Staff personnel shall not be used to perform

¹ Agents may include PGE employees outside the Trojan ISFSI organization.

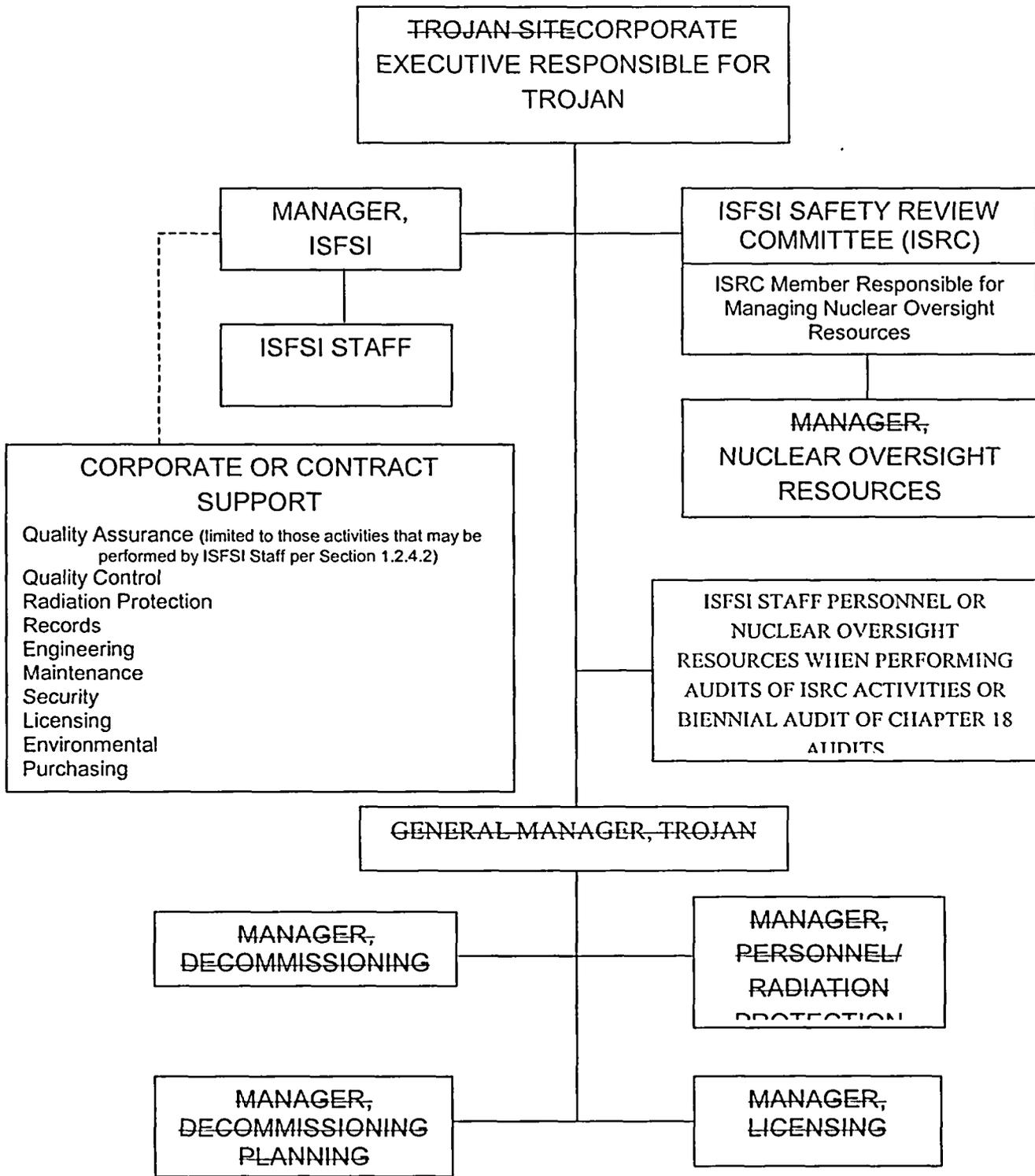
(Chapter 18) audits of ISFSI Department activities. Appropriately trained and qualified ISFSI Staff personnel (which may include corporate and/or contracted support personnel) may perform audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities that have been performed by Nuclear Oversight resources pursuant to Chapter 18 of this QA Program. In the performance of these audits, the ISFSI Staff audit personnel report directly to the Corporate Executive Responsible for Trojan, and must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited. Appropriately trained ISFSI Staff personnel knowledgeable of QA/QC practices and concepts may also perform quality-related receipt inspections; source inspections, surveys, or audits of contractors and suppliers of quality-related items; QC inspections; and/or quality-related procurement document/record and procedure reviews. Individuals performing procurement document/record and/or procedure review activities must be someone other than those that originated the document/record or procedure revision being reviewed. Individuals performing inspection activities must be someone other than those that perform or supervise the performance of the work/activity being inspected.

1.2.5 CORPORATE EXECUTIVES RESPONSIBLE FOR SUPPORT ORGANIZATIONS

Corporate executives with responsibility for nuclear support activities shall assure that their assigned managers implement the QA Program, as applicable.

1.2.5.1 Managers of Nuclear Support Organizations

Managers of nuclear support organizations that perform quality-related activities, such as records control services, are responsible for ensuring that procedures that implement the applicable portions of the QA Program are established, implemented, and maintained.



Trojan ISFSI Management and QA
Program Implementation Functional
Organization

Figure 1.0-1

2.0 QUALITY ASSURANCE PROGRAM

2.1 PURPOSE

Pursuant to 10 CFR 72.144 and 10 CFR 71.105, this chapter describes the QA Program for the TNP and the ISFSI as specified in 10 CFR 72, Subpart G, and for radioactive material packaging and transportation activities as specified in 10 CFR 71, Subpart H. This chapter also defines the applicability of the QA Program including training necessary to assure its proper implementation and effectiveness.

2.2 QUALITY ASSURANCE PROGRAM

2.2.1 GENERAL

~~This QA Program is applicable to quality-related items as defined in the Glossary of this program.~~ The QA Program assures that the QA requirements for the ISFSI as specified in 10 CFR 72 and for radioactive material packaging and transportation activities as specified in 10 CFR 71 are satisfied. With regard to the ISFSI QA Program requirements of 10 CFR 72, the requirements of the QA Program apply to the design, fabrication, construction, testing, operation, modification, and decommissioning of the SSCs of the ISFSI that are important to safety, and to the managerial and administrative controls used to ensure safe operation of the ISFSI. Specific important-to-safety ISFSI SSCs and a detailed listing of quality-related activities are designated in and maintained in accordance with controlled procedure(s). These SSCs and activities governed by this QA Program, collectively referred to as "quality-related" items, are further described as follows:

- ISFSI SSCs classified as important to safety;
- Security Plan Implementing Procedures;
- Radiation Protection Program;
- Packaging radioactive material for transport pursuant to 10 CFR 71;
- Calibration of ISFSI monitoring instruments as specified in the ISFSI SAR; and
- Managerial and administrative controls to ensure safe operation of the ISFSI.

With regard to the QA Program requirements of 10 CFR 71, the requirements of the QA Program apply to the procurement, maintenance, repair, and use of important-to-safety radioactive material packagings for transport as specified in 10 CFR 71. All other 10 CFR 71 activities (i.e., design, fabrication, assembly, testing, and modification of important-to-safety radioactive material packagings) are not performed by PGE, but rather are satisfied by obtaining

certifications from packaging suppliers that these activities are conducted in accordance with an NRC-approved QA Program.

~~As there are no safety-related items and activities remaining at the TNP, the action indicated in the text is applied to remaining quality-related areas, as necessary, to assure an appropriate level of quality, in relation to the complexity of work to be performed, the importance to safety and the environment, and the importance of an item's usage.~~

~~The portions of this 10 CFR 50, Appendix B, QA Program which are applicable to Packaging Radioactive Material for Transport are described in Appendix A and those applicable to the ISFSI are described in Appendix B of this program. The portions of this QA Program which are applicable to the remaining quality-related areas are described in a controlled document.~~

The QA Program provides requirements for obtaining objective evidence that all quality-related components, systems, and structures-SSCs classified as important to safety are in conformance with the design specifications, test specifications, and criteria established for the plant-ISFSI and its components. Controls are established over activities affecting the quality of materials and components as necessary to ensure conformance to the approved design of the ISFSI (pursuant to 10 CFR 72 requirements), and of each individual package used for the transport of radioactive material (pursuant to 10 CFR 71 requirements). QA requirements and procedures are based on the following considerations concerning the complexity and proposed use of ISFSI SSCs, and of the radioactive material transportation package and its components.

- (1) The impact of malfunction or failure of the item on safety;
- (2) The design and fabrication complexity or uniqueness of the item;
- (3) The need for special controls over and QA oversight of processes and equipment;
- (4) The degree to which functional compliance can be demonstrated by inspection or test; and
- (5) The quality history and degree of standardization of the item.

2.2.2 QUALITY-RELATED PROCEDURES

Procedures cover quality-related aspects of administration and control implemented by PGE, including the implementation of QA Program elements applicable to the ISFSI and to the use of packaging for radioactive material transportation pursuant to 10 CFR 71. The procedures document the policies and instructions necessary to fulfill the intent of the QA Program. They also include standard forms, lists, and checkoffs used in documenting the audits, QA surveillances, inspections, certifications, and reviews.

Where appropriate, the procedures assure that activities affecting quality are performed under suitably controlled conditions. Controlled conditions include the use of appropriate equipment, suitable environmental conditions for performing the activity, and adequate cleanliness, handling, and storage to assure that required prerequisites for the given activity have been satisfied.

2.2.3 TRAINING

As detailed further in the Trojan ISFSI SAR, the training program provides for indoctrination and training of personnel performing quality-related activities as necessary to assure that suitable proficiency is achieved and maintained.

3.0 DESIGN CONTROL

3.1 PURPOSE

Pursuant to 10 CFR 72.146, this chapter describes controls to assure that ISFSI design requirements affecting quality-related items are correctly translated into ISFSI design documents. This chapter does not apply to packaging radioactive material for transport, since PGE is not authorized to and does not design 10 CFR 71 radioactive material transportation packages.

3.2 GENERAL

PGE does not perform design work affecting Trojan ISFSI SSCs classified as important to safety. Rather, all quality-related design work, including engineering calculations, design change control, and independent design verification, is performed by a qualified contracted design/engineering company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of this QA Program.

Pursuant to Trojan ISFSI Technical Specification 5.1.1, design changes shall be approved by the ISFSI Manager prior to implementation. Procedural measures are established to assure that proposed design changes received from contracted suppliers are evaluated to determine if a change to the ISFSI license is required, and that appropriate personnel are notified of design modifications that may affect the performance of their duties.

~~The design control functions are defined in written and approved procedures that delineate authority and responsibility of personnel involved in the preparation, review, and approval of design documents. These procedures identify and control design interfaces and coordinate design activities among participating design organizations.~~

~~3.3 DESIGN PROCESS~~

~~Quality standards are included or referenced in design documents. Any exceptions and/or deviations from specified design quality standards are documented and controlled.~~

~~Design documents are based upon the appropriate design bases, safety analysis, design regulations, codes and standards, and licensing documents.~~

~~The materials, parts, equipment, and processes selected and specified by design documents are~~

reviewed to assure that they are suitable for the intended application.

3.4 — DESIGN VERIFICATION

Design control measures shall provide for verifying or checking the adequacy of design.

The verifying or checking process shall be performed by individuals or groups other than those who performed the original design, but who may be from the same organization.

Where a test program is used to verify the adequacy of a specific design feature in lieu of other verifying or checking processes, it shall include suitable qualification testing of a prototype unit under the most adverse design conditions.

3.5 — CHANGE CONTROL

Design changes, including field changes, shall be subject to design control measures commensurate with those applied to the original design and shall be approved by Engineering.

Procedures provide for notification of personnel of design changes and/or modifications which may affect the performance of their duties.

4.0 PROCUREMENT DOCUMENT CONTROL

4.1 PURPOSE

Pursuant to 10 CFR 72.148 and 10 CFR 71.109, this chapter describes the preparation, review, approval, and control of procurement documents pertaining to ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) quality-related items and services to assure the inclusion of applicable quality assurance requirements.

4.2 PROCUREMENT DOCUMENT CONTROL PROGRAM

Applicable procurement requirements for quality-related items and services are specified or referenced in procurement documents. Measures are established to assure that, to the extent necessary, contractors or subcontractors provide a QA Program consistent with the applicable provisions of 10 CFR 72, Subpart G. In addition, measures are established to assure that the applicable requirements of 10 CFR 71 are included or referenced in documents for procurement of radioactive material packaging and/or associated services, and that packages and procedures for use of these packages have been authorized by the NRC and documented in the NRC Certificate of Compliance.

Procurement requisitions and supplements thereto are reviewed for adequacy by independent personnel other than those that originated the requisition and/or supplements, and who are knowledgeable of QA practices and concepts.

Procurement documents are reviewed and approved by the ISFSI manager or his designee.

Approved procurement documents are submitted to the purchasing manager or designee for procurement.

5.0 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

5.1 PURPOSE

Pursuant to 10 CFR 72.150 and 10 CFR 71.111, this chapter describes measures which will assure that activities affecting quality-related items and services associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) are delineated, controlled, implemented, and accomplished through utilization of approved and documented instructions, procedures, or drawings.

5.2 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

Activities affecting quality shall be accomplished in accordance with approved and documented instructions, procedures, or drawings. Instructions and procedures that describe activities affecting quality include the necessary limits and tolerances on material, equipment, processes, and specifications for activities associated with quality-related items and services. Instructions and procedures also prescribe special controls, processes, test equipment, tools and skills to attain the required quality, and requirements for documentation and/or verification of quality by inspection and test. Also included are appropriate qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

6.0 DOCUMENT CONTROL

6.1 PURPOSE

Pursuant to 10 CFR 72.152 and 10 CFR 71.113, this chapter describes methods for review, approval, distribution, and control of documents and changes thereto which affect quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71).

6.2 DOCUMENT CONTROL PROGRAM

Written procedures are available which provide for the preparation, review, and approval of documents requiring control.

These procedures identify the appropriate qualified individuals or groups responsible for determining that appropriate quantitative and qualitative criteria are included in documents describing quality-related activities and for verifying that these criteria have been satisfactorily met. Procedures also require that documents are approved for implementation by appropriate levels of management and changes to the documents are reviewed and approved by the same organizations as the original unless another responsible organization is designated by the governing procedure. Approved changes are included in controlled documents prior to implementation of the change.

Procedures shall ensure that documents are distributed in a timely manner to appropriate locations and are available for use by personnel performing prescribed activities.

Master lists or equivalent document control systems are established to identify the current revision of controlled documents. These lists are available for use by cognizant personnel to preclude the use of superseded documents.

~~Procedures dealing with corrective action shall be reviewed by the Nuclear Oversight Department.~~ Other quality-related procedures, including contractor procedures to be used onsite for quality-related work, are reviewed by personnel other than those that prepared the procedure or procedure revision, and who are knowledgeable of QA practices and concepts.

Temporary changes to quality-related documents may be made and implemented if a procedural method has been established to control the review and approval of the temporary changes.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

7.1 PURPOSE

Pursuant to 10 CFR 72.154 and 10 CFR 71.115, this chapter describes the measures for selection and evaluation of procurement sources for quality-related items and services associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) and for verification activities to assure that specified requirements are met.

7.2 QUALITY ASSURANCE PROGRAM EVALUATION

PGE purchase orders/contracts for quality-related items or services are placed with contractors, suppliers, and service organizations who have been evaluated by the designated Nuclear Oversight Department resource personnel for the applicable quality system level. Procedures govern the selection of procurement sources.

The effectiveness of the control of quality by contractors and suppliers shall be assessed at intervals consistent with the importance, complexity, and quantity of the product or service.

Quality-related items and services procured from a contractor, supplier, or service organization for which a quality assurance program is required but has not been reviewed or accepted may be utilized by PGE with the specific written approval of the Nuclear Oversight Department when appropriate additional controls such as source inspection, special receipt instructions, QA surveillance, and/or testing are imposed when this option is utilized. These additional controls shall be documented and approved by the ISFSI Manager.

7.2.1 SOURCE INSPECTION, SURVEY, AND AUDIT OF CONTRACTORS AND SUPPLIERS OF QUALITY-RELATED ITEMS

The designated Nuclear Oversight Department resource personnel or ISFSI staff personnel with appropriate qualifications are responsible for assuring source inspections, surveys, or audits of suppliers are performed as necessary.

7.3 RECEIPT INSPECTION

Receipt inspection of quality-related items is performed to assure that the requirements of the procurement documents have been met.

Accepted items are appropriately marked, removed from the inspection area, and located in a controlled storage area ~~or issued for~~ until use. |

Documentary evidence that items conform to the procurement document requirements shall be available at the ~~plant-~~ISFSI site prior to installation or use. |

8.0 IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS

8.1 PURPOSE

Pursuant to 10 CFR 72.156 and 10 CFR 71.117, this chapter describes measures for the identification and control of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to assure they can be traced to associated documents and to prevent the use of incorrect or defective material, parts, and components.

8.2 GENERAL

Quality-related items and subassemblies are identified (on the item or on records traceable to the item) in such a manner as to allow traceability to the appropriate quality documentation. The location and method of identification are selected to prevent affecting the function or quality of the item.

When an item is subdivided, required identification markings will be transferred to each part or reflected in the records.

When several parts are joined in fabrication, a list of parts and corresponding identification documents will accompany the assembly, as necessary. This documentation will include, as applicable, heat, lot, serial or part numbers, material certifications, weld or braze qualifications, test reports, NDE records, fabrication travelers, and other documentation to provide the bases for determining the acceptability of the assembly and its component parts.

Proper identification of materials, parts, and components is verified and documented at receipt inspection or prior to release for fabrication, assembly, shipping, or installation.

9.0 CONTROL OF SPECIAL PROCESSES

9.1 PURPOSE

Pursuant to 10 CFR 72.158, this chapter describes the methods for the control of special processes relative to quality-related items associated with the ISFSI (10 CFR 72). This chapter does not apply to radioactive material transportation packages, since PGE is not authorized to and does not fabricate 10 CFR 71 radioactive material transportation packages.

9.2 SPECIAL PROCESS CONTROL PROGRAM

PGE does not perform special processes involving Trojan ISFSI SSCs classified as important to safety. Rather, all quality-related special processes are performed by a qualified contracted company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of this QA Program.

~~Cognizant managers are responsible for ensuring:~~

- ~~a. Procedures, equipment, and personnel connected with special processes are qualified in accordance with applicable codes, standards, and specifications.~~
- ~~b. Special processes are performed by qualified personnel and accomplished and documented in accordance with the approved procedure.~~
- ~~c. Qualification records of procedures, equipment, and personnel associated with special processes are prepared and retained.~~

10.0 INSPECTION

10.1 PURPOSE

Pursuant to 10 CFR 72.160 and 10 CFR 71.121, this chapter establishes and describes the methods for the inspection of quality-related items and activities associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) to assure their acceptability.

10.2 GENERAL

Inspections are performed in accordance with written, approved inspection plans and/or inspection procedures, to verify that quality-related items and processes conform to ~~predetermined quality requirements~~ documented instructions, procedures, and drawings for accomplishing the activity.

Inspection programs are implemented through procedures which provide for preparation, review, and approval of inspection plans and procedures and provide for establishing mandatory hold points for witness by inspection. ~~These procedures also define the minimum requirements for inspection plans.~~ Inspection plans are approved by the responsible plant supervisor/ISFSI Manager or designee.

