

## 5.0 INTRODUCTION

A wide range of potential accidents have been reviewed which could be of public or occupational health and safety concern if release of radioactive material were to occur as a result of the accident.

## 5.1 EVENT IDENTIFICATION PROCESS

Review of potential decommissioning accidents for possible safety impact involved an assessment of planned Big Rock Point decommissioning activities to identify accidents with significant radiological release capabilities. Event identification also included a review of the Big Rock Point Updated Final Hazards Summary Report (UFHSR) [Reference 5.1-1] and the Big Rock Point Integrated Plant Safety Assessment, NUREG-0828 [Reference 5.1-2] to identify whether any, and if so, which previously analyzed events were applicable to decommissioning.

Decommissioning activities and facility design characteristics also were evaluated against accident assumptions and results of the Final Generic Environmental Impact Statement for Decommissioning (FGEIS) [Reference 5.1-3] and the safety and cost analysis document NUREG/CR-0672 [Reference 5.1-4]. This analysis was performed to identify whether Big Rock Point was bounded by the analyses for the reference BWR nuclear power plant, as described in these documents.

Big Rock Point implemented the guidelines of the EPA Manual of Protective Action Guides (PAGs) and Protective Actions for Nuclear Accidents, EPA-400 [Reference 5.1-5] on January 1, 1994. EPA-400 establishes protective action levels for public protection at one rem total effective dose equivalent (TEDE) for the total body, five rem committed dose equivalent (CDE) for thyroid, and 50 rem skin dose equivalent (SDE) for skin. These doses are small fractions of the limits established in 10CFR100. Revised dose calculations reflecting plant decommissioning and dismantlement described in this section have been performed in accordance with the guidelines of EPA-400.

The following sections discuss accidents which could occur during the decommissioning period, while the reactor is permanently defueled. The following sections contain a summary of these accident scenarios; the Big Rock Point Updated Final Hazards Summary Report contains a more detailed analysis of these accident scenarios.

## 5.2 EVENTS INVOLVING FUEL

### 5.2.1 Decommissioning Spent Fuel Pool Storage Events

This section reviews anticipated fuel handling operations with the permanently defueled reactor to determine the accident that would produce the maximum off-site radiological consequences.

With the reactor shutdown and permanently defueled, fuel handling accidents bound all other categories of accidents with respect to the potential for offsite doses. The worst-case fuel handling event is a heavy load drop event in the fuel pool, due to the larger number of fuel bundles potentially damaged. Consequences of minor fuel handling events are limited by worker response to area monitor detection of elevated dose rates with alarms normally set at 15 to 25 mrem/hr above area background dose rates.

For decommissioning, the radiological release estimates for the following fuel accident scenarios have been conservatively evaluated:

- a. All bundles in the pool (conservatively assumed to be 500 bundles) are damaged in a heavy load event. There are 441 assemblies in the fuel pool.
- b. 84 bundles (100% of a core) from a reactor off-load, decayed one year, are damaged in a dry shielded configuration (out of the pool) due to an accident while loading a dry transportable canister.

Offsite doses for external, skin, thyroid and TEDE were calculated for various decay times. Damage to the assumed 500 bundles in the pool indicates that at 68 days following plant shutdown, the property boundary doses have dropped to less than the EPA Protective Action Guides of 1 rem TEDE and 5 rem to thyroid. This analysis assumed a total of 500 assemblies in the spent fuel pool with 84 being discharged from the final core off load. The 500 assemblies was based on operating the plant until the end of license in May 2000 rather than the actual last day of operation on August 29, 1997. The pool contains only 441 assemblies per the plant license.

In addition to evacuation doses, calculations have been made of dose rates to which onsite essential personnel might be exposed if required to enter containment or otherwise be exposed to concentrations approaching containment concentrations. It has been determined that based on use of standard protective gear (respirators and protective garments standard for highly contaminated and high airborne areas), onsite essential personnel will remain below their occupational dose limits for any accident that results in doses less than the PAGs to offsite individuals.

### 5.2.2 Loss of Spent Fuel Pool Cooling

As part of Amendment 2 to the "Consolidated Application" for the Big Rock Point Plant Spent Fuel Pool Rack Addition, Consumers Energy Company performed analyses to demonstrate the structural integrity of the Spent Fuel Pool at elevated temperatures. Based on the analyses results, it was concluded that the pool floor, pool walls, and support walls are adequate to withstand events in which the inside pool wall surface temperature rises to and remains at 150°F.

At the time of permanent plant shutdown, an analysis was performed to determine the spent fuel pool heatup rate based on the operating history of each assembly in the pool. This analysis determined the time required for the pool to reach 150°F from an initial pool temperature of 80°F. Results of this analysis demonstrate that although SFP cooling capability must be maintained, the consequences of a loss of cooling event are not severe. At 93 days after permanent shutdown, the pool can experience a loss of cooling for 72 hours without exceeding the 150°F temperature limit. This time interval to respond to a loss of SFP cooling event is sufficient to ensure that the event is terminated, precluding any impact on the public health and safety.

### 5.2.3 Loss of Spent Fuel Pool Water Level

There are no direct connections to the spent fuel pool capable of draining the water. The pool utilizes anti-siphon makeup lines and a weir discharge system to maintain approximately 22 feet of water over the active portion of the fuel and preclude water loss if damage were to occur to any pool-connected piping systems. Level indication and leak detection capabilities will be retained as long as fuel resides in the pool.

The loss of cooling evaluation bounds any event which could result in a loss of pool water due to boiling. Response to provide makeup for water loss can be accomplished prior to the time at which decreased water level and lowered shielding become a concern.

## 5.3 EXTERNAL EVENTS

External events which could affect the site were reviewed. The events, other than freezing, had been previously analyzed for the operating plant and found to present no significant hazard to the facility. These events include:

- a. Loss of Offsite Power
- b. Aircraft Hazards
- c. External Flooding
- d. Low Water Level
- e. Tornadoes and Extreme Winds
- f. Earthquake
- g. Fire Events

### 5.3.1 Freezing

Absence of reactor heat load and decreasing decay heat generation while the fuel is stored in the spent fuel pool results in increased reliance upon the plant heating system to maintain reactor building and other important structures above freezing under harsh winter conditions. Initiators of potential freezing conditions would include loss of offsite power, boiler problems or ventilation system failures.

The capability to heat and ventilate the reactor building will be retained while fuel remains in the spent fuel pool.

The fuel pool itself, with its large volume and decay heat from the 441 fuel bundles, is not expected to freeze. The anti-siphon makeup line and design of the fuel pool discharge weir preclude loss of fuel pool water by damage to any support piping by freezing. A relatively small volume of fuel pool water from the cooling system external to the pool itself could be lost due to a freeze rupture of the SFP cooling system. With the surge tank and siphon breakers, pool water level would be maintained at near the operating level. Cooling water leakage would accumulate in containment sumps and be pumped for processing by the radwaste system. Due to location of the fuel pool within the reactor building, there is no direct path for this water to escape to the environment.

#### 5.4 NON-FUEL RELATED DECOMMISSIONING EVENTS

An evaluation of potential non-fuel related decommissioning accidents at Big Rock Point has been performed. Decommissioning activities following final plant shutdown were evaluated, including system and equipment deactivation, decontamination, and dismantlement; radioactive material handling and storage; and transportation of radioactive materials. Types of postulated accidents reviewed were: explosions and fires, loss of contamination control, waste transportation accidents, external events, and natural phenomena. In addition to the standard decommissioning activities, postulated accidents associated with potential long term storage of radioactive waste during decommissioning also were evaluated.

Based on this review, it is concluded that all postulated decommissioning accidents for Big Rock Point are bounded by the results described in the FGEIS [Reference 5.1-3]. Thus, as concluded by the FGEIS, decommissioning will have a minimal impact on public safety and health. This conclusion is further supported by the fact that Big Rock Point, at a rating of 240 Mwt, is a significantly smaller plant than the 3320 Mwt reference BWR. This fact reduces total quantities of radioactivity present on site, total volumes of waste produced and shipping volumes.

The baseline BWR assumed in the FGEIS utilizes high efficiency particulate (HEPA) filters for plant ventilation effluents, whereas the Big Rock Point ventilation system did not include HEPA filters. HEPA filters were only used for specific sources such as fume hoods and offgas. To remain within the bounds of the FGEIS and recognizing that during dismantlement airborne particulate releases could be significantly reduced by plant HEPA filtration, a HEPA filtration system was installed in the ventilation system and is used for dismantlement activities involving major source terms of particulate activity.

## 5.5 SUMMARY OF RESULTS

The risk of significant radiological release from an accident occurring during decommissioning is significantly less than from an accident occurring during plant operation. Reviews and evaluations have been performed of accidents previously analyzed in the Big Rock Point Updated FHSR, potential incidents described in the FGEIS, and incidents based on industry experience.

## 5.6 REFERENCES

- a. 5.1-1, Consumers Power Company, Big Rock Point Updated Final Hazards Summary Report (FHSR), Revision 7, Chapter 15
- b. 5.1-2, NUREG-0828, "Integrated Plant Safety Assessment - Systematic Evaluation Program for the Big Rock Point Plant," Final Report, May 1984
- c. 5.1-3, NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning Nuclear Facilities," 1988
- d. 5.1-4, NUREG/CR-0672, "Technology, Safety and Costs of Decommissioning a Reference Boiling Water Reactor Power Station," Volumes 1 and 2, and Addendum 1
- e. 5.1-5, EPA 400-R-92-001, "Manual of Protective Actions Guides and Protective Actions for Nuclear Incidents", May 1992

## 6.0 INTRODUCTION

The radiological status of the environment surrounding the Big Rock Point site is monitored by the radiological environmental monitoring program. For decommissioning planning purposes, two additional programs were completed: the first, a scoping survey program to determine residual contamination levels on the plant site itself; and the second, a program to determine levels of radioactivity within plant buildings, systems and structures. This chapter provides a description of each program, and their major findings.

### 6.1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Big Rock Point's radiological environmental monitoring program provides representative measurements of radiation and radionuclides which could cause potential radiation exposure to members of the public as a result of plant operation. The radiological environmental monitoring program supplements the radiological effluent monitoring program by verifying that the measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the radioactive effluent measurements and the modeling of the environmental exposure pathways. The radiological environmental monitoring program and reporting requirements are detailed in the Offsite Dose Calculation Manual (ODCM).

Big Rock Point's radiological environmental monitoring program consists of the following elements:

- a. Monitoring of airborne radionuclides (particulates), direct radiation, radionuclides in well water, lake water (plant's intake and discharge), shoreline sediment, fish, and other aquatic biota samples.
- b. Participation in an NRC approved inter-laboratory comparison program by the analyst contractor to ensure that independent checks on precision and accuracy of the measurements of radioactive material and sampling matrices are performed in order to demonstrate that the results are valid.

The environmental monitoring program was initiated in 1958 with studies conducted by the University of Michigan. The environmental sampling program began before the plant started commercial operations and currently consists of greater than 1000 samples taken annually.

The program has not identified any area that has either potential or known radioactive contaminants that would lead to a risk to the general public. There were no technical specification reporting levels or action levels exceeded nor were there any special or supplemental analyses required.

Data from the initial pre-operational phase and early operational phase of the REMP is of limited use in evaluating the effects of plant operation due to the presence of weapons testing fallout during the late 50's and early 60's. Preoperational fallout levels gave rise to much higher biota concentrations than currently observed. Preoperational radioactivity in periphyton was more than an order of magnitude higher than current levels, for example [Reference 6.1-1].

Maximum individual dose due to gaseous effluents is calculated to be approximately 0.01 millirem per year at the property boundary, and maximum dose from liquid discharge is calculated to be approximately 0.1 millirem per year. Total integrated population doses from each effluent are calculated to be less than 0.1 person-rem per year. Quarterly calculated dose values for 1998 are presented in Table 6.1-1 [Reference 6.1-2].

The radiological environmental monitoring program during the decommissioning of Big Rock Point is modified for the limited radionuclide mix (absence of short-lived fission products) and for lowered gaseous effluent levels.

#### 6.1.1 Facility Operating History

During the operation of the Big Rock Point Nuclear Plant there were occurrences that resulted in contamination of structures and components inside buildings located in the Radiation Control Area. In addition, there were some occurrences which resulted in the contamination of the grounds outside of the buildings.

The most significant contamination event at Big Rock Point occurred in 1984 when approximately 20,000 gallons of water leaked from an underground line used to route the effluent of the condensate liquid process monitor to the condensate storage tank. As a result of water leakage from the underground line, sixty cubic feet of contaminated soil, containing approximately 99% of the source term activity, were excavated and shipped as low level waste to a licensed burial ground. It was estimated that the remaining, approximate thirty-seven micro-curies, activity was distributed in approximately 5300 cubic feet of soil located under the plants turbine building. On August 16, 1985, Consumers Energy requested NRC approval to retain the remaining low concentration (approximately  $1.4E-07$   $\mu\text{Ci/gm}$ ) of contaminated soil in place in accordance with 10CFR20.302. The approval was granted by the NRC on May 8, 1986.

Early in Big Rock Point's life, significant fuel failures occurred due to the collection of copper on fuel assemblies. The copper originated from the feedwater heaters and cleanup heat exchangers that utilized 70% copper, 30% nickel tube material. The tubes in the feedwater heaters were replaced with stainless steel in 1968, and cleanup heat exchanges were similarly modified in the early 1970's. Fuel failures that have occurred since that time are relatively minor in comparison, most consisting of small orifice openings in the cladding that allowed minimal fission product releases.

The integrity of major plant systems has been maintained during plant operations with no major failures occurring. Over the plant's life, routine occurrences such as minor packing and flange leaks, maintenance activities, and normal operational evolutions caused radioactive contamination in areas as anticipated. The contamination levels throughout the plant are maintained at low levels consistent with maintaining personnel radiation doses and releases to the environment ALARA.

## 6.2 RADIOLOGICAL SITE CHARACTERIZATION

### 6.2.1 Purpose

The purpose of the site characterization survey is to identify, quantify and document residual radioactivity at the Big Rock Point site. The results of the characterization survey will be used to define any potential remediation requirements prior to the final survey and termination of the site NRC license. The Site Characterization Report will be included in the License Termination Plan as described in 10CFR50.82.

## 6.2.2 General Program Description

The following summarizes the major activities for site characterization survey of soil and groundwater. Regulatory guidance contained in NUREG 1575, MARSSIM, [Reference 6.2-1] is utilized to the extent practical for performing the major activities associated with site characterization. Site Characterization is an ongoing process in conjunction with component removal and building demolition. Specific information regarding sample collection, analysis methodology and results are to be provided in the Site Characterization Plan, applicable procedures and Site Characterization Report, as generated.

The Big Rock Point property consists of only a few acres of buildings and structures located in a forested area on the Lake Michigan shoreline. The site license describes an owner-controlled area of approximately 600 acres; however, less than 20 acres were utilized for actual plant operations.

Big Rock Point completed a radiological scoping survey in 1994 that consisted of measurements and samples of the plant systems, structures, and components along with the analysis of soil and groundwater beneath the plant site and surrounding areas [Reference 6.2-2]. The objective of the scoping survey was to provide a preliminary assessment of radiological conditions around the site prior to decommissioning.

### 6.2.2.1 Survey Unit Classification

A historical site assessment has been performed using Data Quality Objectives as described by NUREG 1575 (MARSSIM) to complete initial classification of all site property into the categories of *Non-Impacted* or *Impacted* (Class I, II, III). The historical site assessment utilized scoping survey data, Condition Reports, Event Reports, Deviation Reports, questionnaire data, interviews with current and former plant employees, process knowledge of waste transport and review of operating logbooks.

A land survey has been completed to section the site property into ten by ten meter survey grids. Based on the historical site assessment and scoping survey data, these grids have been divided into survey unit classifications in accordance with NUREG 1575, MARSSIM, guidance. The classification criteria is provided below.

Classification	Description
<i>Non-Impacted</i>	Area of no potential contamination
<i>Impacted</i>	
Class 1	Areas containing locations where residual activity may exceed the Dose Concentration Guideline Limit <sup>3</sup> (DCGL)
Class 2	Areas that have the potential for radioactive contamination but are not expected to exceed the DCGL
Class 3	Impacted areas that are not expected to contain any residual activity or are expected to contain levels at a small fraction of the DCGL

Figure 6.2-1 provides a preliminary diagram of impacted and nonimpacted areas for the Big Rock Point site.

#### 6.2.2.2 Regional Background Activity

The radioactive background activity levels from man-made sources will be established based on analysis of off-site samples of varying soil types and locations. *Fisherman's Island*, located approximately 10 miles southwest of the Big Rock site, has been defined by the US Dept. of Agriculture as having the same soil types as Big Rock Point. A MARSSIM survey of this area has been completed to define the regional standard environmental Cs-137 background resulting from fallout. A MARSSIM survey of the Big Rock Point nonimpacted areas will then be statistically compared to the Cs-137 background activity determined for *Fisherman's Island*.

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<sup>3</sup>DCGLs are isotope specific conversion factors to obtain dose in millirem/year to a critical member of the population based on quantity of radioactivity found in soil, groundwater, etc.

### 6.2.2.3 Soil Sampling and Analysis

Radiological surveys conducted for site characterization incorporate an integrated evaluation methodology. The MARSSIM approach is used wherever practical for characterization survey sampling and analysis. Survey units are scanned for individual areas of elevated activity using sodium iodide detection methodology. Activity depth profiles are determined by deep core sampling to define the vertical and lateral extent of contamination. Laboratory and *in situ* gamma spectroscopy is used to identify and quantify levels of soil radioactivity.

Extensive surveys have been performed in and around the protected area, including deep core sampling to profile the depth and extent of potential contamination [Reference 6.2-4]. Preliminary results of this survey indicate that the area of concern (potential Class 1 impacted areas) encompass approximately 1000 square meters immediately west of the turbine building and about a 300 square meter area beneath the turbine building floor. Remediation efforts for these areas will be evaluated and/or completed as part of the License Termination Plan.

### 6.2.2.4 Groundwater Sampling

Data on groundwater radioactivity is tracked via the groundwater monitoring wells to assess any radionuclide migration. Groundwater samples are routinely collected from the nine monitoring wells installed in 1994. Table 6.2-1 provides a description of the wells and Table 6.2-2 summarizes radioactive analysis results to date. Samples are analyzed for gamma emitting nuclides and tritium. The analyses are performed with a minimum detectable activity (MDA) concentration  $1.8 \times 10^{-8}$   $\mu\text{Ci/ml}$  for Cs-137. This MDA is substantially below the activity concentration established by the Michigan Drinking Water Standard R325.10604 which sets the limit for water consumed by the public to the concentration that would give a member of the public 4 mrem/year. This calculates to  $8 \times 10^{-8}$   $\mu\text{Ci/ml}$  for Cs-137.

Two of the nine monitoring wells indicated detectable tritium activity; no other radionuclides were detected in any of the wells. The tritium is believed to have originated from the migration of activity from the 20,000 gallons of water that leaked into the ground in 1984 [Reference 6.2-3]. Levels of detected tritium are lower by a factor of approximately 500 than the concentration originally leaked to the ground and is most likely the end of the groundwater plume entering Lake Michigan.

#### 6.2.2.5 Exposure Pathway Modeling

Exposure pathway modeling using the RESRAD computer code, or equivalent method acceptable to the NRC, and utilizing applicable site-specific geological and characterization data will be completed. These models will be used to determine the appropriate DCGLs prior to submittal of the License Termination Plan to the NRC.

### 6.3 REFERENCES

- a. 6.1-1, Consumers Energy Company, "Big Rock Point Annual Radiological Environmental Monitoring Report January to December 1998," Letter to NRC dated April 29, 1999
- b. 6.1-2, Consumers Energy Company, "Big Rock Point Annual Radiological Effluent and Waste Disposal Report", Letter to NRC dated April 26, 1999
- c. 6.2-1, NUREG 1575, EPA-402R-97-016, Multi Agency Radiation Survey and Site Investigation Manual (MARSSIM), December 1998
- d. 6.2-2, Simonsen, Rodney J., "Development and Utilization of a Method for Performing Insitu Gamma Ray Spectroscopy of Operating Commercial Nuclear Power Plant site Grounds in the Presence of a Varying Background Radiation Field," University of Michigan, 1997
- e. 6.2-3, Deviation Report BRP-94-073, Identification of Contaminated Soil Identified from Decommissioning Scoping Survey, Consumers Power Company, Big Rock Point Nuclear Plant
- f. 6.2-4, Consumers Energy, Big Rock Plant Core Borings Report, Radian International, August 23, 1999
- g. 6.2-5, Action Item Record A-BRP-94-041, Addition of Big Rock Point's Monitoring Wells into the Plant's Radiological Environmental Monitoring Program

Figure 6.2-1

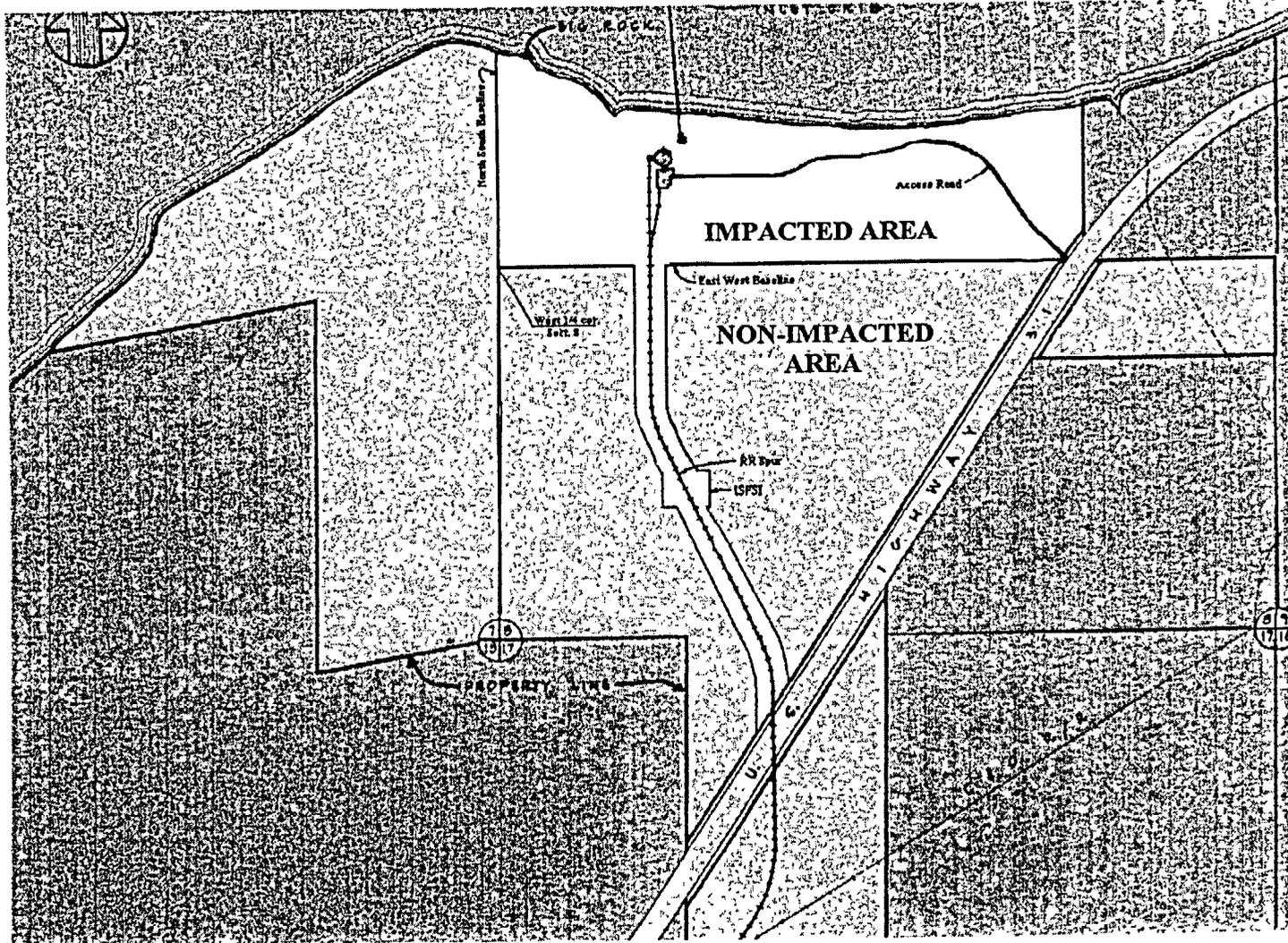


TABLE 6.2-1  
GROUNDWATER MONITORING WELLS  
AT BIG ROCK POINT

Well #	Top of Well Elevation (ft)	Groundwater Elevation (ft)	Screen Bottom Elevation (ft)	Location on Site
1	586.38	583.86	517	W of Annex
2	592.72	Standing Water	568	NW of Radwaste Bld.
3	594.89	Standing Water	578	WSW of Radwaste Bld.
4	596.31	Flowing Water	572	SSW of Radwaste Bld.
5	589.35	583.29	565	NE of Escape Lock
6	591.81	583.09	572	NW of Escape Lock
7	591.36	581.58	562	NW Corner of Protected Area
8	592.57	585.72	567	W of Maintenance Bld.
9	594.18	586.99	578	SW of Stack

Note: Groundwater depth as determined August 18, 1994

TABLE 6.2-2  
BIG ROCK POINT GROUNDWATER MONITORING DATA<sup>1</sup>

Titium Activity (uCi/ml)									
Sample Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Well #9
Aug-94	< 1.0E-06	< 1.0E-06	< 1.0E-06		1.1E-05	4.0E-05	< 1.0E-06	< 1.0E-06	< 1.0E-06
Sept-94	< 5.0E-07	< 5.0E-07	< 5.0E-07		1.1E-05	2.7E-05	< 5.0E-07	< 5.0E-07	< 5.0E-07
Apr-96	< 1.0E-06				2.4E-05	1.7E-05	< 1.0E-06	< 1.0E-06	8.2E-07
Oct-96	< 8.0E-07	< 8.0E-07		< 8.0E-07	2.3E-05	2.2E-05	< 8.0E-07	< 8.0E-07	< 8.0E-07
Apr-97	< 1.5E-07	< 1.5E-07	< 1.5E-07		2.3E-05	3.7E-05	< 1.5E-07	< 1.5E-07	< 1.5E-07
Oct-97	< 7.1E-07	< 7.1E-07			1.4E-05	2.5E-05	< 7.1E-07	< 7.1E-07	< 7.1E-07
Apr-98	< 6.0E-07	< 6.0E-07	< 6.0E-07		1.4E-05	9.1E-06	< 6.0E-07		< 6.0E-07
Oct-98	< 5.2E-07	< 5.2E-07		< 5.2E-07	1.5E-05	2.3E-05	< 5.2E-07		6.3E-07
Mar-99	< 5.2E-07	< 5.2E-07		< 5.2E-07	1.0E-05	1.4E-05	< 5.2E-07		< 5.2E-07
Oct-99	< 1.7E-07	< 1.8E-07	< 1.8E-07	< 1.8E-07	1.65E-05	1.90E-06	< 1.8E-07		5.10E-07

TABLE 6.2-2  
BIG ROCK POINT GROUNDWATER MONITORING DATA<sup>1</sup>

Titium Activity (uCi/ml)									
Apr-00	<1.8E-07	< 1.6E-07	< 1.6E-07	< 1.6E-07	1.7E-05	5.28E-06	< 1.6E-07		
July-00	1.91E-07	< 1.6E-07	< 1.6E-07	< 1.6E-07	2.60E-05	5.06E-06	< 1.6E-07		
Mar-01 <sup>2</sup>					9.60E-06	5.09E-06			

<sup>1</sup>ODCM requires semiannual sampling for six of nine monitoring wells.

<sup>2</sup>Resampled Well #'s 5 and 6 due to abnormally elevated result for Well #5 in July-00.

## 7.0 INTRODUCTION

Decommissioning of Big Rock Point will require the authorization of several federal, state, and local agencies. Some activities require specific authorization. Others may involve permits and approvals already in effect for operation of the facility. Federal, state, and local requirements are identified, and the status for each is reviewed below.

## 7.1 FEDERAL REQUIREMENTS

Decommissioning activities that are subject to federal regulations, permits, licenses, notification, approvals or acknowledgments include:

- a. Handling, packaging and shipment of radioactive waste;
- b. Worker radiation protection;
- c. Worker health and safety;
- d. Liquid effluent releases to Lake Michigan;
- e. Hazardous waste generation/disposition;
- f. Handling and removal of asbestos;
- g. Handling and removal of lead paint;
- h. Closure of mixed low level waste (LLW) storage facility;
- i. Radio communications; and
- j. Soil Erosion Sedimentation and Control Permit.

The majority of radiological activities fall under Title 10 of the Code of Federal Regulation (CFR) and are administered by the Nuclear Regulatory Commission (NRC). Applicable Title 10 regulations include:

- a. Part 50 - decommissioning activities;
- b. Part 20 - radiation protection;
- c. Part 51 - environmental protection;

- d. Part 61 - disposal of radioactive waste; and
- e. Part 71 - packaging and transportation of radioactive waste regulations in (49CFR171 to 174 also apply).

Worker health and safety protection during decommissioning is subject to Occupational Safety and Health Administration (OSHA) regulations. The regulations applicable to construction are 29CFR1910 and 1926. These regulations include requirements for respiratory protection (nonradiological), hearing protection, illumination, scaffold safety, crane and rigging safety, chemical usage and release response, and clean-up operations.

