

Title: GPUNC Operational Quality Assurance Plan for Three Mile Island Unit 1 and Oyster Creek

Revision No.
See Note Below.

Applicability/Scope This Plan Has GPUNC-Wide Applicability Except TMI-2

Responsible Office
6160

This Document is within QA Scope YES NO
Safety Reviews Required YES NO

Effective Date
See Note Below.

List of Effective Pages on Page 2.0

NOTE: The changes of this revision involve relocation of audit frequencies from Technical Specification to new Appendix E of this Plan. A revision number and effective date are not being provided for this revision pending NRC's approval of the said changes.

	Signature	Concurring Organizational Element	Date
Originator		Director, Quality Assurance	
Concurred By		Dir-Services	
		Dir-Independent Safety Review	
		Dir-Nuclear Assurance	
		Dir-OCNGS	
		Dir-TMI Unit 1	
		Dir-Technical Functions	
Approved By	<i>P.R. Clark</i>	Office of the President	9/15/94

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<u>Page No.</u>	<u>Rev. No.</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Page No.</u>	<u>Rev. No.</u>
1.0	*	29.0	2	59.0	4	89.0	2
2.0	*	30.0	2	60.0	4	90.0	1
3.0	2	31.0	2	61.0	4	91.0	1
4.0	4	32.0	4	62.0	4	92.0	2
5.0	4	33.0	2	63.0	2	93.0	5
6.0	6	34.0	4	64.0	4	94.0	*
7.0	2	35.0	2	65.0	4	95.0	1
8.0	4	36.0	2	66.0	2	96.0	2
9.0	4	37.0	2	67.0	2	97.0	2
10.0	4	38.0	2	68.0	4	98.0	2
11.0	4	39.0	4	69.0	4	99.0	2
12.0	4	40.0	2	70.0	4	100.0	2
13.0	4	41.0	2	71.0	1	101.0	1
14.0	4	42.0	2	72.0	1	102.0	3
15.0	4	43.0	2	73.0	6	103.0	2
16.0	4	44.0	2	74.0	6	104.0	2
17.0	4	45.0	4	75.0	6	105.0	2
18.0	4	46.0	4	76.0	2	106.0	2
19.0	4	47.0	2	77.0	2	107.0	2
20.0	4	48.0	4	78.0	4	108.0	*
21.0	4	49.0	2	79.0	2	109.0	2
22.0	4	50.0	2	80.0	2	110.0	2
23.0	4	51.0	4	81.0	4	111.0	2
24.0	4	52.0	2	82.0	2	112.0	2
25.0	4	53.0	4	83.0	2	113.0	2
26.0	4	54.0	2	84.0	*	114.0	2
27.0	4	55.0	2	85.0	4	115.0	*
28.0	4	56.0	4	86.0	1	116.0	*
29.0	4	57.0	4	87.0	2		
30.0	4	58.0	4	88.0	2		

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- c. Procedure(s) for the scheduling, preparation, performance, reporting of the results of audits, and distribution to appropriate levels of management.
- d. Periodic analysis of audit results and the reporting of such results to appropriate levels of management.
- e. Follow-up action to be taken based upon individual and collective audit results.

- 10.2.4 The areas to be audited are listed in the Nuclear Units' Technical Specifications. The frequencies of internal audits are based on performance and are listed in Appendix E of this plan. Annual review of these frequencies shall be conducted. This review shall examine the appropriateness of the prescribed audit frequency by considering performance factors such as deficiency trends, assessment results, etc. and shall determine if more frequent audit is needed of the topical area(s).
- 10.2.5 The frequency of conducting external audits of selected suppliers of technical support, environmental monitoring, radwaste shipping, computer, radioanalytical, and engineering services shall be scheduled once within the life of the activity or every three years depending on the duration of the contractual relationship.
- 10.2.6 Each audit shall be led by a GPUN certified lead auditor. Audit team members shall be utilized as required and will be classified as either auditors or technical specialists, depending on their function on the audit team.
- 10.2.7 Those GPUN and external organizations providing items and/or conducting activities within the scope of this Plan are subject to audit consistent with the requirements of this Plan.
- 10.2.8 Audits shall be performed in accordance with pre-established written procedures or checklists. The personnel utilized to perform on an audit shall not have any responsibility for the activity audited.
- 10.2.9 Audits shall consist of reviews of approved documents and records and observation(s) of selected activities in sufficient detail to determine the appropriateness of the documents for use, effectiveness of implementation and the effectiveness of actions taken to correct previous nonconformances.
- 10.2.10 Audited organizations shall provide sufficient support to assure the accuracy of the audit results, review and response to audit nonconformances, and effective resolution/prevention of deficiencies. The corrective actions required to resolve adverse audit findings shall be defined and implemented in a timely manner.
- 10.2.11 Audit finding nonconformances shall be followed up in a timely manner. Such adverse audit findings shall typically not be closed until the effective implementation of corrective action(s) is verified.
- 10.2.12 Sufficient records shall be generated and maintained to provide documentation of audit system scope of coverage, individual audit coverage (i.e., audit plans, checklists, or equivalent), audit reports, lead auditor certifications, followup and verification and results of periodic analysis of audit results.