Inspections shall be performed by Nuclear Oversight resources or by qualified ISFSI Staff individuals other than those who performed or directly supervised the activity being inspected.

If direct inspection of items is impossible or disadvantageous, indirect control by monitoring processing methods, equipment, and personnel shall be provided. Both inspection and process monitoring shall be provided when control is inadequate without both.

11.0 TEST CONTROL

11.1 PURPOSE

Pursuant to 10 CFR 72.162, ~~This~~ chapter describes the controls for testing required to demonstrate satisfactory performance of quality-related items associated with the ISFSI (10 CFR 72). This chapter does not apply to radioactive material transportation packages, since PGE is not authorized to and does not perform testing of 10 CFR 71 radioactive material transportation packages.

Tests within the scope of this chapter include but are not limited to ~~periodic operational, instrumentation, and engineering tests, as well as tests~~ required by modifications, and/or maintenance of SSCs classified as important to safety, ~~or significant changes in operating procedures~~. These tests are performed to verify that an item will perform satisfactorily in service.

11.2 TEST CONTROL PROGRAM

11.2.1 GENERAL

The work package for maintenance or modifications to quality-related items ~~identify~~ identifies those ~~installation checks or tests~~ necessary to demonstrate satisfactory performance of the affected equipment. ~~Installation checks are performed during the installation process to verify that items have been correctly installed and will function properly.~~

Measures are established to assure that test procedures incorporate the applicable requirements of 10 CFR 72 and the acceptance limits contained in the ISFSI license. Each test procedure is prepared and reviewed in accordance with applicable design documents, codes, and specifications.

The procedures shall include provisions for assuring that all prerequisites for the given test have been met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions.

11.2.2 TEST DOCUMENTATION

Test results are documented, evaluated, and their acceptability determined by qualified personnel.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION

12.1 PURPOSE

Pursuant to 10 CFR 72.164 and 10 CFR 71.125, this chapter describes the provisions for the control of portable measuring and testing equipment and installed plant instrumentation utilized in the inspection, testing (10 CFR 72 only), and monitoring of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71).

12.2 MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION CONTROL PROGRAM

12.2.1 GENERAL

PGE does not perform calibration of Trojan ISFSI installed instrumentation and/or portable measuring and test equipment. Rather, all quality-related calibration is performed by qualified contracted calibration facility(ies) under its/their own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of this QA Program. Instruments are calibrated at intervals consistent with the instrument manufacturer's guaranteed repeatability and the user's experience.

The control of portable measuring and test equipment and installed instrumentation is implemented by specific procedures or instructions that describe accuracy requirements, calibration techniques, calibration control and recall frequency requirements, and calibration control.

Instruments, tools, gages, and fixtures, and standards used in quantitative measurement are uniquely identified, indicate calibration status, appear on a controlled list, are issued for use through a controlled issuance program, and are included in the calibration program.

~~12.2.2 CALIBRATION STANDARDS AND TRACEABILITY~~

~~Comparison standards used for calibrations and adjustment are traceable to nationally recognized standards wherever possible. If not possible, the basis for calibration is documented.~~

~~Instruments used as standards are sent to approved calibration facilities for calibration at intervals consistent with the instrument manufacturer's guaranteed repeatability and the user's experience.~~

~~12.2.3~~12.2.2 DEFECTIVE OR OUT-OF-CALIBRATION MEASURING AND TEST
EQUIPMENT AND INSTALLED INSTRUMENTATION

When portable measuring or test equipment or installed instrumentation is found to be out of calibration or when its repair or replacement is required, an investigation is conducted and documented to determine the validity of previous inspection or test results and to determine the acceptability of those items previously inspected or tested.

13.0 HANDLING, STORAGE, AND SHIPPING

13.1 PURPOSE

Pursuant to 10 CFR 72.166 and 10 CFR 71.127, this chapter describes measures for the control of the handling, storage, shipping, cleaning, and preservation of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to preclude damage, loss, or deterioration.

13.2 HANDLING, STORAGE, SHIPPING, CLEANING, AND PRESERVATION PROGRAM

13.2.1 GENERAL

On receipt of quality-related items, compliance with special requirements for protective environments is verified and documented by qualified personnel responsible for quality-related receipt inspection personnel.

Items are stored in a manner to protect against damage, degradation, or misuse.

Quality-related items are handled, stored, preserved, or protected in accordance with specified codes and standards as specified in implementing procedures.

13.2.2 HANDLING OF QUALITY-RELATED ITEMS

Procedures or instructions will be used to ensure that handling equipment, cranes, and rigging are examined and tested prior to performing critical lifts of quality-related items.

13.2.3 HANDLING, STORAGE, AND 10 CFR 71 SHIPPING-TRANSPORTATION OF RADIOACTIVE MATERIALS

~~Radiation protection~~ Personnel with specific radiation protection training and qualification are responsible for establishing administrative controls and requirements for handling, storing, and 10 CFR 71 packaging/shipping-transportation of radioactive materials. These requirements are established in ~~plant~~ implementing procedures.

14.0 INSPECTION, TEST, AND OPERATING STATUS

14.1 PURPOSE

Pursuant to 10 CFR 72.168 and 10 CFR 71.129, this chapter provides measures for the identification of the inspection, test, and operating status of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to preclude bypassing of requirements and inadvertent operation.

14.2 INSPECTION, TEST, AND OPERATING STATUS PROGRAM

14.2.1 INSPECTION AND TEST STATUS

Procedures are established to indicate the status of inspections and tests performed on quality-related items.

~~Operations-~~ISFSI or other designated personnel are responsible for maintaining sufficient knowledge of tests or inspections in progress to control ~~plant-~~ISFSI and/or radioactive material transportation package activities.

~~If a required test, inspection, or other critical operation is to be bypassed, it is documented to provide appropriate controls in accordance with procedures.~~

14.2.2 OPERATING STATUS

The operating status of ~~systems, structures, and components undergoing maintenance, modification, or which~~ SSCs classified as important to safety that are found to have nonconformances, is identified using tags, if appropriate, under the direction of ~~operations-~~ISFSI or other designated personnel to prevent inadvertent operation. Prior to the removal from service of ~~operating equipment or system~~ SSCs classified as important to safety, ISFSI Manager permission to change status is given and documented in accordance with procedures to assure that the removal will not have an adverse effect on ~~plant-safe~~ ISFSI operations ~~safety~~.

15.0 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

15.1 PURPOSE

Pursuant to 10 CFR 72.170 and 10 CFR 71.131, this chapter describes measures for documentation, control, and disposition of nonconforming quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to prevent their inadvertent use or installation.

15.2 NONCONFORMING MATERIAL CONTROL PROGRAM

15.2.1 GENERAL

Items that deviate from approved specifications, codes, drawings, or other applicable documents are considered as nonconforming.

Procedures govern the use of nonconformance reports for identification, control, disposition of nonconforming items, and notification of affected organizations.

Unless such controls are not feasible, nonconforming items are identified with appropriate tags and segregated to indicate their unacceptable status until the nonconformance is properly dispositioned. If this is not feasible, other methods are established to identify and control the nonconforming items.

15.2.2 WORK PACKAGE

A work package may be used in lieu of a nonconformance report in accordance with plant implementing procedures when nonconforming items are identified which can be restored to the original design requirements under a "rework" disposition.

15.2.3 NONCONFORMANCE REPORT

Management reviews and approves nonconformance report dispositions.

"Use as is" or "modify" dispositions require the review and approval of designated Engineering support personnel.

Tags associated with a nonconformance report are removed only by authorized personnel.

16.0 CORRECTIVE ACTION

16.1 PURPOSE

Pursuant to 10 CFR 72.172 and 10 CFR 71.133, this chapter describes the corrective action measures to assure that conditions adverse to quality associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) are identified, evaluated, and corrected. ~~For significant conditions adverse to quality, corrective action is taken to preclude repetition.~~

16.2 CORRECTIVE ACTION PROGRAM

Procedures govern the use of nonconformance reports to assure that conditions adverse to quality are identified and corrected in a timely manner.

Any individual has the authority and responsibility to report a condition adverse to quality to their manager or supervisor who will assure that it is or has been documented on a nonconformance report.

Nonconformance reports documenting significant conditions adverse to quality require determination of cause and corrective actions taken to preclude repetition.

Copies of nonconformance reports which identify significant conditions adverse to quality are distributed to appropriate levels of management for information and review.

17.0 QUALITY ASSURANCE RECORDS

17.1 PURPOSE

In accordance with 10 CFR 72.174 and 10 CFR 71.135, this chapter describes measures for the identification, retention, and retrievability of records associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) which furnish documentary evidence of the quality of items or activities affecting quality.

17.2 QUALITY ASSURANCE RECORDS CONTROL PROGRAM

In addition to the records required by the definition of Quality Assurance Records in the Glossary of this QA Program, ISFSI records required by 10 CFR 72.30, 72.48, 72.72, 72.80, 72.154, and 72.174 shall be maintained. ISFSI records pertaining to the design, fabrication, erection, testing, maintenance, and use of SSCs important to safety shall be maintained by or under the control of PGE for the applicable durations specified in 10 CFR 72.

In addition to the records required by the definition of Quality Assurance Records in the Glossary of this QA Program, the records must include the instructions, procedures, and drawings required by 10 CFR 71.111. These records shall be retained for three years beyond the date when PGE last engages in 10 CFR 71 radioactive materials packaging and transportation. If any portion of the written procedures or instructions is superseded, PGE shall retain the superseded material for three years after it is superseded.

Records should be identifiable to specific systems, structures, and components, when applicable.

Documents which are designated as quality assurance records shall be legible, accurate, and completed as appropriate for the work accomplished.

Records are indexed, including as a minimum retention times and location of the records within the record system, to provide for retrieval without undue delay.

Quality assurance records are ultimately filed and maintained at a Permanent Records Storage Facility.

Prior to final transmittal of quality assurance records to permanent storage, the originating organization will be responsible for maintaining quality assurance record controls.

18.0 AUDITS

18.1 PURPOSE

In accordance with 10 CFR 72.176 and 10 CFR 71.137, this chapter describes the audit program utilized to verify the implementation, adequacy, and effectiveness of the QA Program for the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71).

18.2 AUDIT/SURVEILLANCE PROGRAM

18.2.1 GENERAL

~~The Nuclear Oversight Department has overall responsibility for performing planned and periodic internal and external audits. In addition, the Nuclear Oversight Department performs QA surveillances of selected quality-related activities.~~

Audit schedules are established to meet applicable regulatory requirements and are based on the safety importance of the activities to be audited.

Audits shall be performed in accordance with written procedures using a check list or an annotated procedure which details the areas to be evaluated.

Audit results shall be documented. These results shall be reviewed by management having responsibility in the area audited.

Followup action, including reaudit of deficient areas, shall be taken where indicated.

18.2.2 AUDIT PERSONNEL

Auditors are appropriately trained and qualified to assure competence for performing the required audits. Nuclear Oversight resources have overall responsibility for performing planned and periodic audits of ISFSI Department activities. To ensure organizational independence, ISFSI Staff personnel shall not perform audits of ISFSI Department activities. External audits may be performed by either designated Nuclear Oversight resources or by properly qualified ISFSI Staff personnel.

Similarly, Nuclear Oversight resources or appropriately trained and qualified ISFSI Staff personnel may perform audits of ISRC activities or the biennial audit of audits of the ISFSI

Department performed by Nuclear Oversight resources pursuant to this chapter. To ensure organizational independence in the performance of these audits, the audit team members report directly to the Corporate Executive Responsible for Trojan, and must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited. ~~Audit team personnel shall be independent of the activities being audited.~~

~~APPENDIX A~~

~~QUALITY ASSURANCE AND ADMINISTRATIVE CONTROLS~~

~~FOR PACKAGING RADIOACTIVE MATERIAL FOR TRANSPORT~~

APPENDIX A

~~QUALITY ASSURANCE AND ADMINISTRATIVE CONTROLS FOR PACKAGING RADIOACTIVE MATERIAL FOR TRANSPORT~~

~~The Nuclear Quality Assurance Program (QA Program) assures that the requirements for packaging of radioactive material for transport as specified in 10 CFR 71 and the quality assurance criteria for shipping packages for radioactive material are satisfied. The QA Program will assure that waste materials intended for disposal at a land disposal facility are properly classified, identified, and documented as required by 10 CFR 20 and 10 CFR 61.55, 61.56, and 61.57. Activities involving the receipt and shipment of Type A packages under the requirements of 49 CFR 172-173 are prescribed in written procedures, instructions, or drawings.~~

~~Implementation of the QA Program elements applicable to the use of packaging for radioactive material is under the management control of the General Manager, Trojan.~~

~~Procedures implement the QA Program elements applicable to the use of packaging for radioactive material.~~

~~The chapters of the QA Program applicable to Packaging Radioactive Materials for Transport activities are described and modified below.~~

Chapter(s)

~~1.0 and 2.0 Fully applies in addition to Section a. of this appendix.~~

~~3.0 Does not apply, PGE does not design Part 71 Shipping Packages.~~

~~4.0 Fully applies in addition to Section b. of this appendix.~~

~~5.0 Fully applies.~~

~~6.0 Fully applies.~~

Chapter(s)

~~7.0 Fully applies.~~

~~8.0 Fully applies.~~

~~9.0 Does not apply, PGE does not fabricate Part 71 Shipping Packages.~~

~~10.0 Fully applies.~~

~~11.0 Fully applies.~~

~~12.0 Fully applies.~~

~~13.0 Fully applies.~~

~~14.0 Fully applies.~~

~~15.0 Fully applies.~~

~~16.0 Fully applies.~~

~~17.0 Fully applies in addition to Section c. of this appendix.~~

~~18.0 Fully applies.~~

a. QA Program

~~Controls are established over activities affecting the quality of materials and components as necessary to ensure conformance to the approved design of each individual package used for the shipment of radioactive material. QA requirements and procedures are based on the following considerations concerning the complexity and proposed use of the package and its components.~~

~~(1) The impact of malfunction or failure of the item to safety,~~

- ~~(2) The design and fabrication complexity or uniqueness of the item;~~
- ~~(3) The need for special controls and QA surveillance over processes and equipment;~~
- ~~(4) The degree to which functional compliance can be demonstrated by inspection or test; and~~
- ~~(5) The quality history and degree of standardization of the item.~~

~~b. Procurement Document Control Measures are established to assure that the applicable requirements of 10 CFR 71 are included or referenced in documents for procurement of materials, equipment, and services for the use of packaging for radioactive material, and that packages and procedures for use of these packages have been authorized by the NRC and documented in the NRC Certificate of Compliance.~~

~~e. QA Records~~

~~In addition to the records required by the definition of Quality Assurance Records in the Glossary of this QA Program, the records must include the instructions, procedures, and drawings required by 10 CFR 71.111 and must include closely related records such as required qualifications of personnel, procedures, and equipment. The records must include the procedures which establish the records retention program. These records shall be retained for three years beyond the date when PGE last engages in packaging and shipping radioactive materials controlled by this appendix. If any portion of the written procedures or instructions is superseded, PGE shall retain the superseded material for three years after it is superseded.~~

~~APPENDIX B~~

~~QUALITY ASSURANCE AND ADMINISTRATIVE CONTROLS~~

~~FOR THE INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)~~

~~APPENDIX B~~

~~QUALITY ASSURANCE AND ADMINISTRATIVE CONTROLS
FOR THE INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)~~

~~The Nuclear Quality Assurance Program (QA Program) assures that the quality assurance requirements for the Trojan ISFSI as specified in 10 CFR 72 are satisfied. The requirements of this appendix apply to the design, fabrication, construction, testing, operation, modification, and decommissioning of the structures, systems, and components of the ISFSI that are important to safety. These requirements also apply to the managerial and administrative controls used to ensure safe operation of the ISFSI.~~

~~Implementation of the QA Program elements applicable to the ISFSI is under the management control of the Trojan Site Executive.~~

~~The chapters of the QA Program applicable to the ISFSI are described and modified below.~~

Chapter(s)

- ~~1.0 — Applies in addition to Sections a. and b. of this appendix.~~
- ~~2.0 — Fully applies in addition to Section a. of this appendix.~~
- ~~3.0 — Fully applies in addition to Section c. of this appendix.~~
- ~~4.0 — Fully applies in addition to Section d. of this appendix.~~
- ~~5.0 — Fully applies.~~
- ~~6.0 — Fully applies.~~
- ~~7.0 — Fully applies.~~
- ~~8.0 — Fully applies.~~
- ~~9.0 — Fully applies.~~
- ~~10.0 — Fully applies.~~
- ~~11.0 — Fully applies in addition to Section e. of this appendix.~~
- ~~12.0 — Fully applies.~~
- ~~13.0 — Fully applies.~~
- ~~14.0 — Fully applies.~~

Chapter(s)

~~15.0 Fully applies.~~

~~16.0 Fully applies.~~

~~17.0 Fully applies in addition to Section f. of this appendix.~~

~~18.0 Fully applies.~~

~~a. QA Program Controls are established over activities affecting the quality of materials and components as necessary to ensure conformance to the approved design of the ISFSI. QA requirements and procedures are based on the following considerations concerning the complexity and proposed use of the ISFSI structures, systems, and components.~~

~~(1) The impact of malfunction or failure of the item on safety;~~

~~(2) The design and fabrication complexity or uniqueness of the item;~~

~~(3) The need for special controls and QA surveillance over processes and equipment;~~

~~(4) The degree to which functional compliance can be demonstrated by inspection or test; and~~

~~(5) The quality history and degree of standardization of the item.~~

~~b. Organization The ISFSI Safety Review Committee (ISRC) assesses the adequacy of the QA Program's implementation biennially.~~

~~c. Design Control Measures are established to assure that proposed design changes are evaluated to determine if a change to the ISFSI license is required. Changes to conditions specified in the ISFSI license require NRC approval.~~

~~d. Procurement Document Control Measures are established to assure that, to the extent necessary, contractors or subcontractors provide a quality assurance program consistent with the applicable provisions of 10 CFR 72, Subpart G.~~

~~e. Test Control Measures are established to assure that test procedures incorporate the applicable requirements of 10 CFR 72 and the acceptance limits contained in the ISFSI license.~~

~~f. QA Records In addition to the records required by the definition of Quality Assurance Records in the Glossary of this QA Program, ISFSI records required by 10 CFR 72.30, 72.48, 72.72, 72.80, 72.154, and 72.174 shall be maintained. ISFSI records pertaining to the design, fabrication, erection, testing, maintenance, and use of structures, systems, and components~~

~~important to safety shall be maintained by or under the control of PGE for
the applicable durations specified in 10 CFR 72.~~

APPENDIX C

ADDITIONAL ADMINISTRATIVE CONTROLS

FOR

~~TROJAN NUCLEAR PLANT 10 CFR 50 LICENSED ACTIVITIES~~

APPENDIX C

~~ADDITIONAL ADMINISTRATIVE CONTROLS FOR
TROJAN NUCLEAR PLANT (TNP) 10 CFR 50 LICENSED ACTIVITIES~~

~~This Appendix C contains additional Administrative Controls which are applicable to TNP activities until the 10 CFR 50 License is terminated. It is noted that other portions of this 10 CFR 50 QA Program are applicable to the 10 CFR 72 Licensed ISFSI. When the 10 CFR 50 License is terminated, this QA Program, Appendix C, shall become null and void and may be removed from this QA Program as a change that does not reduce the commitments in the QA Program description previously accepted by the NRC.~~

~~These administrative Controls were initially relocated from the TNP Technical Specifications, Appendix A, Section 5.0, and from TNP License Condition 2.C(8) into this QA Program following removal of all of the spent fuel from the Spent Fuel Pool and its placement in the ISFSI. As a result of this, these Additional Administrative Controls apply, in some cases, to both quality-related and non-quality related activities.~~