The Environmental Protection Agency (EPA) regulations outlined in Title 40 of the Code of Federal Regulations apply as follows:

- a. Part 61 - Asbestos Handling and Removal;
- b. Parts 122 to 125 - National Pollutant Discharge Elimination System (NPDES);
- c. Part 141 - Safe Drinking Water Standards;
- d. Part 190 - Radiation Protection Standards for Nuclear Power Operations;
- e. Parts 260 to 272 - Resource Conservation and Recovery Act (RCRA);
- f. Part 280 - Underground Storage Tanks; and
- g. Part 761 - Polychlorinated Biphenyls (PCBs).

Asbestos and lead paint handling and removal is subject to OSHA regulations 29CFR1910 and 1926, and EPA Regulations 40CFR61, Subpart M. Hazardous waste generation, storage, transportation, disposal and closure of the mixed LLW waste facility are subject to the regulations outlined 40CFR260 through 272 of the Resource Conservation and Recovery Act (RCRA). Handling and storage of PCB waste are subject to the requirements of 40CFR761 or the Toxic Substances Control Act (TSCA).

Federal Communications Commission (FCC) licenses are required for radio communication equipment used at BRP. FCC regulations apply to any radio communication equipment used in the reactor dismantlement and radwaste processing area.

## 7.2 STATE AND LOCAL REQUIREMENTS

Permits and approvals from or notifications to several state and local agencies are required for safety and environmental protection purposes. Some of these are for specific decommissioning activities, and others are for existing Big Rock Point site facilities and ongoing activities that will also be required to support decommissioning. Many of the state and local requirements apply to activities that are also subject to federal regulations discussed previously. Decommissioning activities and related site operations that fall under state and local jurisdiction include:

- a. Air emissions,
- b. Hazardous waste generation,
- c. Asbestos removal and disposal,
- d. Lead paint removal and disposal,
- e. Solid waste shipment,
- f. Solid waste disposal,
- g. Liquid effluents,
- h. Liquid waste shipment,
- i. Fuel oil storage,

- j. Building permits,
- k. Plant domestic water wells,
- l. Soil erosion and sedimentation,
- m. Wetlands protection, and
- n. Underground storage tanks.

Michigan's environmental acts were consolidated into the Natural Resources and Environmental Protection Act (NREPA), 1994, PA 451 as amended. Act 451 is organized into "Parts." The following section provides a general description of the Michigan Act 451 parts applicable to decommissioning Big Rock Point.

Air emissions and asbestos removal for the site are regulated under the Michigan Air Pollution Control Rules (Part 55) in addition to the Federal Clean Air Act. Operating permits will be revised or terminated as necessary to accommodate decommissioning activities. Notification of asbestos removal will be prepared and submitted to MDEQ staff.

Liquid discharges from the plant to Lake Michigan are regulated by the NPDES permitting system jointly administered by the EPA and the MDEQ, Surface Water Quality Division. Parts 31 and 88 of Act 451 provide regulations for surface water discharges. Soil erosion and sedimentation control and wetlands protection are governed by Act 451, Parts 91 and 303, respectively.

Michigan waste management regulations are found in Parts 111, 115, 117 and 121 of Act 451. These regulations apply to generation, disposition and disposal of hazardous waste, solid waste management, nonhazardous liquid industrial wastes, and used oil recycling. All nonhazardous, nonradioactive wastes, including demolition debris, will be disposed of as either a Type II or Type III waste. Additionally, lead paint handling and disposal falls under Michigan Occupational Safety and Health Act (MIOSHA) regulations.

Three underground storage tanks exist at the Big Rock Point site for heating fuel oil, diesel generator fuel supply and diesel fire pump fuel supply. In addition to regulation under Part 211 of Act 451, these tanks are also regulated by the State Fire Marshall.

Drinking water supplies are regulated under the Safe Drinking Water Act (PA 399, 1976) by the Drinking Water and Radiological Protection Division of the MDEQ.

At the local level, building permits will be required for temporary field office or other facilities necessary to support decommissioning activities.

**ATTACHMENT VI**

**CONSUMERS ENERGY COMPANY  
BIG ROCK POINT PLANT  
DCKET 50-155 AND 72-043 – LICENSE DPR-5**

**REVISION 10 TO THE UPDATED FINAL HAZARDS SUMMARY REPORT  
(UFHSR)  
Submitted September 17, 2002**

**Informational Copy  
Revision 20 of the Quality Program Description for Nuclear Power  
Plants, Part 1 – Big Rock Point (CPC-2A)**

89 Pages

The logo for Consumers Energy, featuring the company name in a bold, italicized sans-serif font, enclosed within a thick, black, horizontal oval shape that tapers at both ends.

***Consumers Energy***

**Quality Program Description**

**for**

**Nuclear Power Plants (Part 1) –**

**Big Rock Point**

**(CPC-2A)**

**Rev.20**

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**David W. Joos**  
President &  
Chief Executive Officer - Electric

**SUBJECT: STATEMENT OF RESPONSIBILITY AND AUTHORITY  
REGARDING THE CONSUMERS ENERGY QUALITY PROGRAM  
FOR THE BIG ROCK POINT NUCLEAR PLANT**

As President and Chief Executive Officer, Electric of Consumers Energy, I have the ultimate management authority for the Consumers Energy Quality Program Description for Nuclear Power Plants (Part 1) - Big Rock Point Nuclear Plant. The Quality Program Description complies with the quality assurance requirements contained in Appendix B of 10 CFR 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," and responds to the additional guidance contained in ANSI N18.7, and to the ANSI N45.2 Series of Standards and corresponding Regulatory Guides within the context of applicability imposed by N18.7. The Quality Program Description outlines the actions that are implemented for important activities affecting decommissioning of the Big Rock Point Nuclear Plant and the construction and operation of the Independent Spent Fuel Storage Installation.

I have delegated responsibility for establishing, maintaining and implementing the Quality Program Description to the Senior Vice President, Nuclear, Fossil and Hydro Operations. I have delegated selected portions of the Quality Program to the Senior Vice President, Electric Transmission and Distribution; and through a Senior Vice President of CMS Energy to the Vice President and Secretary. This Quality Program Description describes the Consumers Energy organizations responsible for implementation.

The Quality Program Description contains mandatory requirements which must be implemented and enforced by all responsible organizations and individuals.

  
\_\_\_\_\_  
David W. Joos  
President and Chief Executive Officer, Electric

5/14/01  
Date

QUALITY PROGRAM DESCRIPTION FOR NUCLEAR POWER PLANTS  
PART 1 - BIG ROCK POINT

APPROVED BY:



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Vice President and Secretary  
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5/9/01  
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QUALITY PROGRAM DESCRIPTION FOR NUCLEAR POWER PLANTS  
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1.0 ORGANIZATION

1.1 REQUIREMENTS

Consumers Energy is responsible for establishing and implementing the Quality Program, as described herein, for the Big Rock Point Nuclear Plant and its Independent Spent Fuel Storage Installation (ISFSI). Consumers Energy will be delegating the authority for development and maintenance of the Quality Program Description (QPD) and execution of certain quality assurance functions to the Nuclear Management Company (NMC). Until July 1, 2001, these activities will be performed by Consumers Energy personnel. From that time, these activities will be performed by a combination of NMC and Consumers Energy personnel. This is discussed below within the QPD. Although authority for development and execution of some parts of the program is delegated to others, such as contractors and consultants, Consumers Energy retains overall responsibility.

This section of the (QPD) identifies the Consumers Energy and NMC organizations responsible for activities affecting the quality of BRP/ISFSI structures, systems and components and describes the authority and duties assigned to them. It addresses responsibilities for attaining quality objectives; for establishing and maintaining the QPD; and for assessing the performance of activities affecting quality. The maintenance and control of this QPD is the responsibility of the Manager, Nuclear Performance Assessment Department (NPAD).

NPAD functions (e.g., audits, assessments, and supplier evaluations) are performed by personnel within formally designated organizational units that report to the Manager, NPAD or members of other organizations as selected by the Manager, NPAD. The reporting level of the NPAD organization affords sufficient authority and organizational freedom, including sufficient independence from the cost and schedule impacts of NPAD organization actions, to enable people in that organization to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
1.2.1	2a
1.2.2	2g
1.2.3	2, 2b, 2c

1.2 IMPLEMENTATION

1.2.1 Source of Authority

The President and Chief Executive Officer, Electric (see Figure 1, Company Organization Chart) of Consumers Energy is responsible for safe operation and

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decommissioning of Big Rock Point and safe storage of spent fuel at the ISFSI. Authority and responsibility for establishing and implementing the Quality Program for decommissioning is delegated to the Senior Vice President - Nuclear, Fossil, and Hydro Operations (NFHO). This delegation is formalized in a STATEMENT OF RESPONSIBILITY AND AUTHORITY signed by the President and Chief Executive Officer, Electric. Other quality-related functions are provided by other organizations as described herein.

1.2.2 Responsibility for Attaining Quality Objectives at the Nuclear Plants

The Senior Vice President, NFHO is responsible to the President and Chief Executive Officer, Electric for decommissioning of BRP and construction and operation of the ISFSI. Managers who report to the Senior Vice President, NFHO, are responsible for directing the performance of activities that affect safe plant decommissioning and/or safety-related functions of structures, systems and components of the plant and ISFSI in accordance with Quality Program requirements.

The BRP Site General Manager (see Figure 1) is responsible to the Senior Vice President NFHO for operation, maintenance, and decommissioning of BRP and construction and operation of the ISFSI in such a manner as to achieve compliance with licenses, applicable regulations and the Quality Program. The Site General Manager delegates to appropriate managers and staff personnel in his organization responsibility for carrying out applicable controls required by the Quality Program. Quality Program activities performed on the authority of the Site General Manager include:

Qualification of appropriate decommissioning/ISFSI personnel, including certification of inspection personnel.

Preparation, review and approval of plant/ISFSI procedures and instructions.

Functioning as the plant/ISFSI design and configuration control authority for compliance of plant/ISFSI modifications and design changes to existing plant/ISFSI design criteria.

Modifying components, including procurement, installation, inspection and testing activities when assigned by the Site General Manager.

Authorizing use of secondary calibration standards whose accuracy is equal to that of equipment being calibrated, and assuring that such use cannot result in operation outside Technical Specifications limits.

Maintaining Echelon III calibration facilities for Portable and Laboratory Measuring and Test Equipment (PL-M&TE) and Health Physics PL-M&TE (HPPL-M&TE).

Calibration/maintenance of installed plant/ISFSI instrumentation.

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Maintaining a calibration recall system.

Maintaining a Master List for plant-owned PL-M&TE.  
Performing necessary surveillance testing.

Maintaining equipment status control.

Maintaining required controls over chemical standards and reagents.

Conducting a water chemistry program in accordance with technical specifications.

Stopping unsatisfactory work to control further processing, delivery or installation of nonconforming materials or items.

Plant site/ISFSI inspection program, including inspection of maintenance, testing and fuel handling.

Preparation, review, and approval of means that identify plant/ISFSI structures, systems and components, and activities to which this QPD apply, as described in Section 2.0, depending on plant conditions during dismantlement.

Assuring that nonconforming items are identified, segregated and dispositioned.

Nuclear engineering such as accident-transient and physics analysis of spent fuel storage configurations.

Establishing, implementing and documenting the appropriate training of decommissioning/ISFSI personnel, including Quality Program indoctrination and training.

Procurement, including preparation, reviews and approval of purchase requests for spares, replacement items, consumables, and materials, items and services and submittal of purchase requests to the purchasing organization. Planning and execution of vendor source surveillance or inspection, receiving inspection, and review of supplier quality-related documentation, as well as vendor surveys for urgent procurements.

Providing for storage and protection of purchased materials and items awaiting disposition implementation after removal from service, assuring preservation of identification.

Accomplishing plant/ISFSI licensing activities including maintaining licensing documents up-to-date, interfacing with the NRC, accomplishing and/or tracking licensing commitments and coordinating internal action on NRC bulletins, generic letters, etc.

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Providing evaluation, processing and status reporting for assigned corrective action documents, including determination of NRC reportability.

Operating experience reviews including NRC Information Notices.

Performing the engineering, construction, inspection and testing associated with plant/ISFSI modification projects as assigned.

Developing, maintaining and implementing security, fire protection and emergency plans.

Performing reviews to advise the Site General Manager on matters related to nuclear safety, as specified in Appendix B, Safety Review Committee.

1.2.3 Responsibilities of the Nuclear Performance Assessment Department

The Manager, NPAD, (see Figure 1) is directly responsible to the Senior Vice President, NFHO, for:

Assessment of the effectiveness of the Nuclear Quality Program.

Supplier surveys and evaluation including review/approval of supplier QA programs, and maintenance of the Approved Suppliers List.

Preparation, review, approval and implementation of departmental procedures governing nuclear assessment activities.

Assuring that assessments are done by personnel not directly responsible for the work being performed.

Recommending to the Senior Vice President, NFHO that decommissioning activities including spent fuel transfer activities be stopped if such action appears necessary.

Assessment programs (site and Corporate Office), including follow-up on corrective action for audit findings.

Review of performance trends associated with BRP/ISFSI activities including corrective actions.

Analysis of new and/or changed regulatory direction, codes and standards to determine their effect on the Quality Program.

Maintenance of the Quality Program Description for Nuclear Power Plants Part 1 - Big Rock Point Nuclear Plant.

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Reporting audit findings relative to follow-up on corrective actions and the effectiveness of the Quality Program to Consumers Energy Management.

In fulfilling the above responsibilities, the Manager, NPAD may use a combination of Consumers and NMC employees. The Manager, NPAD, is provided with "Stop Work" authority whereby he can suspend any quality related activity or process which may, in his opinion, adversely affect public safety, the safe decommissioning of BRP, or safe fuel storage operations. A Stop Work Order that would result in the suspension of in-process spent fuel transfer operations is given as a recommendation - the certified fuel handlers are responsible for determining and carrying out the safest course of action.

The Manager, NPAD has no other primary duties or responsibilities unrelated to NPAD that would prevent his attention to nuclear performance assessment matters, is sufficiently free from schedule and cost pressures to give appropriate weight to quality considerations in his decisions and recommendations, and has direct access to high enough levels of Management to obtain resolution of quality problems.

1.2.4 Responsibilities of the Equipment Services Department

The Manager, Equipment Services provides electrical, rotating and stationary equipment expertise, including developing and qualifying procedures for welding and heat-treating and qualifying welders.

1.2.5 Responsibilities of the Plant Operations Department

The Director, Plant Operations is responsible for maintaining the Records Management System including required retention, protection and retrievability. This includes collecting, storing, and maintaining, distributing and controlling plant/ISFSI engineering design documents. This excludes Big Rock Safeguards Information documents, which are maintained at Big Rock. The accuracy, quality, and correctness of Big Rock documents in the Records management System are the responsibility of the BRP Site General Manager.

1.2.6 Responsibilities of the Environmental and Laboratory Services Department

The Manager, Environmental and Laboratory (E&LS) is responsible for:

Maintaining the Company's Echelon II calibration facility for calibrating reference and secondary standards and general usage portable and laboratory measuring and test equipment.

Controlling the calibration recall system for Portable and Laboratory M&TE owned by E&LS, and other departments, as requested.

Maintaining a Master PL-M&TE List for E&LS PL-M&TE and for other departments, as requested.

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Providing a PL-M&TE Inventory List for BRP/ISFSI.

Providing chemistry support to BRP/ISFSI, as requested.

Preparing, reviewing, approving and obtaining additional reviews and approvals if required, of purchase requests for services, equipment and consumables, and submitting such requests to purchasing for procurement action.

Conducting performance tests on materials, equipment and systems when requested.

Performing nondestructive examination, and controlling/maintaining NDE equipment.

Providing qualified NDE procedures and equipment and NDE personnel.

Providing chemical and metallurgical analytical services.

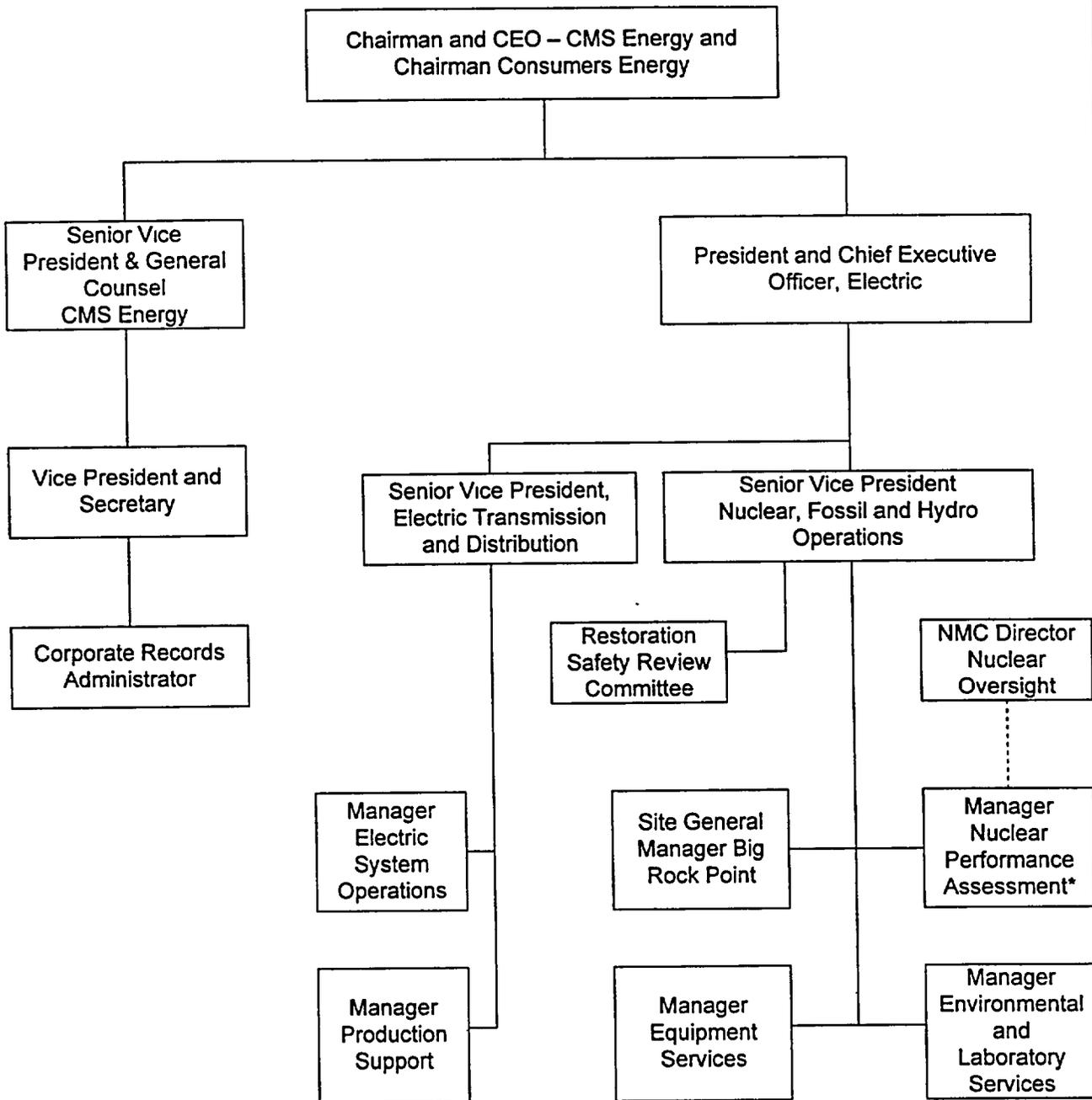
Providing necessary corrective action processing and status reporting for assigned corrective action documents.

1.2.7 Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations

Certain functions that constitute part of the Nuclear Quality Program are performed by Consumers Energy organizational units outside the Nuclear, Fossil and Hydro Operations Department. Engineering and design tasks executed in support of plant activities are subject to review and acceptance by the associated plant organization responsible for that activity (i.e., the design authority).

- a. The Manager, Electric System Operations (see Figure 1) is responsible through the Senior Vice President, Electric Transmission and Distribution to the President and Chief Executive Officer, Electric for determining settings for electrical protective systems and relay control schemes, for design, review and recommending changes to electrical protective schemes and associated settings. He is also responsible for testing and maintaining electrical protective devices, performing design verification testing associated with electrical protective schemes, devices and application of associated settings.
- b. The Corporate Records Administrator (see Figure 1) is responsible through the Vice President and Secretary for microfilming of specified quality records and plant/ISFSI engineering/design documents.
- c. The Manager, Production Support (see Figure 1) is responsible, through the Senior Vice President, Electric Transmission and Distribution to the President and Chief Executive Officer - Electric for operating the Skill Centers including the training, and testing of personnel and equipment for welding operations.

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\* As of May 15, 2001, the Manager of NPAD is a Consumers Energy employee as is the staff supporting him. Effective July 1, 2001, the Manager, NPAD will become a Nuclear Management Company employee and his supporting staff will be a combination of Consumers Energy and Nuclear Management Company employees.

Figure 1 – Consumers Energy Organization for Big Rock Point Quality Program

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2.0 QUALITY PROGRAM

2.1 REQUIREMENTS

Policies that define and establish the Consumers Energy Quality Program for Nuclear Power Plants (Part 1) - Big Rock Point Nuclear Plant are stated in the individual sections of this document. The program is implemented through procedures and instructions responsive to provisions of the QPD and will be carried out for the life of BRP and its associated ISFSI. Plant/ISFSI life is defined as the period covered by a valid license under 10 CFR 50 or 10CFR 72, respectively.

Quality controls apply to activities affecting the quality of structures, systems and components, to an extent based on the importance of those structures, systems, or components to safety. Such activities are performed under suitably controlled conditions, including the use of appropriate equipment, maintenance of proper environmental conditions, assignment of qualified personnel and assurance that all applicable prerequisites have been met.

Quality Program status, scope, adequacy and compliance with 10 CFR 50, Appendix B and 10CFR 72 are regularly reviewed by Consumers Energy Management through reports, meetings and review of audit results. A preplanned and documented assessment of the nuclear safety performance is conducted as described in Appendix C.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
2.2.3	21a, 21.b
2.2.5	19a
2.2.6	1, 19a, 21a, 21b
2.2.9	2j, 4a, 5a, 5b, 6a, 7b, 10a, 11a, 12a, 12b, 12c, 12d, 13a, 17e
2.2.10	2e, 2f

2.2 IMPLEMENTATION

2.2.1 The President and Chief Executive Officer, Electric, has stated in a formal STATEMENT OF RESPONSIBILITY AND AUTHORITY, signed by him, that it is corporate policy to comply with the provisions of applicable legislation and regulations pertaining to quality assurance for BRP/ISFSI as defined by 10 CFR 50, Appendix B and 10 CFR 72, Subpart G. The statement makes this QPD and the associated implementing procedures and instructions mandatory and requires compliance by all responsible organizations and individuals. It identifies the Management positions in the Company vested with responsibility and authority for implementing the Program and assuring its effectiveness.

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2.2.2 The Quality Program at Consumers Energy consists of controls exercised by organizations responsible for attaining quality objectives and by organizations responsible for assurance functions (see Section 1.0, ORGANIZATION).

2.2.3 The effectivity and applicability of this QPD are as follows:

- a. For Big Rock Point, the QPD became effective on April 1, 1982, with full implementation on January 1, 1983.
- b. For the ISFSI, in accordance with 10 CFR 72.4, the NRC Spent Fuel Project Office was notified by letter dated February 17, 2000 of Consumers Energy's intent to apply this Quality program to the ISFSI and spent fuel storage cask activities as required by 10 CFR Part 72.140.
- c. The Quality Program described in this Quality Program Description is intended to apply for the life of BRP and its associated ISFSI.
- d. The Quality Program applies to activities affecting the quality of structures, systems, components and related consumables at BRP/ISFSI. Structures, systems, components and related consumables to which this program applies are identified in accordance with the criteria of Regulatory Guide 1.29, as clarified by Items No. 21a and No. 21b in Part 2 of Appendix A to this QPD, and as described below.

2.2.4 This QPD, organized to present the Consumers Energy Quality Program for Nuclear Power Plants (Part 1) in the order of the 18 criteria of 10 CFR 50, Appendix B, states Consumers Energy requirements for each of the criteria and describes how the controls pertinent to each are carried out. Any changes made to this QPD that do not reduce the commitments previously accepted by the NRC must be submitted to the NRC at least annually as specified by 10 CFR 50.71.e. Any changes made to this QPD that do reduce the commitments previously accepted by the NRC must be submitted to the NRC and receive NRC approval prior to implementation in accordance with the requirements of 10 CFR 50.54.

Appendix A to this QPD lists the ANSI Standards and Regulatory Guides to which Consumers Energy commits. Appendix A also describes necessary exceptions and clarifications to the requirements of those documents.

The program described in this QPD will not be changed in any way that would prevent it from meeting the criteria of 10 CFR 50, Appendix B.

2.2.5 Documents used for implementing the provisions of the QPD include the following:

- a. Administrative procedures specify the standard methods of accomplishing plant activities. Because the Quality Program is an integral part of these activities, the methods for implementing Quality Program controls are integrated into these documents.

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- b. When Contractors perform work under their own quality assurance programs, these programs are reviewed for compliance with the applicable requirements of 10 CFR 50, Appendix B and the contract, and are approved by Consumers Energy prior to the start of work.
- c. Applicable elements of the Quality Program are applied to emergency plans, security plans, radiation and fire protection plans for BRP/ISFSI. These plans describe quality controls applicable to associated equipment and activities.

2.2.6 Provisions of the Quality Program for Nuclear Power Plants (Part 1) apply to activities affecting the quality of structures, systems, components and related consumables. Consumers Energy uses the following criteria in the selection of structures, systems, components, and activities to which the Quality Program is applied. Application of the Quality Program assures that such structures, systems, components, and activities are monitored and controlled in a manner sufficient to provide reasonable assurance that they are capable of fulfilling their intended functions.

- a. The Quality Program shall be applied to structures, systems, components, and activities selected based on engineering evaluation that uses the guidance of Regulatory Guides 1.26 and 1.29 to determine those items and activities whose function is important to safe plant operation and shutdown. These items and activities are commonly referred to as "safety related" (see Appendix A).
- b. The Quality Program shall be applied to structures, systems, components, and activities important to the safe storage, control and maintenance of spent nuclear fuel (ISSSF);
- c. The Quality Program shall be applied to structures, systems, components, and activities important to the monitoring and control of radiological hazards (IMCRH).

Application of these criteria in engineering evaluation of an item's function results in its classification and identification as either subject to this Program, or not. Identification may be via a "DQ-List," electronic databases, or other controlled means. Identification is maintained current with plant conditions during dismantlement. This information is available for inquiry by individuals involved in site activities. The extent to which controls specified in the Quality Program are applied is determined for each item considering its relative importance to the above criteria. Such determinations are based on data in such documents as the post-shutdown Technical Specifications, the Updated Final Hazards Summary Report (UFHSR), and the Cask Storage System SAR.

2.2.7 Activities affecting quality of items within the scope of this Program are accomplished under controlled conditions. Preparations for such activities include confirmation that prerequisites have been met, such as:

- a. Assigned personnel are qualified.

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- b. Work has been planned to the proper revisions of applicable engineering and/or technical specifications.
- c. Specified equipment and/or tools, if any, are on hand to be used.
- d. Materials and items are in an acceptable status.
- e. Systems or structures on which work is to be performed are in the proper condition for the task.
- f. Authorized current instructions/procedures for the work are available for use.
- g. Items and facilities that could be damaged by the work have been protected, as required.
- h. Provisions have been made for special controls, processes, tests and verification methods.

2.2.8 Development, control and use of computer programs affecting nuclear power plant design and operation at BRP/ISFSI are subject to Quality Program design controls (see Section 3.0, DESIGN CONTROL).

2.2.9 Responsibility and authority for planning and implementing indoctrination and training are specifically designated in the Consumers Energy organization (see Section 1.0, ORGANIZATION).

- a. The training and indoctrination program provides for ongoing training and periodic familiarization with this QPD.
- b. Personnel who perform inspection and examination functions are qualified in accordance with requirements of Regulatory Guide 1.58, SNT TC-1A, or the ASME Code, or Section 10.2.3 of this QPD, as applicable.
- c. Personnel who lead audits are qualified in accordance with Regulatory Guide 1.146. Others are either qualified to ANSI N45.2.23 or have detailed expertise in the area being audited.
- d. Personnel assigned duties such as special cleaning processes, welding, etc, are qualified in accordance with applicable codes, standards and regulatory guides.
- e. The training/qualification program for personnel leading audits includes provisions for retraining, reevaluation and recertification to ensure that proficiency is maintained.
- f. Training and qualification records including documentation of objectives, content of program, attendees and dates of attendance are maintained at least as long as the

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personnel involved are performing activities to which the training/qualification is relevant.

- g. Personnel responsible for performing activities that affect quality are instructed as to the requirements identified in applicable quality related manuals, instructions and procedures.

2.2.10 Status and adequacy of the Quality Program are regularly assessed by Consumers Energy Management. The following activities constitute formal elements of that assessment:

- a. Audit reports, including follow-up on corrective action accomplishment and effectiveness, are distributed to appropriate levels of Management (see Section 18.0, AUDIT).
- b. The Restoration Safety Review Committee assesses nuclear safety performance as described in Appendix C. Conclusions and recommendations are reported to the Senior Vice President, NFHO.

Corrective actions in response to recommendations are tracked in the regular corrective action tracking system (see Section 16.0, CORRECTIVE ACTION).