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APPENDIX C - PART 2

2. Additions to existing plant systems will be made to the same code, standard and technical requirements which were originally applied to the system to which the addition is to be made or more recent versions of these codes, standards and technical requirements. The addition will not degrade the safety of the system being added to.
3. For new construction, the latest applicable code will be utilized unless such utilization would result in hardship or unusual difficulty without providing an equivalent level of safety.

NRC Regulatory Guide 1.30, August 1972

Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment

GPUN shall comply with the Regulatory Position established in this Regulatory Guide in that QA programmatic/administrative requirements included therein shall apply to maintenance and modification activities even though such requirements were not in effect originally. Technical requirements associated with maintenance and modifications shall be the original technical requirements or better (e.g., code requirements, material properties, design margins, manufacturing processes, and inspection requirements).

Sections 5.1 and 6.1 of ANSI N45.2.4 list tests which are to be conducted during the construction phase. In lieu of this, GPUN utilizes its Engineering and/or Maintenance organizations to establish the need for specific tests or test procedures during the operational phase.

NRC Regulatory Guide 1.33, Rev. 2, February 1978

Quality Assurance Program Requirements (Operation)

The GPUN QA Program complies with the regulatory position of this guide with the following clarifications:

1. Regulatory Position C.4 of the regulatory guide

The frequency of performance and minimal topical coverage of internal audits will be consistent with Appendix E of this plan.

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4. Hose may be used in lieu of pipe where the connections are temporary. The anticipated applications of hose would normally be (1) connections to contractor owned skid mounted radioactive waste processing equipment, (2) connections to a nonmounted, frequently-changed component such as a burial liner/HIC or (3) connections to nonmounted pieces of radioactive waste processing or collection equipment which must be readily removeable (e.g., items placed on equipment hatches). The pressure rating of such hoses and connections shall equal or exceed those of the system(s) or component(s) to which they are connected.

Prior to use, the hoses shall be hydrottested to the appropriate pressure for the system or component to which they are connected. After installation, they are to receive regular hydrotesting or inservice inspections.

A safety evaluation is required to justify the use of such hose connections.

NRC Regulatory Guide 1.144, January 1979
Auditing of Quality Assurance Programs for Nuclear Power Plants

GPUN is in basic agreement with the position set forth in the Regulatory Guide subject to the following comments:

1. Sections C.3.a(1) and C.3.a(2)

The frequency of performance and minimal topical coverage of internal audits will be consistent with Appendix E of this plan.

2. Section C.3.b(1). Source surveillance will be utilized in lieu of or in addition to receipt inspection. As permitted, external audits of such procurement actions will typically not be scheduled.

3. Section C.3.b(2)

External audits of selected suppliers of services which are within the scope of this Plan will be scheduled and conducted at least once within the life of the activity or every three years. Refer also to 10.2.5 of this plan.

An annual evaluation of suppliers of items, parts, materials and services will be conducted. These evaluations will be conducted utilizing the results of source surveillance, source inspection, receipt inspection and/or audits; and, other factors. These evaluations will determine the need to conduct audits of suppliers of items, parts or materials; or, increase the frequency of conducting audits of suppliers of services.

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Appendix E

<u>TMI Ref.</u>	<u>OC Ref.</u>	<u>Description</u>	<u>Maximum Frequency</u> (See Note 1)
6.5.3.1 (A)	6.5.3.1 (A)	The conformance of unit operations to provisions contained within the Technical Specifications and applicable license conditions.	24 Months
6.5.3.1 (B)	6.5.3.1 (B)	The performance, training and qualifications of the entire unit staff.	24 Months
6.5.3.1 (C)	6.5.3.1 (C)	The verification of the nonconformances and corrective actions program to be properly implemented and documented as related to action taken to correct deficiencies occurring in unit equipment, structures, systems or methods of operation that affect nuclear safety.	24 Months (See Note 2)
6.5.3.1 (D)	6.5.3.1 (G)	The performance of activities required by the Operational Quality Assurance Plan to meet the criteria of Appendix "B", 10CFR50.	36 Months
6.5.3.1 (E)	6.5.3.1 (D)	The Emergency Plan and implementing procedures.	12 Months (Reg. Req'd. Frequency)
6.5.3.1 (F)	6.5.3.1 (E)	The Security Plan and implementing procedures.	12 Months (Reg. Req'd. Frequency)
6.5.3.1 (G)	6.5.3.1 (F)	The Fire Protection Program and implementing procedures	24 Months
6.5.3.1 (H)	6.5.3.1 (I)	The Offsite Dose Calculation Manual and implementing procedures.	36 Months
6.5.3.1 (I)	6.5.3.1 (J)	The Process Control Program and implementing procedures for solidification of radioactive wastes.	24 Months