~~During the remaining duration of the TNP 10 CFR 50 License, changes to this QA Program, Appendix C, shall be processed in accordance with 10 CFR 50.54(a) requirements.~~

~~1.0 ADDITIONAL ADMINISTRATIVE CONTROLS FOR TNP-10 CFR 50 LICENSED
ACTIVITIES~~

~~1.1 Responsibility~~

~~The General Manager, Trojan, shall have overall responsibility for the facility and shall delegate in writing the succession to this responsibility during his absence.~~

~~1.2 General Organizational Requirements~~

~~Facility and corporate organizations shall be established for the facility staff and corporate management, respectively.~~

~~a. Lines of authority, responsibility, and communication shall be defined and established throughout highest management levels, intermediate levels, and all operating organization positions. These relationships shall be documented and updated, as appropriate, in organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation.~~

~~b. The individuals who carry out radiation protection functions or perform quality assurance functions may report to the appropriate line manager; however, these individuals shall have sufficient organizational freedom to ensure the ability to perform their assigned functions.~~

~~1.3 Reviews and Audits~~

~~1.3.1 Independent Safety Review~~

~~Independent Safety Reviews shall be a thorough review by a qualified Independent Safety Reviewer. Persons performing these reviews shall be knowledgeable in the subject area being reviewed. These independent Safety Reviews are completed prior to implementation of proposed activities.~~

~~1.3.1.1 Composition~~

~~1.3.1.1.1 Reviewers~~

~~Independent Safety Reviewers shall be an individual not having direct responsibility for the performance of the activities under review, but who may be from the same functionally cognizant organization as the individual or group performing the original work.~~

~~1.3.1.1.2~~ Qualifications

~~The Independent Safety Reviewers shall have five years of professional level experience and either a Bachelor's Degree in Engineering or the Physical Sciences or equivalent in accordance with ANSI/ANS 3.1 1981.~~

~~The General Manager, Trojan, or designee shall designate the Independent Safety Reviewers in writing.~~

~~1.3.1.1.3~~ Responsibilities

~~The following subjects shall be independently reviewed by a qualified Independent Safety Reviewer:~~

- ~~a. Evaluations for changes in the facility as described in the Safety Analysis Report, changes in procedures as described in the Safety Analysis Report, and tests or experiments not described in the Safety Analysis Report to verify that such actions do not require prior NRC approval pursuant to 10 CFR 50.59.~~
- ~~b. Proposed changes to the programs required by Section 1.4.2, to verify such changes do not require prior NRC approval pursuant to 10 CFR 50.59.~~

~~1.3.2~~ Records

~~Written records of reviews and audits shall be maintained. As a minimum these records shall include:~~

- ~~a. Results of the activities conducted under the provisions of Section 1.3.1;~~
- ~~b. Recommendations to the management of the organization being audited; and~~
- ~~c. Documentation of the reviews conducted per Section 1.3.1.1.3.~~

~~1.4~~ Procedures, Programs, and Manuals

~~1.4.1~~ Procedures

~~1.4.1.1~~ Scope

~~Written procedures shall be established, implemented, and maintained covering the following activities:~~

- ~~a. Quality assurance for radiological effluent and environmental~~

monitoring;

b. ~~Fire protection program implementation; and~~

e. ~~All programs specified in Section 1.4.2.~~

~~1.4.1.2 Review and Approval~~

~~Each procedure of Section 1.4.1.1, and changes thereto, shall be independently reviewed in accordance with established administrative procedures and approved by the General Manager, Trojan, or his designee prior to implementation.~~

~~1.4.1.3 Temporary Changes~~

~~Temporary changes to procedures of Section 1.4.1.1 may be made provided:~~

a. ~~The intent of the existing procedure is not altered;~~

b. ~~The change is approved by two members of the facility management staff; and~~

c. ~~The change is documented, reviewed and approved by the responsible manager, in accordance with approved administrative procedures within 14 days of implementation.~~

~~1.4.2 Programs and Manuals~~

~~The following programs shall be established, implemented, and maintained:~~

~~1.4.2.1 Radiation Protection Program~~

~~Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.~~

~~1.4.2.2 Process Control Program (PCP)~~

~~The PCP shall contain the current formulas, sampling, analyses, tests, and determinations to be made to ensure that processing and packaging of solid radioactive wastes will be accomplished to ensure compliance with 10 CFR 20, 10 CFR 61, and 10 CFR 71; state regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.~~

~~Licensee initiated changes to the PCP:~~

a. ~~Shall be documented and records of reviews performed shall be retained. This documentation shall contain:~~

- ~~1. sufficient information to support the change(s) and appropriate analyses or evaluations justifying the change(s); and~~
- ~~2. a determination that the change(s) maintain the overall conformance of the solidified waste product to the existing requirements of Federal, State, or other applicable regulations.~~

~~b. Shall be effective after review and approval by an Independent Safety Reviewer and the approval of the General Manager, Trojan, or designee.~~

~~1.4.2.3 Offsite Dose Calculation Manual (ODCM)~~

~~1.4.2.3.1 Content~~

- ~~a. The ODCM shall contain the methodology and parameters used in the calculation of off site doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the Radiological Environmental Monitoring Program, and~~
- ~~b. The ODCM shall also contain the Radioactive Effluent Controls Program and the Radiological Environmental Monitoring Program required by Sections 1.4.2.4 and 1.4.2.5 respectively, and descriptions of the information that should be included in the Annual Radiological Environmental Monitoring Report required by Section 1.5.1.2.~~

~~1.4.2.3.2 Licensee initiated changes to the ODCM:~~

- ~~a. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:
 - ~~1. sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s); and~~
 - ~~2. a determination that the change(s) maintain the levels of radioactive effluent control required by 10 CFR 20.1302, and 40 CFR 190, and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations;~~~~
- ~~b. Shall become effective after review and approval by an Independent Safety Reviewer and the approval of the General Manager, Trojan, or designee; and~~
- ~~c. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with~~

~~the Radiological Environmental Monitoring Report for the period of the report in which any change in the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (i.e., month and year) the change was implemented.~~

~~1.4.2.4 Radioactive Effluent Controls Program~~

~~This program provides controls for radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODCM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:~~

- ~~a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;~~
- ~~b. Limitations on the concentrations of radioactive material released in liquid effluents to unrestricted areas, conforming to 10 CFR 20, Appendix B;~~
- ~~c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM;~~
- ~~d. 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 quarterly;~~
- ~~e. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the site boundary conforming to the dose associated with 10 CFR 20, Appendix B;~~
- ~~f. Limitations on the annual dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190;~~
- ~~g. 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 50, Appendix I;~~
- ~~h. Limitations on the operability and use of effluent treatment systems to ensure appropriate portions of these systems are used to reduce releases when the projected doses in a 31 day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to 10 CFR 50, Appendix I; and~~

- ~~i. Limitations on the annual and quarterly doses to a member of the public from tritium and radionuclides in particulate form with half lives greater than 8 days in gaseous effluents released to areas beyond the site boundary conforming to Appendix I to 10 CFR Part 50.~~

~~1.4.2.5 Radiological Environmental Monitoring Program~~

~~This program is for monitoring the radiation and radionuclides in the environs of the facility. The program shall provide representative measurements of radioactivity in the highest potential exposure pathways and verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall be contained in the ODCM and shall include the following:~~

- ~~a. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM, and~~
- ~~b. Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.~~

~~1.4.2.6 Storage Tank Radioactivity Monitoring Program~~

~~A surveillance program to ensure that the quantity of radioactivity contained in all outdoor liquid radwaste tanks that are not surrounded by liners, dikes, or walls, capable of holding the tanks' contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system is less than limits of 10 CFR 20, Appendix B at the nearest potable water supply and the nearest surface water supply in an unrestricted area, in the event of an uncontrolled release of the tanks' contents. For temporary storage tanks a limit of 10 curies, excluding tritium and dissolved or entrained noble gasses, may be used in lieu of the above criteria.~~

~~The following provisions are applicable to the Storage Tank Radioactivity Monitoring Program Surveillance Requirement (SR) frequencies:~~

- ~~a. The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.~~
- ~~b. If it is discovered that a Surveillance was not performed within~~

~~its specified Frequency, then declaring the Requirement not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance.~~

~~If the Surveillance is not performed within the delay period, the Requirement must immediately be declared not met.~~

~~When the Surveillance is performed within the delay period and the Surveillance is not met, the Requirement must immediately be declared not met.~~

~~1.4.2.7 Fire Protection Program~~

~~This program provides controls to ensure that appropriate fire protection measures are maintained to protect the facility from fires which could release radioactive materials.~~

~~A fire protection program will be implemented and maintained to meet the requirements of 10 CFR 50.48. Changes may be made to this program, without prior NRC approval, provided those changes would not adversely increase the likelihood of an offsite release of radioactive material due to a fire.~~

~~1.5 Reporting Requirements~~

~~1.5.1 Routine Reports~~

~~The following reports shall be submitted in accordance with 10 CFR 50.4.~~

~~1.5.1.1 Occupational Radiation Exposure Report~~

~~An Occupational Radiation Exposure Report covering the activities of the facility as described below for the previous calendar year shall be submitted by March 31 of each year.~~

~~Occupational Radiation Exposure Report shall include a tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) receiving exposures > 100 mrem/yr and their associated man rem exposure according to work and job functions (e.g., fuel handling, surveillance, maintenance and waste processing). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket dosimeter, thermoluminescent dosimeter (TLD), or film badge measurements. Small exposures totaling $< 20\%$ of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources should be assigned to specific major work functions.~~

~~1.5.1.2 Annual Radiological Environmental Monitoring Report~~

~~The Annual Radiological Environmental Monitoring Report covering the activities during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM).~~

~~The Annual Radiological Environmental Monitoring Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements. In the event that some individual 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 in a supplementary report as soon as possible.~~

~~The Annual Radiological Environmental Monitoring Report shall include licensee initiated changes to the ODCM during the period of the report as described in Section 1.4.2.3.2, or these changes shall be submitted concurrently.~~

~~1.5.1.3 Annual Radioactive Effluent Release Report~~

~~The Annual Radioactive Effluent Release Report covering the activities of the unit shall be submitted in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program.~~

~~1.6 Record Retention~~

~~1.6.1 The following records shall be retained for at least 3 years:~~

- ~~a. All Licensee Event Reports required by 10 CFR 50.73,~~
- ~~b. Records of changes made to the procedures required by Section 1.4.1.1.~~

~~1.6.2 The following records shall be retained for at least 5 years:~~

- ~~a. Records and logs of activities related to the safe storage of irradiated fuel,~~
- ~~b. Records and logs of principal maintenance activities, inspections,~~

~~repair, and replacement of principal items of equipment related to safe storage of irradiated fuel;~~

- ~~e. Records of surveillance activities, inspections, and calibrations required by the Technical Specifications (TS);~~
- ~~d. Records of sealed source and fission detector leak tests and results; and~~
- ~~e. Records of annual physical inventory of all sealed source material of record.~~

~~1.6.3 The following records shall be retained for the duration of the Possession Only License.~~

- ~~a. Records and drawing changes reflecting design modifications made to structures, systems and components needed for the safe storage of irradiated fuel as described in the Safety Analysis Report;~~
- ~~b. Records of irradiated fuel inventory, fuel transfers, and assembly burnup histories;~~
- ~~c. Records of radiation exposure for all individuals entering radiation control areas;~~
- ~~d. Records of gaseous and liquid radioactive material released to the environs;~~
- ~~e. Records of radioactive waste disposal in accordance with 10 CFR 20.2108;~~
- ~~f. Records of training and qualification for members of the facility staff;~~
- ~~g. Records of quality assurance activities required by the Trojan Nuclear Quality Assurance (QA) Program and which are classified as permanent records by applicable regulations, codes, and standards;~~
- ~~h. Records of reviews performed for changes made to procedures, equipment, or reviews of tests and experiments pursuant to 10 CFR 50.59;~~
- ~~i. Records of the reviews and audits required by Section 1.3.1;~~
- ~~j. Records of analyses required by the Radiological Environmental Monitoring Program that would permit evaluation of the accuracy of the analysis at a later date (these records should include procedures effective at specified times and records showing that these procedures were followed); and~~
- ~~k. Records of reviews performed for changes made to the Offsite Dose Calculation Manual and the Process Control Program.~~

GLOSSARY

Audit: An activity which determines through investigation, review, and objective evidence, the adequacy of, and adherence to, established procedures, instructions, specifications, codes, standards, or other applicable contractual and licensing requirements, and the effectiveness of implementation.

Calibration: The process by which measuring or test equipment is checked against standards of equal or higher accuracy and adjusted as necessary to assure its compliance with designated specifications.

Conditions Adverse to Quality: Departures from specified quality-related requirements, such as failures, malfunctions, deficiencies, deviations, defective material or equipment, and nonconformances.

Corrective Action: Action taken to correct conditions adverse to quality and to preclude repetition of significant conditions adverse to quality.

~~Design: The technical and management processes which commence with the identification of design inputs and which lead to and include the issuance of design output documents such as drawings, specifications, and other documents defining the technical and physical requirements of systems, structures, and components.~~

~~Design Change: A change or alteration to the technical or physical requirements of an item.~~

Design Documents: Specifications, drawings, calculations, and analyses associated with design changes and modifications that define technical requirements.

~~Design Verification: The process of reviewing, confirming, or substantiating the design by one or more methods to provide assurance that the design meets the specified design requirements. This may be accomplished by the performance of design reviews, use of alternate or simplified calculational methods, or by performance of a suitable testing program.~~

Documents Requiring Control: Documents requiring control contain written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results. As a minimum, these include design specifications; procurement documents; drawings; QA Program; procedures; ~~Defueled Safety Analysis Report; ISFSI Safety Analysis Report~~; manufacturing, inspection, maintenance, modification, design change and

testing instructions; nonconformance reports; as-built packages; and other documentation affecting quality-related items.

Examination: An element of inspection consisting of investigation of materials, components, supplies, and services to determine conformance to those specified requirements which can be determined by such investigation. Examination is usually nondestructive and includes simple physical manipulation, gauging, and measurement.

Identification: A means by which material, equipment, or parts can be traced to their associated quality documentation through the use of heat number, lot number, serial number, part number, purchase order number, or other appropriate means.

Inspection: An element of quality control which by means of examination, observation, or measurement determines the conformance of materials, supplies, components, parts, appurtenances, systems, processes, or structures to predetermined quality requirements.

Installation Checks: ~~Those measurements, verifications, and comparisons performed following maintenance or modification to determine satisfactory condition, accuracy, safety, or performance. Installation checks do not include tests or NDE inspections. Installation checks include but are not limited to:~~

- a. ~~Pipe hangers, seismic anchors, and restraints are properly installed;~~
- b. ~~Pumps seals and packing are properly installed;~~
- e. ~~Valve glands and packing are installed;~~
- d. ~~Valve stroking, actuation, and settings are proper;~~
- e. ~~Rotation of prime movers is correct;~~
- f. ~~Electrical circuits, controls, and relay settings are correct;~~
- g. ~~Phasing of electrical buses is correct;~~
- h. ~~Instrumentation is calibrated and in service as required;~~
- i. ~~Limit switches, interlocks, and stops are properly adjusted and set.~~

Measuring and Test Equipment: Devices or systems used to calibrate, measure, gauge, test, or inspect in order to control or acquire data to verify conformance to specified requirements. Measuring and Test Equipment does not include permanently installed plant-instrumentation nor does it include test equipment used for preliminary checks where data obtained will not be used to determine acceptability or verify conformance to established criteria.

Modification: A planned change in plant-facility design or operation accomplished in accordance with the requirements and limitations of applicable codes, standards, procedures, specifications, licenses, and predetermined safety restrictions.

Modify (termed "repair" in ANSI N45.2.10): The disposition applied to nonconforming items which are restored to a condition such that the capability of an item to function reliably and safely is unimpaired, even though that item still may not conform to the original requirement.

Nonconformance: A deficiency in characteristic, documentation, or procedure which renders the quality of an item or activity unacceptable or indeterminate.

Permanent Records Storage Facility: A Permanent Records Storage Facility is an environmentally controlled room or vault with controlled access which provides protection of quality assurance records from fire, theft, flood, and deterioration.

~~Plant: The word "plant," as used in this QA Program, includes both the Trojan Nuclear Plant (TNP) and the Independent Spent Fuel Storage Installation (ISFSI) facility. The term "TNP" refers to that portion of the Plant licensed under 10 CFR 50.~~

Procedure: A document that specifies or describes how an activity is to be performed. It may include methods to be employed, equipment or materials to be used, and sequence of operation.

Procurement Documents: Those purchase requisitions, ~~stock purchase repeating requisitions, term purchase order renewals,~~ release letters, letters of intent, bid specifications, contracts, purchase orders, specifications, or other documents which provide contractual basis for procurement actions. They identify and define the requirements which items or services must meet in order to be acceptable to the purchaser.

Purchased Services: Purchased services are services procured by PGE to support quality-related items. Examples include design analysis, evaluations, reviews, audits, calibration, and data

reduction.

Quality Assurance (QA): All those planned and systematic actions necessary to provide adequate confidence that an item or facility will perform satisfactorily in service.

~~QA Surveillance: A documented QA observation or review of an activity for the purpose of verifying conformance with specified requirements or evaluating their adequacy and effectiveness.~~

Quality Assurance Records: Those records which provide documentary evidence of the quality of items and/or activities affecting quality. A document is considered a QA record when the document is complete, valid, legible, and adequately identifiable to the item or activity involved. Documents shall be considered valid records only if stamped, initialed, signed, or otherwise authenticated and dated by authorized personnel. A record is completed when the final review signature or other authentication is placed on the document or on a documentation package containing multiple documents. QA records include the following: design records, records of use, and the results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses. The records must include closely related data such as qualifications of personnel, procedures, and equipment. Inspection and test records must, at a minimum, identify the inspector or data recorder, the type of observation, the results, the acceptability, and the action taken in connection with any noted deficiencies. The records must include the procedures that establish the records retention program. ~~operating logs and the result of reviews, inspections, tests, audits, monitoring of work performance, and material analyses.~~ QA records also include closely related data such as qualifications of personnel, procedures, and equipment. TNP and ISFSI decommissioning records will be dispositioned in accordance with 10 CFR 50.75 and 10 CFR 72.30 respectively.

~~Quality Related: With no safety related items and activities remaining for the TNP, the term "quality related" encompasses those remaining items and activities that are associated with:~~

- ~~Radiological Environmental and Effluent Monitoring.~~
- ~~Radiation Protection.~~
- ~~Packaging Radioactive Material for Transport.~~
- ~~Radioactive Waste Management Systems.~~
- ~~ISFSI equipment classified as important to safety.~~

Quality Requirements: Quality requirements include, but are not limited to, such items as test, inspection, and acceptance criteria and any special instructions and prerequisites for such activities as designing, identification, fabrication, cleaning, erecting, packaging, handling, shipping, and extended storage.

Radiation Protection: Radiological controls applied to radiation areas, radiation services, or radiation-producing machines consistent with the requirements of 10 CFR 19, 10 CFR 20, and 10 CFR 50, ~~Appendix I72.~~

Reject: The disposition applied to nonconforming items which are unsuitable for their intended purpose but which may be feasible to return to the supplier as salvage for replacement or credit, or feasible to scrap.

Rework: The disposition applied to nonconforming items which are made to conform to a prior specified requirement by completion, remachining, reassembly, or other corrective means.