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3.0 DESIGN CONTROL

3.1 REQUIREMENTS

Modifications to structures, systems and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are accomplished in accordance with approved designs. Activities to develop such designs are controlled. Depending on the type of modification, these activities include design and field engineering; the performance of physics, seismic, stress, thermal, hydraulic, radiation and UFHSR and ISFSI SAR accident analyses; the development and control of associated computer programs; studies of material compatibility; accessibility for in-service inspection and maintenance; and determination of quality standards. The controls apply to preparation and review of design documents, including the correct translation of applicable regulatory requirements and design bases into design, procurement and procedural documents.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
3.1	9a, 13b
3.2.9	15a
3.2.10	13d

3.2 IMPLEMENTATION

- 3.2.1 Authority and responsibility for modification activities is under the cognizance of BRP as described in Section 1.0, ORGANIZATION. This authority and responsibility includes the preparation, review, approval and verification of the following design documents: a) System descriptions; b) Design input and criteria; c) Drawings and specifications; and d) Engineering analyses and associated computer programs.
- 3.2.2 Errors and deficiencies in approved design documents, or in design methods (such as computer codes) that could adversely affect structures, systems and components are documented. Action is taken to assure that the errors and deficiencies are corrected.
- 3.2.3 Materials, parts and processes that are essential to safety-related functions are selected and specified, based on the requirements of applicable codes and standards or on known, successful use under similar conditions. This includes standard commercial materials, parts and processes. Alternatively, materials, parts and processes may be qualified for use through qualification testing (see Item 3.2.8). The adequacy of the selected materials, parts and processes is assured through the required design verifications or approvals.
- 3.2.4 Exceptions and waivers to or deviations from the engineering (quality) standards (i.e., the required dimensions, material properties, features and other characteristics specified for modifications) are required by procedure and by contract, when applicable, to be docu-

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mented and controlled. (See, also, Section 15 concerning the approval of "repair" or "use as is" dispositions of nonconformances.)

- 3.2.5 When modifications involve design interfaces between internal or external design organizations or across technical disciplines, these interfaces are controlled. Procedures are used for the review, approval, release, distribution and revision of documents involving design interfaces to ensure that structures, systems and components are compatible geometrically, functionally and with processes and environment. Lines of communication are established for controlling the flow of needed design information across design interfaces, including changes to the information as work progresses. Decisions and problem resolutions involving design interfaces are made by the Consumers Energy organization having responsibility for engineering direction of the design effort.
- 3.2.6 Checks are performed and documented to verify the dimensional accuracy and completeness of design drawings and specifications (i.e., the products of a design process).
- 3.2.7 Modification design document packages are reviewed by Plant Engineering personnel to assure that the documents that they contain have been prepared, verified, reviewed and approved in accordance with Company procedures and that they contain the necessary quality requirements. These requirements include the inspection and test requirements, quantitative and/or qualitative acceptance criteria and the requirements for documenting inspection and test results.
- 3.2.8 The extent of and methods for design verification are documented. The extent of design verification performed is a function of the importance of the item to safety, design complexity, degree of standardization, the state-of-the-art and similarity with previously proven designs. Methods for design verification include evaluation of the applicability of standardized or previously proven designs, alternate calculations, qualification testing and design reviews. These methods may be used singly or in combination, depending on the needs for the design under consideration.

When design verification is done by evaluating standardized or previously proven designs, the applicability of such designs is confirmed. Any differences from the proven design are documented and evaluated for the intended application.

Qualification testing of prototypes, components or features is used when the ability of an item to perform an essential safety function cannot otherwise be adequately substantiated. This testing is performed before plant equipment installation where possible, but always before reliance upon the item to perform a safety-related function. Qualification testing is performed under conditions that simulate the most adverse design conditions, considering all relevant operating modes. Test requirements, procedures and results are documented. Results are evaluated to assure that test requirements have been satisfied. Modifications shown to be necessary through testing are made, and any necessary retesting or other verification is performed. Scaling laws are established and verified, when applicable. Test configurations are clearly documented.

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Design reviews are performed by multi-organizational or interdisciplinary groups or by single individuals. Criteria are established to determine when a formal group review is required and when review by an individual is sufficient.

Unless otherwise stated, the verification of design addresses all information conveyed by the design document. When the verification is limited to certain areas or features, the scope or extent and any limitations on the verification are documented.

3.2.9 Persons representing applicable technical disciplines are assigned to perform design verifications. These persons are qualified by appropriate education or experience but are not directly responsible for the design. The designer's immediate supervisor may perform the verification, provided that:

1. He is the only technically qualified individual available, and
2. He has not specified a singular design approach, ruled out certain design considerations or established the design inputs for the particular design aspect being verified, and
3. His review is either:
  - a. Approved in advance by the supervisor's management, with documentation of the approval included in the design package, or
  - b. Controlled by a procedure which provides specific limitations regarding the types of design work that may or may not be verified by a designer's supervisor, and shall provide for clear documentation that the supervisor performed the design verification.

Independent audits by NPAD cover the frequency, effectiveness, and technical adequacy of the use of supervisors as design verifiers to guard against abuse.

3.2.10 When designs must be released for use before they have been fully completed or before they have been verified, the incomplete or unverified parts of the design and the hold point to which work may proceed are identified. This hold point occurs before the work becomes irreversible or before the item is relied on to perform a safety-related function. Justification for such early release is documented.

3.2.11 Computer codes used in design are appropriately documented, verified, certified for use and controlled. Their use is specified.

3.2.12 Changes to design output documents, including field changes, are controlled in a manner commensurate with that used for the original design. Such changes are evaluated for impact. Those that affect fit, form, or function are reviewed and approved by the same, or

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equivalent, organizations that approved the original design. Information on approved changes is transmitted to all affected organizations.

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4.0 PROCUREMENT DOCUMENT CONTROL

4.1 REQUIREMENTS

Procurement documents for structures, systems, components and services to which this Program applies according to Section 2.0, QUALITY PROGRAM, define the characteristics of item(s) to be procured, identify applicable regulatory and industry codes/standards requirements and specify supplier quality assurance program requirements to the extent necessary to assure adequate quality.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
4.2.1	17c, 17d
4.2.3	2l, 17a, 17b
4.2.5	17d

4.2 IMPLEMENTATION

4.2.1 Responsibilities and authorities for procurement planning and for preparation, review and approval of procurement documents are delineated in Section 1.0, ORGANIZATION.

Procurement request packages are reviewed and approved prior to submittal to the Purchasing and Materials Department. Review includes verification that the necessary quality requirements are specified.

The responsible project engineer performs bid evaluations.

4.2.2 Supplier selection is described in Section 7.0, CONTROL OF PURCHASED MATERIALS, EQUIPMENT AND SERVICES.

4.2.3 The contents of procurement documents vary according to the item(s) being purchased and its function(s) in the plant. Provisions of this QPD are considered for application to suppliers. As applicable, procurement documents include:

- a. Scope of work to be performed.
- b. Technical requirements, with applicable drawings, specifications, codes and standards identified by title, document number and revision and date, with any required procedures such as special process instructions identified in such a way as to indicate source and need.
- c. Regulatory, administrative and reporting requirements.

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- d. Quality requirements appropriate to the complexity and scope of the work, including necessary tests and inspections.
- e. A requirement for a documented Quality Program, subject to Consumers Energy review and written concurrence prior to the start of work.
- f. A requirement for the supplier to invoke applicable quality requirements on subtier suppliers.
- g. Provisions for access to supplier and subtier suppliers' facilities and records for inspections, surveillances and audits.
- h. Identification of documentation to be provided by the supplier, identification of documents to be compatible with the records system, the schedule of submittals and identification of documents requiring Consumers Energy approval.

4.2.4 Trained, qualified personnel perform and document reviews of procurement request packages to assure that:

- a. Quality requirements (see 4.2.3 of this Section) are correctly stated, inspectable, and controllable.
- b. Adequate acceptance and rejection criteria are included.
- c. The procurement documents have been prepared, reviewed, and approved per the Quality Program requirements.

4.2.5 Changes to the technical or quality requirements in procurement documents are controlled in a manner commensurate with that used for the original requirements. Those that could affect fit, form, function or the necessary assurance of quality are reviewed and approved by the same, or equivalent, organizations that approved the original procurement request packages.

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5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS

5.1 REQUIREMENTS

Activities affecting the quality of structures, systems and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are accomplished using instructions, procedures and drawings appropriate to the circumstances that include acceptance criteria for determining if an activity has been satisfactorily completed.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
5.1	9a, 13b
5.2, item 5	2r, 2s, 8a
5.2, item 10	6b

5.2 IMPLEMENTATION

The authority and responsibility for performing activities affecting the quality of structures, systems and components are assigned as described in Section 1.0, ORGANIZATION. Management personnel assigned these responsibilities assure that the instructions, procedures and drawings necessary to accomplish the activity are prepared and implemented.

Instructions, procedures and drawings incorporate (1) a description of the activity to be accomplished and (2) appropriate quantitative (such as tolerances and operating limits) and/or qualitative (such as workmanship standards) acceptance criteria sufficient to determine that the activity has been satisfactorily accomplished.

Temporary procedures may be issued to provide management instructions which have short-term applicability. Temporary procedures include a designation of the time period during which they may be used.

The procedures used by Consumers Energy to control its activities include the following:

1. Administrative Procedures.
2. System procedures that describe the operation of the plant.
3. Process monitoring procedures that provide for monitoring plant system performance and which, as appropriate, identify limits for significant process parameters.
4. Fuel-handling procedures that provide for activities such as:

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- a. Fuel accountability
  - b. Receipt and shipment of fuel
  - c. Nuclear safety measures
  - d. Fuel movement
5. Maintenance procedures that provide for:
- a. Preparation for maintenance
  - b. Performance of maintenance
  - c. Post-maintenance and operability checks and tests
  - d. Use of supporting maintenance documents
6. Radiation control procedures that provide for:
- a. Implementation of the radiation control program including the acquisition of radiation data
  - b. Identification of equipment for performing radiation surveys
  - c. Measurement, evaluation and assessment of radiation hazards
7. Calibration and test procedures that provide for:
- a. Periodic calibration and testing of instrumentation and control systems
  - b. Calibration of portable measuring and test equipment used in activities affecting safety
8. Chemical-radiochemical control procedures that provide for activities including:
- a. Sampling and analyses
  - b. Maintenance of coolant quality
  - c. Control of deleterious agents
  - d. Control, treatment and management of radioactive wastes
  - e. The control of radioactive calibration sources

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9. Emergency Plan Implementing Procedures
10. Inspection, test and examination procedures that identify:
  - a. Objectives
  - b. Acceptance criteria
  - c. Prerequisite and special conditions
  - d. Limiting conditions
  - e. Test or inspection instructions
  - f. Any required special equipment or calibration
  - g. Hold and Witness points, as appropriate
11. Modification procedures that provide for:
  - a. Administrative control and technical support during plant/ISFSI modifications
  - b. The basis for a consistent method of performing recurring engineering, construction and quality activities
  - c. Control of the interfaces between Consumers Energy and its suppliers
  - d. Control of onsite quality-related modification activities that assure the Quality Program is implemented and its effectiveness is assessed and reported
12. Decommissioning procedures that provide for controlled dismantlement of BRP and restoration of the plant site.

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6.0 DOCUMENT CONTROL

6.1 REQUIREMENTS

Documents controlling activities within the scope defined in Section 2.0, QUALITY PROGRAM, are issued and changed according to established procedures. Documents such as instructions, procedures and drawings, including changes thereto, are reviewed for adequacy, approved for release prior to implementation by authorized personnel and are distributed and used at the location where a prescribed activity is performed.

Changes to controlled documents are reviewed and approved by the same organizations that performed the original review and approval or by other qualified, responsible organizations specifically designated in accordance with the procedures governing these documents.

- \* Personnel authorized to approve procedures specified by Permanently Defueled Technical Specifications are limited to an appropriate senior department manager, based on the activities addressed in the specific procedure, predesignated in writing by the Site General Manager.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
6.1	2h, 2n
6.2.3	2h, 2n, 2s, 12b

6.2 IMPLEMENTATION

6.2.1 The authority and responsibility for the control of documents are described in Section 1.0, ORGANIZATION.

6.2.2 Controls are established for approval, issue and change of documents in the following categories:

- a. Design documents (e.g., calculations, drawings, specifications, analyses) including documents related to computer codes
- b. As-built drawings (record drawings) and related documents
- c. Procurement documents
- d. Instructions and procedures for activities such as fabrication, construction, modification, installation, inspection, test, plant/ISFSI maintenance and operation, and decommissioning which implement the Quality Program.

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- e. UFHSR
- f. Reports of nonconformances
- g. Permanently Defueled Technical Specifications

6.2.3 The review, approval, issue and change of the above documents are controlled by:

- a. Establishment of criteria to ensure that adequate technical and quality requirements are incorporated.
- b. Identification of the organizations responsible for review, approval, issue and revision.
- c. Review of changes to documents by the organizations designated in accordance with the procedure governing the review and approval of specific types of documents, including quality aspects.

6.2.4 Controlled documents are issued and distributed so that:

- a. The documents are available at the work location prior to commencing work.
- b. Obsolete or superseded documents are removed from work areas and replaced by applicable revisions in a timely manner.

6.2.5 Master lists or equivalent controls are used to identify the current revision of instructions, procedures, specifications, drawings and procurement documents. When master lists are used they are updated and distributed to designated personnel who are responsible for maintaining current copies of the lists.

6.2.6 Accurate as-built drawings (record drawings) and related documentation are prepared in a timely manner.

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7.0 CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES

7.1 REQUIREMENTS

Activities that implement approved procurement requests for material, equipment and services used in systems, structures, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are controlled to assure conformance with procurement document requirements. Controls include a system of supplier evaluation and selection, source inspection, examination and acceptance of items and documents upon delivery, and periodic assessment of supplier performance. Objective evidence of quality that demonstrates conformance with specified procurement document requirements is available to BRP/ISFSI prior to reliance on equipment, material or services.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
7.1	2i
7.2.2	16d
7.2.3	7b, 17e
7.2.5	2m, 7e, 17f
7.2.6	2m, 9b, 13c, 13d, 17f

7.2 IMPLEMENTATION

7.2.1 Authority and responsibility for implementing the controls outlined herein are described in Section 1.0, ORGANIZATION.

7.2.2 Consumers Energy qualifies suppliers by performing a documented evaluation of their capability to provide items or services specified by procurement documents. To remain qualified, suppliers involved in active procurements are evaluated continuously and are audited triennially. If an audit is acquired from an external source, the audit is evaluated prior to its use.

Supplier evaluation and triennial audits are not necessary when the items or services supplied are all of the following:

- a. Relatively simple and standard in design, manufacture and test, and
- b. Adaptable to standard or automated inspections or tests of the end product to verify quality characteristics after delivery, and

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- c. Such that receiving inspection does not require operations that could adversely affect the integrity, function or cleanness of the item.

In the above cases, source and/or receipt inspection provides the necessary assurance of an acceptable item or service.

7.2.3 Supplier activities that affect quality are verified in accordance with written procedures. These procedures provide the method of verifying (such as audit, surveillance or inspection) and documenting that the characteristics or processes meet the requirements of the procurement document. For commercial "off-the-shelf" items where the requirements for a specific quality assurance program appropriate for nuclear applications cannot be imposed in a practical manner, source verification is used to provide adequate assurance of acceptability unless the quality of the item can be adequately verified upon receipt.

7.2.4 Spare and replacement parts are procured in such a manner that their performance and quality are at least equivalent to those of the parts that will be replaced.

- a. Specifications and codes referenced in procurement documents for spare or replacement items are at least equivalent to those for the original items or to properly reviewed and approved revisions.
- b. Parts intended as spares or replacements for "off-the-shelf" items, or other items for which quality requirements were not originally specified, are evaluated for performance at least equivalent to the original.
- c. Where quality requirements for the original items cannot be determined, requirements and controls are established by engineering evaluation performed by qualified individuals. The evaluation assures there is no adverse effect on interfaces, interchangeability, safety, fit, form, function, or compliance with applicable regulatory or code requirements. Evaluation results are documented.
- d. Any additional or modified design criteria, imposed after previous procurement of the item(s), are identified and incorporated.

7.2.5 Receipt inspections are performed to verify that items are undamaged and properly identified, that they conform with procurement requirements not previously verified by source surveillance or inspection and that required supplier furnished documentation is available. Items inspected are identified as to their acceptance status prior to their storage or release for installation.

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7.2.6 Suppliers are required to furnish the following records:

- a. Applicable drawings and related engineering documentation that identify the purchased item and the specific procurement requirements (e.g., codes, standards, and specifications) met by the item.
- b. Documentation identifying any procurement requirements that have not been met.
- c. A description of those nonconformances from the procurement requirements dispositioned "accept as is" or "repair."
- d. Quality records as specified in the procurement requirements.

The acceptability of these documents is evaluated during source and/or receipt inspection.

7.2.7 Supplier's certificates of conformance are periodically evaluated by audits, independent inspections, or tests to assure that they are valid. The results of these evaluations are documented.

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8.0 IDENTIFICATION AND CONTROL OF ITEMS

8.1 REQUIREMENTS

Materials, parts and components (items) used in structures, systems, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are identified and controlled to prevent their inadvertent use. Identification of items is maintained either on the items, their storage areas or containers, or on records traceable to the items.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
8.2.2	7d, 7g
8.2.3	7a

8.2 IMPLEMENTATION

- 8.2.1 Controls are established that provide for the identification and control of materials (including consumables), parts and components, (including partially fabricated assemblies). Responsibility for the identification and control of items is described in Section I.0, ORGANIZATION.
- 8.2.2 Items are identified by physically marking the item, its storage area or its container or by maintaining records traceable to the item. The method of identification is such that the quality of the item is not degraded.
- 8.2.3 Items are traceable to applicable drawings, specifications, or other pertinent documents to ensure that only correct and acceptable items are used. Verification of traceability is performed and documented prior to release for fabrication, assembly, or installation.

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9.0 CONTROL OF SPECIAL PROCESSES

9.1 REQUIREMENTS

Special processes affecting structures, systems, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are controlled and are accomplished by qualified personnel using qualified procedures and equipment in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
9.2.1	6c, 13e

9.2 IMPLEMENTATION

- 9.2.1 Processes subject to special process controls at BRP/ISFSI are those for which full verification or characterization by direct inspection is impossible or impractical. Such processes include welding, heat treating, chemical cleaning, application of protective coatings, concrete placement, and nondestructive examination.
- 9.2.2 Organizational responsibility for implementation of special processes and for qualification of procedures, personnel, and equipment used to perform special processes is indicated in Section 1.0, ORGANIZATION.
- 9.2.3 Special process procedures are prepared by personnel with expertise in the discipline involved. The procedures are reviewed for technical adequacy by other personnel with the necessary technical competence, and are qualified by testing, as necessary.
- 9.2.4 Special process personnel qualification is determined by individuals authorized to administer the pertinent examinations. Certification is based on examination results. Personnel qualification is kept current by performance of the special process (es) and/or reexamination at time intervals specified by applicable codes, specifications, and standards. Unsatisfactory performance or, where applicable, failure to perform within the designated time intervals requires recertification.
- 9.2.5 For special processes that require qualified equipment, such equipment is qualified in accordance with applicable codes, standards and specifications.
- 9.2.6 Qualification records are maintained in accordance with QPD Section 17.
- 9.2.7 The NPAD audits/assesses special process activities, including qualification activities to assure they are satisfactorily performed.

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10.0 INSPECTION

10.1 REQUIREMENTS

Activities affecting the quality of structures, systems, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are inspected to verify their conformance with requirements. Inspections are accomplished by independent verification or process monitoring as necessary. Verification points are used as necessary to ensure that inspections are accomplished at the correct points in the sequence of work activities.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
10.2.2	2p, 2q
10.2.3	2j, 6a
10.2.7	2j, 6a
10.2.10	2j

10.2 IMPLEMENTATION

10.2.1 Organizational responsibilities are as described in Section 1.0, ORGANIZATION.

10.2.2 Inspections are applied to procurement, maintenance, modification, testing, fuel handling, Inservice inspection and decommissioning to verify that items and activities conform to specified requirements. Work authorizing documents (e.g.; procedures, instructions, maintenance work orders) are reviewed in accordance with established criteria to do the following as necessary:

- a. Determine the need for inspection(s).
- b. Identify the inspection organization or personnel.
- c. Identify independent verification points.
- d. Determine how and when the inspections are to be performed.
- e. Specify measuring and test equipment of the necessary accuracy for performing inspection.
- f. Provide for documentation of inspection results to provide adequate objective evidence of acceptability.

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Independent verification is performed at each operation where it is necessary to verify conformance with requirements.

Process monitoring is used in whole or in part where direct inspection alone is impractical or inadequate.

- 10.2.3 Training and qualification programs for personnel who perform inspections, including nondestructive examination, are established, implemented, and documented in accordance with Section 2.0, QUALITY PROGRAM, and plant or offsite procedures. These programs meet the requirements of applicable codes and standards. The Site General Manager is responsible for review and concurrence with plant training and qualification programs that are under his direct responsibility.

Training and qualification programs for Environmental and Laboratory Services (E&LS) personnel who perform inspections, including nondestructive examination, are documented in E&LS procedures.

Training and qualification programs for Electric Services personnel who perform inspections are documented in Electric Services procedures.

Qualifications and certifications of inspection and NDE personnel are maintained.

- 10.2.4 Inspection requirements are specified in procedures, instructions, drawings or checklists and are either provided or concurred with by the organization that performs the inspection planning. They (procedures, etc) provide for the following as appropriate:

- a. Identification of applicable revisions of required instructions, drawings and specifications.
- b. Identification of characteristics and activities to be inspected.
- c. Inspection methods (independent verification or process monitoring).
- d. Specification of measuring and test equipment having the necessary accuracy.
- e. Identification of personnel responsible for performing the inspection.
- f. Acceptance and rejection criteria.
- g. Recording of the inspection results and the identification of the inspector.

- 10.2.5 Independent verification points are designated when confirmation is needed that critical characteristics are acceptable before the work can be allowed to proceed further. Independent verifications are performed, and work is released for further processing or

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use, by assigned verification personnel. Independent verification points may be waived only by the organization that performs the inspection planning.

- 10.2.6 Independent verifications are performed and documented in accordance with the written instructions provided. The results are evaluated by designated personnel in order to ensure that the results substantiate the acceptability of the item or work. Evaluation and review results are documented.

Independent verification should be designated when the activity/task being verified is necessary to ensure critical characteristics are in conformance with requirements and/or the verification is the result of codes, standards, regulations, or commitments.

- 10.2.7 Independent verification may be performed by individuals in the same organization as that which performed the work provided:
- a. Qualifications of the independent verifier are equal to or better than the minimum qualifications for persons who can be authorized to perform the task; and
  - b. The work is within the skills of Consumers Energy personnel and/or is addressed by Consumers Energy procedures.
  - c. If work involves breaching a pressure retaining item, the quality of the work can be demonstrated through a functional test.

When a, b, and c are not met, inspections will be carried out by individuals certified in accordance with ANSI N45.2.6.

The verification is performed by individuals other than the person(s) performing or directly supervising the work.

- 10.2.8 For independent verification, when acceptance criteria are not met, corrected areas are to be reverified. Results of independent verification are documented and retained for the purposes of performance trending and analysis.
- 10.2.9 The independent verifier has the authority to stop work if inspection criteria are not met. Resolution of disagreements between the verifier and worker is resolved by plant management.
- 10.2.10 Contractors may be used as independent verifiers in accordance with Section 10.2.7 provided:
- a. The work is performed using the Consumers Energy Quality Program and procedures.
  - b. Individuals are trained and qualified in accordance with Section 10.2.3.

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Otherwise, contractors must be certified to ANSI N45.2.6 to perform inspections.

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11.0 TEST CONTROL

11.1 REQUIREMENTS

Testing is performed in accordance with established programs to demonstrate that structures, systems, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, will perform satisfactorily in service. The testing is performed in accordance with written procedures that incorporate specified requirements and acceptance criteria. The test program includes qualification (as applicable), acceptance, surveillance, and maintenance tests. Test parameters, including any prerequisites, instrumentation requirements and environmental conditions are specified and met. Test results are documented and evaluated.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
11.2.2	2k, 17g

11.2 IMPLEMENTATION

11.2.1 Organizational responsibilities for testing are described in Section 1.0, ORGANIZATION.

11.2.2 Tests are performed in accordance with programs, procedures, and criteria that designate when tests are required and how they are to be performed. Such testing includes the following:

- a. Qualification tests, as applicable, to verify design adequacy in accordance with Section 3.0, DESIGN CONTROL.
- b. Acceptance tests of equipment and components to assure their proper operation prior to delivery or to pre-operational tests.
- c. Surveillance tests to assure continuing proper and safe operation of systems and equipment.
- d. Maintenance tests after preventive or corrective maintenance.

11.2.3 Test procedures and instructions include provisions for the following, as applicable:

- a. The requirements and acceptance limits contained in applicable design and procurement documents.
- b. Test prerequisites such as calibrated instrumentation, adequate test equipment, and instrumentation including accuracy requirements, completeness of the item to be

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tested, suitable and controlled environmental conditions, and provisions for data collection and storage.

- c. Instructions for performing the test.
- d. Mandatory inspection hold points for witness by the appropriate authority.
- e. Acceptance and rejection criteria.
- f. Methods of documenting or recording test data and results.
- g. Assuring that test prerequisites have been met.
- h. Verification of completion of modification activities.

Test procedures and instructions are reviewed for technical content and quality aspects, by the plant engineering organization, or the offsite technical organization, as applicable

When acceptance criteria are not met, corrected areas are to be retested.

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12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

12.1 REQUIREMENTS

Measuring and testing equipment used in activities affecting the quality of structures systems, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are properly identified, controlled, calibrated, and adjusted at specified intervals to maintain accuracy within necessary limits.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
12.2.3	2o, 9c
12.2.4	2o, 9c
12.2.5	10c
12.2.8	10b

12.2 IMPLEMENTATION

12.2.1 The authority and responsibility of personnel establishing, implementing and assuring effectiveness of calibration programs is described in Section 1.0, ORGANIZATION.

12.2.2 Procedures are established for measuring and test equipment utilized in the measurement, inspection and monitoring of structures, systems and components. These procedures describe calibration technique and frequency and maintenance and control of the equipment.

12.2.3 Measuring and test equipment is uniquely identified and is traceable to its calibration source.

12.2.4 Consumers Energy uses a system of labels to be attached to measuring and test equipment to display the next calibration due date. Where labels cannot be attached, a control system is used that identifies to potential users any equipment beyond the calibration due date.

12.2.5 Measuring and test equipment (M&TE) and installed plant instrumentation is calibrated at specified intervals based on the required accuracy, purpose, degree of usage, stability characteristics, and other conditions affecting the measurement.

Calibration of M&TE is against standards that have an accuracy of at least four times the required accuracy of the equipment being calibrated or, when this is not possible, have an accuracy that assures the equipment being calibrated will be within required tolerance and the basis of acceptance is documented and authorized by responsible management.

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Calibration standards used for installed plant instrumentation shall normally have greater accuracy than the instrumentation being calibrated. Standards with the same accuracy may be used when shown to be adequate for specific calibration requirements. The basis for this acceptance is documented and is approved by responsible management.

- 12.2.6 Calibrating standards have greater accuracy than standards being calibrated. Calibrating standards with the same accuracy may be used if it can be shown to be adequate for the requirements and the basis of acceptance is documented and authorized by responsible management.
- 12.2.7 Reference and transfer standards are traceable to nationally recognized standards; where national standards do not exist, provisions are established to document the basis for calibration.
- 12.2.8 When measuring and testing equipment used for inspection and test is found to be outside of required accuracy limits at the time of calibration, evaluations are conducted to determine the validity of the results obtained since the most recent calibration. The results of evaluations are documented. Retests or reinspections are performed on suspect items.

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13.0 HANDLING, STORAGE AND SHIPPING

13.1 REQUIREMENTS

Activities with the potential for causing contamination or deterioration that could adversely affect the ability of an item (to which this Program applies according to Section 2.0, QUALITY PROGRAM) to perform its intended safety functions, and activities necessary to prevent undetected or uncorrectable damage are identified and controlled. These activities include cleaning, packaging, preserving, handling, shipping, and storing. Controls are effected through the use of appropriate procedures and instructions implemented by suitably trained personnel.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
13.2.2	7a, 7c, 7d., 7f, 7g, 7h

13.2 IMPLEMENTATION

13.2.1 The authority and responsibility of personnel implementing and assuring the effectiveness of material cleaning, handling, storing, packaging, preserving, and shipping activities is described in Section 1.0, ORGANIZATION.

13.2.2 Procedures are used to control the cleaning, handling, storing, packaging, preserving, and shipping of materials, components and systems in accordance with design and procurement requirements. These procedures include, but are not limited to, the following functions:

- a. Cleaning, to assure that required cleanliness levels are achieved and maintained.
- b. Packaging and preservation, to provide adequate protection against damage or deterioration. When necessary, these procedures provide for special environments such as inert gas atmospheres, specific moisture content levels, and temperature levels.
- c. Handling, to preclude damage or safety hazards.
- d. Storing, to minimize the possibility of loss, damage to or deterioration of items in storage, including consumables such as chemicals, reagents, and lubricants. Storage procedures also provide methods to assure that specified shelf lives are not exceeded.

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14.0 INSPECTION, TEST AND OPERATING STATUS

14.1 REQUIREMENTS

Operating status of structures, systems, and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, is indicated by tagging of valves and switches, or by other specified means, in such a manner as to prevent inadvertent operation. The status of inspections and tests performed on individual items is clearly indicated by markings and/or logging under strict procedural controls to prevent inadvertent bypassing of such inspections and tests.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
14.1	2r
14.2.5	2i

14.2 IMPLEMENTATION

14.2.1 Organizational responsibilities are as described in Section 1.0, ORGANIZATION.

14.2.2 For modification activities, including item fabrication, installation and test, procurement documents, service contracts, and procedures specify the degree of control required for the indication of inspection and test status of structures, systems, and components.