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Appendix E

<u>TMI Ref.</u>	<u>OC Ref.</u>	<u>Description</u>	<u>Maximum Frequency</u> (See Note 1)
6.5.3.1 (J)	6.5.3.1 (H)	The performance of activities required by the Quality Assurance Program to meet criteria of Regulatory Guide 4.15, December, 1977.	24 Months
6.5.3.1 (K)	6.5.3.1 (K)	Any other area of unit operation considered appropriate by the IOSRG or the Office of the President-GPUN.	As Requested
6.5.3.2 (A)	6.5.3.2 (A)	An independent fire protection and loss prevention program inspection and audit shall be performed utilizing either qualified licensee personnel or an outside fire protection firm.	12 Months
6.5.3.2 (B)	6.5.3.2 (B)	An inspection and audit of the fire protection and loss prevention program, by an outside qualified fire consultant.	36 Months

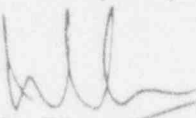
Note 1: All frequencies, except for those that are regulatory required or listed as 36 months, can be extended for an additional 25% to allow for schedule flexibility. If the 25% extension or a portion thereof has been used for an audit, the scheduled interval for the second audit will start at the actual end-date of the 1st audit. The 25% will not be used on two consecutive audits of the same area.

Note 2: Corrective action will be a standard audit scope item for all individual audits.

If the premise of commitment is the numerical frequency of the audit(s), the proposed numerical reduction in audit frequencies constitute an apparent reduction in GPU Nuclear commitment. It should, however, be noted that this quantitative reduction does not compromise the quality of GPU Nuclear's oversight of its operations. In fact the proposed controls, such as the Audit Schedule Performance Review and the inclusion of Corrective Actions as an item in all audits, enhance the quality of the oversight.

The proposed Audit Schedule Performance Review is the annual review of the performance of the topical area(s) by a group of managers including appropriate plant or corporate management to decide if more frequent audits will be needed. To make this decision, this yearly review will consider such salient performance data as deficiency trends, industry events, notice of violations and licensee event reports. This important database and the conduct and frequency of this review focuses critically on the performance of the area audited and not merely on the prescriptive duration between two audits. This position is consistent with NRC's Regulatory Review Group's (RRG) Recommendations, which among other things, recommends a performance based and graded quality assurance. (Refer to the topical area titled 'Quality Assurance' of the Implementation Plan of SECY-94-003 of January 7, 1994, and associated RRG's recommendation 4.1.1). This yearly performance review combined with the inclusion of Corrective Action as an item for all audits is a significant step towards enhancing the efficiency and quality of oversight.

Based on the above analysis, it has been determined that the proposed change constitutes a reduction in commitment, although it improves the quality of oversight.


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Extension 7433

References:

1. 10CFR50.54
2. NRC SECY 94-003, January 7, 1994, Quality Assurance and associated RRG recommendation 4.1.1

Attachment 1

Operational QA Plan
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<u>TMI Ref.</u>	<u>OC Ref.</u>	<u>Description</u>	<u>Maximum Frequency</u> (See Note 1)
6.5.3.1 (A)	6.5.3.1 (A)	The conformance of unit operations to provisions contained within the Technical Specifications and applicable license conditions.	24 Months
6.5.3.1 (B)	6.5.3.1 (B)	The performance, training and qualifications of the entire unit staff.	24 Months
6.5.3.1 (C)	6.5.3.1 (C)	The verification of the nonconformances and corrective actions program to be properly implemented and documented as related to action taken to correct deficiencies occurring in unit equipment, structures, systems or methods of operation that affect nuclear safety.	24 Months (See Note 2)
6.5.3.1 (D)	6.5.3.1 (G)	The performance of activities required by the Operational Quality Assurance Plan to meet the criteria of Appendix "B", 10CFR50.	36 Months
6.5.3.1 (E)	6.5.3.1 (D)	The Emergency Plan and implementing procedures.	12 Months (Reg. Req'd. Frequency)
6.5.3.1 (F)	6.5.3.1 (E)	The Security Plan and implementing procedures.	12 Months (Reg. Req'd. Frequency)
6.5.3.1 (G)	6.5.3.1 (F)	The Fire Protection Program and implementing procedures	24 Months
6.5.3.1 (H)	6.5.3.1 (I)	The Offsite Dose Calculation Manual and implementing procedures.	36 Months
6.5.3.1 (I)	6.5.3.1 (J)	The Process Control Program and implementing procedures for solidification of radioactive wastes.	24 Months