Significant Condition Adverse to Quality: A departure from specified requirements is considered to be a significant condition adverse to quality if the condition appears to be an event which (1) ~~which requires reporting in 24 hours or less in accordance with the TNP License, ISFSI License, 10 CFR 20, or 10 CFR 50.7272.75;~~ (2) ~~which requires reporting in accordance with 10 CFR 21;~~ or (3) ~~which involves a significant breakdown in the QA Program implementation.~~

~~Special Process: A process or operation performed on an item in such a manner that conformance to specified requirements and verification of all essential characteristics may not be determined solely by inspection, test, or examination; assurance that all steps of the process were properly carried out depends in part on the skill of the operator, use of specified equipment, and adherence to the qualified process procedures and control. Special processes include, but are not limited to: welding, heat treating, metal spraying, and nondestructive testing.~~

Stop Work: The authority that permits immediate stoppage of quality-related activities such as design, procurement, fabrication, inspection, testing, or removal.

Testing: The determination or verification of the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operating conditions.

Use As Is: A disposition applied to nonconforming items which do not meet all specified requirements but do safely and reliably meet their intended purpose.

ENCLOSURE II TO VPN-001-2005

**PROPOSED REVISION 28 TO PGE-8010,
“PORTLAND GENERAL ELECTRIC (PGE) NUCLEAR QUALITY ASSURANCE
PROGRAM FOR TROJAN INDEPENDENT SPENT FUEL STORAGE INSTALLATION
(10 CFR 72) OPERATIONS AND RADIOACTIVE MATERIAL PACKAGING AND
TRANSPORTATION (10 CFR 71) ACTIVITIES”**

(Clean Version with Only Sidebars Annotated)

PGE-8010

PORTLAND GENERAL ELECTRIC (PGE)
NUCLEAR QUALITY ASSURANCE PROGRAM
FOR
TROJAN INDEPENDENT SPENT FUEL STORAGE INSTALLATION (10 CFR 72)
OPERATIONS AND RADIOACTIVE MATERIAL PACKAGING AND TRANSPORTATION
(10 CFR 71) ACTIVITIES

Revision 28

Portland General Electric Company
121 SW Salmon Street
Portland, Oregon 97204

PGE NUCLEAR QUALITY ASSURANCE PROGRAM
FOR
TROJAN INDEPENDENT SPENT FUEL STORAGE INSTALLATION (10 CFR 72)
OPERATIONS AND RADIOACTIVE MATERIAL PACKAGING AND TRANSPORTATION
(10 CFR 71) ACTIVITIES

Approval: _____

ISRC Member Responsible for
Managing Nuclear Oversight Resources

Date

Approval: _____

Corporate Executive
Responsible for Trojan

Date

Portland General Electric Company
121 SW Salmon Street
Portland, Oregon 97204

TABLE OF CONTENTS

	<u>Page</u>
TITLE PAGE	i
APPROVAL PAGE	ii
TABLE OF CONTENTS	iii
LIST OF EFFECTIVE PAGES	iv
POLICY STATEMENT	v
PROGRAM	
1.0 ORGANIZATION	1-1 - 1-5
2.0 QUALITY ASSURANCE PROGRAM	2-1 - 2-2
3.0 DESIGN CONTROL	3-1
4.0 PROCUREMENT DOCUMENT CONTROL	4-1
5.0 INSTRUCTIONS, PROCEDURES, AND DRAWINGS	5-1
6.0 DOCUMENT CONTROL	6-1
7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES	7-1 - 7-2
8.0 IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS	8-1
9.0 CONTROL OF SPECIAL PROCESSES	9-1
10.0 INSPECTION	10-1
11.0 TEST CONTROL	11-1
12.0 CONTROL OF MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION	12-1
13.0 HANDLING, STORAGE, AND SHIPPING	13-1
14.0 INSPECTION, TEST, AND OPERATING STATUS	14-1
15.0 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS	15-1
16.0 CORRECTIVE ACTION	16-1
17.0 QUALITY ASSURANCE RECORDS	17-1
18.0 AUDITS	18-1
GLOSSARY	G1-1 - G1-4

PGE
NUCLEAR QUALITY ASSURANCE PROGRAM

List of Effective Pages

<u>Page</u>	<u>Revision</u>
i (title page)	28
ii	28
iii	28
iv	28
v	28
1-1 through 1-5	28
2-1 and 2-2	28
3-1	28
4-1	28
5-1	28
6-1	28
7-1 and 7-2	28
8-1	28
9-1	28
10-1	28
11-1	28
12-1	28
13-1	28
14-1	28
15-1	28
16-1	28
17-1	28
18-1	28
G1-1 through G1-4	28

PORTLAND GENERAL ELECTRIC COMPANY
NUCLEAR QUALITY ASSURANCE PROGRAM

POLICY STATEMENT

Portland General Electric Company implements a Quality Assurance (QA) Program which directs quality-related activities at the Trojan *Independent Spent Fuel Storage Installation (ISFSI)*.

This QA Program complies with *and applies to Important-to-Safety activities conducted under Title 10, Code of Federal Regulations, Part 72, Subpart G, "Quality Assurance for Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste."* These activities include managerial and administrative controls used to ensure safe operation of the ISFSI. This QA Program also complies with and applies to *Important-to-Safety activities conducted under 10 CFR 71, Subpart H, "Quality Assurance for Packaging and Transportation of Radioactive Material.."*

The approval of this document commits the Portland General Electric Company to the requirements of the QA Program described herein and its successful implementation. Portland General Electric Company personnel who perform quality-related *and/or Important-to-Safety* functions are responsible for complying with the requirements of this QA Program.

Changes to the QA Program must be approved by the *Nuclear Regulatory Commission*, the *ISFSI Safety Review Committee member assigned the management oversight function for Nuclear Oversight resources*, and the *Corporate Executive Responsible for Trojan prior to implementation*.

*Corporate Executive
Responsible for Trojan*

(Date)

1.0 ORGANIZATION

1.1 INTRODUCTION

Portland General Electric Company (PGE or Company), as a licensee under the purview of 10 CFR 72 and 10 CFR 71, is responsible for the establishment and execution of this Nuclear Quality Assurance Program (hereafter referred to as the QA Program) for activities conducted in support of the Trojan Independent Spent Fuel Storage Installation (ISFSI) that affect the functions of structures, systems, and components (SSCs) that are important to safety. These activities include managerial and administrative controls used to ensure safe operation of the ISFSI, as well as the performance of functions associated with assuring that the QA Program is effectively implemented. Pursuant to 10 CFR 72.142 and 10 CFR 71.103, the purpose of this chapter is to delineate the authorities, responsibilities, and interfaces of persons and organizations performing activities in support of spent fuel storage and/or radioactive material transport at the Trojan ISFSI that affect the functions of SSCs that are important to safety.

1.2 ASSIGNMENT OF FUNCTIONAL RESPONSIBILITIES

Figure 1.0-1 illustrates the functional authorities, responsibilities, and interfaces of persons and organizations performing activities that are governed by and/or required to effectively implement the QA Program. The functional responsibilities indicated in Figure 1.0-1 are further described below.

1.2.1 CORPORATE EXECUTIVE RESPONSIBLE FOR TROJAN

The Corporate Executive Responsible for Trojan has overall authority and responsibility for nuclear safety at the facility, and is responsible for promulgating PGE's QA policies; maintaining a continuing involvement in QA matters; maintaining management controls for effectively implementing applicable QA Program elements; and resolution of disputes between organizational elements that may arise related to quality-related activities.

The ISFSI Manager and the ISFSI Safety Review Committee (ISRC) report to the Corporate Executive Responsible for Trojan. ISFSI Staff personnel and/or contractors, agents, and/or consultants providing Nuclear Oversight services, including establishing and/or implementing the QA Program, also report directly to the Corporate Executive Responsible for Trojan when conducting (1) audits of ISRC activities; and/or (2) the biennial audit of past QA audits of ISFSI Department (including support personnel) activities that have been performed pursuant to Chapter 18 of this QA Program.

1.2.2 ISRC

The ISRC performs review and audit functions as required by the ISFSI Safety Analysis Report, and advises the Corporate Executive Responsible for Trojan on matters relating to the safe storage of spent nuclear fuel. As the ISRC reports directly to the Corporate Executive Responsible for Trojan, ISRC review and audit functions are independent of the ISFSI line organization responsibilities.

With the exception of audits of ISRC activities and/or the biennial audit of past QA audits of ISFSI Department activities, which as indicated in Section 1.2.1 are the responsibility of the Corporate Executive Responsible for Trojan, the ISRC is responsible for ensuring the conduct of QA audits of ISFSI Department activities pursuant to Chapter 18 of this QA Program. The ISRC also ensures that the adequacy of QA Program implementation is assessed biennially.

1.2.3 NUCLEAR OVERSIGHT

Nuclear Oversight services are provided as needed by qualified contractors, agents, and/or consultants. These resources report directly to a designated ISRC Member as detailed below.

1.2.3.1 ISRC Member Responsible for Managing Nuclear Oversight Resources

One ISRC Member reports directly to and is designated by the Corporate Executive Responsible for Trojan as the position having the authority and responsibility for maintaining and implementing the QA Program. This individual directs Nuclear Oversight resources in the overall implementation of the QA Program, including oversight and evaluation of work that is assigned to Nuclear Oversight resources to verify the adequate implementation of the QA Program. The ISRC Member responsible for managing Nuclear Oversight resources, together with the Corporate Executive Responsible for Trojan, is responsible for approving revisions to the QA Program.

Nuclear Oversight resources report directly to this ISRC Member, unless the Nuclear Oversight resources are conducting audit(s) of ISRC activities or are conducting the biennial audit of Nuclear Oversight internal QA audit activities that have been performed pursuant to Chapter 18 of this QA Program. In these instances, the auditing resources report directly to the Corporate Executive Responsible for Trojan. This organizational structure ensures that persons assigned responsibility for assuring effective implementation of any portion of the QA Program (e.g., review and audit functions) have direct access to levels of management, and the required authority and organizational freedom, as necessary to perform required functions.

The ISRC Member responsible for managing Nuclear Oversight resources must be knowledgeable of the QA Program; 10 CFR 72, Subpart G; and 10 CFR 71, Subpart H, and maintain up-to-date knowledge of applicable regulatory guides, codes, and standards related to Trojan ISFSI QA. Qualifications of this individual must include eight years of experience in the field of QA or equivalent number of years of nuclear plant and/or fuel storage facility experience in a supervisory position or a combination of the two. Graduation from a four-year accredited engineering or science college or university may be substituted for four years of this experience. At least one year of this experience shall be nuclear power plant and/or fuel storage facility experience in the implementation of an approved QA Program.

1.2.3.2 Nuclear Oversight Resources

Nuclear Oversight resources include contractors, agents,¹ and/or consultants who are independent of the ISFSI line organization. The primary role of Nuclear Oversight resources is to conduct audits of ISFSI Department activities in accordance with Chapter 18 of this QA Program. These resources may also augment the ISFSI Staff in performance of other QA/QC activities, including the performance of audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities that have been performed pursuant to Chapter 18 of this QA Program; source and receipt inspections, surveys, or audits of contractors and suppliers of quality-related items; QC inspections; and/or procurement document/record reviews.

Nuclear Oversight resources are under the management direction of the ISRC Member responsible for managing Nuclear Oversight resources, unless the Nuclear Oversight resources are conducting audit(s) of ISRC activities or are conducting the biennial audit of past QA audits of ISFSI Department activities that have been performed pursuant to Chapter 18 of this QA Program. In these instances, the auditing resources report directly to the Corporate Executive Responsible for Trojan. These auditing resources must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited.

With this organizational structure, Nuclear Oversight auditing resources are ensured to be independent of the Trojan ISFSI Department representatives performing quality-related activities. As such, Nuclear Oversight resources have the authority and independence to identify quality problems; initiate, recommend, or provide solutions to quality problems through designated channels; and verify implementation of solutions to quality problems. To control deviations from QA Program requirements, contractors, agents, and/or consultants providing Nuclear Oversight services have the authority and responsibility to initiate stop work orders, as necessary, for any condition adverse to quality that has occurred or is developing.

¹ Agents may include PGE employees outside the Trojan ISFSI organization.

1.2.4 ISFSI DEPARTMENT

1.2.4.1 ISFSI Manager

The ISFSI Manager is responsible for the day-to-day implementation of the QA Program. The ISFSI Manager reports directly to the Corporate Executive Responsible for Trojan.

1.2.4.2 ISFSI Staff

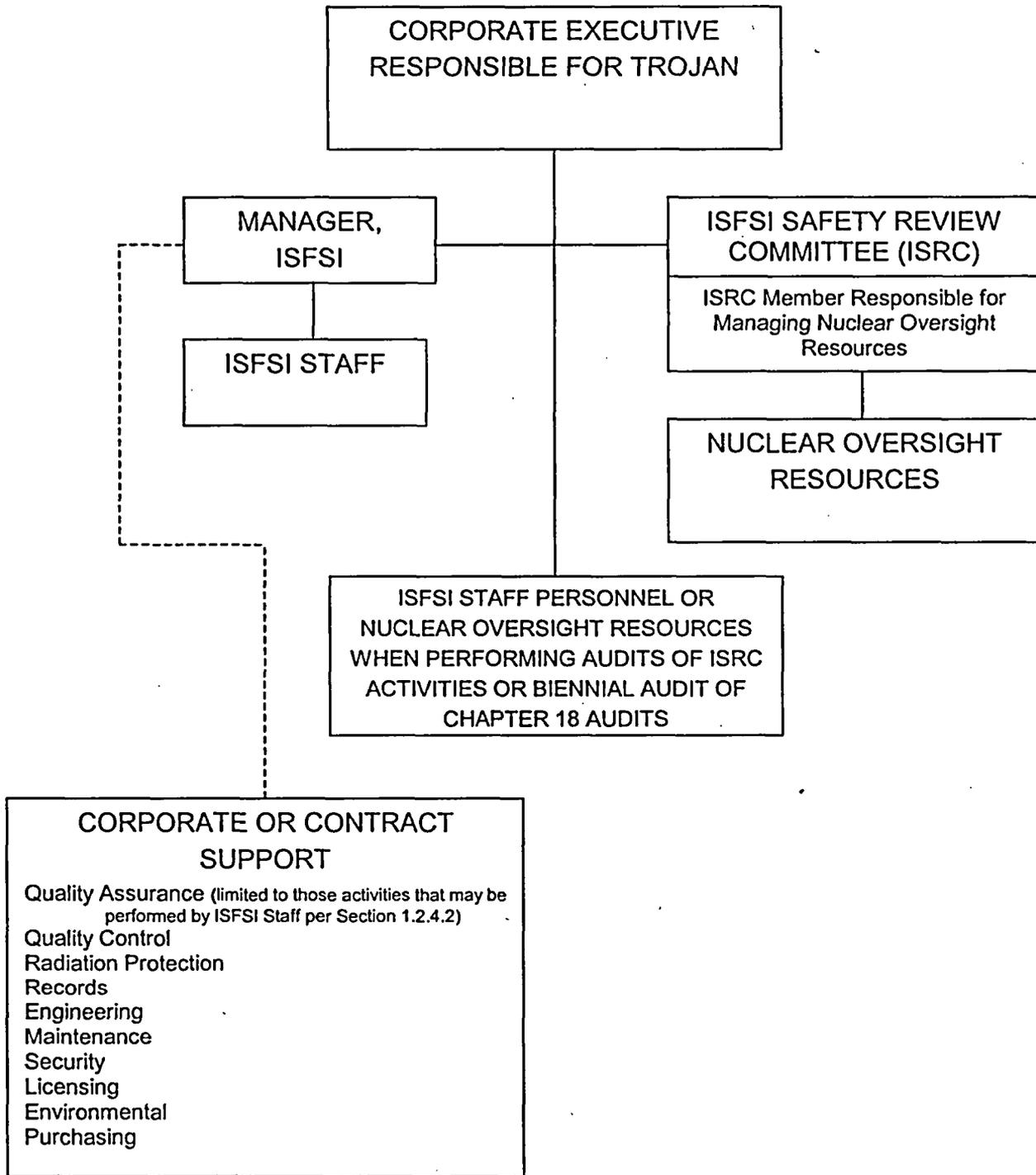
The ISFSI Staff reports to the ISFSI Manager. Responsibilities, qualifications, and training required for ISFSI staff personnel performing quality-related activities are detailed in the Trojan ISFSI SAR and associated implementing procedures. ISFSI Staff personnel shall not be used to perform (Chapter 18) audits of ISFSI Department activities. Appropriately trained and qualified ISFSI Staff personnel (which may include corporate and/or contracted support personnel) may perform audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities that have been performed by Nuclear Oversight resources pursuant to Chapter 18 of this QA Program. In the performance of these audits, the ISFSI Staff audit personnel report directly to the Corporate Executive Responsible for Trojan, and must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited. Appropriately trained ISFSI Staff personnel knowledgeable of QA/QC practices and concepts may also perform quality-related receipt inspections; source inspections, surveys, or audits of contractors and suppliers of quality-related items; QC inspections; and/or quality-related procurement document/record and procedure reviews. Individuals performing procurement document/record and/or procedure review activities must be someone other than those that originated the document/record or procedure revision being reviewed. Individuals performing inspection activities must be someone other than those that perform or supervise the performance of the work/activity being inspected.

1.2.5 CORPORATE EXECUTIVES RESPONSIBLE FOR SUPPORT ORGANIZATIONS

Corporate executives with responsibility for nuclear support activities shall assure that their assigned managers implement the QA Program, as applicable.

1.2.5.1 Managers of Nuclear Support Organizations

Managers of nuclear support organizations that perform quality-related activities, such as records control services, are responsible for ensuring that procedures that implement the applicable portions of the QA Program are established, implemented, and maintained.



Trojan ISFSI and QA Program
Implementation Functional Organization

Figure 1.0-1

2.0 QUALITY ASSURANCE PROGRAM

2.1 PURPOSE

Pursuant to 10 CFR 72.144 and 10 CFR 71.105, this chapter describes the QA Program for the ISFSI as specified in 10 CFR 72, Subpart G, and for radioactive material packaging and transportation activities as specified in 10 CFR 71, Subpart H. This chapter also defines the applicability of the QA Program including training necessary to assure its proper implementation and effectiveness.

2.2 QUALITY ASSURANCE PROGRAM

2.2.1 GENERAL

The QA Program assures that the QA requirements for the ISFSI as specified in 10 CFR 72 and for radioactive material packaging and transportation activities as specified in 10 CFR 71 are satisfied. With regard to the ISFSI QA Program requirements of 10 CFR 72, the requirements of the QA Program apply to the design, fabrication, construction, testing, operation, modification, and decommissioning of the SSCs of the ISFSI that are important to safety, and to the managerial and administrative controls used to ensure safe operation of the ISFSI. Specific important-to-safety ISFSI SSCs and a detailed listing of quality-related activities are designated in and maintained in accordance with controlled procedure(s). These SSCs and activities governed by this QA Program, collectively referred to as "quality-related" items, are further described as follows:

- ISFSI SSCs classified as important to safety;
- Security Plan Implementing Procedures;
- Radiation Protection Program;
- Packaging radioactive material for transport pursuant to 10 CFR 71;
- Calibration of ISFSI monitoring instruments as specified in the ISFSI SAR; and
- Managerial and administrative controls to ensure safe operation of the ISFSI.

With regard to the QA Program requirements of 10 CFR 71, the requirements of the QA Program apply to the procurement, maintenance, repair, and use of important-to-safety radioactive material packagings for transport as specified in 10 CFR 71. All other 10 CFR 71 activities (i.e., design, fabrication, assembly, testing, and modification of important-to-safety radioactive material packagings) are not performed by PGE, but rather are satisfied by obtaining certifications from packaging suppliers that these activities are conducted in accordance with an NRC-approved QA Program.