14.2.3 Application and removal of inspection and welding stamps and of such status indicators as tags, markings, labels, etc, are controlled by procedures.

14.2.4 The sequence of inspections, tests and other operations important to safety are controlled by procedures. Changes in the approved sequence are subject to the same review and approval as the original, or as specified in administrative procedures if the original organization no longer exists.

14.2.5 The status of nonconforming, inoperable or malfunctioning structures, systems, and components is clearly identified and documented to prevent inadvertent use.

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15.0 NONCONFORMING MATERIALS, PARTS OR COMPONENTS

15.1 REQUIREMENTS

Materials, parts, or components for structures, systems and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, that do not conform to requirements are controlled in order to prevent their inadvertent use. Nonconforming items are identified, documented, segregated when practical, and dispositioned. Affected organizations are notified of nonconformances

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
15.1	2i

15.2 IMPLEMENTATION

15.2.1 Items, services, or activities that are deficient in characteristic, documentation, or procedure, which render the quality unacceptable or indeterminate, are identified as nonconforming and any further use is controlled. Nonconformances are documented and dispositioned, and notification is made to affected organizations. Personnel authorized to disposition, conditionally release, and close out nonconformances are designated. The authority and responsibility for the implementation of activities related to the processing and control of nonconforming materials, parts, or components are described in Section 1.0, ORGANIZATION.

- a. Nonconforming items are identified by marking, tagging, or segregating or by documented administrative controls. Documentation describes the nonconformance, the disposition of the nonconformance and the inspection requirements. It also includes signature approval of the disposition.
- b. The original inspection planning authority reviews the disposition of nonconformances, and documents concurrence with the acceptance, conditional release or repair of a nonconforming item.
- c. Items that have been repaired or reworked are inspected and tested in accordance with the original inspection and test requirements or alternatives that have been documented as acceptable and concurred with by the original inspection planning authority.
- d. Items that have the disposition of "repair" or "use as is" require documentation justifying acceptability. The changes are recorded to denote the as-built condition.

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- 15.2.2 Dispositions of conditionally released items are closed out before the items are relied upon to perform safety-related functions.
- 15.2.3 Prior to the initiation of preoperational testing on an item, all nonconformances are corrected or dispositioned and evaluated for impact upon the item or the testing program.
- 15.2.4 Nonconformance reports are analyzed to identify quality trends. Trend reports, which highlight significant results, are issued periodically to upper management for review and assessment.

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16.0 CORRECTIVE ACTION

16.1 REQUIREMENTS

Conditions adverse to quality of structures, systems, components, or activities to which this Program applies according to Section 2.0, QUALITY PROGRAM, such as failures, malfunctions, deficiencies, deviations, defective material, and equipment and nonconformances, are identified promptly and corrected as soon as practical.

For significant conditions adverse to quality, the cause of the condition is determined and corrective action is taken to preclude repetition. In these cases, the condition, cause and corrective action taken is documented and reported to appropriate levels of management for review and assessment.

16.2 IMPLEMENTATION

16.2.1 The responsibility and authority for the control of corrective action are described in Section 1.0, ORGANIZATION.

16.2.2 Controls are established to assure that conditions adverse to quality are identified and documented and that appropriate remedial action is taken.

16.2.3 For significant conditions adverse to quality, necessary corrective action is promptly determined and recorded. Corrective action includes determining the cause and extent of the condition, and taking appropriate action to preclude similar problems in the future. The controls also assure that corrective action is implemented in a timely manner.

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17.0 QUALITY RECORDS

17.1 REQUIREMENTS

Records that furnish evidence of activities affecting the quality of structures, systems and components to which this Program applies according to Section 2.0, QUALITY PROGRAM, are maintained. They are accurate, complete and legible and are protected against damage, deterioration or loss. They are identifiable and retrievable.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
17.1	14b
17.2.5	14c
17.2.8	14a, 14c

17.2 IMPLEMENTATION

17.2.1 Responsibilities for the identification and control of Quality records are described in Section 1.0, ORGANIZATION.

17.2.2 Documents that furnish evidence of activities affecting quality are generated and controlled in accordance with the procedures that govern those activities. Upon completion, these documents are considered records. These records include:

- a. Results of reviews, inspections, surveillances, tests, audits, and material analyses
- b. Qualification of personnel, procedures, and equipment
- c. Operating/Decommissioning logs
- d. Maintenance and modification procedures and related inspection results
- e. Reportable occurrences
- f. Records required by Appendix E
- g. Nonconformance reports
- h. Corrective action reports
- i. Other documentation such as drawings, specifications, procurement documents, calibration procedures, and reports

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- 17.2.3 Inspection and test records contain the following where applicable:
- a. A description of the type of observation
  - b. The date and results of the inspection or test
  - c. Information related to conditions adverse to quality
  - d. Inspector or data recorder identification
  - e. Evidence as to the acceptability of the results
  - f. Action taken to resolve any discrepancies noted
- 17.2.4 When a document becomes a record, it is designated as permanent or nonpermanent and then transmitted to file. Nonpermanent records have specified retention times. Permanent records are maintained for the life of the item. Appendix E identifies retention periods for certain specific records.
- 17.2.5 Temporary storage of completed documents during processing to become records is in special fire-resistant file cabinets.
- 17.2.6 Only authorized personnel may issue corrections or supplements to records.
- 17.2.7 Traceability between the record and the item or activity to which it applies is provided.
- 17.2.8 Records are stored in remote, dual facilities to prevent damage, deterioration, or loss due to natural or unnatural causes. Records that can only be stored as originals, such as radiographs and some strip charts are retained in a four-hour fire-rated facility.

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18.0 AUDITS

18.1 REQUIREMENTS

A comprehensive system of audits is carried out to provide independent assessment of performance and effectiveness of the Quality Program to achieve nuclear safety, including those elements of the program implemented by suppliers and contractors. Audits are performed in accordance with written procedures or checklists by qualified personnel not having direct responsibility in the areas audited. Audit results are documented and are reviewed by management. Follow-up action is taken where indicated.

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
18.2.2	3a, 3b, 16a, 16b
18.2.3	16c
18.2.9	2e

18.2 IMPLEMENTATION

18.2.1 Responsibility and authority for the audit program is described in Section 1.0, ORGANIZATION.

18.2.2 Internal audits are performed in accordance with established schedules that reflect the status and importance to safety of the activities being performed. Audits are conducted in accordance with frequencies stated in Appendix D, Audit Frequencies.

18.2.3 Audits of suppliers and contractors are scheduled based on the status and safety importance of the activities being performed as well as performance of the suppliers and contractors and are initiated early enough to assure effective quality during design, procurement, manufacturing, construction, installation, inspection, and testing.

18.2.4 Principal contractors are required to audit their suppliers based on performance and on a schedule based on the status and safety importance of the activities being performed. Such audits shall be initiated early enough to assure an effective Quality Program on the part of their suppliers.

18.2.5 Regularly scheduled audits are supplemented by special audits when significant changes are made in the Quality Program, when it is suspected that quality is in jeopardy or when an independent assessment of program effectiveness is considered necessary.

18.2.6 Audits include an objective evaluation of quality-related practices, procedures, instructions, activities and items, and review of documents and records to confirm that the Quality Program is effective and properly implemented.

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- 18.2.7 Audit procedures and the scope, plans, checklists, and results of individual audits are documented.
- 18.2.8 Personnel selected for auditing assignments have experience or are given training commensurate with the needs of the audit and have no direct responsibilities in the areas audited.
- 18.2.9 Audit data are analyzed by the NPAD. The resulting audit reports identify any quality deficiencies and assess the effectiveness of the Quality Program in the area audited. The reports are distributed to the responsible management of both the audited and auditing organizations.
- 18.2.10 Management of the audited organization identifies and takes appropriate corrective action to correct observed deficiencies and to prevent recurrence of any significant conditions adverse to quality. Follow-up for internal audits is performed by the NPAD to ensure that appropriate corrective action is taken and is effective. Such follow-up includes re-audits when necessary. For Vendor Audits, such follow-up shall be performed by the organization performing the audit.

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APPENDIX A, PART 1  
REGULATORY GUIDE AND ANSI STANDARD COMMITMENTS

The Consumers Energy Quality Program complies with the regulatory position of the Regulatory Guides referenced in this appendix as modified by the exceptions stated in Part 2.

1. Appendix B to 10 CFR, Part 50, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.
2. 10 CFR, Part 50.55a - Codes and Standards.
3. Regulatory Guide 1.8 - (9/80 Draft) - Personnel Qualification and Training - Endorses ANSI/ANS 3.1 - (12/79 Draft) (application limited as described in exceptions 4a and 5a of Appendix A, Part 2).
4. Regulatory Guide 1.26 - (2/76, Rev 3) - Quality Group Classification, and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants.
5. Regulatory Guide 1.29 - (9/78, Rev. 3) - Seismic Design Classification.
6. Regulatory Guide 1.30 (Safety Guide 30) - (8/11/72) - Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electrical Equipment - Endorses ANSI N45.2.4 -
7. Regulatory Guide 1.33 - (2/78, Rev 2) - Quality Assurance Program Requirements (Operation) - Endorses ANSI N18.7 - 1976.
8. Regulatory Guide 1.37 - (3/16/73) - Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants - Endorses ANSI N45.2.1 - 1973.
9. Regulatory Guide 1.38 - (5/77, Rev 2) - Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for water-Cooled Nuclear Power Plants - Endorses ANSI N45.2.2 - 1972.
10. Regulatory Guide 1.39 - (9/77, Rev 2) - Housekeeping Requirements for water-Cooled Nuclear Power Plants - Endorses ANSI N45.2.3 - 1973.
11. Regulatory Guide 1.58 - (9/80, Rev I) - Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel - Endorses N45.2.6 1978.
12. Regulatory Guide 1.64 - (6/76, Rev 2) - Quality Assurance Requirements for the Design Of Nuclear Power Plants - Endorses N45.2.11 - 1974.

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13. Regulatory Guide 1.74 - (2/74) - Quality Assurance Requirements Terms and Definitions - Endorses ANSI N45.2.10 - 1973.
14. Regulatory Guide 1.88 - (10/76, Rev 2) - Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records - Endorses N45.2.9 - 1974.
15. Regulatory Guide 1.94 - (4/76, Rev 1) - Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants - Endorses ANSI N45.2.5 - 1974.
16. Regulatory Guide 1.116 - (5/77) - Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems - Endorses ANSI N45.2.8 - 1975.
17. Regulatory Guide 1.123 - (7/77, Rev 1) - Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants - Endorses N45.2.13 - 1976.
18. Regulatory Guide 1.144 - (9/80, Rev I) - Auditing of Quality Assurance Programs for Nuclear Power Plants - Endorses N45.2.12 - 1977.
19. Regulatory Guide 1.146 - (8/80) - Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants - Endorses N45.2.23 - 1978.
20. Branch Technical Position ASB9.5.1 (Rev 1) Guidelines for Fire Protection for Nuclear Power Plants.
21. ANSI/ANS 3.1-1987, Selection, Qualification, and Training of Personnel for Nuclear Power Plants (application limited as described in Appendix C of this document).

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APPENDIX A, PART 2  
CONSUMERS ENERGY EXCEPTIONS TO OPERATING PHASE STANDARDS  
AND REGULATORY GUIDES

1. General

Requirement

Certain Regulatory Guides invoke or imply Regulatory Guides and standards in addition to the standard each primarily endorses.

Certain ANSI Standards invoke or imply additional standards.

Exception/Interpretation

The Consumers Energy commitment refers to the Regulatory Guides and ANSI Standards specifically identified in Appendix A, Part 1. Additional Regulatory Guides, ANSI Standards, and similar documents implied or referenced in those specifically identified are not part of this commitment.

Imposition of these Regulatory Guides on Consumers Energy suppliers and sub-tier suppliers will be on a case-by-case basis depending upon the item or service to be procured.

2. N18.7 General

Exception/Interpretation

Consumers Energy has established an organization, the Restoration Safety Review Committee, (RSRC) for independent review activities.

The standard numeric and qualification requirements may not be met by the RSRC. Procedures will be established to specify how the RSRC will acquire necessary expertise to carry out its review responsibilities in accordance with Appendix C, Restoration Safety Review Committee.

2a. N18.7, Sec 3.4.2

Requirement

"The Plant Manager shall have overall responsibility for the execution of the administrative controls and quality assurance program at the plant to assure safety."

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Exception/Interpretation

Since Consumers Energy has more than one organization providing services to BRP/ISFSI, overall responsibility cannot be centralized in a single on-site position. Instead, responsibilities are as designated within the QPD.

2b. N18.7, Sec 4.3.1

Requirement

"Personnel assigned responsibility for independent reviews shall be specified in both number and technical disciplines and shall collectively have the experience and competence required to review problems in the following areas:..."

Exception/Interpretation

The RSRC will not have members specified by number or by technical disciplines and its members may not have the experience and competence required to review problems in all areas listed in this section; however, the RSRC will function as described in Appendix C, Restoration Safety Review Committee, and will acquire the services of personnel having such experience and competence as necessary.

2c. N18.7, Sec 4.3.4

Requirement

"The following subjects shall be reviewed by the independent review body:"

Exception/Interpretation

Subjects requiring review will be as specified in Appendix C, Restoration Safety Review Committee.

2d. N18.7, Sec 4.3.4(3)

Requirement

Changes in the Technical Specifications or license amendments relating to nuclear safety are to be reviewed by the independent review body prior to implementation, except in those cases where the change is identical to a previously reviewed proposed change.

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Exception/Interpretation

The RSRC will not review Technical Specification Changes after NRC approval prior to implementation. The basis for this position is that all Technical Specification changes are reviewed prior to submittal to the NRC.

2e. N18.7, Sec 4.5

Requirement

Written reports of audits specified in ANSI N18.7 shall be reviewed by the independent review body and by appropriate members of Management including those having responsibility in the area audited.

Exception/Interpretation

The RSRC shall review or arrange for reviews of those audits over which it has cognizance, in accordance with Appendix C, Restoration Safety Review Committee.

Some of the audits required during the operational and decommissioning phase are in areas other than those requiring independent review in accordance with ANSI N18.7, Section 4.3.4.

2f. N18.7, Sec 4.5

Requirement

Periodic review of the audit program shall be performed by the independent review body or by a management representative at least semiannually to assure that audits are being accomplished in accordance with requirements of technical specifications and of this standard.

Exception/Interpretation

Audits of nuclear facility activities are performed under the cognizance of the RSRC as described in Appendix C, Restoration Safety Review Committee.

2g. N18.7, Sec 5.2.1

Requirement

"The responsibilities and authorities of the plant operating personnel shall be delineated."

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Exception/Interpretation

On-site personnel not directly associated with operating activities, as defined in ANSI N18.7, Section 2.2, are not considered to be operating personnel.

2h. N18.7, Sec 5.2.2

Requirement

"Temporary changes, which clearly do not change the intent of the approved procedure, shall as a minimum be approved by two members of the plant staff knowledgeable in the areas affected by the procedures. At least one of these individuals shall be the supervisor in charge of the shift and hold a senior operators license on the unit affected."

Exception/Interpretation

Consumers Energy considers that this requirement applies only to procedures identified in Plant Technical Specifications and to Security and Emergency Plans implementing procedures. Temporary changes to these procedures may be made provided:

- a. The intent of the original procedure is not altered;
- b. The change is approved by two members (or designated alternates) of the SRC, at least one of whom is a Certified Fuel Handler; and
- c. The change is documented, subsequently reviewed by the SRC within 30 days of issuance, and approved by an appropriate\* senior department manager predesignated by the Site General Manager.

\* Determination of the appropriate senior department manager is based on the activities addressed in the specific procedure, and will be predesignated in writing by the Site General Manager.

2i. N18.7, Sec 5.2.6

Requirement

"In cases where required documentary evidence is not available, the associated equipment or materials must be considered nonconforming in accordance with Section 5.2.14. Until suitable documentary evidence is available to show the equipment or material is in conformance, affected systems shall be considered to be inoperable and reliance shall not be placed on such systems to fulfill their intended safety functions."

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Exception/Interpretation

Consumers Energy initiates appropriate corrective action when it is discovered that documentary evidence does not exist for a test or inspection which is required to verify equipment acceptability. This action includes a technical evaluation of the equipment's operability status.

2j. N18.7, Sec 5.2.7

Requirement

The following standards contain useful guidance concerning design and construction-related activities associated with modifications and shall be applied to those activities that are comparable in nature and extent to related activities occurring during initial plant design and construction: American National Standard Installation, Inspection and Testing of Instrumentation and Electric Equipment During the Construction of Nuclear Power Generation Station, N45.2.4-1972 (IEEE 336-1972) [6]; American National Standard Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants, N45.2.5-1974 [7]; American National Standard Qualifications of Inspection, Examination and Testing Personnel for the Construction Phase of Nuclear Power Plants N45.2.6-1973 [5]; American National Standard Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for Construction Phase of Nuclear Power Plants, N45.2.8-1975 [8]; American National Standard Quality Assurance Requirements for the Design of Nuclear Power Plants, N45.2.11 1974 [9]; and American National Standard Quality Assurance for Protective Coating Applied to Nuclear Facilities N101.4-1972 [10]. Considerable care is required in assessing which operational phase activities are comparable in nature and extent to activities normally associated with design and construction.

Exception/Clarification

Work that is within the skills of Consumers Energy personnel and is covered by Consumers Energy procedures may be inspected by independent verifiers qualified in accordance with Section 10.2.3 and 10.2.7 and 10.2.10, rather than ANSI N45.2.6.

2k. N18.7, Sec 5.2.8

Requirement

"A surveillance testing and inspection program...shall include the establishment of a master surveillance schedule reflecting the status of all planned inplant surveillance tests and inspections."

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Exception/Interpretation

Separate master schedules may exist for different programs such as ISI, Pump and Valve Testing, and Technical Specification Surveillance Testing.

2l. N18.7, Sec 5.2.13.1

Requirement

"To the extent necessary, procurement documents shall require suppliers to provide a quality assurance program consistent with the pertinent requirements of ANSI N45.2 - 1971."

Exception/Interpretation

To the extent necessary, procurement documents require that the supplier have a documented quality assurance program consistent with the pertinent requirements of ANSI N45.2 or other nationally recognized codes and standards.

2m. N18.7, Sec 5.2.13.2

Requirement

ANSI N18.7 and N45.2.13 specify that where required by code, regulation, or contract, documentary evidence that items conform to procurement requirements shall be available at the nuclear power plant site prior to installation or use of such items.

Exception/Interpretation

The required documentary evidence is available at the site prior to use, but not necessarily prior to installation. This allows installation to proceed while any missing documents are being obtained, but precludes dependence on the item for safety purposes.

2n. N18.7, Sec 5.2.15

Requirement

Plant procedures shall be reviewed by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable.

Exception/Interpretation

Consumers Energy has in place programmatic procedure preparation, review and usage controls that ensure procedures are technically and administratively correct and make a biennial review program unnecessarily duplicative. These controls ensure that procedures are reviewed when pertinent source material is revised (such as when Technical Specifications

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are revised), when unusual incidents occur, when plant modifications are made, and when significant deficiencies are identified. In addition, procedures may be reviewed because industry experience reviews or self-assessments identify deficiencies or opportunity for improvement. Revisions are made as necessary.

Because of their critical nature, non-routine procedures, such as Emergency Operating Procedures, Off-Normal Procedures, Special Operating Procedures, Special Test Procedures, Fuel Handling Procedures, Emergency Plan Implementing Procedures, and others where use would be dictated by a particular event are reviewed at least every two years and revised as appropriate.

In addition, procedures that have not been used or reviewed for two years are reviewed prior to use to determine if changes are necessary or desirable.

An assessment performed at least every two years includes examination of selected plant procedures to determine procedure acceptability and verify that the procedure review and revision controls are effectively implemented. Identified deficiencies are corrected in accordance with Section 16.0 of this QPD.

2o. N18.7, Sec 5.2.16

Requirement

Records shall be made and equipment suitably marked to indicate calibration status.

Exception/Interpretation

See Item 9c.

2p. N18.7, Sec 5.2.17

Requirement

For modifications and non-routine maintenance, inspections shall be conducted in a manner similar (frequency, type, and personnel performing such inspections) to that associated with construction phase activities (see also Section 5.2.7)

Exception/Interpretation

Maintenance and modification activities which are within the skills of Consumers Energy maintenance personnel and are carried out using Consumers Energy procedures may be inspected by independent verifiers qualified in accordance with Sections 10.2.3, 10.2.7, and 10.2.10 of this program description.

2q. N18.7, Sec 5.2.17

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Requirement

If mandatory inspection hold points are required, the specific hold points shall be indicated in appropriate documents. Information concerning inspection shall be obtained from the related design drawings, specifications, and/or other controlled documents.

Exception/Interpretation

Consumers Energy uses the terminology "independent verification points" as equivalent to hold points.

2r. N18.7, Sec 5.3.5(3)

Requirement

Instructions shall be included, or referenced (in maintenance procedures), for returning the equipment to its normal operating status.

Exception/Interpretation

At Consumers Energy, equipment is returned to its normal operating status, i.e., declared operable, by qualified Operations Department personnel, not Maintenance personnel. Operations personnel verify and document equipment operability through second level line-up verification or appropriate functional testing.

2s. N18.7, Sec 5.3.5(4)

Requirement

This section requires that where sections of documents such as vendor manuals, operating and maintenance instructions, or drawings are incorporated directly or by reference into a maintenance procedure, they shall receive the same level of review and approval as operating procedures.

Exception/Interpretation

Such documents are reviewed by appropriately qualified personnel prior to use to ensure that, when used as instructions, they provide proper and adequate information to ensure the required quality of work. Maintenance procedures which reference these documents receive the same level of review and approval as operating procedures.

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3a. RG 1.33, Sec C4a

Requirement

The results of actions taken to correct deficiencies that affect nuclear safety and occur in facility equipment, structures, systems, or method of operation are to be audited at least once per six months.

Exception/Interpretation

Performance trends are reviewed by the RSRC. In addition, the corrective action system is audited in accordance with Appendix D, Audit Frequencies.

3b. RG 1.33, Sec C4b

Requirement

The conformance of facility operations to provisions contained within the Technical Specifications and applicable license conditions-at least once per 12 months.

Exception/Interpretation

Consistent with guidance presented in NRC letters dated March 29, 1983 (RLSpessard to JMTaylor) and January 30, 1984 (JGPartlow to RLSpessard), Consumers Energy interprets the commitment to audit Technical Specification/license conditions contained in 18.2.2 of this QPD, and in Appendix D, Audit Frequencies, as follows:

Consumers Energy maintains a matrix that identifies all applicable Technical Specification line items to be audited. The matrix is updated annually to conform to approved Technical Specification changes. During each 12 month period, a selected sample of line items, with the exception of the onsite and offsite review committee which are audited every 24 months, is audited:

1. Limiting Conditions for Operation
2. Limiting Safety System Settings
3. Reactivity Control Systems
4. Power Distribution Limits
5. Instrumentation
6. Reactor Coolant System
7. Emergency Core Cooling System
8. Containment Systems
9. Plant Systems
10. Electrical Power Systems
11. Refueling Operations
12. Special Tests
13. Onsite Committee

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- 14. Offsite Committee
- 15. Administrative Controls

Audits are scheduled so that all line items are covered within a maximum period of 5 years. The audit period for any of the above elements may be reduced depending on Technical Specification compliance history.

4a. ANS 3.1, General

Exception/Interpretation

The commitment to ANS 3.1 (12/79, draft) is limited to the requirements that apply to the training and qualification of persons performing independent quality assurance functions, except for Lead Auditors. Lead auditors are trained and qualified to Regulatory Guide 1.146 (8/80)/ANSI 45.2.23-1978. Other personnel are trained and qualified as designated in plant Technical Specifications.

5a. RG 1.8, C.3.1, General

Exception/Interpretation

The commitment to Regulatory Guide 1.8 (9/80, draft) is limited to the requirements that apply to the training and qualification of persons performing independent quality assurance functions, except for Lead Auditors. Lead Auditors are trained and qualified to Regulatory Guide 1.146 (8/80)/ ANSI N45.2.23-1978. Other personnel are trained and qualified as designated in plant Technical Specifications.

5b. RG 1.8, C1.2.2

Requirement

"When an individual is hired to temporarily function as a plant employee, such as for contracted services, evidence of previous education, experience, and training should be provided and reviewed by the appropriate professional-technical group leaders. The appropriate group leaders should then determine the content for that individual's training, including plant-specific training. As a minimum, each individual should receive General Employee Training."

Exception/Interpretation

Consumers Energy understands that this requirement applies both to Consumers Energy employees from another site and to contract personnel who are temporarily assigned to BRP either as replacements for regular employees or to augment the staff. Consumers Energy employees so assigned possess the required qualifications as a prerequisite to the assignment and the review is waived. The qualifications of contract personnel are reviewed and arrangements made for any necessary training. Temporarily assigned personnel

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requiring unescorted access receive the site general orientation as embodied in General Employee Training.

6a. N45.2.1, Sec 2.4

Requirement

Those personnel who perform inspection, examination, or testing activities required by this standard shall be qualified in accordance with ANSI N45.2.6 Qualifications of Inspection, Examination and Testing Personnel for the Construction Phase of Nuclear Power Plants.

Exception/Interpretation

Consumers Energy certifies its inspectors in accordance with Paragraph 10.2.7 of CPC-2A unless the work is comparable in nature and extent to original construction (See Item 2j).

6b. N45.2.1, Sec 3.1

Requirement

N45.2.1 establishes criteria for classifying items into "cleanness levels," and requires that items be so classified.

Exception/Interpretation

Instead of using the cleanness level classification system of N45.2.1, the required cleanness for specific items and activities is addressed on a case-by-case basis.

Cleanness is maintained, consistent with the work being performed, so as to prevent the introduction of foreign material. As a minimum, cleanness inspections are performed prior to system closure. Such inspections are documented.

6c. N45.2.1, Sec 5

Requirement

"Fitted and tack-welded joints (which will not be immediately sealed by welding) shall be wrapped with polyethylene or other non-halogenated plastic film until the welds can be completed."

Exception/Interpretation

Consumers Energy sometimes uses other non-halogenated material, compatible with the parent material, since plastic film is subject to damage and does not always provide adequate protection.

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7a. N45.2.2, General

Requirement

N45.2.2 establishes requirements and criteria for classifying items subject to this program into protection levels.

Exception/Interpretation

Instead of classifying items subject to this program into protection levels, controls over the packaging, shipping, handling, and storage of such items are established on a case-by-case basis with due regard for the item's complexity, use, and sensitivity to damage. Prior to installation or use, the items are inspected and serviced as necessary to assure that no damage or deterioration exists which could affect their function.

7b. N45.2.2, Sec 2.4

Requirement

"...Offsite inspection, examination or testing shall be audited and monitored by personnel who are qualified in accordance with N45.2.6."

Exception/Interpretation

Offsite inspection, examination, or testing activities are audited or inspected by persons qualified and certified in accordance with ANSI N45.2.23-1978, as endorsed by Regulatory Guide 1.146, or by personnel meeting the requirements of 10.2.7, respectively. Monitoring activities not involving audit or inspection may be conducted by persons trained and qualified to effectively carry out such tasks, but not necessarily certified to either ANSI N45.2.23, N45.2.6 or Paragraph 10.2.7.

7c. N45.2.2, Sec 3.4.1 and Appendix A, 3.4.1(4) and (5)

Requirement

"(4) ...However, preservatives for inaccessible inside surfaces containing reactor coolant water shall be indicated to facilitate touch up.

(5) The name of the preservative used shall be the water flushable type."

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Exception/Interpretation

Based on comparison of these statements to ANSI/ASME NQA-2 1983, Consumers Energy believes the intent was to establish the following as requirements:

A(4) ...However, preservatives for inaccessible inside surfaces of pumps, valves, and pipe for systems containing reactor coolant water shall be the water flushable type.

(5) The name of the preservative used shall be provided to facilitate touch-up.

7d. N45.2.2, Sec 3.9 and Appendix A 3.9

Requirement

"The item and the outside of containers shall be marked."

(Further criteria for marking and tagging are given in the appendix.)

Exception/Interpretation

These requirements were originally written for items packaged and shipped to construction projects. Full compliance is not always necessary in the case of items shipped to operating plants and may, in some cases, increase the probability of damage to the item. The requirements are implemented to the extent necessary to assure traceability and integrity of the item.

7e. N45.2.2, Sec 5.2.2

Requirement

"The inspections shall be performed in an area equivalent to the level of storage."

Exception/Interpretation

Receiving inspection area environmental controls may be less stringent than storage environmental requirements for an item. However, such inspections are performed in a manner and in an environment which do not endanger the required quality of the item.

7f. N45.2.2, Sec 6.2.4

Requirement

"The use or storage of food, drinks, and salt tablet dispensers in any storage area shall not be permitted."

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Exception/Interpretation

Packaged food for emergency or extended overtime use may be stored in material stock rooms. The packaging assures that materials are not contaminated. Food will not be "used" in these areas.

7g. N45.2.2, Sec 6.3.4

Requirement

"All items and their containers shall be plainly marked so that they are easily identified without excessive handling or unnecessary opening of crates and boxes."

Exception/Interpretation

See N45.2.2, Section 3.9 (Exception 7d).

7h. N45.2.2, Sec 6.4.1

Requirement

"Inspections and examinations shall be performed and documented on a periodic basis to assure that the integrity of the item and its container...is being maintained."

Exception/Interpretation

The requirement implies that all inspections and examinations of items in storage are to be performed on the same schedule. Instead, the inspections and examinations are performed and documented in accordance with material storage procedures which identify the characteristics to be inspected and include the required frequencies. These procedures are based on technical considerations which recognize that inspections and frequencies needed vary from item to item.