Attachment 1
Operational QA Plan
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<u>TMI Ref.</u>	<u>OC Ref.</u>	<u>Description</u>	<u>Maximum Frequency</u> (See Note 1)
6.5.3.1 (J)	6.5.3.1 (H)	The performance of activities required by the Quality Assurance Program to meet criteria of Regulatory Guide 4.15, December, 1977.	24 Months
6.5.3.1 (K)	6.5.3.1 (K)	Any other area of unit operation considered appropriate by the IOSRG or the Office of the President-GPUN.	As Requested
6.5.3.2 (A)	6.5.3.2 (A)	An independent fire protection and loss prevention program inspection and audit shall be performed utilizing either qualified licensee personnel or an outside fire protection firm.	12 Months
6.5.3.2 (B)	6.5.3.2 (B)	An inspection and audit of the fire protection and loss prevention program, by an outside qualified fire consultant.	36 Months

Note 1: All frequencies except for those at 36 months can be extended for an additional 25% to allow for schedule flexibility. The 25% will not be used on two consecutive audits of the same area.

Note 2: Corrective action will be a standard audit scope item for individual audits throughout the annual audit schedule.

Attachment 2

Comparison of Existing and Proposed Audit Frequencies

<u>TMI</u> <u>Tech. Spec.</u> <u>Ref.</u>	<u>OC</u> <u>Tech. Spec</u> <u>Ref.</u>	<u>Description</u>	<u>Existing</u> <u>Frequency</u>	<u>Proposed Frequency</u> (See Note 1)
6.5.3.1 (A)	6.5.3.1 (A)	The conformance of unit operations to provisions contained within the Technical Specifications and applicable license conditions.	12 months	24 Months
6.5.3.1 (B)	6.5.3.1 (B)	The performance, training and qualifications of the entire unit staff.	12 Months	24 Months
6.5.3.1 (C)	6.5.3.1 (C)	The verification of the nonconformances and corrective actions program to be properly implemented and documented as related to action taken to correct deficiencies occurring in unit equipment, structures, systems or methods of operation that affect nuclear safety.	6 Months	24 Months (See Note 2)
6.5.3.1 (D)	6.5.3.1 (G)	The performance of activities required by the Operational Quality Assurance Plan to meet the criteria of Appendix "B", 10CFR50.	24 Months	36 Months
6.5.3.1 (E)	6.5.3.1 (D)	The Emergency Plan and implementing procedures.	12 months	12 Months (Reg. Req'd.)
6.5.3.1 (F)	6.5.3.1 (E)	The Security Plan and implementing procedures.	12 Months	12 Months (Reg. Req'd.)
6.5.3.1 (G)	6.5.3.1 (F)	The Fire Protection Program and implementing procedures	24 Months	24 Months
6.5.3.1 (H)	6.5.3.1 (I)	The Offsite Dose Calculation Manual and implementing procedures.	24 Months	36 Months

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Comparison of Existing and Proposed Audit Frequencies

<u>TMI</u> <u>Tech. Spec.</u> <u>Ref.</u>	<u>OC</u> <u>Tech. Spec</u> <u>Ref.</u>	<u>Description</u>	<u>Existing</u> <u>Frequency</u>	<u>Proposed Frequency</u> (See Note 1)
6.5.3.1 (I)	6.5.3.1 (J)	The Process Control Program and implementing procedures for solidification of radioactive wastes.	24 Months	24 Months
6.5.3.1 (J)	6.5.3.1 (H)	The performance of activities required by the Quality Assurance Program to meet criteria of Regulatory Guide 4.15, December, 1977.	12 Months	24 Months
6.5.3.1 (K)	6.5.3.1 (K)	Any other area of unit operation considered appropriate by the IOSRG or the Office of the President-GPUN.	As requested	As Requested
6.5.3.2 (A)	6.5.3.2 (A)	An independent fire protection and loss prevention program inspection and audit shall be performed utilizing either qualified licensee personnel or an outside fire protection firm.	12 Months	12 Months
6.5.3.2 (B)	6.5.3.2 (B)	An inspection and audit of the fire protection and loss prevention program, by an outside qualified fire consultant.	36 Months	36 Months

Note 1: All frequencies except for those at 36 months can be extended for an additional 25% to allow for schedule flexibility. The 25% will not be used on two consecutive audits of the same area.

Note 2: Corrective action will be a standard audit scope item for individual audits throughout the annual audit schedule.