The QA Program provides requirements for obtaining objective evidence that all SSCs classified as important to safety are in conformance with the design specifications, test specifications, and criteria established for the ISFSI and its components. Controls are established over activities affecting the quality of materials and components as necessary to ensure conformance to the approved design of the ISFSI (pursuant to 10 CFR 72 requirements), and of each individual package used for the transport of radioactive material (pursuant to 10 CFR 71 requirements). QA requirements and procedures are based on the following considerations concerning the complexity and proposed use of ISFSI SSCs, and of the radioactive material transportation package and its components.

- (1) The impact of malfunction or failure of the item on safety;
- (2) The design and fabrication complexity or uniqueness of the item;
- (3) The need for special controls over and QA oversight of processes and equipment;
- (4) The degree to which functional compliance can be demonstrated by inspection or test; and
- (5) The quality history and degree of standardization of the item.

2.2.2 QUALITY-RELATED PROCEDURES

Procedures cover quality-related aspects of administration and control implemented by PGE, including the implementation of QA Program elements applicable to the ISFSI and to the use of packaging for radioactive material transportation pursuant to 10 CFR 71. The procedures document the policies and instructions necessary to fulfill the intent of the QA Program. They also include standard forms, lists, and checkoffs used in documenting the audits, inspections, certifications, and reviews.

Where appropriate, the procedures assure that activities affecting quality are performed under suitably controlled conditions. Controlled conditions include the use of appropriate equipment, suitable environmental conditions for performing the activity, and adequate cleanliness, handling, and storage to assure that required prerequisites for the given activity have been satisfied.

2.2.3 TRAINING

As detailed further in the Trojan ISFSI SAR, the training program provides for indoctrination and training of personnel performing quality-related activities as necessary to assure that suitable proficiency is achieved and maintained.

3.0 DESIGN CONTROL

3.1 PURPOSE

Pursuant to 10 CFR 72.146, this chapter describes controls to assure that ISFSI design requirements affecting quality-related items are correctly translated into ISFSI design documents. This chapter does not apply to packaging radioactive material for transport, since PGE is not authorized to and does not design 10 CFR 71 radioactive material transportation packages.

3.2 GENERAL

PGE does not perform design work affecting Trojan ISFSI SSCs classified as important to safety. Rather, all quality-related design work, including engineering calculations, design change control, and independent design verification, is performed by a qualified contracted design/engineering company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of this QA Program.

Pursuant to Trojan ISFSI Technical Specification 5.1.1, design changes shall be approved by the ISFSI Manager prior to implementation. Procedural measures are established to assure that proposed design changes received from contracted suppliers are evaluated to determine if a change to the ISFSI license is required, and that appropriate personnel are notified of design modifications that may affect the performance of their duties.

4.0 PROCUREMENT DOCUMENT CONTROL

4.1 PURPOSE

Pursuant to 10 CFR 72.148 and 10 CFR 71.109, this chapter describes the preparation, review, approval, and control of procurement documents pertaining to ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) quality-related items and services to assure the inclusion of applicable quality assurance requirements.

4.2 PROCUREMENT DOCUMENT CONTROL PROGRAM

Applicable procurement requirements for quality-related items and services are specified or referenced in procurement documents. Measures are established to assure that, to the extent necessary, contractors or subcontractors provide a QA Program consistent with the applicable provisions of 10 CFR 72, Subpart G. In addition, measures are established to assure that the applicable requirements of 10 CFR 71 are included or referenced in documents for procurement of radioactive material packaging and/or associated services, and that packages and procedures for use of these packages have been authorized by the NRC and documented in the NRC Certificate of Compliance.

Procurement requisitions and supplements thereto are reviewed for adequacy by personnel other than those that originated the requisition and/or supplements, and who are knowledgeable of QA practices and concepts.

Procurement documents are reviewed and approved by the ISFSI manager or his designee.

Approved procurement documents are submitted to the purchasing manager or designee for procurement.

5.0 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

5.1 PURPOSE

Pursuant to 10 CFR 72.150 and 10 CFR 71.111, this chapter describes measures which will assure that activities affecting quality-related items and services associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) are delineated, controlled, implemented, and accomplished through utilization of approved and documented instructions, procedures, or drawings.

5.2 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

Activities affecting quality shall be accomplished in accordance with approved and documented instructions, procedures, or drawings. Instructions and procedures that describe activities affecting quality include the necessary limits and tolerances on material, equipment, processes, and specifications for activities associated with quality-related items and services. Instructions and procedures also prescribe special controls, processes, test equipment, tools and skills to attain the required quality, and requirements for documentation and/or verification of quality by inspection and test. Also included are appropriate qualitative and quantitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

6.0 DOCUMENT CONTROL

6.1 PURPOSE

Pursuant to 10 CFR 72.152 and 10 CFR 71.113, this chapter describes methods for review, approval, distribution, and control of documents and changes thereto which affect quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71).

6.2 DOCUMENT CONTROL PROGRAM

Written procedures are available which provide for the preparation, review, and approval of documents requiring control.

These procedures identify the appropriate qualified individuals or groups responsible for determining that appropriate quantitative and qualitative criteria are included in documents describing quality-related activities and for verifying that these criteria have been satisfactorily met. Procedures also require that documents are approved for implementation by appropriate levels of management and changes to the documents are reviewed and approved by the same organizations as the original unless another responsible organization is designated by the governing procedure. Approved changes are included in controlled documents prior to implementation of the change.

Procedures shall ensure that documents are distributed in a timely manner to appropriate locations and are available for use by personnel performing prescribed activities.

Master lists or equivalent document control systems are established to identify the current revision of controlled documents. These lists are available for use by cognizant personnel to preclude the use of superseded documents.

Quality-related procedures, including contractor procedures to be used onsite for quality-related work, are reviewed by personnel other than those that prepared the procedure or procedure revision, and who are knowledgeable of QA practices and concepts.

Temporary changes to quality-related documents may be made and implemented if a procedural method has been established to control the review and approval of the temporary changes.

7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT, AND SERVICES

7.1 PURPOSE

Pursuant to 10 CFR 72.154 and 10 CFR 71.115, this chapter describes the measures for selection and evaluation of procurement sources for quality-related items and services associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) and for verification activities to assure that specified requirements are met.

7.2 QUALITY ASSURANCE PROGRAM EVALUATION

PGE purchase orders/contracts for quality-related items or services are placed with contractors, suppliers, and service organizations who have been evaluated by designated Nuclear Oversight resource personnel for the applicable quality system level. Procedures govern the selection of procurement sources.

The effectiveness of the control of quality by contractors and suppliers shall be assessed at intervals consistent with the importance, complexity, and quantity of the product or service.

Quality-related items and services procured from a contractor, supplier, or service organization for which a quality assurance program is required but has not been reviewed or accepted may be utilized by PGE when appropriate additional controls such as source inspection, special receipt instructions, and/or testing are imposed. These additional controls shall be documented and approved by the ISFSI Manager.

7.2.1 SOURCE INSPECTION, SURVEY, AND AUDIT OF CONTRACTORS AND SUPPLIERS OF QUALITY-RELATED ITEMS

The designated Nuclear Oversight resource personnel or ISFSI staff personnel with appropriate qualifications are responsible for assuring source inspections, surveys, or audits of suppliers are performed as necessary.

7.3 RECEIPT INSPECTION

Receipt inspection of quality-related items is performed to assure that the requirements of the procurement documents have been met.

Accepted items are appropriately marked, removed from the inspection area, and located in a controlled storage area until use.

Documentary evidence that items conform to the procurement document requirements shall be available at the ISFSI site prior to installation or use.

8.0 IDENTIFICATION AND CONTROL OF MATERIAL, PARTS, AND COMPONENTS

8.1 PURPOSE

Pursuant to 10 CFR 72.156 and 10 CFR 71.117, this chapter describes measures for the identification and control of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to assure they can be traced to associated documents and to prevent the use of incorrect or defective material, parts, and components.

8.2 GENERAL

Quality-related items and subassemblies are identified (on the item or on records traceable to the item) in such a manner as to allow traceability to the appropriate quality documentation. The location and method of identification are selected to prevent affecting the function or quality of the item.

When an item is subdivided, required identification markings will be transferred to each part or reflected in the records.

When several parts are joined in fabrication, a list of parts and corresponding identification documents will accompany the assembly, as necessary. This documentation will include, as applicable, heat, lot, serial or part numbers, material certifications, weld or braze qualifications, test reports, NDE records, fabrication travelers, and other documentation to provide the bases for determining the acceptability of the assembly and its component parts.

Proper identification of materials, parts, and components is verified and documented at receipt inspection or prior to release for fabrication, assembly, shipping, or installation.

9.0 CONTROL OF SPECIAL PROCESSES

9.1 PURPOSE

Pursuant to 10 CFR 72.158, this chapter describes the methods for the control of special processes relative to quality-related items associated with the ISFSI (10 CFR 72). This chapter does not apply to radioactive material transportation packages, since PGE is not authorized to and does not fabricate 10 CFR 71 radioactive material transportation packages.

9.2 SPECIAL PROCESS CONTROL PROGRAM

PGE does not perform special processes involving Trojan ISFSI SSCs classified as important to safety. Rather, all quality-related special processes are performed by a qualified contracted company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of this QA Program.

10.0 INSPECTION

10.1 PURPOSE

Pursuant to 10 CFR 72.160 and 10 CFR 71.121, this chapter establishes and describes the methods for the inspection of quality-related items and activities associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) to assure their acceptability.

10.2 GENERAL

Inspections are performed in accordance with written, approved inspection plans and/or inspection procedures, to verify that quality-related items and processes conform to documented instructions, procedures, and drawings for accomplishing the activity.

Inspection programs are implemented through procedures which provide for preparation, review, and approval of inspection plans and procedures and provide for establishing mandatory hold points for witness by inspection. Inspection plans are approved by the ISFSI Manager or designee.

Inspections shall be performed by Nuclear Oversight resources or by qualified ISFSI Staff individuals other than those who performed or directly supervised the activity being inspected.

If direct inspection of items is impossible or disadvantageous, indirect control by monitoring processing methods, equipment, and personnel shall be provided. Both inspection and process monitoring shall be provided when control is inadequate without both.

11.0 TEST CONTROL

11.1 PURPOSE

Pursuant to 10 CFR 72.162, this chapter describes the controls for testing required to demonstrate satisfactory performance of quality-related items associated with the ISFSI (10 CFR 72). This chapter does not apply to radioactive material transportation packages, since PGE is not authorized to and does not perform testing of 10 CFR 71 radioactive material transportation packages.

Tests within the scope of this chapter include but are not limited to tests required by modifications and/or maintenance of SSCs classified as important to safety. These tests are performed to verify that an item will perform satisfactorily in service.

11.2 TEST CONTROL PROGRAM

11.2.1 GENERAL

The work package for maintenance or modifications to quality-related items identifies those tests necessary to demonstrate satisfactory performance of the affected equipment.

Measures are established to assure that test procedures incorporate the applicable requirements of 10 CFR 72 and the acceptance limits contained in the ISFSI license. Each test procedure is prepared and reviewed in accordance with applicable design documents, codes, and specifications.

The procedures shall include provisions for assuring that all prerequisites for the given test have been met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions.

11.2.2 TEST DOCUMENTATION

Test results are documented, evaluated, and their acceptability determined by qualified personnel.

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION

12.1 PURPOSE

Pursuant to 10 CFR 72.164 and 10 CFR 71.125, this chapter describes the provisions for the control of portable measuring and testing equipment and installed instrumentation utilized in the inspection, testing (10 CFR 72 only), and monitoring of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71).

12.2 MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION CONTROL PROGRAM

12.2.1 GENERAL

PGE does not perform calibration of Trojan ISFSI installed instrumentation and/or portable measuring and test equipment. Rather, all quality-related calibration is performed by qualified contracted calibration facility(ies) under its/their own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of this QA Program. Instruments are calibrated at intervals consistent with the instrument manufacturer's guaranteed repeatability and the user's experience.

The control of portable measuring and test equipment and installed instrumentation is implemented by specific procedures or instructions that describe calibration control and recall frequency requirements. Instruments, tools, gages, and fixtures used in quantitative measurement are uniquely identified, indicate calibration status, appear on a controlled list, and are included in the calibration program.

12.2.2 DEFECTIVE OR OUT-OF-CALIBRATION MEASURING AND TEST EQUIPMENT AND INSTALLED INSTRUMENTATION

When portable measuring or test equipment or installed instrumentation is found to be out of calibration or when its repair or replacement is required, an investigation is conducted and documented to determine the validity of previous inspection or test results and to determine the acceptability of those items previously inspected or tested.

13.0 HANDLING, STORAGE, AND SHIPPING

13.1 PURPOSE

Pursuant to 10 CFR 72.166 and 10 CFR 71.127, this chapter describes measures for the control of the handling, storage, shipping, cleaning, and preservation of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to preclude damage, loss, or deterioration.

13.2 HANDLING, STORAGE, SHIPPING, CLEANING, AND PRESERVATION PROGRAM

13.2.1 GENERAL

On receipt of quality-related items, compliance with special requirements for protective environments is verified and documented by qualified personnel responsible for quality-related receipt inspection.

Items are stored in a manner to protect against damage, degradation, or misuse.

Quality-related items are handled, stored, preserved, or protected in accordance with codes and standards as specified in implementing procedures.

13.2.2 HANDLING OF QUALITY-RELATED ITEMS

Procedures or instructions will be used to ensure that handling equipment, cranes, and rigging are examined and tested prior to performing critical lifts of quality-related items.

13.2.3 HANDLING, STORAGE, AND 10 CFR 71 TRANSPORTATION OF RADIOACTIVE MATERIALS

Personnel with specific radiation protection training and qualification are responsible for establishing administrative controls and requirements for handling, storing, and 10 CFR 71 packaging/transportation of radioactive materials. These requirements are established in implementing procedures.

14.0 INSPECTION, TEST, AND OPERATING STATUS

14.1 PURPOSE

Pursuant to 10 CFR 72.168 and 10 CFR 71.129, this chapter provides measures for the identification of the inspection, test, and operating status of quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to preclude bypassing of requirements and inadvertent operation.

14.2 INSPECTION, TEST, AND OPERATING STATUS PROGRAM

14.2.1 INSPECTION AND TEST STATUS

Procedures are established to indicate the status of inspections and tests performed on quality-related items.

ISFSI or other designated personnel are responsible for maintaining sufficient knowledge of tests or inspections in progress to control ISFSI and/or radioactive material transportation package activities.

14.2.2 OPERATING STATUS

The operating status of SSCs classified as important to safety that are found to have nonconformances is identified using tags, if appropriate, under the direction of ISFSI or other designated personnel to prevent inadvertent operation. Prior to the removal from service of SSCs classified as important to safety, ISFSI Manager permission to change status is given and documented in accordance with procedures to assure that the removal will not have an adverse effect on safe ISFSI operations.

15.0 NONCONFORMING MATERIAL, PARTS, OR COMPONENTS

15.1 PURPOSE

Pursuant to 10 CFR 72.170 and 10 CFR 71.131, this chapter describes measures for documentation, control, and disposition of nonconforming quality-related items associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) to prevent their inadvertent use or installation.

15.2 NONCONFORMING MATERIAL CONTROL PROGRAM

15.2.1 GENERAL

Items that deviate from approved specifications, codes, drawings, or other applicable documents are considered as nonconforming.

Procedures govern the use of nonconformance reports for identification, control, disposition of nonconforming items, and notification of affected organizations.

Unless such controls are not feasible, nonconforming items are identified with appropriate tags and segregated to indicate their unacceptable status until the nonconformance is properly dispositioned. If this is not feasible, other methods are established to identify and control the nonconforming items.

15.2.2 WORK PACKAGE

A work package may be used in lieu of a nonconformance report in accordance with implementing procedures when nonconforming items are identified which can be restored to the original design requirements under a "rework" disposition.

15.2.3 NONCONFORMANCE REPORT

Management reviews and approves nonconformance report dispositions.

"Use as is" or "modify" dispositions require the review and approval of designated engineering support personnel.

Tags associated with a nonconformance report are removed only by authorized personnel.

16.0 CORRECTIVE ACTION

16.1 PURPOSE

Pursuant to 10 CFR 72.172 and 10 CFR 71.133, this chapter describes the corrective action measures to assure that conditions adverse to quality associated with the ISFSI (10 CFR 72) and/or radioactive material packaging and transportation (10 CFR 71) are identified, evaluated, and corrected.

16.2 CORRECTIVE ACTION PROGRAM

Procedures govern the use of nonconformance reports to assure that conditions adverse to quality are identified and corrected in a timely manner.

Any individual has the authority and responsibility to report a condition adverse to quality to their manager or supervisor who will assure that it is or has been documented on a nonconformance report.

Nonconformance reports documenting significant conditions adverse to quality require determination of cause and corrective actions taken to preclude repetition.

Copies of nonconformance reports which identify significant conditions adverse to quality are distributed to appropriate levels of management for information and review.

17.0 QUALITY ASSURANCE RECORDS

17.1 PURPOSE

In accordance with 10 CFR 72.174 and 10 CFR 71.135, this chapter describes measures for the identification, retention, and retrievability of records associated with the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71) which furnish documentary evidence of the quality of items or activities affecting quality.

17.2 QUALITY ASSURANCE RECORDS CONTROL PROGRAM

In addition to the records required by the definition of Quality Assurance Records in the Glossary of this QA Program, ISFSI records required by 10 CFR 72.30, 72.48, 72.72, 72.80, 72.154, and 72.174 shall be maintained. ISFSI records pertaining to the design, fabrication, erection, testing, maintenance, and use of SSCs important to safety shall be maintained by or under the control of PGE for the applicable durations specified in 10 CFR 72.

In addition to the records required by the definition of Quality Assurance Records in the Glossary of this QA Program, the records must include the instructions, procedures, and drawings required by 10 CFR 71.111. These records shall be retained for three years beyond the date when PGE last engages in 10 CFR 71 radioactive materials packaging and transportation. If any portion of the written procedures or instructions is superseded, PGE shall retain the superseded material for three years after it is superseded.

Records should be identifiable to specific systems, structures, and components, when applicable. Documents which are designated as quality assurance records shall be legible, accurate, and completed as appropriate for the work accomplished. Records are indexed, including as a minimum retention times and location of the records within the record system, to provide for retrieval without undue delay.

Quality assurance records are ultimately filed and maintained at a Permanent Records Storage Facility. Prior to final transmittal of quality assurance records to permanent storage, the originating organization will be responsible for maintaining quality assurance record controls.

18.0 AUDITS

18.1 PURPOSE

In accordance with 10 CFR 72.176 and 10 CFR 71.137, this chapter describes the audit program utilized to verify the implementation, adequacy, and effectiveness of the QA Program for the ISFSI (10 CFR 72) and/or radioactive material transportation packages (10 CFR 71).

18.2 AUDIT PROGRAM

18.2.1 GENERAL

Audit schedules are established to meet applicable regulatory requirements and are based on the safety importance of the activities to be audited.

Audits shall be performed in accordance with written procedures using a check list or an annotated procedure which details the areas to be evaluated.

Audit results shall be documented. These results shall be reviewed by management having responsibility in the area audited.

Followup action, including reaudit of deficient areas, shall be taken where indicated.