8a. N45.2.3, Sec 2.1

Requirement

Cleanness requirements for housekeeping activities shall be established on the basis of five zone designations.

Exception/Interpretation

Instead of the five-level zone designation system referenced in ANSI N45.2.3, Consumers Energy bases its controls over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions which, in the case of maintenance or modifications work, are

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developed on a case-by-case basis. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control, and security. The procedures and instructions make use of standard janitorial and work practices to the extent possible. However, in preparing these procedures, consideration is also given to the recommendations of Section 2.1 of ANSI N45.2.3.

9a. N45.2.4, Sec 2.2

Requirement

Section 2.2 establishes prerequisites which must be met before the installation, inspection, and testing of instrumentation and electrical equipment may proceed. These prerequisites include personnel qualification, control of design, conforming and protected materials, and availability of specified documents.

Exception/Interpretation

During the decommissioning phase, this requirement is considered to be applicable to modifications and initial start-up of electrical equipment. For routine or periodic inspection and testing, the prerequisite conditions will be achieved as necessary.

9b. N45.2.4, Sec 2.2(5)

Requirement

Section 2.2(5) of ANSI N45.2.4 lists documents which are to be available at the construction site.

Exception/Clarification

All of the documents listed are not necessarily required at the plant site for installation and testing. Consumers Energy assures that they are available to the site as necessary.

9c. N45.2.4, Sec 6.2.1

Requirement

"Items requiring calibration shall be tagged or labeled on completion, indicating date of calibration and identity of person that performed the calibration."

Exception/Interpretation

Frequently, physical size, and/or location of Installed Plant Instrumentation (IPI) mandates that calibration labels or tags not be affixed to IPI. Instead, each instrument is uniquely identified and is traceable to its calibration record.

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A scheduled calibration program assures that each instrument's calibration is current.

10a. N45.2.5, Sec 2.4

Requirement

"Persons charged with engineering managerial responsibility of the inspection and testing organization at the site in either a resident or non-resident capacity shall be certified for Level III capability."

Exception/Interpretation

This standard (N45.2.5) was written for the construction phase of nuclear power plants; as such, it presumes significant activity in the areas of concrete and structural steel which do not generally occur at an operating plant. At Consumers Energy, persons having engineering managerial responsibility for inspections and tests\* may be certified to Level III, or may meet other qualification criteria established for the position, including, but not limited to, nuclear power and management experience. For major modifications involving significant concrete or structural steel work, the services of a properly qualified Level III individual will be obtained in at least an advisory capacity.

\* within the scope of N45.2.5

10b. N45.2.5, Sec 2.5.2

Requirement

"When discrepancies, malfunctions, or inaccuracies in inspection and testing equipment are found during calibration, all items inspected with that equipment since the last previous calibration shall be considered unacceptable until an evaluation has been made by the responsible authority and appropriate action taken."

Exception/Interpretation

Consumers Energy uses the requirements of N18.7, Section 5.2.16, rather than N45.2.5, Section 2.5.2. The N18.7 requirements are more applicable to a plant undergoing decommissioning.

10c. N45.2.5, Sec 5.4

Requirement

"Hand torque wrenches used for inspection shall be controlled and must be calibrated at least weekly and more often if deemed necessary. Impact torque wrenches used for inspection must be calibrated at least twice daily."

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Exception/Interpretation

Torque wrenches are controlled as measuring and test equipment in accordance with ANSI N18.7, Section 5.2.16. Calibration intervals are based on use and calibration history rather than as per N45.2.5

11a. N45.2.6, Sec 1.2

Requirement

"The requirements of this standard apply to personnel who perform inspections, examinations, and tests during fabrication prior to and during receipt of items at the construction site, during construction, during preoperational and start-up testing, and during operational phases of nuclear power plants."

Exception/Interpretation

See Exception/Interpretation 2j for those inspectors who must be certified to this standard. Others are qualified to Paragraph 10.2.7 of CPC-2A.

Qualification of plant personnel who are involved with testing associated with plant operation is provided in specific plant specifications. In addition, personnel participating in inspection or testing who take data or make observations, where special training is not required to perform this function, need not be qualified in accordance with ANSI N45.2.6 but need only be trained to the extent necessary to perform the assigned function.

12a. RG 1.58, Sec C.1

Requirement

"However, for qualification of personnel (1) who approve preoperational, start-up and operational test procedures and test results and (2) who direct or supervise the conduct of individual preoperational, start-up and operational tests, the guidelines contained in Regulatory Guide 1.8, Personnel Selection and Training, should be followed in lieu of the Guidelines of ANSI N45.2.6 - 1978."

Exception/Interpretation

Consumers Energy endorses this position, as also stated in 11a, above, except that offsite support organizations involved in testing may apply ANSI N45.2.6. Some of these departments have already developed their qualification programs based on ANSI N45.2.6, and provide services throughout the decommissioning of BRP.

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12b. RG 1.58, Sec C.5

Requirement

"In addition, the individual should be capable of reviewing and approving inspection, examination and testing procedures and of evaluating the adequacy of such procedures to accomplish the inspection, examination and test objectives."

Exception/Interpretation

While a Level III individual should be capable of reviewing and approving inspection, examination and testing procedures and of evaluating the adequacy of such procedures to accomplish the inspection, examination and test objectives, this is not construed by Consumers Energy as requiring personnel who review, approve or evaluate such procedures to be certified as Level III personnel.

12.c. RG 1.58, Sec C.6

Requirement

"Since only one set of recommendations is provided for the education and experience of personnel, a commitment to comply with the regulatory position of this guide in lieu of providing an alternative to the recommendations of the standard means that the specified education and experience recommendations of the standard will be followed."

Exception/Interpretation

The education and experience recommendations given in ANSI N45.2.6, Section 3.5 will be treated as such, since our qualification and certification program is based upon these recommendations, and more significantly, upon satisfactory completion of capability testing prior to certification. It is our position that a candidate should not be required to be a high school graduate or have earned the GED equivalent for the above reasons.

12.d. RG 1.58, Sec C.10

Requirement

"Use of the measures outlined in these actions to establish that an individual has the required qualifications in lieu of required education and experience should result in documented evidence (i.e., procedure and record of written test) demonstrating that the individual indeed does have comparable or equivalent competence to that which would be gained from having the required education and experience."

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Exception/Interpretation

We will maintain documented objective evidence that demonstrates that an individual does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. However, this may take the form of documentation other than "procedures and records of written test" such as documentation of oral tests and on-the-job performance demonstrations.

13a. N45.2.8, Sec 2.7

Requirement

Section 2.7 requires that personnel performing inspection and test activities be qualified according to ANSI N45.2.6.

Exception/Interpretation

See Exception/Interpretation 2j, 11a, and 12a. Test personnel who are part of the plant staff need not be certified to N45.2.6, provided they meet applicable qualification criteria of plant Technical Specifications.

13b. N45.2.8, Sec 2.9

Requirement

Section 2.9 establishes prerequisites which must be met before the installation, inspection and testing of mechanical equipment may proceed. These prerequisites include personnel and procedure qualification, control of design, material selection and fabrication, and availability of specified documents.

Exception/Interpretation

During the decommissioning phase, this requirement is considered to be applicable to modifications of mechanical equipment. For routine or periodic inspection and testing, the prerequisites will be achieved as necessary.

13c. N45.2.8, Sec 2.9e

Requirement

Section 2.9e of N45.2.8 lists documents relating to the specific stage of installation activity which are to be available at the construction site.

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Exception/Interpretation

All of the documents listed are not necessarily required at the plant site for installation and testing. Consumers Energy assures that they are available to the site as necessary.

13d. N45.2.8, Sec 2.9e

Requirement

Evidence that engineering or design changes are documented and approved shall be available at the construction site prior to installation.

Exception/Interpretation

Equipment may be installed before final approval of engineering or design changes. However, the system is not declared operable until such changes are documented and approved.

13e. N45.2.8, Sec 4.5.1

Requirement

"Installed systems and components shall be cleaned, flushed, and conditioned according to requirements:...." (Requirements are given for chemical conditioning, flushing and process controls.)

Exception/Interpretation

Systems and components are cleaned, flushed and conditioned as determined on a case-by-case basis. Measures are taken to help preclude the need for cleaning, flushing, and conditioning through good practices during maintenance or modification activities.

14a. N45.2.9, Sec 5.4, Item 2

Requirement

Records shall not be stored loosely. They shall be firmly attached in binders or placed in folders or envelopes for storage on shelving in containers. Steel cabinets are preferred.

Exception/Interpretation

Records are suitably stored in steel file cabinets or on shelving in containers. Methods other than binders, folders or envelopes (for example, dividers or electronic media) may be used to organize the records for storage.

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14b. N45.2.9, Sec 6.2

Requirement

"A list shall be maintained designating those personnel who shall have access to the files."

Exception/Interpretation

Rules are established governing access to and control of files as provided for in ANSI N45.2.9, Section 5.3, Item 5. These rules do not always include a requirement for a list of personnel who are authorized access. It should be noted that duplicate files and/or microforms exist for general use and backup.

14c. RG 1.88, C2

Requirement

"Two methods of protection of quality assurance records from the hazards of fire are described in Subdivision 5.6 of ANSI N45.2.9-1974. NFPA No 232-1975...also contains provisions for records protection equipment and records handling techniques that provide protection from the hazards of fire. This standard, within its scope of coverage, is considered by the NRC staff to provide an acceptable alternative to the fire protection provisions listed in Subdivision 5.6...When NFPA 232-1975 is used, quality assurance records should be classified as NFPA Class 1 records...."

Exception/Interpretation

Consumers Energy adheres to ANSI N45.2.9-1974, Subdivision 5.6 for the facility for permanent storage of non-duplicated records. Temporary storage of documents after completion and during processing as records is in file cabinets selected in accordance with provisions of NFPA 232-1975 for Class 1 records (usually NFPA Class C, 1 hour or UL-Class 350).

15a. RG 1.64, C2

Requirement

"Regardless of their title, individuals performing design verification should not (1) have immediate supervisory responsibility for the individual performing the design...."

Exception/Interpretation

Consumers Energy follows the requirements of ANSI N45.2.11-1974, Section 6.1, and the guidance of Section 3E4(a) of the Standard Review Plan, with the exception that use of supervisors as design verifiers may be controlled by a procedure instead of individually approved in advance in each case (see Section 3.2.9, herein). This approach is necessary to

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allow small organizational units (having limited numbers of technically qualified staff, or having the only technically qualified staff available in the Company) the flexibility needed to most effectively accomplish their assigned tasks.

16a. RG 1.144, Sec C3a(1)

Requirement

This section requires that for operational phase activities, RG 1.33 "Quality Assurance Program Requirements (Operations)" are to be followed. One of the RG 1.33 requirements is that the results of actions taken to correct deficiencies that affect nuclear safety and occur in facility equipment, structures, systems, or method of operation are to be audited at least once per six months.

Exception/Interpretation

See Item 3a for the exception to this requirement.

16b. RG 1.144, Sec C3a(2)

Requirement

Applicable elements of an organization's quality assurance program (for "design and construction phase activities") should be audited at least annually or at least once within the life of the activity, whichever is shorter.

Exception/Interpretation

Since most modifications are straightforward, they are not audited individually. Instead, selected controls over modifications are audited periodically.

16c. RG 1.144, Sec C3b(1)

Requirement

This section identifies procurement contracts which are exempted from being audited.

Exception/Interpretation

In addition to the exemptions of RG 1.144, Consumers Energy considers that Authorized Inspection Agencies, National Institute of Standards and Technology or other State and Federal Agencies which may provide services to Consumers Energy are not required to be audited.

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16d. RG 1.144, Sec C.3.b(2), second paragraph

Requirement

A documented evaluation of the supplier should be performed annually. Where applicable, this evaluation should take into account (1) review of supplier-furnished documents such as certificates of conformance, non-conformance notices, and corrective actions, (2) results of previous source verifications, audits and receiving inspections, (3) operating experience of identical or similar products furnished by the same supplier, and (4) results of audits from other sources (e.g., customer, ASME or NRC Audits).

Exception/Interpretation

Consumers Energy will review the information described in the second paragraph of section C.3.b(2) of Regulatory Guide 1.144, Revision 1, 1980, as it becomes available through its ongoing receipt inspection, operating experience, and supplier evaluation programs, in lieu of performing a specific evaluation on an annual basis. The results of the reviews are promptly considered for effect on a supplier's continued qualification and adjustments made as necessary (including corrective actions, adjustments of supplier audit plans, and input to third party auditing entities as warranted). In addition, results are reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action.

17a. N45.2.13, Sec 3.2.2

Requirement

N45.2.13 requires that technical requirements be specified in procurement documents by reference to technical requirement documents. Technical requirement documents are to be prepared, reviewed and released under the requirements established by ANSI N45.2.11.

Exception/Interpretation

For replacement parts and materials, Consumers Energy follows ANSI N18.7, Section 5.2.13, Subitem 1, which states: "Where the original item or part is found to be commercially 'off the shelf' or without specifically identified QA requirements, spare and replacement parts may be similarly procured, but care shall be exercised to ensure at least equivalent performance."

17b. N45.2.13, Sec 3.2.3

Requirement

"Procurement documents shall require that the supplier have a documented quality assurance program that implements portions of ANSI N45.2 as well as applicable quality assurance program requirements of other nationally recognized codes and standards."

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Exception/Interpretation

Refer to Item 2l.

17c. N45.2.13, Sec 3.3(a)

Requirement

Reviews of procurement documents shall be performed prior to release for bid and contract award.

Exception/Interpretation

Documents may be released for bid or contract award before completing the necessary reviews. However, these reviews are completed before the item or service is put into service or before work has progressed beyond the point where it would be impractical to reverse the action taken.

17d. N45.2.13, Sec 3.3(b)

Requirement

"Changes made in the procurement documents as a result of the bid evaluations or precontract negotiations shall be incorporated into the procurement documents. The review of such changes and their effects shall be completed prior to contract award."

Exception/Interpretation

This requirement applies only to quality related changes (i.e., changes to the procurement document provisions identified in ANSI N18.7, Section 5.2.13.l, Subitems 1 through 5.) The timing of reviews will be the same as for review of the original procurement document.

17e. N45.2.13, Sec 7.5

Requirement

"Personnel responsible for performing verification activities shall be qualified in accordance with ANSI N45.2.6 as applicable."

Exception/Interpretation

Consumers Energy qualifies audit personnel according to N45.2.23. Thus, personnel performing source verification audits may not be certified according to N45.2.6. Personnel performing inspection as part of source verification will be certified to N45.2.6 or qualified in accordance with Paragraph 10.2.7. However, personnel performing source surveillances may not be certified to any of those requirements.

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17f. N45.2.13, Sec 10.1

Requirement

"Where required by code, regulation or contract requirement, documentary evidence that items conform to procurement documents shall be available at the nuclear power plant site prior to installation or use of such items, regardless of acceptance methods."

Exception/Interpretation

Refer to Item 2m.

17g. N45.2.13, Sec 10.3.4 (as modified by RG 1.123, C6e)

Requirement

"Post-installation test requirements and acceptance documentation shall be mutually established by the purchaser and supplier."

Exception/Interpretation

In exercising its ultimate responsibility for its Quality Program, Consumers Energy establishes post-installation test requirements, giving due consideration to supplier recommendations.

18a. ANSI N45.2.23-1978, Section 2.3.4

Requirement

The prospective lead auditor shall have participated in a minimum of five (5) quality assurance audits within a period of time not to exceed three (3) years prior to the date of qualification, one audit of which shall be a nuclear quality assurance audit within the year prior to his qualification.

Exception/Interpretation

The prospective lead auditor shall demonstrate his ability to properly implement the audit process defined by this Standard and Consumers Energy program/procedure, to effectively lead an audit team, and to effectively organize and report results, including participation in at least one nuclear quality assurance audit within the year preceding date of certification.

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19a. RG 1.26, General

Requirement

RG 1.26 establishes a system for classifying pressure boundary items into four quality groups, which are then correlated with ASME B&PV Code and ANSI Standards requirements. (However, RG 1.26 does not indicate which of the four quality groups are safety-related, and which are not.)

Exception/Interpretation

RG 1.26 was used as a reference to establish piping system boundaries, but not for defining specific quality groups or making safety-related determinations. Regulatory Guide 1.29, subject to Exception/Interpretation 21a, is used to determine what systems and equipment are included in the Quality Program. Other criteria, as specified in Section 2.0 are also used to establish the SSCs and activities to which this Program shall be applied.

20a. Branch Technical Position ASB9.5.1 and 10 CFR  
50 Appendix R, Sections III G., III J., and III O., General

Exception/Interpretation

Fire protection measures, equipment and the individual plant Fire Protection Plans are in compliance with the NRC Safety Evaluation Reports and the required sections of 10 CFR 50 Appendix R except for the specific exemptions approved by the NRC.

21a. RG 1.29, Sec C, Regulatory Position

Requirement

The Regulatory Position states that the identified structures, systems, and components are to be designated Seismic Category 1 and should be designed to withstand the SSE.

Exception/Interpretation

BRP was designed, constructed and licensed based on criteria available prior to Revision 3 of this Regulatory Guide being issued. The specific design criteria and seismic designations are reflected in the UFHSR and in other docketed analysis. Thus, the design bases and seismic designations do not correspond to those of Regulatory Guide 1.29.

The criteria of this Regulatory Guide are used at Consumers Energy primarily in the identification of systems, structures, and components to which the Quality Program is applied (see 21b, below).

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21b. RG 1.29, General

Requirement

Apply pertinent Quality Assurance requirements of 10 CFR 50, Appendix B.

Exception/Interpretation

The pertinent quality requirements for these systems, structures and components will be determined in a graded manner using tools such as the plant specific Probabilistic Safety Assessment and the Technical Specifications, and other docketed analyses to determine the degree which Appendix B of 10 CFR 50 applies.

22. ANSI/ANS 3.1 - 1987

Exception/Interpretation

The commitment to ANSI/ANS 3.1-1987 is limited to requirements that apply to persons performing the independent safety review function as specified in Appendix C to this QPD.

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APPENDIX B  
SAFETY REVIEW COMMITTEE (SRC) (BIG ROCK POINT)

B1. FUNCTION

The Safety Review Committee (SRC) shall function to advise the Site General Manager on all matters related to nuclear safety.

B2. COMPOSITION

The BRP SRC is composed of a Chairman and a minimum of four members from the BRP staff. The SRC members shall meet or exceed the minimum qualifications described in Sections 4.2 and 4.4 of ANSI N18.1-1971 for comparable positions. The SRC shall include representatives from Operations, Engineering and Licensing, and Radiation Protection and Environmental Services. The members shall be designated in, writing, by the Site General Manager. The Site General Manager shall also designate an Alternate Chairman in writing.

B3. ALTERNATES

Alternate members of the SRC shall be appointed in writing by the SRC Chairman to serve on a temporary basis. No more than one alternate shall participate as a voting member at any one time in BRP SRC activities.

B4. MEETING FREQUENCY

The BRP SRC shall meet at least monthly while fuel is stored in the spent fuel pool during the pre-dismantlement and dismantlement phases. During the safe storage phase (no fuel in the spent fuel pool), SRC shall meet at least quarterly.

B5. QUORUM

A quorum of the BRP SRC shall consist of the Chairman or alternate Chairman and two members, which may not include more than one alternate member.

B6. RESPONSIBILITIES

The SRC shall be responsible for nuclear safety review of:

- a. All procedures and programs specified by the Technical Specifications and changes thereto, and any other procedures or changes thereto as determined by the Site General Manager to affect nuclear safety; all proposed tests or experiments that affect nuclear safety; all proposed changes or modifications to plant systems or equipment or the ISFSI that affect nuclear safety.
- b. All proposed changes to Operating License, the ISFSI License, Technical Specifications, and the Spent Fuel Storage System Certificate of Compliance.

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- c. Results of investigations of all violations of the Technical Specifications. (A report shall be prepared covering evaluation and recommendations to prevent recurrence and be forwarded to the Vice President, NFHO, the Manager, NPAD, and the RSRC).
- d. Plant/ISFSI operations to detect potential safety hazards.
- e. Reports of special reviews and investigations as requested by the Site General Manager, the Manager, NPAD, or RSRC.
- f. Site Emergency Plan and implementing procedures.
- g. All reportable events as defined in 10 CFR 50.72, 50.73, 72.74, and 72.75
- h. Nuclear industry operating experience.
- i. Review of any accidental, unplanned or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Site General Manager, the Manager, NPAD, and RSRC.

SRC review of the above items may be performed by routing, subject to the requirements of B7., below.

B7. AUTHORITY

The SRC shall:

- a. Recommend in writing to the Site General Manager approval or disapproval of items considered under B6.a. through i. above.
- b. Render determinations in writing with regard to whether or not each item considered under B6.a, b, and c, above needs prior NRC approval.
- c. Provide written notification within 24 hours to the Senior Vice President, NFHO, the Manager, NPAD, and RSRC of any disagreements between the SRC and the Site General Manager; however, the Site General Manager shall have responsibility for the resolution of such disagreements.

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The SRC Chairman may recommend to the Site General Manager approval of those items identified in B6, above based on a routing review provided the following conditions are met:

(1) at least three SRC members, including the Chairman and not more than one alternate, shall review the item, concur with determination as to whether or not the item requires prior NRC approval, and provide written comments on the item; (2) all comments shall be resolved to the satisfaction of the reviewers providing the comments; and (3) if the SRC Chairman determines that the comments are significant, the item (including comments and resolutions) shall be recirculated to all reviewers.

The item shall be reviewed at a SRC meeting in the event that: (1) Comments are not resolved; or (2) the Site General Manager overrides the recommendations of the SRC; or (3) a proposed change to the Technical Specifications involves a safety limit, a limiting safety system setting or a limiting condition for operation; or (4) the item was reportable to the NRC.

B8. RECORDS

The SRC shall maintain written minutes of each SRC meeting and shall provide copies for RSRC review.

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APPENDIX C  
RESTORATION SAFETY REVIEW COMMITTEE

The following exceptions/interpretations in Appendix A, Part 2, are relevant to implementation of the requirements of this section of the QPD:

<u>Paragraph</u>	<u>Exceptions/Interpretations</u>
C1.	2, 2c,
C2	2, 22
C3	2, 2b, 22
C4.1	2c
C4.1(b)	2d
C4.1(i)	2e, 2f

C1. FUNCTION

The Restoration Safety Review Committee (RSRC) shall function to provide independent review of activities in the areas of:

- a. Nuclear power plant operation/decommissioning
- b. Nuclear engineering
- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Nondestructive testing
- f. Instrumentation and control
- g. Radiological safety
- h. Mechanical and electrical engineering
- i. Administrative controls and quality assurance practices
- j. Emergency Planning
- k. Training

C2. COMPOSITION

The RSRC shall report to the Senior Vice President, NFHO and shall consist of a Chairman and members appointed by the Senior Vice President – NFHO. RSRC members shall meet or exceed the qualifications described in Section 4.7 of ANSI/ANS 3.1-1987. The RSRC members shall have no direct responsibility for activities subject to their review.

C3. SUPPORT PERSONNEL

If sufficient expertise is not available within the RSRC to review particular issues, the RSRC shall have the authority to utilize consultants or other qualified organizations for expert advice. Support personnel shall meet or exceed the qualifications described in Section 4.7 of ANSI/ANS 3.1-1987. Support personnel shall have no direct responsibility for activities they

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review.

C4. RESPONSIBILITIES

C4.1 REVIEW

The RSRC shall review:

- a. 50.59 and 72.48 evaluations for proposed changes in the facility, procedures or conduct of tests or experiments completed under the provisions of 10 CFR 50.59 and 72.48 to verify that an acceptable safety analysis is provided and prior NRC approval was requested as required by 10 CFR 50.59 and 72.48.
- b. Proposed changes to Technical Specifications, the ISFSI License, or the Spent Fuel Cask Storage System Certificate of Compliance to verify that the changes are consistent with applicable requirements and that an acceptable safety analysis is provided.
- c. Proposed changes to the Operating License.
- d. Violations of codes, regulations, orders, Technical Specifications, license requirements, Cask Storage System Certificate of Compliance, or of internal procedures or instructions having nuclear safety significance.
- e. Significant operating abnormalities or deviations from normal and expected performance of unit equipment or the ISFSI that affects nuclear safety.
- f. All reportable events having nuclear safety significance.
- g. All recognized indications of an unanticipated deficiency in some aspect of design or operation of structures, systems, or components that could affect nuclear safety.
- h. Reports and meeting minutes of the SRC.
- i. Reports of audits performed as specified in Appendix D.

RSRC review of the subjects in C4 above shall be performed by members or support personnel selected on the basis of technical expertise relative to the subject being reviewed. If the assigned reviewer determines the need for interdisciplinary review, a committee consisting of the RSRC Chairman, or his designate, and at least four RSRC members or qualified support personnel, shall be assigned. Such committee shall meet as conditions requiring interdisciplinary review arise, but no less than twice yearly.

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C5 AUTHORITY

The RSRC shall report to and advise the Senior Vice-President, NFHO, of significant findings associated with those areas of responsibility specified in C4 above and Appendix D, Audit Frequencies.

C6 RECORDS

Records of RSRC activities shall be maintained. Reports shall be prepared and distributed as indicated below:

- a. The results of reviews performed pursuant to C4 above shall be reported to the Senior Vice-President, NFHO, at least monthly.
- b. A report assessing Big Rock's overall nuclear safety performance shall be provided to senior Consumers Energy management annually.

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APPENDIX D  
AUDIT FREQUENCIES

D1. AUDITS

Audits of operational and decommissioning activities subject to this Program are performed by the NPAD staff under the cognizance of the RSRC. These audits encompass:

- a. The conformance of plant operation to provisions contained within the Technical Specifications, applicable license conditions, and the Spent Fuel Storage Cask System Certificate of Compliance at least once per 12 months.
- b. The performance, training and qualifications of the entire facility staff at least once per 12 months.
- c. The performance of activities required by the QPD for Nuclear Power Plants (CPC-2A) to meet the criteria of 10 CFR 50, Appendix B at least once per 24 months.
- d. The Site Emergency Plan and implementing procedures at least once per 12 months.
- e. The Site Security Plan and implementing procedures (as required by the Site Security Plan) at least once per 12 months.
- f. Any other area of plant/ISFSI operation considered appropriate by NPAD or the Senior Vice President, NFHO.
- g. The plant Fire Protection Program and implementing procedures at least once per 24 months.
- h. An independent fire protection and loss prevention inspection and audit to be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- i. An inspection and audit of the fire protection and loss prevention program to be performed by an outside qualified fire consultant at intervals no greater than 3 years.
- j. Radiological environmental monitoring program and the results thereof at least once per 12 months.
- k. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.

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- I. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months. |

Audit reports encompassed by D1. above shall be forwarded to the Manager, NPAD, and Management positions responsible for the areas audited within thirty (30) days after completion of the audit.

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APPENDIX E  
RECORD RETENTION

- E1. In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated. Where 10CFR 72 or the Part 72 license conditions do not specify a retention period for a record, the records shall be retained until the NRC terminates the license.
- E2. The following records shall be retained for at least five years:
- a. Records and logs of facility operation covering time interval at each power level.
  - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
  - c. All reportable events as defined in 10 CFR 50.72, 50.73, 72.74, and 72.75.
  - d. Records of surveillance activities, inspections and calibrations required by Plant Technical Specifications.
  - e. Records of changes made to the procedures required by Plant Technical Specifications.
  - f. Records of radioactive shipments.
  - g. Records of sealed source leak tests and results.
  - h. Records of annual physical inventory of all source material of record.
- E3. The following records shall be retained for the duration of the Facility 10 CFR 50 or Part 72 License:
- a. Record and drawing changes reflecting facility design modifications made to systems and equipment described in the BRP UFHSR.
  - b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
  - c. Records of quarterly radiation exposure for all individuals entering radiation control areas.
  - d. Records of gaseous and liquid radioactive material released to the environs.
  - e. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.
  - f. Records of in-service inspections performed pursuant to Plant Technical Specifications.

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- g. Records of Quality Assurance activities required by the QPD.
  - h. Records of reviews performed for changes made to procedures or equipment, or reviews of tests and experiments pursuant to 10 CFR 50.59, 10 CFR 50.82 and 72.48.
  - i. Records of meetings of the SRC, and reviews performed by the RSRC, according to Appendices B and C.
  - j. Records of monthly facility radiation and contamination surveys.
  - k. Records for environmental qualifications which are covered under the provisions of 10 CFR 50.49.
  - l. Records of training and qualifications for members of the plant staff.
  - m. Records of reactor tests and experiments.
  - n. Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.
- E4. The following records shall be retained as long as the associated material is stored and for a period of five years after the material is transferred out of the ISFSI:
- a. Records of receipt, inventory (including location), disposal, acquisition, and transfer of all spent fuel and high level waste in storage.
- E5. The following records shall be retained until the NRC terminates the 10 CFR Part 72 General License for the ISFSI:
- a. Records of the current inventory of all spent fuel and high-level waste.
  - b. Current material control and accounting procedures.
  - c. ISFSI and Cask Storage System records pertaining to the design, fabrication, erection, testing, maintenance, and use of structures systems and components important to safety.
- E6. The following records shall be retained and forwarded to the appropriate NRC Regional Office prior to the ISFSI General License termination:
- a. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment or site. These records may be limited to instances when contamination remains after any clean-up procedures or when there is a reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. The records must

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include any known information on identification of involved nuclides, quantities, forms, and concentrations.