18.2.2 AUDIT PERSONNEL

Auditors are appropriately trained and qualified to assure competence for performing the required audits. Nuclear Oversight resources have overall responsibility for performing planned and periodic audits of ISFSI Department activities. To ensure organizational independence, ISFSI Staff personnel shall not perform audits of ISFSI Department activities. External audits may be performed by either designated Nuclear Oversight resources or by properly qualified ISFSI Staff personnel.

Similarly, Nuclear Oversight resources or appropriately trained and qualified ISFSI Staff personnel may perform audits of ISRC activities or the biennial audit of audits of the ISFSI Department performed by Nuclear Oversight resources pursuant to this chapter. To ensure organizational independence in the performance of these audits, the audit team members report directly to the Corporate Executive Responsible for Trojan, and must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited.

GLOSSARY

Audit: An activity which determines through investigation, review, and objective evidence, the adequacy of, and adherence to, established procedures, instructions, specifications, codes, standards, or other applicable contractual and licensing requirements, and the effectiveness of implementation.

Calibration: The process by which measuring or test equipment is checked against standards of equal or higher accuracy and adjusted as necessary to assure its compliance with designated specifications.

Conditions Adverse to Quality: Departures from specified quality-related requirements, such as failures, malfunctions, deficiencies, deviations, defective material or equipment, and nonconformances.

Corrective Action: Action taken to correct conditions adverse to quality and to preclude repetition of significant conditions adverse to quality.

Design Documents: Specifications, drawings, calculations, and analyses associated with design changes and modifications that define technical requirements.

Documents Requiring Control: Documents requiring control contain written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results. As a minimum, these include design specifications; procurement documents; drawings; QA Program; procedures; ISFSI Safety Analysis Report; manufacturing, inspection, maintenance, modification, design change and testing instructions; nonconformance reports; as-built packages; and other documentation affecting quality-related items.

Examination: An element of inspection consisting of investigation of materials, components, supplies, and services to determine conformance to those specified requirements which can be determined by such investigation. Examination is usually nondestructive and includes simple physical manipulation, gauging, and measurement.

Identification: A means by which material, equipment, or parts can be traced to their associated quality documentation through the use of heat number, lot number, serial number, part number, purchase order number, or other appropriate means.

Inspection: An element of quality control which by means of examination, observation, or measurement determines the conformance of materials, supplies, components, parts, appurtenances, systems, processes, or structures to predetermined quality requirements.

Measuring and Test Equipment: Devices or systems used to calibrate, measure, gauge, test, or inspect in order to control or acquire data to verify conformance to specified requirements. Measuring and Test Equipment does not include permanently installed instrumentation nor does it include test equipment used for preliminary checks where data obtained will not be used to determine acceptability or verify conformance to established criteria.

Modification: A planned change in facility design or operation accomplished in accordance with the requirements and limitations of applicable codes, standards, procedures, specifications, licenses, and predetermined safety restrictions.

Modify (termed "repair" in ANSI N45.2.10): The disposition applied to nonconforming items which are restored to a condition such that the capability of an item to function reliably and safely is unimpaired, even though that item still may not conform to the original requirement.

Nonconformance: A deficiency in characteristic, documentation, or procedure which renders the quality of an item or activity unacceptable or indeterminate.

Permanent Records Storage Facility: A Permanent Records Storage Facility is an environmentally controlled room or vault with controlled access which provides protection of quality assurance records from fire, theft, flood, and deterioration.

Procedure: A document that specifies or describes how an activity is to be performed. It may include methods to be employed, equipment or materials to be used, and sequence of operation.

Procurement Documents: Those purchase requisitions, release letters, letters of intent, bid specifications, contracts, purchase orders, specifications, or other documents which provide contractual basis for procurement actions. They identify and define the requirements which items or services must meet in order to be acceptable to the purchaser.

Purchased Services: Purchased services are services procured by PGE to support quality-related items. Examples include design analysis, evaluations, reviews, audits, calibration, and data reduction.

Quality Assurance (QA): All those planned and systematic actions necessary to provide adequate confidence that an item or facility will perform satisfactorily in service.

Quality Assurance Records: Those records which provide documentary evidence of the quality of items and/or activities affecting quality. A document is considered a QA record when the document is complete, valid, legible, and adequately identifiable to the item or activity involved. Documents shall be considered valid records only if stamped, initialed, signed, or otherwise authenticated and dated by authorized personnel. A record is completed when the final review signature or other authentication is placed on the document or on a documentation package containing multiple documents. QA records include the following: design records, records of use, and the results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses. The records must include closely related data such as qualifications of personnel, procedures, and equipment. Inspection and test records must, at a minimum, identify the inspector or data recorder, the type of observation, the results, the acceptability, and the action taken in connection with any noted deficiencies. The records must include the procedures that establish the records retention program.

Quality Requirements: Quality requirements include, but are not limited to, such items as test, inspection, and acceptance criteria and any special instructions and prerequisites for such activities as designing, identification, fabrication, cleaning, erecting, packaging, handling, shipping, and extended storage.

Radiation Protection: Radiological controls applied to radiation areas, radiation services, or radiation-producing machines consistent with the requirements of 10 CFR 19, 10 CFR 20, and 10 CFR 72.

Reject: The disposition applied to nonconforming items which are unsuitable for their intended purpose but which may be feasible to return to the supplier as salvage for replacement or credit, or feasible to scrap.

Rework: The disposition applied to nonconforming items which are made to conform to a prior specified requirement by completion, remachining, reassembly, or other corrective means.

Significant Condition Adverse to Quality: A departure from specified requirements is considered to be a significant condition adverse to quality if the condition appears to be an event which (1) requires reporting in 24 hours or less in accordance with the ISFSI License, 10 CFR 20, or 10 CFR 72.75; (2) requires reporting in accordance with 10 CFR 21; or (3) involves a significant breakdown in the QA Program implementation.

Stop Work: The authority that permits immediate stoppage of quality-related activities such as design, procurement, fabrication, inspection, testing, or removal.

Testing: The determination or verification of the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operating conditions.

Use As Is: A disposition applied to nonconforming items which do not meet all specified requirements but do safely and reliably meet their intended purpose.

Proposed Revision 28 to PGE-8010 –
Description of and Reason and Justification for Changes

The table below provides the Nuclear Regulatory Commission (NRC) with a description of each change incorporated into proposed Revision 28 to PGE-8010, "Portland General Electric (PGE) Nuclear Quality Assurance [QA] Program For Trojan Independent Spent Fuel Storage Installation (10 CFR 72) Operations And Radioactive Material Packaging And Transportation (10 CFR 71) Activities" (Trojan Nuclear QA Program), which is provided as Enclosures I and II to PGE Letter No. VPN-001-2005 concurrently with this Enclosure III. Also included in the table is the reason for each change and justification supporting the conclusion that, following implementation of the change, the Trojan Nuclear QA Program will continue to satisfy the requirements and applicable criteria of 10 CFR 72, Subpart G, and 10 CFR 71, Subpart H.

As detailed further in PGE Letter No. VPN-001-2005 forwarding this enclosure, the primary reason for the changes incorporated into the proposed Revision 28 of the Trojan Nuclear QA Program is to reflect the upcoming termination of the Trojan Nuclear Plant license issued and maintained pursuant to 10 CFR 50. In preparation for Trojan Nuclear Plant license termination, PGE has prepared Revision 28 to the Trojan Nuclear QA Program that eliminates the portions of the program specifically related to Trojan Nuclear Plant 10 CFR 50 activities. Additional changes are incorporated into the proposed Revision 28 to eliminate requirements that no longer are appropriate given the limited activities that will be conducted by PGE staff at the Trojan ISFSI during the spent fuel storage period. These and other administrative and/or editorial clarifications are further detailed in the table below.

PGE-8010 Section	Description of and Reason and Justification for Change
FRONT MATTER	
Title Page	Administrative changes are made to this page to reflect the primary purpose of the proposed Revision 28 as discussed above. Specifically, the title of the Nuclear QA Program is changed to reflect the fact that with the termination of the Trojan Nuclear Plant license, the QA Program no longer is applied to the Trojan Nuclear Plant. Rather, following its implementation concurrent with license termination, the revised QA Program will be applied to Trojan ISFSI operational activities conducted under 10 CFR 72, and to radioactive material packaging and transportation activities conducted at the Trojan ISFSI under 10 CFR 71. The revision number is also changed to reflect the proposed Revision 28.

PGE-8010 Section	Description of and Reason and Justification for Change
Approval Page	Administrative changes are made to this page to reflect the primary purpose of the proposed Revision 28 as discussed above. Specifically, the title is changed as discussed above for changes to the Title Page. In addition, the specific management position titles for the management signatories are changed to generic titles and/or descriptive text that clearly denote the position function, while reducing the potential need to request QA Program changes as a result of any future organizational position title changes.
Table of Contents; List of Effective Pages	The table of contents and list of effective pages are updated to reflect page-numbering and page listing changes due to additions and deletions made in the body of the QA Program. The list of effective pages is moved to before the Policy Statement. As such, these changes are strictly administrative in nature.
Policy Statement	<p>The Policy Statement is moved to after the list of effective pages. The first four paragraphs are revised to reflect the primary purpose of the proposed Revision 28 as discussed above. Specifically, with the termination of the Trojan Nuclear Plant license, the QA Program no longer is applied to the Trojan Nuclear Plant. Rather, following its implementation concurrent with license termination, the revised QA Program will be applied to Trojan ISFSI operational activities classified as important to safety that are conducted under 10 CFR 72 (including managerial/administrative controls used to ensure safe operation of the ISFSI), and to radioactive material packaging and transportation activities classified as important to safety that are conducted at the Trojan ISFSI under 10 CFR 71.</p> <p>The last paragraph is revised to reflect the fact that since the change control criteria of 10 CFR 50.54(a) no longer will apply to PGE following Trojan Nuclear Plant license termination, and since 10 CFR 72 and 10 CFR 71 have no similar change control criteria, any future changes to the QA Program will require prior NRC approval. (This conclusion is consistent with and implements NRC Information Notice 2002-35 dated December 20, 2002.) This paragraph and the subsequent signatory block also are revised to reflect the change from specific management position titles to generic titles and/or descriptive text that clearly denote the position function, as discussed further above for changes to the Approval Page.</p>

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 1	
1.0, Organization	This section as revised continues to meet the requirements of 10 CFR 72.142 and 10 CFR 71.103, "Quality assurance organization." This section also identifies the major organizations participating in the program and the designated functions of these organizations as specified in 10 CFR 72.144(a) and 10 CFR 71.105(a).
1.0, Organization, Section 1.1	The Section 1.1 heading is changed from "Purpose" to "Introduction" to more appropriately reflect the section's intent. The body of Section 1.1 is revised to reflect the primary purpose of the proposed Revision 28 as discussed above. Specifically, with the termination of the Trojan Nuclear Plant license, the QA Program no longer is applied to the Trojan Nuclear Plant. Rather, following its implementation concurrent with license termination, the revised QA Program will be applied to Trojan ISFSI operational activities classified as important to safety that are conducted under 10 CFR 72 (including managerial and/or administrative controls used to ensure safe operation of the ISFSI), and to radioactive material packaging and transportation activities classified as important to safety that are conducted at the Trojan ISFSI under 10 CFR 71. This section, together with the Policy Statement described above, ensure that the requirements of 10 CFR 72.142(a) and 10 CFR 71.103(a) are satisfied.
1.0, Organization, Section 1.2	The Section 1.2 heading is changed from "Organization" to "Assignment of Functional Responsibilities," and the body of Section 1.2 is also revised to reflect the change from specific management position titles to generic titles and/or descriptive text that clearly denote the position function, as discussed further above for changes to the Approval Page.
1.0, Organization, Section 1.2.1	<p>The Section 1.2.1 heading and text is revised to reflect the change from the specific management position title of "Trojan Site Executive" to the generic title "Corporate Executive Responsible for Trojan." This generic title clearly denotes the position function, as discussed further above for changes to the Approval Page, while reducing the potential need to request QA Program changes as a result of any future organizational position title changes. This generic title designation is also consistent with the same title used in the Trojan ISFSI Safety Analysis Report, Section 9.1.1.1 and Figure 9.1-1. The first paragraph of this section is further revised editorially to clarify the responsibilities of this functional position.</p> <p>The second paragraph of this section incorporates several changes. First, the organizational position "General Manager, Trojan" is eliminated since this is a Trojan Nuclear Plant management position that will no longer be needed following termination of the Trojan Nuclear Plant 10 CFR 50 license. Second, the "Manager, Nuclear</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>Oversight” is eliminated as an organizational management position, since as described further below for changes to Sections 1.2.2 and 1.2.3, the oversight of QA resources to assure effective QA Program implementation will be performed by a designated member of the ISFSI Safety Review Committee (ISRC). Finally, the last paragraph of this section is revised to specify that ISFSI Staff personnel and/or contractors, agents, and/or consultants report directly to the Corporate Executive Responsible for Trojan when these individuals are conducting audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities. As detailed further below in support of the changes to Sections 1.2.2 and 1.2.3, this organizational structure ensures that auditing resources are independent of the Trojan ISFSI line organization or other PGE departments that perform quality-related activities. This satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).</p>
<p>1.0, Organization, Section 1.2.2</p>	<p>Section 1.2.2, “General Manager, Trojan,” is deleted, and Section 1.2.3, “ISRC,” is renumbered as new Section 1.2.2.</p> <p>This renumbered section is revised administratively and/or editorially to clarify the functions and reporting hierarchy of the ISRC, to reflect the change from the specific management position title of “Trojan Site Executive” to the generic title “Corporate Executive Responsible for Trojan,” and to reflect the elimination of the “Nuclear Oversight Department” as a PGE organizational department. As detailed further below in support of changes to Section 1.2.3, the PGE Nuclear Oversight Department functions will be performed by appropriately trained and qualified ISFSI Staff personnel and/or contractors, agents, and/or consultants, in a manner that ensures that auditing resources remain independent of the Trojan ISFSI line organization or other PGE departments that perform quality-related activities. With elimination of the Nuclear Oversight Department, references to the “biennial audit of the Nuclear Oversight Department” in this and other sections of the Trojan ISFSI QA Program are changed to “biennial audit of past QA audits of ISFSI Department activities” or similar words expressing the same concept. Furthermore, to ensure organizational independence, responsibility for this “audit of past Chapter 18 audits” as well as for audits of ISRC activities is transferred from the ISRC to the Corporate Executive Responsible for Trojan. This satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>The last sentence requiring the results of the biennial audit and audits of ISRC activities to be forwarded to the Corporate Executive is eliminated since with this revision to the Trojan ISFSI QA Program, the Corporate Executive Responsible for Trojan has the responsibility for these audits, and thus the audit results are under the organizational "ownership" of the Corporate Executive. Therefore, there no longer is any need to specify that these results be forwarded. Finally, a sentence is added to this section requiring that the ISRC ensure that the adequacy of the QA Program implementation is assessed biennially. This change is administrative in nature, since this requirement is currently in Appendix B of the Trojan Nuclear QA Program, and thus this change only relocates existing wording. (See further discussion below in support of the deletion of Appendix B.)</p>
<p>1.0, Organization, Sections 1.2.3, 1.2.3.1, and 1.2.3.2</p>	<p>A new Section 1.2.3, "Nuclear Oversight," and Subsections 1.2.3.1, "ISRC Member Responsible for Managing Nuclear Oversight Resources," and 1.2.3.2, "Nuclear Oversight Resources," are added to describe the functional authorities, responsibilities, and interfaces of individuals performing nuclear oversight functions. This section replaces the current Section 1.2.3.1, "Nuclear Oversight Department," Section 1.2.3.1.1, "Manager, Nuclear Oversight," and Section 1.2.3.1.2, "Qualification Requirements for the Manager, Nuclear Oversight." The substantive changes reflected in this revision as compared to the current Trojan Nuclear QA Program include the following:</p> <ul style="list-style-type: none"> • The Manager, Nuclear Oversight, is eliminated. The management of nuclear oversight resources to verify adequate implementation of the QA Program, now performed by the Manager, Nuclear Oversight, will be performed by an ISRC Member designated by the Corporate Executive Responsible for Trojan. The minimum qualifications specified for the ISRC Member so designated are materially the same as those currently specified for the Manager, Nuclear Oversight. • The Nuclear Oversight Department is eliminated from the PGE organization, and the functions now performed by the Nuclear Oversight Department will be performed by Trojan ISFSI Staff personnel and/or Nuclear Oversight resources consisting of contractors, agents, and/or consultants outside the Trojan ISFSI Department, as appropriate to ensure that required organizational independence is maintained. Specifically, as stated in the proposed Revision 28 of the Trojan Nuclear QA Program, the primary role of Nuclear Oversight resources is to conduct audits of ISFSI Department activities in accordance with Chapter 18 of the Trojan Nuclear QA Program. ISFSI Staff personnel shall not be used