- b. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.
- c. A list contained in a single document and updated no less than every 2 years of the following:
  - (1) All areas designated and formerly designated as restricted areas as defined under 10 CFR 20.1003; and
  - (2) All areas outside of restricted areas that require documentation under 10 CFR 72.30(d)(1).
- d. Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.
- e. Records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment. This includes those records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment under the standards for protection against radiation in effect prior to January 1, 1994.

**ATTACHMENT VII**

**CONSUMERS ENERGY COMPANY  
BIG ROCK POINT PLANT  
DCKET 50-155 AND 72-043 – LICENSE DPR-5**

**REVISION 10 TO THE UPDATED FINAL HAZARDS SUMMARY REPORT  
(UFHSR)  
Submitted September 17, 2002**

**Comparison Matrix  
Quality Program Description for Nuclear Power Plants (Part 1)  
Big Rock Point (CPC-2A)  
(Revision 19 to Revision 20)**

56 pages

CPC-2A COMPARISON MATRIX  
(PART 1) BIG ROCK POINT (Rev 20)

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
1	<p>CPC-2A cover letter SUBJECT</p> <p>CONSUMERS ENERGY PROGRAM FOR NUCLEAR POWER PLANTS</p>	<p>CPC-2A cover letter SUBJECT</p> <p>CONSUMERS ENERGY QUALITY PROGRAM FOR THE BIG ROCK POINT NUCLEAR PLANT</p>	<p>Consumers Energy Company contracted responsibility for operation of the Palisades plant to Nuclear Management Company (NMC) 5/15/01. This necessitated the revision of CPC-2A that applied to both Big Rock Point and Palisades plants into separate, site-specific programs for each plant.</p>	<p>This is not a reduction in commitment as previous commitments for Big Rock Point were maintained in its site specific program</p>
2	<p>CPC-2A cover letter Paragraph 1, 1<sup>st</sup> sentence</p> <p>Consumers Energy Quality Program Description for Nuclear Power Plants.</p> <p>Paragraph 1, 3<sup>rd</sup> sentence</p> <p>The Quality Program Description for Nuclear Power Plants outlines the actions that are implemented for important activities including fueling, testing, operation, refueling procurement, maintenance, repair, modification design and construction, and decommissioning of the nuclear power plants.</p>	<p>CPC-2A cover letter Paragraph 1, 1<sup>st</sup> sentence</p> <p>Added * (Part 1) – Big Rock Point Nuclear Plant*</p> <p>Paragraph 1, 3<sup>rd</sup> sentence</p> <p>The Quality Program Description outlines the actions that are implemented for important activities affecting decommissioning of the Big Rock Point Nuclear Plant and the construction and operation of the Independent Spent Fuel Storage Installation.</p>	<p>The Quality Program for Palisades and Big Rock Point was separated into site-specific programs for each plant. The wording for the Big Rock Point program was revised to reflect the current decommissioning activities and the construction and operation of the ISFSI.</p>	<p>This is not a reduction in commitment as previous commitments for Big Rock Point were maintained in its site specific program</p>
3	<p>CPC-2A cover letter Paragraph 2, 2<sup>nd</sup> sentence</p> <p>I have delegated selected portions of the Quality Program to the Vice President, Electric Transmission and Distribution; Vice President, Information Technology and Operations services Division; and through a Vice Chairman of Consumers Energy to the Vice President and Secretary.</p>	<p>CPC-2A cover letter Paragraph 2, 2<sup>nd</sup> sentence</p> <p>I have delegated selected portions of the Quality Program to the Senior Vice President, Electric Transmission and Distribution; and through a Senior Vice President of CMS Energy to the Vice President and Secretary.</p>	<p>Reflects the organization of the Consumers Energy Company.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(iii).</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
4	CPC-2A cover letter Signature  David W. Joos President and Chief Executive Officer	CPC-2A cover letter Signature  David W. Joos President and Chief Executive Officer <u>5/15/01</u> Date	Added date.	Editorial.
5	CPC-2A Page 2ii  QUALITY PROGRAM DESCRIPTION FOR NUCLEAR POWER PLANTS  APPROVED BY  Senior Vice President, Nuclear, Fossil, and Hydro Operations Robert A. French Vice President, Electric Transmission and Distribution Carl L. English Vice President, Information Technology and Operations Services Kenneth C. Emery Vice President and Secretary Thomas A. McNish	CPC-2A Page 2  QUALITY PROGRAM DESCRIPTION FOR NUCLEAR POWER PLANTS (PART1) – BIG ROCK POINT  APPROVED BY  Robert A. Fenech Senior Vice President, Nuclear, Fossil, and Hydro Operations John G. Russell Senior Vice President, Electric Transmission and Distribution Thomas A. McNish Vice President and Secretary	The Quality Program for Palisades and Big Rock Point were separated into site-specific programs.  Reflects the organization of the Consumers Energy Company.	Previous commitments were maintained for each site in their own site-specific program.  This is not a reduction in commitment per 10 CFR 50.54(a)(3)(iii).
6	Table of Contents Page iii & iv  Page Numbers as is for sections 1.0 – 18.0 plus Appendices and Figures	Table of Contents Page 3 & 4  Change in Page Numbers for sections 1.0 – 18.0 plus Appendices and Figures	Editorial page numbering	Editorial.

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
7	<p>1.1 (Page 1) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Consumers Energy is responsible for ... for its nuclear power Plants.</p>	<p>1.1 (Page 5) REQUIREMENTS Paragraph 1, 1<sup>st</sup> sentence</p> <p>Consumers Energy is responsible for ... for the Big Rock Point Nuclear Plant and its Independent Spent Fuel Storage Installation (ISFSI).</p>	<p>Reflects the application of part 1 of CPC-2A to Big Rock Point and specifically include the Big Rock Independent Spent Fuel Storage Installation (ISFSI).</p>	<p>Previous commitments for Big Rock Point were maintained.</p>
8	<p>1.1 (Page 1) REQUIREMENTS Paragraph 1, 2<sup>nd</sup> sentence</p> <p>... such as contractors and consultants, Consumers Energy ...</p>	<p>1.1 (Page 5) REQUIREMENTS Paragraph 1, 2<sup>nd</sup> sentence</p> <p>Consumers Energy will be delegating the authority for development and maintenance of the Quality Program Description (QPD) and execution of certain quality assurance functions to the Nuclear Management Company (NMC). Until July 1, 2001, these activities will be performed by Consumers Energy personnel. From that time, these activities will be performed by a combination of NMC and Consumers Energy personnel. This is discussed below within the QPD. Although authority for development and execution of some parts of the program is delegated to others, such as contractors and consultants, Consumers Energy retains overall responsibility.</p>	<p>Effective 7/1/01 various Consumers Energy employees with responsibility for executing quality functions were transferred to NMC. Consumers Energy contracted NMC to provide service to perform quality functions to support Big Rock Point.</p>	<p>The affected quality functions continue to be performed qualified personnel, and Consumers Energy continues to retain responsibility for these quality functions. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
9	<p>1.1 (Page 1) REQUIREMENTS Paragraph 2</p> <p>This section of the Quality Program Description (QPD) identifies the Consumers Energy organizations responsible for activities affecting the quality of nuclear power plant structures, systems and components describes the authority and duties assigned to them. It addresses responsibilities for attaining quality objectives; for establishing and maintaining the Quality Program; and for assessing the performance of activities affecting quality. The control of this Quality Program Description is the responsibility of the Nuclear Performance Assessment Department.</p>	<p>1.1 (Page 5) REQUIREMENTS Paragraph 2</p> <p>This section of the (QPD) identifies the Consumers Energy and NMC organizations responsible for activities affecting the quality of BRP/ISFSI structures, systems and components and describes the authority and duties assigned to them. It addresses responsibilities for attaining quality objectives; for establishing and maintaining the QPD; and for assessing the performance of activities affecting quality. The maintenance and control of this QPD is the responsibility of the Manager, Nuclear Performance Assessment Department (NPAD).</p>	<p>Reflects the application of part 1 of CPC-2A to Big Rock Point and specifically includes activities related to the Big Rock Independent Spent Fuel Storage Installation (ISFSI). Effective 7/1/01 various Consumers Energy employees with responsibility for executing quality functions were transferred to NMC.</p> <p>Includes editorial changes: - Abbreviated "Quality Program" with acronym "QPD". - Added "maintenance" and abbreviated "Quality Program Description" with acronym "QPD", assigned responsibility within NPAD to the Manager-NPAD.</p>	<p>Previous commitments for Big Rock Point were maintained. The affected quality functions continue to be performed by qualified personnel, and Consumers Energy continues to retain responsibility for these quality functions.</p> <p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
10	<p>1.1 (Page 1) REQUIREMENTS Paragraph 3</p> <p>Nuclear Performance Assessment Department (NPAD) functions (audits, surveillances, and independent safety reviews) are performed by personnel within formally designated organizational units that report to the Manager, Nuclear Performance Assessment or members of other organizations as selected by the Manager, Nuclear Performance Assessment. The reporting level of the Nuclear Performance Assessment organization affords sufficient authority and organizational freedom, including sufficient independence from the cost and schedule impacts of Nuclear Performance Assessment organization actions, to enable people in that organization to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions</p>	<p>1.1 (Page 5) REQUIREMENTS Paragraph 3</p> <p>NPAD functions (e.g., audits, assessments, and supplier evaluations) are performed by personnel within formally designated organizational units that report to the Manager, NPAD or members of other organizations as selected by the Manager, NPAD. The reporting level of the NPAD organization affords sufficient authority and organizational freedom, including sufficient independence from the cost and schedule impacts of NPAD organization actions, to enable people in that organization to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions.</p>	<p>Reflects the reassignment of responsibility for independent safety reviews from NPAD to a different organization (RSRC) (see Item #59)</p> <p>Includes editorial changes: - Replaced "surveillances" with "assessments" and added "supplier evaluations". - Replaced "Nuclear Performance Assessment Department" with acronym "NPAD."</p>	<p>The affected quality functions continue to be performed by qualified personnel, and Consumers Energy continues to retain responsibility for these quality functions. This is not a reduction in commitment</p> <p>Editorial</p>
11	<p>1.2.1 (Page 1) <u>Source of Authority</u></p> <p>The President and Chief Executive Officer-Electric (see Figure 1, Company Organization Chart) of Consumers Energy is responsible for safe operation and decommissioning of Consumers Energy nuclear power plants. Authority and responsibility for establishing and implementing the Quality Program for plant operations, maintenance, modifications and decommissioning is delegated to the Senior Vice President- Nuclear, Fossil, and Hydro Operations.</p>	<p>1.2.1 (Page 5 &amp; 6) <u>Source of Authority</u></p> <p>The President and Chief Executive Officer, Electric (see Figure 1, Company Organization Chart) of Consumers Energy is responsible for safe operation and decommissioning of the Big Rock Point Plant and safe storage of spent fuel at the ISFSI. Authority and responsibility for establishing and implementing the Quality Program for decommissioning is delegated to the Senior Vice President – Nuclear, Fossil, and Hydro Operations (NFHO)</p>	<p>Reflects the application of part 1 of CPC-2A to Big Rock Point and specifically includes activities related to the Big Rock Independent Spent Fuel Storage Installation (ISFSI).</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
12	<p>1.2.2 (Page 2) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u></p> <p>The Senior Vice President – Nuclear, Fossil, and Hydro Operations (NFHO) is responsible to the President and Chief Executive Officer- Electric for operation, maintenance, and decommissioning of Consumers Energy nuclear power plants. Managers who report to the Vice President, NFHO are responsible for directing the performance of activities that affect safe plant operation or decommissioning and/or safety-related functions of structures, systems and components of the nuclear power plants in accordance with Quality Program requirements</p>	<p>1.2.2 (Page 6) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> 1<sup>st</sup> Paragraph</p> <p>The Senior Vice President, NFHO is responsible to the President and Chief Executive Office, Electric for decommissioning of BRP and construction and operation of the ISFSI. Managers who report to the Senior Vice President, NFHO, are responsible for directing the performance of activities that affect safe plant decommissioning and/or safety-related functions of structures, systems and components of the plant and ISFSI in accordance with Quality Program requirements.</p>	<p>The Quality Program for Palisades and Big Rock Point was separated into site-specific programs for each plant. The wording for the Big Rock Point program was revised to reflect the current decommissioning activities and the construction and operation of the ISFSI.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments.</p> <p>The addition of new information and commitments is not a reduction in commitment.</p>
13	<p>1.2.2a (Page 2, 3, &amp; 4) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u></p> <p>1.2.2a The Palisades Plant Site Vice President (see Figure 1) is responsible for ...</p>	<p>Page 6 <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants-</u></p> <p>Section 1.2 2a -deleted in its entirety.</p>	<p>This section was limited to a description of the Palisades Site Vice President's responsibilities and did not affect Big Rock Point.</p>	<p>Deletion of Palisades' information has no impact on Big Rock Point's commitments.</p>
14	<p>1.2.2b (Page 4) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The Big Rock Point Site General Manager (see Figure 1) is responsible to the Senior Vice President NFHO for operation, maintenance, and decommissioning of the nuclear power plant in such a manner as to achieve compliance with Plant licenses, applicable regulations and the Quality Program.</p>	<p>1.2.2 (Page 6) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 2, 1<sup>st</sup> sentence</p> <p>The BRP Site General Manager (see Figure 1) is responsible to the Senior Vice President NFHO for operation, maintenance, and decommissioning of BRP and construction and operation of the ISFSI in such manner as to achieve compliance with licenses, applicable regulations and the Quality Program.</p>	<p>Adds responsibility for construction and operation of the ISFSI.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
15	<p>1.2.2b (Page 4) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraphs 2, 3, &amp; 4</p> <p>Qualification of appropriate decommissioning personnel, including certification of inspection personnel.</p> <p>Preparation, review and approval of plant procedures and instructions.</p> <p>Functioning as the plant design and configuration control authority for compliance of plant modifications and design changes to existing plant design criteria.</p>	<p>1.2.2 (Page 6) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraphs 3, 4, &amp; 5</p> <p>Qualification of appropriate decommissioning/ISFSI personnel, including certification of inspection personnel.</p> <p>Preparation, review and approval of plant/ISFSI procedures and instructions.</p> <p>Functioning as the plant/ISFSI design and configuration control authority for compliance of plant/ISFSI modifications and design changes to existing plant/ISFSI design criteria.</p>	<p>Added "/ISFSI" to reflect the current and future status of Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
16	<p>1.2.2b (Page 4) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 7</p> <p>Maintaining Echelon III calibration facilities for Portable and Laboratory Measuring and Test Equipment (PL-M&amp;TE) and Health Physics PL-M&amp;TE (HPPL-M&amp;TE). Calibration/maintenance of installed plant instrumentation.</p>	<p>1.2.2 (Page 6) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraphs 8 &amp; 9</p> <p>Maintaining Echelon III calibration facilities for Portable and Laboratory Measuring and Test Equipment (PL-M&amp;TE) and Health Physics PL-M&amp;TE (HPPL-M&amp;TE)</p> <p>Calibration/maintenance of installed plant/ISFSI instrumentation.</p>	<p>Separated different functions into separate paragraphs.</p> <p>Added "/ISFSI" to reflect the current and future status of Big Rock Point.</p>	<p>Editorial.</p> <p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
17	<p>1.2.2b (Page 5) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 15</p> <p>Plant site inspection program, including inspection of maintenance, testing and fuel handling.</p>	<p>1.2.2 (Page 7) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 16</p> <p>Plant site/ISFSI inspection program, including inspection of maintenance, testing and fuel handling</p>	<p>Added "/ISFSI" to reflect the current and future status of Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
18	<p>1.2.2b (Page 5) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 16</p> <p>Preparation, review, and approval of means that identify plant structures, systems and components, and activities to which this QPD apply, as described in Section 2.0, depending on plant conditions during dismantlement.</p>	<p>1.2.2 (Page 7) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 17</p> <p>Preparation, review, and approval of means that identify plant/ISFSI structures, systems and components, and activities to which QPD apply, as described in Section 2.0, depending on plant conditions during dismantlement.</p>	<p>Added "/ISFSI" to reflect the current and future status of Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
19	<p>1.2.2b (Page 5) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 19</p> <p>Establishing, implementing and documenting the appropriate training of decommissioning personnel, including Quality Program indoctrination and training</p>	<p>1.2.2 (Page 7) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 20</p> <p>Establishing, implementing and documenting the appropriate training of decommissioning/ISFSI personnel, including Quality Program indoctrination and training.</p>	<p>Added "/ISFSI" to reflect the current and future status of Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
20	<p>1.2.2b (Page 5) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 20- 1<sup>st</sup> sentence</p> <p>Procurement, including preparation, ... to Purchasing</p>	<p>1.2.2 (Page 7) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 21- 1<sup>st</sup> sentence</p> <p>Procurement, including preparation, ... to the purchasing organization.</p>	<p>Replace specific department title with functional description.</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
21	<p>1.2.2b (Page 5) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 22</p> <p>Accomplishing plant licensing activities including maintaining licensing documents up-to-date, interfacing with the NRC, accomplishing and/or tracking licensing commitments and coordinating internal action on NRC bulletins, generic letters, etc.</p>	<p>1.2.2 (Page 7) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 23</p> <p>Accomplishing plant/ISFSI licensing activities including maintaining licensing documents up-to-date, interfacing with the NRC, accomplishing and/or tracking licensing commitments and coordinating internal action on NRC bulletins, generic letters, etc.</p>	Added "/ISFSI" to reflect the current and future status of Big Rock Point.	The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.
22	<p>1.2.2b (Page 5) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 25</p> <p>Performing the engineering, construction, inspection and testing associated with plant modification projects as assigned</p>	<p>1.2.2 (page 8) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 26</p> <p>Performing the engineering, construction, inspection and testing associated with plant/ISFSI modification projects as assigned.</p>	Added "/ISFSI" to reflect the current and future status of Big Rock Point.	The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.
23	<p>1.2.2b (Page 6) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 27</p> <p>Performing reviews to advise the Site General Manager on matters related to nuclear safety, as specified in Appendix B, Plant Review Committee/Safety Review Committee.</p>	<p>1.2.2 (Page 8) <u>Responsibility for Attaining Quality Objectives at the Nuclear Plants</u> Paragraph 28</p> <p>Performing reviews to advise the Site General Manager on matters related to nuclear safety, as specified in Appendix B, Safety Review Committee</p>	The reference to "Plant Review Committee" was information related to Palisades only and was removed from the Big Rock Point specific program.	Deletion of Palisades information has no impact on Big Rock Point's commitments
24	<p>1.2.3 (Page 6) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 1</p> <p>The Manager, Nuclear Performance Assessment Department, (see Figure 1) is responsible to the Senior Vice President, NFHO, for:</p>	<p>1.2.3 (Page 8) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 1</p> <p>The Manager, NPAD, (see Figure 1) is directly responsible to the Senior Vice President, NFHO, for:</p>	Substituted acronym "NPAD" in lieu of organizational name. Added "directly" to reflect the new organizational reporting relationship for the lead BRP NPAD representative	Editorial.

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
25	<p>1.2.3 (Page 6) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 3</p> <p>Performance of the offsite safety review functions for the nuclear power plants as described in Appendix C, Independent Safety Review.</p>	<p>1.2.3 (Page 8) <u>Responsibilities of the Nuclear Performance Assessment Department</u></p> <p>Paragraph 3 was deleted in its entirety. Appendix C continues to describe responsibilities, qualification requires, and reporting relationship for the independent safety review function.</p>	Reflects a reassignment of responsibility for independent review activities from an organizational unit (NPAD) to a standing committee (RSRC)	As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)
26	<p>1.2.3 (Page 6) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 4</p> <p>Supplier surveys and evaluation including review/approval of supplier QA programs, and maintenance of the Nuclear Approved Suppliers List.</p>	<p>1.2.3 (Page 8) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 3</p> <p>Supplier surveys and evaluation including review/approval of supplier QA programs, and maintenance of the Approved Suppliers List.</p>	Reflects a name change (the word "Nuclear" deleted) for the Approved Suppliers List.	Editorial.
27	<p>1.2.3 (Page 6) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 6</p> <p>Assessment of nuclear safety performance as described in Appendix C.</p>	<p>1.2.3 (Page 8) <u>Responsibilities of the Nuclear Performance Assessment Department</u></p> <p>Paragraph 6 was deleted in its entirety. Appendix C continues to describe performance of the nuclear safety assessment</p>	Reflects a reassignment of responsibility for the nuclear safety assessment from an organizational unit (NPAD) to a standing committee (RSRC).	As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)
28	<p>1.2.3 (Page 6) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 8</p> <p>Recommending to the Site Vice President or the Senior Vice President NFHO that a plant be shut down if such action appears necessary.</p>	<p>1.2.3 (Page 8) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 6</p> <p>Recommending to the Senior Vice President, NFHO that decommissioning activities including spent fuel transfer activities be stopped if such action appears necessary.</p>	<p>Information related to Palisades only was removed from the Big Rock Point specific program:</p> <ul style="list-style-type: none"> <li>- Removed "the Site Vice President or".</li> <li>- Removed "plant be shutdown".</li> </ul> <p>Added, "decommissioning activities including spent fuel transfer activities be stopped" to reflect the current and future status of Big Rock Pont.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments.</p> <p>The addition of new information and commitments is not a reduction in commitment</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
29	<p>1.2.3 (Page 6)  <u>Responsibilities of the Nuclear Performance Assessment Department</u>  Paragraph 9</p> <p>Assessment programs (plant sites and Corporate Office), including follow-up on corrective action for audit findings.</p>	<p>1.2.3 (Page 8)  <u>Responsibilities of the Nuclear Performance Assessment Department</u>  Paragraph 7</p> <p>Assessment programs (site and Corporate Office), including follow-up on corrective actions for audit findings.</p>	<p>Replaced "plant sites" with "site" to reflect that program no longer is applicable to Palisades.</p>	<p>Editorial.</p>
30	<p>1.2.3 (Page 6)  <u>Responsibilities of the Nuclear Performance Assessment Department</u>  Paragraph 10</p> <p>Review of performance trends associated with nuclear plant activities including corrective actions.</p>	<p>1.2.3 (Page 8)  <u>Responsibilities of the Nuclear Performance Assessment Department</u>  Paragraph 8</p> <p>Review of performance trends associated with BRP/ISFSI activities including corrective actions.</p>	<p>Replaced "nuclear plant activities" with "BRP/ISFSI activities" to reflect that program no longer is applicable to Palisades.</p>	<p>Editorial.</p>
31	<p>1.2.3 (Page 6)  <u>Responsibilities of the Nuclear Performance Assessment Department</u>  Paragraph 12</p> <p>Maintenance of the Quality Program Description for Nuclear Power Plants</p>	<p>1.2.3 (Page 8)  <u>Responsibilities of the Nuclear Performance Assessment Department</u>  Paragraph 10</p> <p>Maintenance of the Quality Program Description for Nuclear Power Plants Part 1 – Big Rock Point Nuclear Plant.</p>	<p>Added "Part 1 – Big Rock Point Nuclear Plant" to reflect that program no longer is applicable to Palisades.</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
32	<p>1.2.3 (Page 6) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 14</p> <p>In order to implement these responsibilities, the Manager, NPAD, is provided with "Stop Work" authority whereby he can suspend any quality related activity or process which may, in his opinion, adversely affect public safety or the safe operation of Consumers Energy nuclear plants. A Stop Work order that would result in plant shutdown is given as a recommendation – NRC licensed operating staff are responsible for determining and carrying out the safest course of actions.</p>	<p>1.2.3 (Page 9) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 12</p> <p>In fulfilling the above responsibilities, the Manager, NPAD may use a combination of Consumers and NMC employees. The Manager, NPAD, is provided with "Stop Work" authority whereby he can suspend any quality related activity or process which may, in his opinion, adversely affect public safety, the safe decommissioning of BRP, or safe fuel storage operations. A Stop Work Order that would result in the suspension of in-process spent fuel transfer operations is given as a recommendation – the certified fuel handlers are responsible for determining and carrying out the safest course of actions.</p>	<p>Replaced "In order to implement these responsibilities" with "In fulfilling the above responsibilities".</p> <p>Added provision to "use a combination of Consumers and NMC employees" to permit continued execution of responsibilities by the same personnel.</p> <p>Replaced "safe operation of Consumers Energy nuclear plants" with "the safe decommissioning of BRP, or safe fuel storage operations", and "plant shutdown" with "suspension of in-process spent fuel transfer operations" to reflect the activities occurring at BRP.</p>	<p>Editorial.</p> <p>The affected quality functions continue to be performed qualified personnel, and Consumers Energy continues to retain responsibility for these quality functions. This is not a reduction in commitment.</p> <p>Deletion of function applicable only to Palisades has no impact on Big Rock Point's commitments.</p>
33	<p>1.2.3 (Page 6 &amp; 7) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 15</p> <p>The Manager, Nuclear Performance Assessment has no other primary duties ...</p>	<p>1.2.3 (Page 9) <u>Responsibilities of the Nuclear Performance Assessment Department</u> Paragraph 13</p> <p>The Manager, NPAD has no other primary duties ...</p>	<p>Abbreviated "Nuclear Performance Assessment Department" as "NPAD".</p>	<p>Editorial.</p>
34	<p>1.2.4 (Page 7) <u>Responsibilities of the Equipment Services Department</u> Paragraph 1</p> <p>The Manager, Equipment Services provides electrical, rotating and stationary equipment expertise, including developing and qualifying procedures for welding and heat treating.</p>	<p>1.2.4 (Page 9) <u>Responsibilities of the Equipment Services Department</u> Paragraph 1</p> <p>The Manager, Equipment Services provides electrical, rotating and stationary equipment expertise, including developing and qualifying procedures for welding and heat-treating and qualifying welders.</p>	<p>Replaced "heat treating" with "heat-treating",</p> <p>Added "and qualifying welders".</p>	<p>Editorial.</p> <p>The addition of new information and commitments is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
35	<p>1.2.5 (Page 7)  <u>Responsibilities for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u></p> <p>All Paragraphs</p>	<p>1.2.5-7 (Pages 9 &amp; 10)</p> <p>1.2.5 retained in CPC-2A (Part 1) as paragraphs 1.2.5, 1.2.6 and 1.2.7. (See change items 36-41 below).</p>	<p>Some of the responsibilities were reassigned to different organizational units, and the names or reporting relationships for some organization units were changed.</p> <p>All elements defined in section 1.2.5 of CPC-2A rev 19 still exist within sections 1.2.5, 1.2.6, or 1.2.7 CPC-2A (Part 1) Rev. 20</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
36	<p>1.2.5 a. (Page 7)</p> <p>The Manager, Electric System Operations (see Figure 1) is responsible through the Vice President, Electric Transmission and Distribution ... and associated settings.</p>	<p>1.2.7 a (Page 10)</p> <p>The Manager, Electric System Operations (see Figure 1) is responsible through the Senior Vice President, Electric Transmission and Distribution ... and associated settings. He is also responsible for testing and maintaining electrical protective devices, performing design verification testing associated with electrical protective schemes, devices and application of associated settings.</p>	<p>Title change for Senior VP, Electric Transmission and Distribution.</p> <p>Reassigned Manager, Electric Services responsibilities (from Rev 19 section 1.2.5 e.) to Manager Electric, System Operations.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
37	<p>1.2.5b (Page 7)  <u>Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u></p> <p>The Executive Manager, Fuels &amp; Power Transactions is responsible to the Vice President and Chief Executive Officer – Electric for maintaining the Records Management System including required retention, protection and retrievability. This includes collecting, storing, maintaining, distributing and controlling plant engineering/design documents (Big Rock only) This excludes Big Rock Safeguards ... responsibility of Big Rock Point.</p>	<p>1.2.5 (Page 9)  <u>Responsibilities of the Plant Operations Department</u></p> <p>The Director, Plant Operations is responsible for maintaining the Records Management System including required retention, protection and retrievability. This includes collecting, storing, and maintaining, distributing and controlling plant/ISFSI engineering design documents. This excludes Big Rock Safeguards ... responsibility of the BRP Site General Manager.</p>	<p>The responsibility for maintaining the corporate Records Management System was reassigned.</p> <p>Editorial changes:  - Added "ISFSI".  - Deleted "(Big Rock only)"  - Replaced "Big Rock Point" with "BRP Site General Manager"  were made to reflect the activities occurring at BRP, and delete unneeded wording as CPC-2A (Part 1) is already limited to Big Rock.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p> <p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
38	<p data-bbox="191 242 653 357"><u>1.2.5c (Page 7) Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u></p> <p data-bbox="191 376 653 522">The Corporate Records Administrator (see Figure 1) is responsible through the Vice President and Secretary for microfilming of specified quality records and plant engineering/design documents.</p>	<p data-bbox="681 242 1177 323"><u>1.2.7b (Page 10) Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u></p> <p data-bbox="681 341 1130 487">The Corporate Records Administrator (see Figure 1) is responsible through the Vice President and Secretary for microfilming of specified quality records and plant/ISFSI engineering/design documents.</p>	<p data-bbox="1209 229 1596 292">Added "ISFSI" to reflect the activities occurring at BRP.</p>	<p data-bbox="1624 229 1963 310">The addition of new information and commitments is not a reduction in commitment.</p>
39	<p data-bbox="191 568 653 683"><u>1.2.5d (Page 7) Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u></p> <p data-bbox="191 702 653 817">The Manager, Environmental and Technical Services (E&amp;TS) is responsible, through the Vice President, Information Technology and Operations Services for:</p> <p data-bbox="191 836 653 982">Maintaining the Company's Echelon II calibration facility for calibrating reference and secondary standards and general usage portable and laboratory measuring and test equipment.</p> <p data-bbox="191 1000 653 1115">Controlling the calibration recall system for Portable and Laboratory M&amp;TE owned by E&amp;TS, and other departments, as requested.</p> <p data-bbox="191 1134 653 1218">Maintaining a Master PL-M&amp;TE List for E&amp;TS PL-M&amp;TE and for other departments, as requested.</p> <p data-bbox="191 1236 653 1320">Providing a PL-M&amp;TE Inventory List for Nuclear plants.</p>	<p data-bbox="681 568 1110 652"><u>1.2.6 (Page 9) Responsibilities of the Environmental and Laboratory Services Department</u></p> <p data-bbox="681 671 1143 755">The Manager, Environmental and Laboratory (E&amp;LS) is responsible for:</p> <p data-bbox="681 773 1161 982">Maintaining the Company's Echelon II calibration facility for calibrating reference and secondary standards and general usage portable and laboratory measuring and test equipment.</p> <p data-bbox="681 1000 1177 1084">Controlling the calibration recall system for Portable and Laboratory M&amp;TE owned by E&amp;LS, and other departments, as requested.</p> <p data-bbox="681 1103 1147 1218">Maintaining a Master PL-M&amp;TE List for E&amp;LS PL-M&amp;TE and for other departments, as requested.</p> <p data-bbox="681 1236 1086 1320">Providing a PL-M&amp;TE Inventory List for BRP/ISFSI</p>	<p data-bbox="1209 689 1584 752">Editorial – Consumers Energy Company organization title changes</p> <p data-bbox="1209 991 1584 1053">Editorial – Consumers Energy Company organization title changes</p> <p data-bbox="1209 1128 1584 1190">Editorial – Consumers Energy Company organization title changes</p> <p data-bbox="1209 1240 1590 1302">Added "ISFSI" to reflect the activities occurring at BRP.</p>	<p data-bbox="1624 689 1721 721">Editorial.</p> <p data-bbox="1624 991 1721 1022">Editorial.</p> <p data-bbox="1624 1128 1721 1159">Editorial.</p> <p data-bbox="1624 1240 1963 1320">The addition of new information and commitments is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
39 (cont)	<p>Providing chemistry support to Nuclear plants, as requested.</p> <p>Preparing, reviewing, approving and obtaining additional reviews and approvals if required, of purchase requests for services, equipment and consumables, and submitting such requests to purchasing for procurement action.</p> <p>Conducting performance tests on materials, equipment and systems when requested.</p> <p>Performing nondestructive examination, and controlling/maintaining NDE equipment.</p> <p>Providing qualified NDE procedures and equipment and NDE personnel.</p> <p>Providing chemical and metallurgical analytical services.</p> <p>Providing necessary corrective action processing and status reporting for assigned corrective action documents</p>	<p>Providing chemistry support to BRP/ISFSI, as requested.</p> <p>Preparing, reviewing, approving and obtaining additional reviews and approvals if required, of purchase requests for services, equipment and consumables, and submitting such requests to purchasing for procurement action</p> <p>Conducting performance tests on materials, equipment and systems when requested</p> <p>Performing nondestructive examination, and controlling/maintaining NDE equipment.</p> <p>Providing qualified NDE procedures and equipment and NDE personnel</p> <p>Providing chemical and metallurgical analytical services.</p> <p>Providing necessary corrective action processing and status reporting for assigned corrective action documents</p>	<p>Added "ISFSI" to reflect the activities occurring at BRP.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>