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>to perform (Chapter 18) audits of ISFSI Department activities. Requiring Nuclear Oversight resources to conduct all audits of ISFSI Department activities ensures that individuals performing these audits are independent of the Trojan ISFSI line organization. Nuclear Oversight resources may also augment the ISFSI Staff personnel in performance of other QA/QC activities, including the performance of audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities that have been performed pursuant to Chapter 18 of this QA Program; source and receipt inspections, surveys, or audits of contractors and suppliers of quality-related items; QC inspections; and/or procurement document/record reviews. For audits of ISRC activities or the biennial audit of past Chapter 18 audits, the ISFSI Staff and/or Nuclear Oversight resources audit personnel report directly to the Corporate Executive Responsible for Trojan, and must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited. The use of individuals in the ISFSI line organization to perform source inspections, surveys, or audits of suppliers maintains the independence specified for individuals performing QA review functions since these Trojan ISFSI Staff individuals are not within the supplier organization or otherwise under the control of the supplier being inspected, surveyed, or audited. For other QA review functions, independence is maintained since the ISFSI Department individuals performing procurement document/record and/or procedure review activities must be someone other than those that originated the document/record or procedure revision being reviewed, and individuals performing inspection activities must be someone other than those that perform or supervise the performance of the work/activity being inspected.</p> <ul style="list-style-type: none"> • As indicated above, Nuclear Oversight resources report directly to the ISRC Member designated by the Corporate Executive Responsible for Trojan to manage the Nuclear Oversight resources, unless the Nuclear Oversight resources are conducting audits of ISRC activities or are conducting the biennial audit of past QA audits of ISFSI Department activities that have been performed pursuant to Chapter 18 of this QA Program. In these instances, the auditing resources report directly to the Corporate Executive Responsible for Trojan. <p>The changes incorporated into the proposed Revision 28 of the Trojan Nuclear QA Program and described above ensure that auditing resources are independent of the Trojan ISFSI line organization or other PGE departments that perform quality-related activities, and that individuals in the ISFSI line organization</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>performing reviews, surveys, receipt or QC inspections, etc, maintain appropriate independence. This satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f). The changes described above also ensure that activities affecting important-to-safety functions will be verified to have been correctly performed by checking, auditing, and/or inspection, thus satisfying the requirements of 10 CFR 72.142(b)(2) and 10 CFR 71.103(b)(2).</p>
<p>1.0, Organization, Sections 1.2.4, 1.2.4.1, and 1.2.4.2</p>	<p>The title of Section 1.2.4 is changed from "Plant Staff" to "ISFSI Department" to reflect the termination of the (Trojan Nuclear) Plant license and the remaining line organization at Trojan – the Trojan ISFSI Department. New Section 1.2.4.1, "ISFSI Manager," and Section 1.2.4.2, "ISFSI Staff," are added to clarify the authorities and responsibilities of line individuals and organizations performing quality-related activities. The substantive change reflected in the new Section 1.2.4.2 is the allowance that "[a]ppropriately trained and qualified ISFSI Staff personnel (which may include corporate and/or contracted support personnel) may perform audits of ISRC activities or the biennial audit of past QA audits of ISFSI Department activities that have been performed by Nuclear Oversight resources pursuant to Chapter 18 of this QA Program. In the performance of these audits, the ISFSI Staff audit personnel report directly to the Corporate Executive Responsible for Trojan, and must be individuals other than those that performed the ISRC activity or conducted the internal audit(s) being audited. Appropriately trained ISFSI Staff personnel knowledgeable of QA/QC practices and concepts may also perform quality-related receipt inspections; source inspections, surveys, or audits of contractors and suppliers of quality-related items; QC inspections; and/or quality-related procurement document/record and procedure reviews." The use of individuals in the ISFSI line organization to perform source inspections, surveys, or audits of suppliers maintains the independence specified for individuals performing QA review functions since these Trojan ISFSI Staff individuals are not within the supplier organization or otherwise under the control of the supplier being inspected, surveyed, or audited. For other QA review functions, independence is maintained as reflected in additional wording added to Section 1.2.4.2 that requires that ISFSI Department individuals performing procurement document/record and/or procedure review activities must be someone other than those that originated the document/record or procedure revision being reviewed, and that individuals performing inspection activities must be someone other than those that perform or supervise the performance of the work/activity being inspected. It is noted that the results of reviews, inspections, and vendor audits are documented and thus are subject to audit by independent Nuclear Oversight resources. This satisfies the</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).
Figure 1.0-1	This figure is updated to reflect the changes to Chapter 1.0 as described above. The management position titles reporting to the General Manager, Trojan, are eliminated since similar to the General Manager, Trojan position, these positions are within the Trojan Nuclear Plant organization and will no longer be necessary following termination of the Trojan Nuclear Plant license. A block is added to illustrate the organizational independence that is maintained for Trojan ISFSI Staff and/or Nuclear Oversight resources personnel performing audits of ISRC activities and/or the biennial audit of past Chapter 18 QA audits, as detailed above. In addition, a block is added to clarify the functions that may be provided by corporate or contract support organizations to augment the ISFSI Staff. This change is strictly administrative in nature, since as currently stipulated in Section 1.2.5 of the Trojan Nuclear QA Program, any quality-related support activities must be performed in accordance with applicable portions of the QA Program.
CHAPTER 2	
2.0, Quality Assurance Program, Section 2.1	Section 2.1, "Purpose," is revised to specify the underlying regulatory requirements governing Section 2.0, and to specify that Section 2.0 applies both to applicable 10 CFR 72-related activities and to 10 CFR 71-related activities. Reference to the Trojan Nuclear Plant QA Program is eliminated. These changes are strictly editorial and/or administrative in nature.
2.0, Quality Assurance Program, Section 2.2.1	Section 2.2.1, "General," is revised to eliminate discussion of the Trojan Nuclear Plant and the associated references to 10 CFR 50, Appendix B, and safety-related items and services. Additional detail is provided to discuss the 10 CFR 72- and 10 CFR 71-related structures, systems, and components (SSCs) and activities that are covered by the Trojan Nuclear QA Program (i.e., quality-related), as specified in 10 CFR 72.144(a) and 10 CFR 71.105(a). Additional detail is also provided describing controls that are established over activities affecting quality to ensure conformance with design requirements, and detailing considerations concerning the complexity and proposed use of important-to-safety SSCs. These changes satisfy the requirements of 10 CFR 72.144(b) and (c) and 10 CFR 71.105(b) and (c).
2.0, Quality Assurance Program, Section 2.2.2	Section 2.2.2, "Quality-Related Procedures," is revised to document that the Trojan Nuclear QA Program as revised to comply specifically to 10 CFR 72, Subpart G, and 10 CFR 71, Subpart H, is appropriately implemented by written procedures. These changes satisfy the requirements of 10 CFR 72.144(a) and

PGE-8010 Section	Description of and Reason and Justification for Change
	10 CFR 71.105(a). It is noted that in the last sentence of the first paragraph of this section (and in other sections of the QA Program), reference to the conduct of "QA surveillances" is eliminated. This change is appropriate because with the limited activities that will be conducted by PGE during ISFSI storage operations, required audits, inspections, and reviews will provide sufficient oversight of quality-related activities to ensure the appropriate and effective implementation of the QA Program.
2.0, Quality Assurance Program, Section 2.2.3	Section 2.2.3, "Training," is revised editorially to clarify that the training of personnel performing quality-related activities is detailed further in the Trojan ISFSI Safety Analysis Report (SAR). This section complies with the requirements of 10 CFR 72.144(d) and 10 CFR 71.105(d).
CHAPTER 3	
3.0, Design Control, Section 3.1	Section 3.1, "Purpose," is revised to specify 10 CFR 72.146 as the governing regulatory requirement for this section, and that the contents of this section apply to ISFSI design activities. Wording is added to specify that this Chapter 3.0 does not apply to packaging radioactive material for transport, since as documented in QA Program Approval for Radioactive Material Packages No. 0327, PGE is not authorized to design 10 CFR 71 radioactive material transportation packages. This latter change is only an administrative change to this section, since the current Trojan Nuclear QA Program, Appendix A, also does not allow 10 CFR 71 design activities (see discussion below in support of deleting Appendix A).
3.0, Design Control, Sections 3.2, 3.3, 3.4, and 3.5	Sections 3.3, 3.4, and 3.5 are deleted, and Section 3.2 is significantly revised to reflect that following termination of the Trojan Nuclear Plant license and continuing throughout the life of the Trojan ISFSI, PGE no longer intends to perform design work affecting Trojan ISFSI SSCs classified as important to safety. As stated in the revised Section 3.2, quality-related design work, including engineering calculations, design change control, and independent design verification, will be performed by a qualified contracted design/engineering company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of the Trojan Nuclear QA Program. Additional measures are incorporated into the revised Section 3.2 to ensure that Trojan ISFSI technical specification and license requirements are satisfied, and that personnel are notified of design changes that may impact the performance of their duties. These remaining measures in Section 3.2 adequately implement the criteria of 10 CFR 72.146 and 72.140(b).

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 4	
4.0, Procurement Document Control, Section 4.1	<p>Section 4.1, "Purpose," is revised to specify 10 CFR 72.148 and 10 CFR 71.109 as the governing regulatory requirements for this section, and that the contents of this section apply to control of procurement documents associated with both quality-related ISFSI 10 CFR 72 and quality-related 10 CFR 71 radioactive material transportation SSCs and services. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.</p>
4.0, Procurement Document Control, Section 4.2	<p>Wording is added to the first paragraph of Section 4.2, "Procurement Document Control Program," that parallels similar wording from 10 CFR 72.148 and 10 CFR 71.109. This change is administrative in nature, since this wording is currently in Appendices A and B of the Trojan Nuclear QA Program, and thus this change only relocates existing wording. (See further discussion below in support of the deletion of Appendices A and B.)</p> <p>The second paragraph of Section 4.2 is revised to clarify the meaning of "independent personnel." Specifically, procurement requisitions and supplements thereto associated with quality-related SSCs and/or services are required to be reviewed by personnel other than (i.e., independent of) those that originated the requisitions and/or supplements. Thus, these reviews may be performed by "independent" individuals within the ISFSI Staff (line organization), or may be performed by Nuclear Oversight resources (see Section 1.2.3.2). Regardless, these reviews are subject to periodic audit by the Nuclear Oversight resources. Thus, this change ensures effective implementation of the Trojan Nuclear QA Program and satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).</p> <p>The third paragraph of Section 4.2 is revised to reflect that following Trojan Nuclear Plant license termination, the Trojan ISFSI Manager will be the manager that reviews and approves procurement documents for quality-related items and services procured in support of the Trojan ISFSI. This change reflects the elimination of Trojan Nuclear Plant management positions that will no longer be needed following termination of the Trojan Nuclear Plant 10 CFR 50 license. This change is appropriate since, as described in Section 1.2.4.1, the ISFSI Manager is responsible for the day-to-day implementation of the Trojan Nuclear QA Program.</p>

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 5	
5.0, Instructions, Procedures, and Drawings, Section 5.1	Section 5.1, "Purpose," is revised to specify 10 CFR 72.150 and 10 CFR 71.111 as the governing regulatory requirements for this section, and that the contents of this section apply to control of instructions, procedures, and drawings associated with both quality-related ISFSI 10 CFR 72 and quality-related 10 CFR 71 radioactive material transportation SSCs and services. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
CHAPTER 6	
6.0, Document Control, Section 6.1	Section 6.1, "Purpose," is revised to specify 10 CFR 72.152 and 10 CFR 71.113 as the governing regulatory requirements for this section, and that the contents of this section apply to control of documents associated with both quality-related ISFSI 10 CFR 72 and quality-related 10 CFR 71 radioactive material transportation SSCs and services. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
6.0, Document Control, Section 6.2	The fifth paragraph of Section 6.2, "Document Control Program," is revised to eliminate the requirement for the Nuclear Oversight staff to review procedures dealing with corrective action. Instead, corrective action procedures (currently consisting of one Trojan ISFSI procedure and a portion of another) will be reviewed in the same way as other quality-related procedures – by personnel other than those that prepared the procedure or procedure revision, and who are knowledgeable of QA practices and concepts. This change is appropriate because with the limited activities and procedure revisions that will be conducted by PGE during ISFSI storage operations and through ISFSI decommissioning, these independent reviews will provide sufficient oversight of quality and ensure the appropriate and effective implementation of the Trojan ISFSI corrective action program. Further, these independent reviews will be subject to audit by the Nuclear Oversight resources. Thus, this change ensures effective implementation of the Trojan Nuclear QA Program and satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA review functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 7	
7.0, Control of Purchased Material, Equipment, and Services, Section 7.1	Section 7.1, "Purpose," is revised to specify 10 CFR 72.154 and 10 CFR 71.115 as the governing regulatory requirements for this section, and that the contents of this section apply to control of purchased quality-related material, equipment, and services associated with both ISFSI 10 CFR 72 and 10 CFR 71 radioactive material transportation activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
7.0, Control of Purchased Material, Equipment, and Services, Section 7.2	<p>The first paragraph of Section 7.2, "Quality Assurance Program Evaluation," is revised to reflect elimination of the Nuclear Oversight Department from the PGE organization and to reflect the use of Nuclear Oversight resources for evaluations of suppliers of quality-related items and/or services, as discussed above in support of the changes to Sections 1.2.3, 1.2.3.1, and 1.2.3.2. It is noted that the results of these evaluations are documented and thus are subject to audit by independent Nuclear Oversight resources. Based on these factors, this change ensures effective implementation of the Trojan Nuclear QA Program and satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA review functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).</p> <p>The third paragraph of Section 7.2 is revised to eliminate the requirement for written Nuclear Oversight Department approval for use of quality-related items and services from vendors without a PGE-approved QA Program. This change is appropriate for three primary reasons. First, the requirements are retained in this paragraph for appropriate additional controls – such as source inspection, special receipt instructions, and/or testing – on quality-related items and services procured from these vendors. Second, as stated in the last sentence of this paragraph, the ISFSI Manager is required to approve these additional controls, and as the individual directly responsible for the day-to-day implementation of the Trojan Nuclear QA Program (see Section 1.2.4.1), the ISFSI Manager is the appropriate minimum management approval of these additional controls. Third, wording is added at the end of this paragraph specifying that these additional controls shall be documented, and as such are subject to audit by Nuclear Oversight resources. Thus, this change ensures effective implementation of the Trojan Nuclear QA Program.</p>
7.0, Control of Purchased Material, Equipment, and	Section 7.2.1, "Source Inspection, Survey, and Audit of Contractors and Suppliers of Quality-Related Items," is revised to specify that source inspections, surveys, or audits of suppliers of quality-related items and/or services may be performed either by Nuclear Oversight resources or by qualified ISFSI Staff personnel. This change is

PGE-8010 Section	Description of and Reason and Justification for Change
Services, Section 7.2.1	<p>appropriate since the results of these source inspections, surveys, or audits are documented and thus are subject to audit by independent Nuclear Oversight resources. The use of appropriately qualified individuals in the ISFSI line organization to perform source inspections, surveys, or audits of suppliers maintains the independence specified for individuals performing QA review functions since these Trojan ISFSI Staff individuals are not within the supplier organization or otherwise under the control of the supplier being inspected, surveyed, or audited. Thus, this change ensures effective implementation of the Trojan Nuclear QA Program and satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA review functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).</p>
7.0, Control of Purchased Material, Equipment, and Services, Section 7.3	<p>The second sentence of Section 7.3, "Receipt Inspection," is revised to reflect the fact that following receipt inspection of quality-related items at the Trojan ISFSI, these items are appropriately marked, removed from the inspection area, and immediately issued for use. If an item is not to be immediately installed or used, the item is located in a controlled storage area until it is to be used. This process ensures that appropriate controls are placed on quality-related items to assure that prior to use, an item is verified to be the correct item and meet procurement and design requirements pursuant to 10 CFR 72.154 and 10 CFR 71.115.</p> <p>An editorial change is made to the last sentence of Section 7.3 to replace reference to the "plant" with "ISFSI site." This change reflects the termination of the Trojan Nuclear Plant 10 CFR 50 license.</p>
CHAPTER 8	
8.0, Identification and Control of Material, Parts, and Components, Section 8.1	<p>Section 8.1, "Purpose," is revised to specify 10 CFR 72.156 and 10 CFR 71.117 as the governing regulatory requirements for this section, and that the contents of this section apply to the identification and control of quality-related material, parts, and components associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.</p>

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 9	
9.0, Control of Special Processes, Section 9.1	Section 9.1, "Purpose," is revised to specify 10 CFR 72.158 as the governing regulatory requirement for this section, and that the contents of this section apply to control of special processes relative to quality-related items associated with ISFSI activities. Wording is added to specify that this Chapter 9.0 does not apply to packaging radioactive material for transport, since as documented in QA Program Approval for Radioactive Material Packages No. 0327, PGE is not authorized to fabricate 10 CFR 71 radioactive material transportation packages. This latter change is only an administrative change to this section, since the current Trojan Nuclear QA Program, Appendix A, also does not allow 10 CFR 71 fabrication and special process activities (see discussion below in support of deleting Appendix A).
9.0, Control of Special Processes, Section 9.2	Section 9.2, "Special Process Control Program," is significantly revised to reflect that following termination of the Trojan Nuclear Plant license and continuing throughout the life of the Trojan ISFSI, PGE no longer intends to perform special processes involving Trojan ISFSI SSCs classified as important to safety. As stated in the revised Section 9.2, quality-related special processes will be performed by a qualified contracted company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of the Trojan Nuclear QA Program. The revised Section 9.2, together with Chapters 4 and 7, adequately implement the criteria of 10 CFR 72.158 and 72.140(b).
CHAPTER 10	
10.0, Inspection, Section 10.1	Section 10.1, "Purpose," is revised to specify 10 CFR 72.160 and 10 CFR 71.121 as the governing regulatory requirements for this section, and that the contents of this section apply to the inspection of quality-related items and activities associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
10.0, Inspection, Section 10.2	The first paragraph of Section 10.2, "General," is revised to clarify the reference to "predetermined quality requirements." This wording is replaced with more specific words similar to that used in the governing regulatory requirements for this section – 10 CFR 72.160 and 10 CFR 71.121. This change is strictly editorial and/or administrative in nature.

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>The second sentence of the second paragraph of Section 10.2 is deleted since this statement is largely redundant with a portion of the first sentence, and presents detail that is neither required nor necessary. Specifically, the first sentence states, in part, that “[i]nspection programs are implemented through procedures which provide for preparation, review, and approval of inspection plans....” With procedures implemented that specify requirements for preparation, review, and approval of inspection plans, there is no specific benefit to stipulating that these same procedures incorporate “minimum” requirements for inspection plans. Therefore, this unnecessary statement is eliminated. In the last sentence of this paragraph, reference to the “responsible plant supervisor” is replaced with “ISFSI Manager or designee” to reflect the fact that following termination of the Trojan Nuclear Plant license, the ISFSI Manager will be the primary supervisory position remaining at the Trojan ISFSI. This is strictly an administrative change, as the ISFSI Manager is the appropriate management level position responsible for reviewing inspection plans. Based on the above, these changes will ensure that the requirements of 10 CFR 72.160 and 10 CFR 71.121 continue to be effectively implemented.</p> <p>The third paragraph of Section 10.2 is revised to specify that inspection of quality-related items and/or activities may be performed either by Nuclear Oversight resources or by qualified ISFSI Staff personnel. For ISFSI Staff personnel performing inspection activities, independence is maintained since this paragraph continues to stipulate that the ISFSI Staff individuals performing the inspection must be an individual “other than those who performed or directly supervised the activity being inspected.” It is noted that the results of these inspections are documented and thus are subject to audit by independent Nuclear Oversight resources. Thus, consistent with conclusions reached above for similar changes (e.g., Section 1.2.4.2), this change ensures effective implementation of the Trojan Nuclear QA Program and satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA review functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f).</p>

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 11	
11.0, Test Control, Section 11.1	<p>Section 11.1, "Purpose," is revised to specify 10 CFR 72.162 as the governing regulatory requirement for this section, and that the contents of this section apply to control of testing required to demonstrate satisfactory performance of quality-related items associated with ISFSI (10 CFR 72) activities. Wording is added to specify that this Chapter 11.0 does not apply to packaging radioactive material for transportation (i.e., 10 CFR 71 activities), since as documented in QA Program Approval for Radioactive Material Packages No. 0327, PGE is not authorized to perform testing of 10 CFR 71 radioactive material transportation packages. Specifically, PGE is authorized to procure, maintain, repair, and use radioactive material transportation packagings. Other activities (i.e., design, fabrication, assembly, testing, and modification) are not conducted under the current QA Program Approval, but rather are satisfied by obtaining certifications from packaging suppliers that these activities are conducted in accordance with an NRC-approved QA Program. It is noted that the only 10 CFR 71 activities involving procurement, maintenance, repair, and use of radioactive material packagings that PGE anticipates to be necessary during the lifetime of the Trojan ISFSI are related to packaging the spent nuclear fuel stored in the ISFSI and transporting it to an off-site federal repository. Any post-maintenance testing, design testing, etc., that would be required would be performed by a qualified contracted company under its own approved QA Program and that is procured in accordance with approved procedures and Chapters 4 and 7 of the Trojan Nuclear QA Program.</p> <p>The second paragraph of Section 11.1 is revised to specify the testing activities that are anticipated to remain necessary during the Trojan ISFSI storage period, and that would be subject to this chapter of the Trojan Nuclear QA Program. These changes are administrative in nature, and ensure the effective implementation of the program.</p>
11.0, Test Control, Section 11.2.1	<p>The references to "installation checks" in Section 11.2, "Test Control Program," Section 11.2.1, "General," are eliminated since installation checks are not included within the definition of testing that falls within the purview of this QA Program chapter. The control and performance of installation checks associated with SSCs classified as important to safety are more appropriately addressed in work control implementing procedure(s). In the first sentence, "identify" is changed to "identifies" as a grammatical correction.</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	Wording is added to the second paragraph of Section 11.2.1 that parallels similar wording from 10 CFR 72.162. This change is administrative in nature, since this wording is currently in Appendix B of the Trojan Nuclear QA Program, and thus this change only relocates existing wording. (See further discussion below in support of the deletion of Appendix B.)
CHAPTER 12	
12.0, Control of Measuring and Test Equipment and Installed Instrumentation, Section 12.1	Section 12.1, "Purpose," is revised to specify 10 CFR 72.164 and 10 CFR 71.125 as the governing regulatory requirements for this section, and that the contents of this section apply to the control of portable measuring and testing equipment and installed instrumentation utilized in the inspection, testing (10 CFR 72 only), and monitoring of quality-related items and activities associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. Reference to the "plant" is also eliminated to reflect the termination of the Trojan Nuclear Plant license. These changes are strictly administrative and/or editorial in nature, and ensure the effective implementation of the Trojan Nuclear QA Program.
12.0, Control of Measuring and Test Equipment and Installed Instrumentation, Sections 12.2.1, 12.2.2, and 12.2.3	Section 12.2.1, "General," is significantly revised, and Section 12.2.2, "Calibration Standards and Traceability," is deleted to reflect that following termination of the Trojan Nuclear Plant license and continuing throughout the life of the Trojan ISFSI, PGE no longer intends to perform calibration of Trojan ISFSI installed instrumentation and/or portable measuring and test equipment. As stated in the revised Section 12.2.1, quality-related calibration will be performed by a qualified contracted calibration facility(ies) using its(their) own calibration standards and procedures under its(their) own approved QA Program. These facilities will be procured in accordance with approved procedures and Chapters 4 and 7 of the Trojan Nuclear QA Program. The remaining measures in Section 12.2 adequately implement the criteria of 10 CFR 72.164 and 72.140(b), and 10 CFR 71.125 and 10 CFR 71.101(b).
CHAPTER 13	
13.0, Handling, Storage, and Shipping, Section 13.1	Section 13.1, "Purpose," is revised to specify 10 CFR 72.166 and 10 CFR 71.127 as the governing regulatory requirements for this section, and that the contents of this section apply to the control of handling, storage, shipping, cleaning, and preservation of quality-related items associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.