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40	<p>1.2.5e (Page 8)  <u>Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u>  Paragraph 1, 1<sup>st</sup> sentence</p> <p>The Manager, Electric Services is responsible, through the Vice President, Electric Transmission and Distribution to the Executive Vice President and Chief Executive Officer – Electric for testing and maintaining electrical protective devices, performing design verification testing associated with electrical protective schemes, devices and application of associate settings.</p>	<p>1.2.7a (Page 10)  <u>Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u>  Paragraph 1, 2<sup>nd</sup> sentence</p> <p>He is also responsible for testing and maintaining electrical protective devices, performing design verification testing associated with electrical protective schemes, devices and application of associate settings.</p>	<p>Reassigned certain responsibilities from the Manager, Electric Services to the Manager Electric, System Operations.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
41	<p>1.2.5e (Page 8)  <u>Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u>  Paragraph 1, 2<sup>nd</sup> sentence</p> <p>The Manager Electric Services is also responsible for operating the Skill Centers including the training, and qualifying of personnel and equipment for welding operations.</p>	<p>1.2.7c (Page 10)  <u>Responsibility for Attaining Quality Objectives Outside Nuclear, Fossil, and Hydro Operations</u></p> <p>The Manager, Production Support (see Figure 1) is responsible, through the Senior Vice President, Electric Transmission and Distribution to the President and Chief Executive Officer – Electric for operating the Skill Centers including the training, and testing of personnel and equipment for welding operations.</p>	<p>Some of the responsibilities were reassigned to different organizational units, and the names or reporting relationships for some organization units were changed.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)</p>
42	<p>Figure 1 (Page 9)  Consumers Energy Organizational Chart</p>	<p>Figure 1 (Page 11)  Consumers Energy Company Organizational Chart</p>	<p>Revised to organization after transfer of Palisades operating license to NMC.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
43	<p>2.1 (Page 10) REQUIREMENTS Paragraph 1</p> <p>Policies that define and establish the Consumers Energy Quality Program for Nuclear Power Plants are stated in the individual sections of this document. The program is implemented through procedures and instructions responsive to provisions of the Quality Program Description and will be carried out for the life of each plant. Plant life is defined as the period covered by a valid license under 10 CFR 50.</p>	<p>2.1 (Page 12) REQUIREMENTS Paragraph 1</p> <p>Policies that define and establish the Consumers Energy Quality Program for Nuclear Power Plants (Part 1) – Big Rock Point Nuclear Plant are stated in the individual sections of this document.</p> <p>The program is implemented through procedures and instructions responsive to provisions of the QPD and will be carried out for the life of BRP and its associated ISFSI. Plant/ISFSI life is defined as the period covered by a valid license under 10 CFR 50 or 10CFR 72, respectively.</p>	<p>Provide for operation of the ISFSI and reflect that this part of the QPD is limited to Big Rock Point.</p>	<p>Previous commitments for Big Rock Point were maintained. The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
44	<p>2.1 (Page 10) REQUIREMENTS Paragraph 3, 1<sup>st</sup> sentence</p> <p>Quality Program status, scope, adequacy and compliance with 10 CFR 50, Appendix B are regularly reviewed by Consumers Energy Management through reports, meetings and review of audit results.</p>	<p>2.1 (Page 12) REQUIREMENTS Paragraph 3, 1<sup>st</sup> sentence.</p> <p>Quality Program status, scope, adequacy and compliance with 10 CFR 50, Appendix B and 10CFR 72 are regularly reviewed by Consumers Energy Management through reports, meetings and review of audit results.</p>	<p>Added 10CFR 72 to provide for operation of the ISFSI at Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
45	<p>2.2.1 (Page 10) Paragraph 1, 1<sup>st</sup> sentence</p> <p>The President and Chief Executive Officer – Electric, has stated in a formal STATEMENT OF RESPONSIBILITY AND AUTHORITY, signed by him, that it is corporate policy to comply with the provisions of applicable legislation and regulations pertaining to quality assurance for nuclear power plants as defined by 10 CFR 50, Appendix B. The statement makes this Quality Program Description and the associated implementing procedures and instructions mandatory and requires compliance by all responsible organizations and individuals.</p>	<p>2.2.1 (Page 12) Paragraph 1, 1<sup>st</sup> sentence</p> <p>The President and Chief Executive Officer, Electric, has stated in a formal STATEMENT OF RESPONSIBILITY AND AUTHORITY, signed by him, that it is corporate policy to comply with the provisions of applicable legislation and regulations pertaining to quality assurance for BRP/ISFSI as defined by 10 CFR 50, Appendix B and 10 CFR 72, Subpart G. The statement makes this QPD and the associated implementing procedures and instructions mandatory and requires compliance by all responsible organizations and individuals.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program and Big Rock Point activities related to the construction and operation of the Independent Spent Fuel Storage Installation (ISFSI) were added.</p>	<p>Previous commitments for Big Rock Point were maintained. The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
46	<p>2.2.3 (Pages 10 &amp; 11)</p> <p>The affectivity and applicability of this Quality Program Description are as follows:</p> <ul style="list-style-type: none"> <li>a. For Big Rock Point and Palisades, the Quality Program Description became effective on April 1, 1982, with full implementation on January 1, 1983</li> <li>b. The Quality Program described in this Quality Program Description is intended to apply for the life of Consumers Energy's nuclear power plants.</li> <li>c. The Quality Program applies to activities affecting the quality of structures, systems, components and related consumables during plant operation, maintenance, testing, modifications, and decommissioning Structures, systems, components and related consumables to which this program applies are identified in accordance with the criteria of Regulatory Guide 1.29, as clarified by Items No. 21a and No. 21b in Part 2 of Appendix A to this Quality Program Description, and as described below.</li> </ul>	<p>2.2.3 (Page 13)</p> <p>The effectivity and applicability of this QPD are as follows:</p> <ul style="list-style-type: none"> <li>a. For Big Rock Point, the QPD became effective on April 1, 1982, with full implementation on January 1, 1983.</li> <li>b. For the ISFSI, in accordance with 10 CFR 72.4, the NRC Spent Fuel Project Office was notified by letter dated February 17, 2000 of Consumers Energy's intent to apply this Quality program to the ISFSI and spent fuel storage cask activities as required by 10 CFR Part 72.140.</li> <li>c. The Quality Program described in this Quality Program Description is intended to apply for the life of BRP and its associated ISFSI.</li> <li>d. The Quality Program applies to activities affecting the quality of structures, systems, components and related consumables at BRP/ISFSI. Structures, systems, components and related consumables to which this program applies are identified in accordance with the criteria of Regulatory Guide 1.29, as clarified by Items No. 21a and No. 21b in Part 2 of Appendix A to this QPD, and as described below.</li> </ul>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program and Big Rock Point activities related to the construction and operation of the Independent Spent Fuel Storage Installation (ISFSI) were added.</p>	<p>Previous commitments for Big Rock Point were maintained. The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
47	<p>2.2.4 (Page 11)</p> <p>This Quality Program Description, organized to present the Consumers Energy Quality Program for Nuclear Power Plants in the order of the 18 criteria of 10 CFR 50, Appendix B, states Consumers Energy requirements for each of the criteria and describes how the controls pertinent to each are carried out. Any changes made to this Quality Program Description that do not reduce the commitments previously accepted by the NRC must be submitted to the NRC at least annually as specified by 10 CFR 50.71.e. Any changes made to this Quality Program Description that do reduce the commitments previously accepted by the NRC must be submitted to the NRC and receive NRC approval prior to implementation in accordance with the requirements of 10 CFR 50.54.</p> <p>Appendix A to this Quality Program Description lists the ANSI Standards and Regulatory Guides to which Consumers Energy commits.</p> <p>The program described in this Quality Program Description will not be changed in any way that would prevent it from meeting the criteria of 10 CFR 50, Appendix B.</p>	<p>2.2.4 (Page 14)</p> <p>This QPD, organized to present the Consumers Energy Quality Program for the Nuclear Plants (Part 1) in the order of the 18 criteria of 10 CFR 50, Appendix B, states Consumers Energy requirements for each of the criteria and describes how the controls pertinent to each are carried out. Any changes made to this QPD that do not reduce the commitments previously accepted by the NRC must be submitted to the NRC at least annually as specified by 10 CFR 50.71.e. Any changes made to this QPD that do reduce the commitments previously accepted by the NRC must be submitted to the NRC and receive NRC approval prior to implementation in accordance with the requirements of 10 CFR 50.54.</p> <p>Appendix A to this QPD lists the ANSI Standards and Regulatory Guides to which Consumers Energy commits.</p> <p>The program described in this QPD will not be changed in any way that would prevent it from meeting the criteria of 10 CFR 50, Appendix B.</p>	<p>The Quality Program for Palisades and Big Rock Point were separated into site-specific programs for each plant.</p> <p>Quality Program Description changed to read QPD.</p>	<p>Editorial.</p> <p>Editorial</p>
48	<p>2.2.5 (Page 11) Paragraph 1</p> <p>Documents used for implementing the provisions of the Quality Program Description include the following:</p>	<p>2.2.5 (Page 13) Paragraph 1</p> <p>Documents used for implementing the provisions of the QPD include the following:</p>	<p>Quality Program Description changed to read QPD.</p>	<p>Editorial</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
49	<p>2.2.5c (Page 11) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Applicable elements of the Quality Program are applied to emergency plans, security plans, radiation and fire protection plans for Consumers Energy nuclear power plants.</p>	<p>2.2.5c (Page 13) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Applicable elements of the Quality Program are applied to emergency plans, security plans, radiation and fire protection plans for BRP/ISFSI.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program and Big Rock Point activities related to the construction and operation of the Independent Spent Fuel Storage Installation (ISFSI) were added.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment</p>
50	<p>2.2.6 (Page 11) Paragraph 1</p> <p>Provisions of the Quality Program for Nuclear Power Plants apply to activities affecting the quality of structures, systems, components and related consumables selected according to the criteria of either 2.2.6a or 2.2.6b below.</p>	<p>2.2.6 (Page 14) Paragraph 1, 1<sup>st</sup> sentence.</p> <p>Provisions of the Quality Program Description for Nuclear Power Plants (Part 1) apply to activities affecting the quality of structures, systems, components and related consumables.</p>	<p>Information related to Palisades was removed from the Big Rock Point specific program. Remaining Big Rock Point commitments reorganized.</p>	<p>Editorial</p>
51	<p>2.2.6a (Page 12)</p> <p>2.2 6a Removed in its entirety</p>	<p>Palisades responsibilities described in 2.2 6a removed from CPC-2A (Part 1) and relocated in CPC-2A (Part 2)</p>	<p>Information related to Palisades was removed from the Big Rock Point specific program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
52	<p>2.2.6b (Page 12) Paragraphs 1</p> <p>b. For Big Rock Point, Consumers Energy uses the following criteria in the selection of structures, systems, components, and activities to which the Quality Program is applied. Application of the Quality Program assures that such structures, systems, components, and activities are monitored and controlled in a manner sufficient to provide reasonable assurance that they are capable of fulfilling their intended functions</p>	<p>2.2.6 (Page 14) Paragraph 1, 2<sup>nd</sup> &amp; 3<sup>rd</sup> sentences</p> <p>Consumers Energy uses the following criteria in the selection of structures, systems, components, and activities to which the Quality Program is applied. Application of the Quality Program assures that such structures, systems, components, and activities are monitored and controlled in a manner sufficient to provide reasonable assurance that they are capable of fulfilling their intended functions.</p>	<p>Information related to Palisades was removed from the Big Rock Point specific program. Remaining Big Rock Point commitments reorganized.</p>	<p>Previous commitments for Big Rock Point were maintained. Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
53	<p>2.2.6 b.(1) (Page 12) Paragraph 2</p> <p>(1) The Quality Program shall be applied to structures, systems, components, and activities identified according to the method described in 2.2.6.a (1) above;</p>	<p>2.2.6a (Page 14) Paragraph 1</p> <p>a. The Quality Program shall be applied to structures, systems, components, and activities selected based on engineering evaluation that uses the guidance of Regulatory Guides 1.26 and 1.29 to determine those items and activities whose function is important to safe plant operation and shutdown. These items and activities are commonly referred to as "safety related" (see Appendix A).</p>	Information related to Palisades was removed from the Big Rock Point specific program. Remaining Big Rock Point commitments reorganized.	Editorial.
54	<p>2.2.6 b (2) (Page 12) Paragraph 3</p> <p>(2) The Quality Program shall be applied to structures, systems, components, and activities important to the safe storage, control and maintenance of spent nuclear fuel (ISSSF);</p>	<p>2.2.6b (Page 14) Paragraph 1</p> <p>b. The Quality Program shall be applied to structures, systems, components, and activities important to the safe storage, control and maintenance of spent nuclear fuel (ISSSF);</p>	Changed section number from (2) to b.	Editorial.
55	<p>2.2.6(3) (Page 12) Paragraph 4</p> <p>(3) The Quality Program shall be applied to structures, systems, components, and activities important to the monitoring and control of radiological hazards (IMCRH).</p>	<p>2.2.6c (Page 14) Paragraph 1</p> <p>c. The Quality Program shall be applied to structures, systems, components, and activities important to the monitoring and control of radiological hazards (IMCRH)</p>	Changed section number from (3) to c.	Editorial.
56	<p>2.2.6 (Page 12) Paragraph 5, 6<sup>th</sup> sentence</p> <p>Such determinations are based on data in such documents as the plant safety analysis, post-shutdown Technical Specifications, and the UFHSR.</p>	<p>2.2.6 (Page 14) Paragraph 5, 6<sup>th</sup> sentence</p> <p>Such determinations are based on data in such documents as the post-shutdown Technical Specifications, the Updated Final Hazards Summary Report (UFHSR), and the Cask Storage System SAR.</p>	Reflects decommissioning and ISFSI activities at Big Rock Point.	The addition of new information and commitments is not a reduction in commitment.