PGE-8010 Section	Description of and Reason and Justification for Change
13.0, Handling, Storage, and Shipping, Section 13.2.1	Clarifying changes are made to Section 13.2.1, "General." Specifically, the first paragraph is revised to clarify that the Trojan ISFSI Staff does not have dedicated "receipt inspection personnel," but rather has individuals that maintain qualifications as necessary to perform quality-related receipt inspection. The third paragraph is changed to clarify the location – implementing procedures – where codes and standards applied to specific quality-related handling, storage, preservation, or protection activities are specified. Trojan ISFSI implementing procedures ensure that these activities are performed to preclude damage, loss, or deterioration in accordance with 10 CFR 72.166 and 10 CFR 71.127.
13.0, Handling, Storage, and Shipping, Section 13.2.3	Clarifying and other administrative and/or editorial changes are made to Section 13.2.3, "Handling, Storage, and 10 CFR 71 Transportation of Radioactive Materials." Specifically, the section heading is revised, replacing "Shipping" with "10 CFR 71 Transportation" for consistency throughout the QA program and with 10 CFR 71. A similar change is made to the first paragraph of this section. The first paragraph is further revised to clarify that the Trojan ISFSI Staff does not have dedicated "Radiation protection personnel," but rather will use individuals with specific radiation protection training and qualification as necessary to perform required 10 CFR 71 activities. Finally, "plant" is eliminated to reflect termination of the Trojan Nuclear Plant license, and "procedures" is changed to "implementing procedures" for clarification. These changes are administrative and/or editorial in nature, and ensure the effective implementation of the Trojan Nuclear QA Program.
CHAPTER 14	
14.0, Inspection, Test, and Operating Status, Section 14.1	Section 14.1, "Purpose," is revised to specify 10 CFR 72.168 and 10 CFR 71.129 as the governing regulatory requirements for this section, and that the contents of this section apply to the inspection, test, and operating status of quality-related items associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
14.0, Inspection, Test, and Operating Status, Section 14.2.1	Administrative and/or editorial changes are made to the second paragraph of Section 14.2.1, "Inspection and Test Status." Specifically, reference to "Operations personnel" is changed to "ISFSI or other designated personnel" since operations personnel refers to Trojan Nuclear Plant operators, and with termination of the Trojan Nuclear Plant license, these personnel no longer exist. The remaining personnel at the Trojan ISFSI site are ISFSI or other support personnel. Similarly, "plant activities" is replaced with "ISFSI and/or radioactive material transportation package activities" that will be conducted throughout the Trojan ISFSI lifetime. The last paragraph of Section 14.2.1 is deleted to eliminate the option of bypassing required tests, inspections, or other

PGE-8010 Section	Description of and Reason and Justification for Change
	critical operations. These changes are administrative and/or editorial in nature, and ensure the effective implementation of the Trojan Nuclear QA Program.
14.0, Inspection, Test, and Operating Status, Section 14.2.2	<p>The first sentence of Section 14.2.2, "Operating Status," is revised to reflect the nature of the Trojan ISFSI SSCs classified as important to safety, such that there is no reasonable likelihood of maintenance or modification activities affecting these SSCs that would require the use of tags to protect the stored cask contents. These SSCs, listed in the Trojan ISFSI SAR, do not include energy storage or supply system components (e.g., electrical breakers or hydraulic system valves) that are important to safety and that would require tags for safety of the cask stored contents. The important-to-safety SSCs are either incorporated in and/or as part of each of the 34 loaded storage casks in service on the Storage Pad, or are associated with SSCs that eventually will be used to transfer the cask contents from the Concrete (storage) Casks to Transportation Casks. Maintenance or modification of a storage cask or part thereof in service on the Storage Pad would not require tagging since the cask is "in operation" and thus such maintenance would not involve the need to prevent inadvertent operation of the cask. Maintenance or modification of any other SSC classified as important to safety that is used only for Transportation Cask loading would also not require tagging because pursuant to the Trojan ISFSI SAR and implementing procedures, these SSCs may only be used for cask loading (i.e., placed into operation) after required load testing and inspections to verify their performance.</p> <p>As reflected in this revised sentence, tags still are required for SSCs classified as important to safety that are found to have nonconformances, since these tags could serve to prevent inadvertent operation for safety of the stored cask contents. Based on the above, it is concluded that these changes are administrative in nature, and ensure the effective implementation of the Trojan Nuclear QA Program.</p> <p>Other changes are made to this section to clarify the SSCs that are subject to this section, to clarify that the ISFSI Manager grants permission for changes in operating status of SSCs important to safety, and to reflect the termination of the Trojan Nuclear Plant license such that there no longer is a "plant" or plant "operations personnel." These changes are strictly administrative and/or editorial in nature, and ensure the effective implementation of the Trojan Nuclear QA Program.</p>

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 15	
15.0, Nonconforming Material, Parts, or Components, Section 15.1	Section 15.1, "Purpose," is revised to specify 10 CFR 72.170 and 10 CFR 71.131 as the governing regulatory requirements for this section, and that the contents of this section apply to the documentation, control, and disposition of nonconforming quality-related items associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
15.0, Nonconforming Material, Parts, or Components, Section 15.2.2	An administrative/editorial change is made to Section 15.2.2, "Work Package," replacing "plant procedures" with "implementing procedures" to reflect the elimination of the Trojan Nuclear Plant and its procedures, and the remaining Trojan ISFSI implementing procedures.
15.0, Nonconforming Material, Parts, or Components, Section 15.2.3	An administrative/editorial change is made to Section 15.2.3, "Nonconformance Report," replacing "Engineering" with "designated engineering support personnel." This change reflects the fact that with termination of the Trojan Nuclear Plant license, an Engineering Department at the Trojan ISFSI is no longer warranted and is eliminated. This change also reflects that, as detailed further in Chapter 1.0, "Organization," of the proposed Revision 28 of the Trojan Nuclear QA Program, the Trojan ISFSI Manager will have access to engineering support personnel either within PGE or contracted from outside PGE, if necessary to support ISFSI activities.
CHAPTER 16	
16.0, Corrective Action, Section 16.1	Section 16.1, "Purpose," is revised to specify 10 CFR 72.172 and 10 CFR 71.133 as the governing regulatory requirements for this section, and that the contents of this section apply to corrective action measures associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. The last sentence of this section is deleted since it is redundant with the third sentence/paragraph in Section 16.2. These changes are strictly administrative and/or editorial in nature, and ensure the effective implementation of the Trojan Nuclear QA Program.

PGE-8010 Section	Description of and Reason and Justification for Change
CHAPTER 17	
17.0, Quality Assurance Records, Section 17.1	Section 17.1, "Purpose," is revised to specify 10 CFR 72.174 and 10 CFR 71.135 as the governing regulatory requirements for this section, and that the contents of this section apply to QA records associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
17.0, Quality Assurance Records, Section 17.2	Wording is added to Section 17.2, "Quality Assurance Records Control Program," that parallels similar wording from 10 CFR 72.174 and 10 CFR 71.135. This change is administrative in nature, since this wording is currently in Appendices A and B of the Trojan Nuclear QA Program, and thus this change only relocates existing wording. (See further discussion below in support of the deletion of Appendices A and B.) Editorial changes are made to the final five sentences (each one its own paragraph) of this Section 17.2 to eliminate unnecessary hard returns, thus combining these sentences into two paragraphs.
CHAPTER 18	
18.0, Audits, Section 18.1	Section 18.1, "Purpose," is revised to specify 10 CFR 72.176 and 10 CFR 71.137 as the governing regulatory requirements for this section, and that the contents of this section apply to QA audits associated with both ISFSI 10 CFR 72 and radioactive material transportation (10 CFR 71) activities. These changes are strictly administrative in nature, and do not represent a material change from the current Trojan Nuclear QA Program.
18.0, Audits, Section 18.2.1	The first paragraph of Section 18.2.1, "General," is revised to reflect changes as described above in support of changes to Section 1.2.3, 1.2.3.1, 1.2.3.2, and 1.2.4.2, and is moved to Section 18.2.2, "Audit Personnel."
18.0, Audits, Section 18.2.2	The first sentence of Section 18.2.2, "Audit Personnel," is revised to clarify that internal and external auditors must be appropriately qualified. This change is strictly administrative/editorial in nature, and ensures the effective implementation of the Trojan Nuclear QA Program. The remaining revisions to the information incorporated into Section 18.2.2 document how the personnel requirements and organizational structure used for audit activities satisfies the requirements for organizational freedom and sufficient authority and independence specified for individuals or organizations performing QA functions in 10 CFR 72.142(b)(2) and (c) and 10 CFR 71.103(c), (d), and (f). The basis for this conclusion is further detailed in the proposed Revision 28 of the Trojan Nuclear QA Program, Section 1.2.3 and Section 1.2.4.2, as documented above.

PGE-8010 Section	Description of and Reason and Justification for Change
APPENDICES	
<p>Appendix A, Quality Assurance and Administrative Controls for Packaging Radioactive Material for Transport</p>	<p>Appendix A is deleted, with portions of the appendix that remain applicable incorporated into the body and glossary of the program document. The purpose of Appendix A was to document which of and to what extent the elements of the Trojan Nuclear Plant QA Program maintained pursuant to 10 CFR 50, Appendix B, are applied to activities involving the packaging of radioactive material for transportation as specified in 10 CFR 71, 10 CFR 20, and 10 CFR 61. With the proposed Revision 28 of the Trojan Nuclear QA Program that eliminates the elements of the program that specifically refer to 10 CFR 50, Appendix B, the Trojan Nuclear QA Program becomes a “standalone” program governing activities under the purview of 10 CFR 72, Subpart G, and 10 CFR 71, Subpart H.</p> <p>Thus, rather than having a separate appendix to document application of the Trojan Nuclear QA Program to radioactive material transportation packaging activities, the contents of Appendix A have been incorporated as applicable into the body and glossary of the program document. This change was performed to be consistent with and implement the NRC’s QA Program Approval for Radioactive Material Packages No. 0327. Specifically, this approval authorizes PGE to procure, maintain, repair, and use radioactive material transportation packagings. Other activities (i.e., design, fabrication, assembly, testing, and modification) are not conducted under the current QA Program Approval, but rather are satisfied by obtaining certifications from packaging suppliers that these activities are conducted in accordance with an NRC-approved QA Program.</p> <p>It is noted that throughout the life of the Trojan ISFSI, PGE does not anticipate the need for radioactive material shipments except for the packaging and transportation of the spent nuclear fuel – pursuant to 10 CFR 71 – to an off-site federal repository when such repository becomes available. The portion of the spent nuclear fuel transportation packaging involving design, fabrication, assembly, testing, and/or modification would be performed by the Certificate of Compliance (CoC) holder and/or other qualified contracted company under its/their own approved QA Program. Similarly, if a radioactive material shipment of some other form is required during the spent nuclear fuel storage period, this activity would be performed by a qualified contracted company under its own approved QA Program and procured in accordance with approved procedures and Chapters 4 and 7 of the Trojan Nuclear QA Program. Therefore, the portion of Appendix A that addresses</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>radioactive material shipments other than 10 CFR 71 activities is eliminated from the Trojan Nuclear QA Program.</p> <p>It is further noted that, as discussed above in support of changes to Section 11.1, wording is added to specify that Chapter 11.0 does not apply to packaging radioactive material for transportation (i.e., 10 CFR 71 activities), since as documented in QA Program Approval for Radioactive Material Packages No. 0327, PGE is not authorized to perform testing of 10 CFR 71 radioactive material transportation packages. This represents a change from what is currently in Appendix A, which states that Chapter 11 “[f]ully applies” to activities involving packaging radioactive materials for transport. However, this change is only administrative in nature since, as stated previously, PGE is not authorized to and does not intend to perform testing involving radioactive material transportation packages. Therefore, this change ensures the effective implementation of the Trojan Nuclear QA Program.</p>
Appendix B, Quality Assurance and Administrative Controls for the ISFSI	<p>Appendix B is deleted, with portions of the appendix that remain applicable incorporated into the body and glossary of the program document. The purpose of Appendix B was to document which of and to what extent the elements of the Trojan Nuclear Plant QA Program maintained pursuant to 10 CFR 50, Appendix B, are applied to ISFSI activities as required by 10 CFR 72, Subpart G. With the proposed Revision 28 of the Trojan Nuclear QA Program that eliminates the elements of the program that specifically refer to 10 CFR 50, Appendix B, the Trojan Nuclear QA Program becomes a “standalone” program governing activities under the purview of 10 CFR 72, Subpart G, and 10 CFR 71, Subpart H. Thus, rather than having a separate appendix to document application of the Trojan Nuclear QA Program to ISFSI activities, the contents of Appendix B have been incorporated as applicable into the body and glossary of the program document. Details of the relocated content are provided within this table in support of changes to each individual section of the Trojan Nuclear QA Program.</p>
Appendix C, Additional Administrative Controls for Trojan Nuclear Plant 10 CFR 50 Licensed	<p>Appendix C is deleted in its entirety. Appendix C contains additional Administrative Controls relocated from the Trojan Nuclear Plant Technical Specifications that are applicable only to Trojan Nuclear Plant activities while the 10 CFR 50 License still exists. As stated on Page C-1 of Appendix C of the Trojan Nuclear QA Program, “[w]hen the 10 CFR 50 License is terminated, this QA Program, Appendix C, shall become null and void and may be removed from this QA Program as a change that does not reduce the commitments in the QA Program description previously accepted by the NRC.” As the proposed Revision 28 of the Trojan Nuclear QA</p>

PGE-8010 Section	Description of and Reason and Justification for Change
Activities	<p>Program is intended to reflect and be made effective concurrent with termination of the Trojan Nuclear Plant license, it is clear that the deletion of Appendix C is strictly administrative in nature, and ensures the effective implementation of the Trojan Nuclear QA Program.</p>
<p>GLOSSARY</p>	
Glossary	<p>The definitions of "Design," "Design Change," and "Design Verification" are deleted since, as detailed above in support of changes to Chapter 3.0, PGE no longer intends to perform design work affecting Trojan ISFSI SSCs classified as important to safety. With this change, any design-related definitions still determined to be necessary are maintained more appropriately in Trojan ISFSI implementing procedures.</p> <p>Within the definition of "Documents Requiring Control," reference to the "Defueled Safety Analysis Report" (DSAR) is eliminated since the DSAR is a Trojan Nuclear Plant licensing basis document, and with termination of the Trojan Nuclear Plant license this document is no longer pertinent to the Trojan facility.</p> <p>The definition of "Installation Checks" is deleted since, as detailed above in support of changes to Section 11.2.1, installation checks are not included within the definition of testing that falls within the purview of Trojan Nuclear QA Program Chapter 11.0. With this change, the definition, control, and performance of installation checks determined to be necessary associated with SSCs classified as important to safety are maintained more appropriately in work control implementing procedure(s).</p> <p>The definitions of "Measuring and Test Equipment" and "Modification" are changed to eliminate reference to the "plant," and in the definition of "Modification," this reference is replaced with "facility" to clarify applicability to the Trojan ISFSI facility. Similarly, the definition of "Plant" is eliminated. These changes are administrative and/or editorial in nature, in that they are solely intended to reflect termination of the Trojan Nuclear Plant license and the elimination of the portion of the Trojan Nuclear QA Program specifically addressing 10 CFR 50, Appendix B requirements that applied to the Trojan Nuclear Plant.</p> <p>An editorial change is made to the definition of "Modify" to correct a typographical error. Specifically, "safety" is replaced with "safely." The definition of "Procurement Documents" is revised to reflect the current PGE procurement process. Specifically, "stock purchase repeating requisitions" and "term purchase order renewals"</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	<p>are not typically used within the PGE procurement process, and thus they are removed from the list of example procurement documents. In the last sentence of this definition, an editorial change eliminates the initial capitalization from "Purchaser."</p> <p>The definition of "QA Surveillance" is deleted since, as detailed above in support of changes to Section 2.2.2, QA surveillances are determined to no longer be required. Specifically, with the limited activities that will be conducted by PGE during ISFSI storage operations, required audits, inspections, and reviews will provide sufficient oversight of quality-related activities to ensure the appropriate and effective implementation of the QA Program.</p> <p>The definition of "Quality Assurance Records" is revised to incorporate wording from Appendices A and B, as described above in support of the deletion of these appendices. This definition is further revised to eliminate redundancy between this definition and the content of Chapter 17.0, "Quality Assurance Records" and to eliminate reference to the Trojan Nuclear Plant and records requirements of 10 CFR 50. Finally, the statement with regards to decommissioning records is eliminated since it is redundant with the regulatory requirements of 10 CFR 72.30, and is more appropriately incorporated into recordkeeping implementing procedures rather than this program document. These changes are strictly administrative and/or editorial in nature, and ensure effective implementation of the Trojan Nuclear QA Program.</p> <p>The definition of "Quality-Related" is deleted from the glossary and relocated with additional detail in Section 2.2.1, as described further above in support of the changes to Chapter 2.0, Section 2.2.1.</p> <p>The definition of "Radiation Protection" is revised to replace a reference to "10 CFR 50, Appendix I," with "10 CFR 72" to reflect termination of the Trojan Nuclear Plant 10 CFR 50 license as described previously.</p> <p>The definition of "Significant Condition Adverse to Quality" is revised to: (1) eliminate reference to the Trojan Nuclear Plant license (to reflect termination of this license); (2) replace reference to the 10 CFR 50 regulatory (24-hour or less) reporting requirements of "10 CFR 50.72" with reference to the equivalent requirements for ISFSIs – "10 CFR 72.75"; and (3) slightly change the sentence structure to enhance readability.</p>

PGE-8010 Section	Description of and Reason and Justification for Change
	The definition of "Special Process" is deleted since, as detailed above in support of changes to Chapter 9.0, PGE no longer intends to perform special processes involving Trojan ISFSI SSCs classified as important to safety. With this change, any definitions associated with special processes still determined to be necessary are maintained more appropriately in Trojan ISFSI implementing procedures.