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
57	<p>2.2.8 (Page 13) Paragraph 1</p> <p>Development, control and use of computer programs affecting nuclear power plant design and operation at Consumers Energy are subject to Quality Program design controls (see Section 3.0, DESIGN CONTROL)</p>	<p>2.2.8 (Page 15) Paragraph 1</p> <p>Development, control and use of computer programs affecting nuclear power plant design and operation at BRP/ISFSI are subject to Quality Program design controls (see Section 3.0, DESIGN CONTROL)</p>	<p>Reflects removal of information related to Palisades and the addition of activities related to the construction and operation of the Independent Spent Fuel Storage Installation (ISFSI) at Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
58	<p>2.2.9 (Page 13)</p> <p>a. The training and indoctrination program provides for ongoing training and periodic familiarization with the Quality Program for Nuclear Power Plants</p> <p>b. Personnel who perform inspection and examination functions are qualified in accordance with requirements of Regulatory Guide 1.58, SNT TC-1A, or the ASME Code, or Section 10.2.3 of this Quality Program Description, as applicable.</p>	<p>2.2.9a (Page 15)</p> <p>a. The training and indoctrination program provides for ongoing training and periodic, familiarization with the QPD.</p> <p>b. Personnel who perform inspection and examination functions are qualified in accordance with requirements of Regulatory Guide 1.58, SNT TC-1A, or the ASME Code, or Section 10.2.3 of this QPD, as applicable.</p>	<p>Reflects separation of Big Rock Point and Palisades quality programs. "Quality Program for Nuclear Power Plants" changed to read "QPD".</p>	<p>Editorial</p>
59	<p>2.2.10b (Page 14) Paragraph 1</p> <p>NPAD – ISRG assesses nuclear safety performance as described in Appendix C. Conclusions and recommendations are reported to the Senior Vice President, Nuclear, Fossil, and Hydro Operations.</p>	<p>2.2.10b (Page 16) Paragraph 1, 1<sup>st</sup> &amp; 2<sup>nd</sup> sentences</p> <p>The Restoration Safety Review Committee assesses nuclear safety performance as described in Appendix C. Conclusions and recommendations are reported to the Senior Vice President, NFHO.</p>	<p>Reflects the change from an organizational unit to a standing committee for independent review activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
60	<p>3.1 (Page 15) REQUIREMENTS Paragraph 1, 3<sup>rd</sup> sentence</p> <p>Depending on the type of modification, these activities include design and field engineering; the performance of physics, seismic, stress, thermal, hydraulic, radiation and Safety Analysis Report (SAR) accident analyses; the development and control of associated computer programs; studies of material compatibility; accessibility for inservice inspection and maintenance; and determination of quality standards.</p>	<p>3.1 (Page 17) REQUIREMENTS Paragraph 1, 3<sup>rd</sup> sentence</p> <p>Depending on the type of modification, these activities include design and field engineering; the performance of physics, seismic, stress, thermal, hydraulic, radiation and UFHSR and ISFSI SAR accident analyses, the development and control of associated computer programs; studies of material compatibility; accessibility for in-service inspection and maintenance; and determination of quality standards.</p>	<p>Added wording "UFHSR and ISFSI" to reflect Big Rock specific design bases and changed wording "Safety Analysis Report (SAR)" to read "SAR".</p>	<p>Editorial.</p>
61	<p>3.2.1 (Page 15) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Authority and responsibility for modification activities is under the cognizance of the Nuclear Plants as described in Section 1.0, ORGANIZATION.</p>	<p>3.2.1 (Page 17) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Authority and responsibility for modification activities is under the cognizance of BRP as described in Section 1.0, ORGANIZATION.</p>	<p>Substituted "BRP" for "Nuclear Plants" to reflect removal of information related to Palisades.</p>	<p>Editorial.</p>
62	<p>3.2.9 (Page 17) Paragraph 2, 3, &amp; 4</p> <p>(1), (2), (3) – parenthesis around numbers</p>	<p>3.2.9 (Page 19) Paragraph 2, 3, &amp; 4</p> <p>Parenthesis removed from numbers 1, 2, &amp; 3 and period added.</p>	<p>Word processing format change. No text change.</p>	<p>Editorial.</p>
63	<p>3.2.9 (Page 17) Paragraph 7</p> <p>Independent audits by Nuclear Performance Assessment cover....</p>	<p>3.2.9 (Page 19) Paragraph 7</p> <p>Independent audits by NPAD cover....</p>	<p>"Nuclear Performance Assessment " changed to "NPAD"</p>	<p>Editorial</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
64	<p>4.2.3 (Page 18) Paragraph 1, 2<sup>nd</sup> sentence</p> <p>Provisions of this Quality Program Description are considered for application to suppliers.</p>	<p>4.2.3 (Page 21) Paragraph 1, 2<sup>nd</sup> sentence</p> <p>Provisions of this QPD are considered for application to suppliers.</p>	<p>"Quality Program Description" changed to read "QPD".</p>	<p>Editorial</p>
65	<p>5.1 (Page 20) REQUIREMENTS Paragraph 3, <u>Paragraph</u> listing</p> <p><u>Paragraph</u></p> <p>5.1 5.2, item 8 5.2, item 14</p>	<p>5.1 (Page 23) REQUIREMENTS Paragraph 3, <u>Paragraph</u> listing</p> <p><u>Paragraph</u></p> <p>5.1 5.2, item 5 5.2, item 10</p>	<p>5.2, item 8 changed to 5, and 5.2, item 14 changed to 10 to maintain alignment.</p>	<p>Editorial</p>
66	<p>5.2 - IMPLEMENTATION (Pgs 20-22)</p> <p>3, 4, 5, 7a, 7b, &amp; 12- (these items were identified as "Palisades only" )</p> <p>15 a. Administrative control and technical support during plant modifications.</p> <p>16 Decommissioning procedures that provide for the controlled dismantlement of the plant and restoration of the plant site</p>	<p>5 2 – IMPLEMENTATION (Pgs 23-25)</p> <p>The items related to "Palisades only", were removed in their entirety and the remaining items renumbered.</p> <p>11 a. Administrative controls and technical support during plant/ISFSI modifications.</p> <p>12. Decommissioning procedures that provide for the controlled dismantlement of BRP and restoration of the plant site.</p>	<p>Reflects removal of information related to Palisades and the addition of activities related to the Independent Spent Fuel Storage Installation (ISFSI) at Big Rock Point.</p>	<p>Deletion of Palisades' information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
67	<p>6.1 (Page 23) <b>REQUIREMENTS</b> Paragraph 3, 1<sup>st</sup> sentence</p> <p>* Personnel authorized to approve procedures specified by Plant or Permanently Defueled Technical Specifications are limited to an appropriate senior department manager, based on the activities addressed in the specific procedure, predesignated in writing by the Site Vice President/Site General Manager.</p>	<p>6.1 (Page 26) <b>REQUIREMENTS</b> Paragraph 3, 1<sup>st</sup> sentence</p> <p>Personnel authorized to approve procedures specified by Permanently Defueled Technical Specifications are limited to an appropriate senior department manager, based on the activities addressed in the specific procedure, predesignated in writing by the Site General Manager.</p>	<p>The position of Site Vice President was only applicable to Palisades</p>	<p>Editorial.</p>
68	<p>6.2.2 (Page 23)</p> <p>d. Instructions and procedures for activities such as fabrication, construction, modification, installation, inspection, test, plant maintenance and operation, and decommissioning which implement the Quality Program.</p> <p>e. Update Final Safety Analysis Report/Updated Final Hazards Safety Report</p> <p>g. Plant Technical Specifications (Palisades)</p> <p>h. Permanently Defueled Technical Specifications (Big Rock Point)</p>	<p>6.2.2d (Pgs 26-27)</p> <p>d. Instructions and procedures for activities such as fabrication, construction, modification, installation, inspection, test, plant/ISFSI maintenance and operation, and decommissioning which implement the Quality Program</p> <p>e UFHSR</p> <p>Deleted and renumbered remaining item.</p> <p>g. Permanently Defueled Technical Specifications</p>	<p>Changed – "plant maintenance" to "plant/ISFSI maintenance" to reflect operation of ISFSI at BRP.</p> <p>Updated Final Safety Analysis Report and Plant Technical Specifications (Palisades) was only applicable to Palisades. Used abbreviation for Updated Final Hazards Safety Report.</p>	<p>Editorial.</p> <p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
69	<p>7.1 (Page 25) REQUIREMENTS Paragraph 1, 3<sup>rd</sup> sentence</p> <p>Objective evidence of quality that demonstrates conformance with specified procurement document requirements is available to the nuclear power plant site prior to reliance on equipment, material or services.</p>	<p>7.1 (Page 28) REQUIREMENTS Paragraph 1, 3<sup>rd</sup> sentence</p> <p>Objective evidence of quality that demonstrates conformance with specified procurement document requirements is available to BRP/ISFSI prior to reliance on equipment, material or services.</p>	<p>Changed "the nuclear power plant site" to "BRP/ISFSI" to reflect operation of the ISFSI at Big Rock Point.</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment. Editorial.</p>
70	<p>9.2.1 (Page 28) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Processes subject to special process controls at Consumers Energy are those for which full verification or characterization by direct inspection is impossible or impractical</p>	<p>9.2.1 (Page 32) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Processes subject to special process controls at BRP/ISFSI are those for which full verification or characterization by direct inspection is impossible or impractical.</p>	<p>Changed "Consumers Energy" to "BRP/ISFSI".</p>	<p>The assignment of new responsibility for ISFSI construction and operation is not a reduction in commitment.</p>
71	<p>9.2.6 (Page 28) Paragraph 1</p> <p>Qualification records are maintained in accordance with Quality Program Description Section 17.</p>	<p>9.2.6 (Page 32) Paragraph 1.</p> <p>Qualification records are maintained in accordance with QPD Section 17.</p>	<p>Abbreviated "Quality Program Description" as "QPD".</p>	<p>Editorial.</p>
72	<p>9.2.7 (Page 28) Paragraph 1</p> <p>The Nuclear Performance Assessment Department audits/assesses special process activities, including qualification activities to assure they are satisfactorily performed.</p>	<p>9.2.7 (Page 32) Paragraph 1</p> <p>The NPAD audits/assesses special process activities, including qualification activities to assure they are satisfactorily performed</p>	<p>Abbreviated "Nuclear Performance Assessment Department" as "NPAD".</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
73	<p>10.2.3 (Page 30) Paragraph 1, 3<sup>rd</sup> sentence</p> <p>The Site Vice President/Site General Manager is responsible for review and concurrence with plant training and qualification programs that are under his direct responsibility.</p> <p>Paragraph 2</p> <p>Training and qualification programs for E&amp;TS personnel who perform inspections, including nondestructive examination, are documented in E&amp;TS procedures.</p>	<p>10.2.3 (Page 34) Paragraph 1, 3<sup>rd</sup> sentence</p> <p>The Site General Manager is responsible for review and concurrence with plant training and qualification programs that are under his direct responsibility.</p> <p>Paragraph 2</p> <p>Training and qualification programs for Environmental and Laboratory Services (E&amp;LS) personnel who perform inspections, including nondestructive examination, are documented in E&amp;LS procedures</p>	<p>The position of Site Vice President was only applicable to Palisades.</p> <p>"E&amp;TS" changed to "E&amp;LS", and words "Environmental and Laboratory Services" added to reflect organizational name change.</p>	<p>Editorial.</p> <p>Editorial.</p>
74	<p>10.2.6 (Page 30) Paragraph 2</p> <p>Independent verification should be designated when the activity/task being verified is necessary to ensure critical characteristics are in conformance with requirements and/or the verification is result of codes, standards, regulations, or commitments.</p>	<p>10.2.6 (Page 35) Paragraph 2</p> <p>Independent verification should be designated when the activity/task being verified is necessary to ensure critical characteristics are in conformance with requirements and/or the verification is the result of codes, standards, regulations, or commitments.</p>	<p>Corrected grammar by adding word "the" before "result of codes,".</p>	<p>Editorial.</p>
75	<p>11.1 (Page 32) REQUIREMENTS Paragraph 1, 3<sup>rd</sup> sentence</p> <p>The test program includes qualification (as applicable), acceptance, pre-operation, start-up, surveillance, and maintenance tests</p>	<p>11.1 (Page 37) REQUIREMENTS Paragraph 1, 3<sup>rd</sup> sentence</p> <p>The test program includes qualification (as applicable), acceptance, surveillance, and maintenance tests.</p>	<p>Deleted "pre-operational, start-up," as they applied to Palisades only in this section. Big Rock Point is not licensed to start-up or operate.</p>	<p>Deletion of Palisades' information has no impact on Big Rock Point's commitments. This is not a reduction in commitment</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
76	<p>11.2.2 (Page 32)</p> <p>a. Pre-operational tests to assure proper and safe operation of systems and equipment prior to start-up tests or operation (Palisades Only).</p> <p>b. Start-up tests, including precritical, criticality, low-power, and power ascension tests, performed after refueling to assure proper and safe operation of systems and equipment. (Palisades Only)</p>	<p>11.2.2c &amp; d</p> <p>Removed sections c &amp; d in their entirety and renumbered remaining sections.</p>	<p>Removal of information related only to Palisades.</p>	<p>Deletion of Palisades' information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
77	<p>18.2.9 (Page 44) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Audit data are analyzed by the Nuclear Performance Assessment Department.</p>	<p>18.2.9 (Page 49) Paragraph 1, 1<sup>st</sup> sentence</p> <p>Audit data are analyzed by the NPAD.</p>	<p>Abbreviated "Nuclear Performance Assessment Department" as "NPAD".</p>	<p>Editorial</p>
78	<p>18.2.10 (Page 44) Paragraph 1, 2<sup>nd</sup> sentence</p> <p>Follow-up for internal audits is performed by the Nuclear Performance Assessment Department to ensure that appropriate corrective action is taken and is effective</p>	<p>18.2.10 (Page 49) Paragraph 1, 2<sup>nd</sup> sentence</p> <p>Follow-up for internal audits is performed by the NPAD to ensure that appropriate corrective action is taken and is effective.</p>	<p>Abbreviated "Nuclear Performance Assessment Department" as "NPAD".</p>	<p>Editorial</p>
79	<p>APPENDIX A, Part 1 (Page 46) Item #21</p> <p>21. 10 CFR 50, Appendix R, Fire protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979, Sections III G., III j. and III O. (Not applicable to Big Rock Point)</p>	<p>APPENDIX A, Part 1 (Page 51) #21</p> <p>Removed in its entirety, and renumbered remaining item</p>	<p>Removal of information related only to Palisades.</p>	<p>Deletion of Palisades' information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
80	<p>APPENDIX A, Part 2 (Page 47) #2 – <u>Exception/Interpretation</u></p> <p>Consumers Energy has established an organizational unit, Nuclear Performance Assessment Department, for independent review activities.</p> <p>The standard numeric and qualification requirements may not be met by the Nuclear Performance Assessment Department staff. Procedures will be established to specify how NPAD will acquire necessary expertise to carry out its review responsibilities in accordance with Appendix C, Independent Safety Review.</p>	<p>APPENDIX A, Part 2 (Page 52) #2 – <u>Exception/Interpretation</u></p> <p>Consumers Energy has established an organization, the Restoration Safety Review Committee, (RSRC) for independent review activities.</p> <p>The standard numeric and qualification requirements may not be met by the RSRC. Procedures will be established to specify how the RSRC will require necessary expertise to carry out its review responsibilities in accordance with Appendix C, Restoration Safety Review Committee.</p>	<p>Reflects the change from an organizational unit to a standing committee for independent review activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)</p>
81	<p>APPENDIX A, Part 2 (Page 48) #2a – <u>Exception/Interpretation</u></p> <p>Since Consumers Energy has more than one nuclear unit and more than one organization providing services to these units, overall responsibility cannot be centralized in a single on-site position. Instead, responsibilities are as designated within the Quality Program Description</p>	<p>APPENDIX A, Part 2 (Page 53) #2a – <u>Exception/Interpretation</u></p> <p>Since Consumers Energy has more than one organization providing services to BRP/ISFSI, overall responsibility cannot be centralized in a single on-site position. Instead, responsibilities are as designated within the QPD.</p>	<p>Reflects the organization of the Consumers Energy Company, operation of the ISFSI at Big Rock Point, and replaces "Quality Program Description" with abbreviation "QPD".</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
82	<p>APPENDIX A, Part 2 (Page 48) #2b – <u>Exception/Interpretation</u></p> <p>The Nuclear Performance Assessment Department will not have members specified by number or by technical disciplines and its members may not have the experience and competence required to review problems in all areas listed in this section; however, the Nuclear Performance Assessment Department will function as described in Appendix C, Independent Safety Review, and will acquire the services of personnel having such experience and competence as necessary.</p>	<p>APPENDIX A, Part 2 (Page 53) #2b – <u>Exception/Interpretation</u></p> <p>The RSRC will not have members specified by number or by technical disciplines and its members may not have the experience and competence required to review problems in all areas listed in this section; however, the RSRC will function as described in Appendix C, Restoration Safety Review Committee, and will acquire the services of personnel having such experience and competence as necessary.</p>	<p>Reflects the change from an organizational unit to a standing committee for independent review activities</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)</p>
83	<p>APPENDIX A, Part 2 (Page 48) #2c – <u>Exception/Interpretation</u></p> <p>Subjects requiring review will be as specified in Appendix C, Independent Safety Review.</p>	<p>APPENDIX A, Part 2 (Page 53) #2c – <u>Exception/Interpretation</u></p> <p>Subjects requiring review will be as specified in Appendix C, Restoration Safety Review Committee</p>	<p>Reflects the change from an organizational unit to a standing committee for carrying out independent review activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
84	<p>APPENDIX A, Part 2 (Page 48) #2d – <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The Nuclear Performance Assessment Department will not review Technical Specification Changes after NRC approval prior to implementation.</p>	<p>APPENDIX A, Part 2 (Page 53) #2d – <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The RSRC will not review Technical Specification Changes after NRC approval prior to implementation.</p>	<p>Reflects the change from an organizational unit to a standing committee for carrying out independent review activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
85	<p>APPENDIX A, Part 2 (Page 49) #2e – <u>Exception/Interpretation</u> Paragraph 1</p> <p>The Nuclear Performance Assessment Department shall review or arrange for reviews of those audits over which it has cognizance, in accordance with Appendix C, Independent Safety Review.</p> <p>Some of the audits required during the operational phase are in areas other than those requiring independent review in accordance with ANSI N18.7, Section 4.3.4.</p>	<p>APPENDIX A, Part 2 (Page 54) #2e – <u>Exception/Interpretation</u> Paragraph 1</p> <p>The RSRC shall review or arrange for reviews of those audits over which it has cognizance, in accordance with Appendix C, Restoration Safety Review Committee.</p> <p>Some of the audits required during the operational and decommissioning phase are in areas other than those requiring independent review in accordance with ANSI N18.7, Section 4.3.4.</p>	<p>Reflects the change from an organizational unit to a standing committee for carrying out independent review activities.</p> <p>Added "and decommissioning" to more accurately reflect Big Rock Point activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33 This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)</p>
86	<p>APPENDIX A, Part 2 (Page 49) #2f – <u>Exception/Interpretation</u> Paragraph 1</p> <p>Audits of nuclear facility activities are performed under the cognizance of the Nuclear Performance Assessment Department as described in Appendix C, Independent Safety Review.</p>	<p>APPENDIX A, Part 2 (Page 54) #2f – <u>Exception/Interpretation</u> Paragraph 1</p> <p>Audits of nuclear facility activities are performed under the cognizance of the RSRC as described in Appendix C, Restoration Safety Review Committee</p>	<p>Reflects the change from an organizational unit to a standing committee for carrying out independent review activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
87	<p>APPENDIX A, Part 2 (Page 50) #2h. – <u>Exception/Interpretation</u></p> <p>b. The change is approved by two members (or designated alternates) of the PRC/SRC, at least one of whom holds a Senior Reactor Operators License (Palisades) or is a Certified Fuel Handler (Big Rock Point); and</p> <p>c. The change is documented, subsequently reviewed by the PRC/SRC within 30 days of issuance, and approved by an appropriate* senior department manager predesignated by the Site Vice President/Site General Manager.</p> <p>* Determination of the appropriate senior department manager is based on the activities addressed in the specific procedure, and will be predesignated in writing by the Palisades Plant Site Vice President/Big Rock Point Site General Manager.</p>	<p>APPENDIX A, Part 2 (Page 55) #2h.. – <u>Exception/Interpretation</u></p> <p>b. The change is approved by two members (or designated alternates) of the SRC, at least one of whom is a Certified Fuel Handler; and</p> <p>c. The change is documented, subsequently reviewed by the SRC within 30 days of issuance, and approved by an appropriate* senior department manager predesignated by the Site General Manager.</p> <p>* Determination of the appropriate senior department manager is based on the activities addressed in the specific procedure, and will be predesignated in writing by the Site General Manager.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
88	<p>APPENDIX A, Part 2 (Page 51) #2j. <u>Requirement</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The following standards contain useful guidance concerning design and construction-related activities associated with modifications and shall be applied to those activities occurring during the operational phase that are comparable in nature and extent to related activities occurring during initial plant design and construction:</p>	<p>APPENDIX A, Part 2 (Page 56) #2j. <u>Requirement</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The following standards contain useful guidance concerning design and construction-related activities associated with modifications and shall be applied to those activities that are comparable in nature and extent to related activities occurring during initial plant design and construction:</p>	<p>Deleted "occurring during the operational phase" to more accurately reflect the status of Big Rock Point.</p>	<p>Editorial</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
89	<p>APPENDIX A, Part 2 (Page 54) #2r. – <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>At Consumers Energy, equipment is returned to its normal operating status, i.e., declared operable, by licensed Operations Department personnel, not Maintenance personnel.</p>	<p>APPENDIX A, Part 2 (Page 59) #2r. – <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>At Consumers Energy, equipment is returned to its normal operating status, i.e., declared operable, by qualified Operations Department personnel, not Maintenance personnel.</p>	<p>Replaced "by licensed Operations Department personnel: to "by qualified Operations Department personnel" to reflect that operating licenses are no longer retained by Big Rock Point personnel.</p>	<p>Editorial.</p>
90	<p>APPENDIX A, Part 2 (Page 54) #3a – <u>Exception/ Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>Performance trends are reviewed by the Nuclear Performance Assessment Specialists.</p>	<p>APPENDIX A, Part 2 (Page 60) #3a – <u>Exception/ Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>Performance trends are reviewed by the RSRC.</p>	<p>Reflects the change from an organizational unit to a standing committee for independent review.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
91	<p>APPENDIX A, Part 2 (Page 56) #5b. – <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>Consumers Energy understands that this requirement applies both to Consumers Energy employees from another site and to contract personnel who are temporarily assigned to a nuclear power plant either as replacements for regular employees or to augment the staff during outages.</p>	<p>APPENDIX A, Part 2 (Page 61) #5b. – <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>Consumers Energy understands that this requirement applies both to Consumers Energy employees from another site and to contract personnel who are temporarily assigned to BRP either as replacements for regular employees or to augment the staff.</p>	<p>Replaced "a nuclear power plant" with "BRP", and deleted "during outages" to reflect application of program to only Big Rock Point</p>	<p>Editorial.</p>
92	<p>APPENDIX A, Part 2 (Page 58) #7b. - <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>Offsite inspection, examination, or testing activities are audited or inspected by persons qualified and certified in accordance with ANSI N45.2.23-1978, as endorsed by Reg Guide 1.146, or by personnel meeting the requirements of 10.2.7, respectively.</p>	<p>APPENDIX A, Part 2 (Page 63) #7b. - <u>Exception/Interpretation</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>Offsite inspection, examination, or testing activities are audited or inspected by persons qualified and certified in accordance with ANSI N45.2.23-1978, as endorsed by Regulatory Guide 1.146, or by personnel meeting the requirements of 10.2.7, respectively.</p>	<p>Replaced "Reg Guide" with "Regulatory Guide".</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
93	APPENDIX A, Part 2 (Page 59) #7e. <u>N45 2.2, Sec 5.2.2</u>	APPENDIX A, Part 2 (Page 64) #7e <u>N45 2.2, Sec 5.2.2</u>	Editorial – Word processing format change. No text change.	N/A
94	APPENDIX A, Part 2 (Page 60) #9a. - <u>Exception/Interpretation</u> Paragraph 1, 1 <sup>st</sup> sentence  During the operations phase, this requirement is considered to be applicable to modifications and initial start-up of electrical equipment.	APPENDIX A, Part 2 (Page 66) #9a. - <u>Exception/Interpretation</u> Paragraph 1, 1 <sup>st</sup> sentence  During the decommissioning phase, this requirement is considered to be applicable to modifications and initial start-up of electrical equipment.	Replaced "operations" with "decommissioning" to reflect current condition of Big Rock Point.	Editorial
95	APPENDIX A, Part 2 (Page 61) #10b. - <u>Exception/Interpretation</u> Paragraph 1, 2 <sup>nd</sup> sentence  The N18.7 requirements are more applicable to an operating plant.	APPENDIX A, Part 2 (Page 67) #10b. - <u>Exception/Interpretation</u> Paragraph 1, 2 <sup>nd</sup> sentence  The N18.7 requirements are more applicable to a plant undergoing decommissioning	Replace "an operating plant" with "a plant undergoing decommissioning" to reflect current condition of Big Rock Point.	Editorial
96	APPENDIX A, Part 2 (Page 62) #12a. - <u>Exception/Interpretation</u> Paragraph 1, 2 <sup>nd</sup> sentence  Some of these departments have already developed their qualification programs based on ANSI N45.2.6, and provide services throughout the operations phase of Consumers Energy Nuclear Plants.	APPENDIX A, Part 2 (Page 68) #12a. - <u>Exception/Interpretation</u> Paragraph 1, 2 <sup>nd</sup> sentence  Some of these departments have already developed their qualification programs based on ANSI N45.2.6, and provide services throughout the decommissioning of BRP.	Replaced "operations phase of Consumers Energy Nuclear Plants" with "decommissioning of BRP" to reflect current condition of Big Rock Point.	Editorial
97	APPENDIX A, Part 2 (Page 64) #13b - <u>Exception/interpretation</u> Paragraph 1, 1 <sup>st</sup> sentence  During the operations phase, this requirement is considered to be applicable to modifications of mechanical equipment.	APPENDIX A, Part 2 (Page 70) #13b. - <u>Exception/interpretation</u> Paragraph 1, 1 <sup>st</sup> sentence  During the decommissioning phase, this requirement is considered to be applicable to modifications of mechanical equipment.	Editorial Replaced "operations phase" with "decommissioning phase" to reflect current condition of Big Rock Point.	Editorial.

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
98	<p>APPENDIX A, Part 2 (Page 65) #13e. – <u>Requirement</u> Paragraph 1</p> <p>"Installed systems and components shall be cleaned, flushed, and conditioned according to the requirements of ANSI N45.2.1 Special attention shall be given to the following requirements:...." (Requirements are given for chemical conditioning, flushing and process controls.)</p>	<p>APPENDIX A, Part 2 (Page 71) #13e. – <u>Requirement</u> Paragraph 1</p> <p>"Installed systems and components shall be cleaned, flushed, and conditioned according to the requirements:...." (Requirements are given for chemical conditioning, flushing and process controls.)</p>	<p>Deleted redundant information "of ANSI N45.2.1 Special attention shall be given to the following requirements".</p>	<p>No change made to the exception or interpretation of the requirement.</p>
99	<p>APPENDIX A, Part 2 (Page 68) #17b. – <u>Requirement</u> Paragraph 1</p> <p>"Procurement documents shall require that the supplier have a documented quality assurance program that implements portions all of ANSI N45.2 as well as applicable quality assurance program requirements of other nationally recognized codes and standards."</p>	<p>APPENDIX A, Part 2 (Page 74) #17b. – <u>Requirement</u> Paragraph 1</p> <p>"Procurement documents shall require that the supplier have a documented quality assurance program that implements portions of ANSI N45.2 as well as applicable quality assurance program requirements of other nationally recognized codes and standards."</p>	<p>Deleted "all" from phrase "...portions all of ANSI N45.2..."</p>	<p>Editorial</p>
100	<p>APPENDIX A, Part 2 (Page 70) #21a – <u>Exception/Interpretation</u> Paragraph 1</p> <p>Both Consumers Energy nuclear plants (Big Rock Point and Palisades) were designed, constructed and licensed based on criteria available prior to Revision 3 of this Regulatory Guide being issued. The specific design criteria and seismic designations are reflected in the UFHSR and UFSAR, respectively, and in other docketed analysis. Thus the design bases and seismic designations do not correspond to those of Regulatory Guide 1.29.</p>	<p>APPENDIX A, Part 2 (Page 77) #21a – <u>Exception/Interpretation</u> Paragraph 1</p> <p>BRP was designed, constructed and licensed based on criteria available prior to Revision 3 of this Regulatory Guide being issued. The specific design criteria and seismic designations are reflected in the UFHSR and in other docketed analysis. Thus the design bases and seismic designations do not correspond to those of Regulatory Guide 1.29.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments This is not a reduction in commitment</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
101	<p>APPENDIX B (Page 72) Title</p> <p>OPD MANUAL APPENDIX B PLANT REVIEW COMMITTEE (PALISADES) SAFETY REVIEW COMMITTEE (SRC) (BIG ROCK POINT)</p>	<p>APPENDIX B (Page 79) Title</p> <p>APPENDIX B SAFETY REVIEW COMMITTEE (SRC) (BIG ROCK POINT)</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
102	<p>APPENDIX B (Page 72) #B1. – <u>FUNCTION</u> Paragraph 1</p> <p>The Plant Review Committee (PRC)/Safety Review Committee (SRC) shall function to advise the Site Vice President/Site General Manager on all matters related to nuclear safety.</p>	<p>APPENDIX B (Page 79) #B1. – <u>FUNCTION</u> Paragraph 1</p> <p>The Safety Review Committee (SRC) shall function to advise the Site General Manager on all matters related to nuclear safety.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
103	<p>APPENDIX B (Page 72) #B2. – <u>COMPOSITION</u> Paragraph 1</p> <p>The Palisades PRC is composed of nine regular members. The qualification level for PRC members shall be at least equivalent to those described in Section 4.4 of ANSI N18.1-1971. The PRC shall include representatives from the Operations, Radiological Services, Maintenance and Engineering Departments. The Chairman, Alternate Chairmen, and members shall be designated in administrative procedures by the Site Vice President.</p>	<p>APPENDIX B (Page 79) #B2. – <u>COMPOSITION</u></p> <p>Removed in its entirety – related to Palisades PRC only</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
104	<p>APPENDIX B (Page 72) #B2. – <u>COMPOSITION</u> Paragraph 2, 1<sup>st</sup> sentence</p> <p>The Big Rock Point SRC is composed of a Chairman and a minimum of four members from the Big Rock Point staff.</p>	<p>APPENDIX B (Page 79) #B2. – <u>COMPOSITION</u> Paragraph 2, 1<sup>st</sup> sentence</p> <p>The BRP SRC is composed of a Chairman and a minimum of four members from the BRP staff.</p>	<p>Editorial – "BRP" substituted for "Big Rock Point".</p>	<p>Editorial.</p>
105	<p>APPENDIX B (Page 72) #B2. – <u>COMPOSITION</u> Paragraph 2, 3<sup>rd</sup> and 4<sup>th</sup> sentences</p> <p>The SRC shall include representatives from the Operations, Engineering, Radiation Protection and Environmental, and Nuclear Fuel Projects Departments. The members shall be designated in administrative procedures by the Site General Manager.</p>	<p>APPENDIX B (Page 79) #B2. – <u>COMPOSITION</u> Paragraph 2, 3<sup>rd</sup> and 4<sup>th</sup> sentences</p> <p>The SRC shall include representatives from the Operations, Engineering and Licensing, and Radiation Protection and Environmental Services. The members shall be designated in writing, by the Site General Manager.</p>	<p>Changed "Engineering," to "Engineering and Licensing, and", and replaced "Environmental, and Nuclear Fuel Projects Departments", with "Environmental Services" to reflect current organization of Big Rock Point.</p> <p>Replaced "administrative procedures" with ", writing,".</p>	<p>Editorial.</p> <p>Editorial.</p>
106	<p>APPENDIX B (Page 72) #B3. – <u>ALTERNATIVES</u> Paragraph 1</p> <p>Alternate members of the PRC/SRC shall be appointed in writing by the PRC/SRC Chairman to serve on a temporary basis. No more than two alternates shall participate as voting members at any one time in Palisades PRC activities, nor more than one alternate in Big Rock Point SRC activities.</p>	<p>APPENDIX B (Page 79) #B3 – <u>ALTERNATIVES</u> Paragraph 1</p> <p>Alternate members of the SRC shall be appointed in writing by the SRC Chairman to serve on a temporary basis. No more than one alternate shall participate as a voting member at any one time in BRP SRC activities.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
107	<p>APPENDIX B (Page 72) #B4. – <u>MEETING FREQUENCY</u></p> <p>The Palisades PRC shall meet at least once per calendar month with special meetings as required.</p> <p>The Big Rock Point SRC shall meet at least monthly while fuel is stored in the spent fuel pool during the pre-dismantlement and dismantlement phases. During the safe storage phase (no fuel in the spent fuel pool), SRC shall meet at least quarterly.</p>	<p>APPENDIX B (Page 79) #B4. – <u>MEETING FREQUENCY</u></p> <p>Removed in its entirety – related to Palisades only.</p> <p>The BRP SRC shall meet at least monthly while fuel is stored in the spent fuel pool during the pre-dismantlement and dismantlement phases During the safe storage phase (no fuel in the spent fuel pool), SRC shall meet at least quarterly.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Editorial – "BRP" substituted for "Big Rock Point".</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p> <p>Editorial</p>
108	<p>APPENDIX B (Page 72) #B5. – <u>QUORUM</u></p> <p>A quorum of the Palisades PRC shall consist of the Chairman or alternate and four members or alternates. A quorum of the Big Rock Point SRC shall consist of the Chairman or alternate Chairman and two members or alternates.</p>	<p>APPENDIX B (Page 79) #B5. – <u>QUORUM</u></p> <p>A quorum of the BRP SRC shall consist of the Chairman or alternate Chairman and two members, which may not include more than one alternate member.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Editorial – "BRP" substituted for "Big Rock Point".</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p> <p>Editorial.</p>
109	<p>APPENDIX B (page 72) #B6. – <u>RESPONSIBILITIES</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The PRC/SRC shall be responsible for nuclear safety review of.</p>	<p>APPENDIX B (Page 79) #B6. – <u>RESPONSIBILITIES</u> Paragraph 1, 1<sup>st</sup> sentence</p> <p>The SRC shall be responsible for nuclear safety review of.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
110	<p>APPENDIX B (Page 73) #B6.a – <u>RESPONSIBILITIES</u> Paragraph 1</p> <p>a. All procedures and programs specified by the Technical Specifications and changes thereto, and any other procedures or changes thereto as determined by the Site Vice President/Site General Manager to affect nuclear safety; all proposed tests or experiments that affect nuclear safety; all proposed changes or modifications to plant systems or equipment that affect nuclear safety.</p>	<p>APPENDIX B (Page 79) #B6.a. – <u>RESPONSIBILITIES</u> Paragraph 1</p> <p>a All procedures and programs specified by the Technical Specifications and changes thereto, and any other procedures or changes thereto as determined by the Site General Manager to affect nuclear safety; all proposed tests or experiments that affect nuclear safety; all proposed changes or modifications to plant systems or equipment or the ISFSI that affect nuclear safety.</p>	<p>Information related to Palisades (Site Vice President) was removed from the Big Rock Point Specific Program.</p> <p>Added "ISFSI" to reflect current condition of Big Rock Point.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p> <p>Editorial.</p>
111	<p>APPENDIX B (Page 73) #B6.b. – <u>RESPONSIBILITIES</u> Paragraph 1</p> <p>All proposed changes to Operating License and Technical Specifications.</p>	<p>APPENDIX B (Page 79) #B6.b. – <u>RESPONSIBILITIES</u> Paragraph 1</p> <p>All proposed changes to Operating License, the ISFSI License, Technical Specifications, and the Spent Fuel Storage System Certificate of Compliance.</p>	<p>Added "ISFSI License" and "Spent Fuel Storage System Certificate of Compliance" to reflect current condition of Big Rock Point.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>
112	<p>APPENDIX B (Page 73) #B6.c. – <u>RESPONSIBILITIES</u> Paragraph 1, 2<sup>nd</sup> sentence</p> <p>(A report shall be prepared covering evaluation and recommendations to prevent recurrence and be forwarded to the Vice President – NFHO and to the Manager, Nuclear Performance Assessment Department (NPAD))</p>	<p>APPENDIX B (Page 80) #B6.c. – <u>RESPONSIBILITIES</u> Paragraph 1, 2<sup>nd</sup> sentence</p> <p>(A report shall be prepared covering evaluation and recommendations to prevent recurrence and be forwarded to the Vice President, NFHO, the Manager, NPAD, and the RSRC)</p>	<p>Deleted name "Nuclear Performance Assessment Department" and added "RSRC" to reflect current condition of Big Rock Point.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
113	<p>APPENDIX B (Page 73) #B6.d. – <u>RESPONSIBILITIES</u></p> <p>Plant operations to detect potential safety hazards.</p>	<p>APPENDIX B (Page 80) #B6 d. – <u>RESPONSIBILITIES</u></p> <p>Plant/ISFSI operations to detect potential safety hazards.</p>	<p>Added "ISFSI" to reflect current condition of Big Rock Point.</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
114	<p>APPENDIX B (Page 73) #B6.e. – <u>RESPONSIBILITIES</u></p> <p>Reports of special reviews and investigations as requested by the Site Vice President/Site General Manager or NPAD.</p>	<p>APPENDIX B (Page 80) #B6.e. – <u>RESPONSIBILITIES</u></p> <p>Reports of special reviews and investigations as requested by the Site General Manager, the Manager, NPAD, or RSRC.</p>	Deleted "Site Vice President" and added "RSRC" to reflect current condition of Big Rock Point.	There is no reduction in commitment as this change meets the intent of 10 CFR 50.54(a)(3)(vi).
115	<p>APPENDIX B (Page 73) #B6.g. – <u>RESPONSIBILITIES</u></p> <p>All reportable events as defined in 10 CFR 50.72 and 50.73.</p>	<p>APPENDIX B (Page 80) #B6.g. – <u>RESPONSIBILITIES</u></p> <p>All reportable events as defined in 10 CFR 50.72, 50.73, 72.74, and 72.75</p>	Added "72.74, and 72.75" to reflect current condition of Big Rock Point.	The addition of new information and commitments is not a reduction in commitment
116	<p>APPENDIX B (Page 73) #B6.h – <u>RESPONSIBILITIES</u></p> <p>All items identified under B9 3 below as significant to nuclear safety (Palisades only)</p>	<p>APPENDIX B (Page 80) #B6.h. – <u>RESPONSIBILITIES</u></p> <p>Removed in its entirety; related to Palisades only. Remaining items renumbered.</p>	Information related to Palisades was removed from the Big Rock Point Specific Program.	Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.
117	<p>APPENDIX B (Page 73) #B6.i. – <u>RESPONSIBILITIES</u></p> <p>Monthly reports from Safety/Design Review (Palisades only).</p>	<p>APPENDIX B (Page 80) #B6.i. – <u>RESPONSIBILITIES</u></p> <p>Removed in its entirety, related to Palisades only. Remaining items renumbered.</p>	Information related to Palisades was removed from the Big Rock Point Specific Program.	Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.
118	<p>APPENDIX B (Page 73) #B6.k. – <u>RESPONSIBILITIES</u> Paragraph 1</p> <p>Review of any accidental, unplanned or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Site General Manager and to the Manager, Nuclear Performance Assessment Department (Big Rock Pont only).</p>	<p>APPENDIX B (Page 80) #B6.i. – <u>RESPONSIBILITIES</u> Paragraph 1</p> <p>Review of any accidental, unplanned or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Site General Manager, the Manager, NPAD, and RSRC</p>	Deleted words "and to", "Nuclear Performance Assessment Department (Big Rock Pont only)". Replaced words with ", The Manager, NPAD, and RSRC".	Editorial

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
119	<p>APPENDIX B (page 73) #B6. – <u>RESPONSIBILITIES</u> Last paragraph</p> <p>PRC/SRC review of the above items may be performed by routing, subject to the requirements of B7. below. The Palisades PRC may delegate review of items a. and f. to Safety/Design Review staff, as described in B9. below.</p>	<p>APPENDIX B (Page 80) #B6. – <u>RESPONSIBILITIES</u> Last paragraph</p> <p>SRC review of the above items may be performed by routing, subject to the requirements of B7. below.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
120	<p>APPENDIX B (Page 73) #B7. – <u>AUTHORITY</u></p> <p>The PRC/SRC shall:</p>	<p>APPENDIX B (Page 80) #B7. – <u>AUTHORITY</u></p> <p>The SRC shall:</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
121	<p>APPENDIX B (Page 73) #B7.a. – <u>AUTHORITY</u></p> <p>Recommend in writing to the Site Vice President/Site General Manager approval or disapproval of items considered under B6.a. through j. above.</p>	<p>APPENDIX B (Page 80) #B7.a. – <u>AUTHORITY</u></p> <p>Recommend in writing to the Site General Manager approval or disapproval of items considered under B6.a. through i. above.</p>	<p>Deleted "Site Vice President/" and changed "j." to "i."</p>	<p>Editorial.</p>
122	<p>APPENDIX B (Page 73) #B7.b. – <u>AUTHORITY</u></p> <p>Render determinations in writing with regard to whether or not each item considered under B6.a, b, c, f (Palisades only) and h above constitutes an unreviewed safety question.</p>	<p>APPENDIX B (Page 80) #B7.b. – <u>AUTHORITY</u></p> <p>Render determinations in writing with regard to whether or not each item considered under B6.a, b, and c, above needs prior NRC approval.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Also, reflects changes to 10CFR50.59, which discontinued use of the term "unreviewed safety question."</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment</p> <p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
123	<p>APPENDIX B (Page 73) #B7.c. – <u>AUTHORITY</u></p> <p>Provide written notification within 24 hours to the Senior Vice President – Nuclear, Fossil, and Hydro Operations and to the Nuclear Performance Assessment Department of any disagreements between the PRC/SRC and the Site Vice President/Site General Manager; however, the Site Vice President/Site General Manager shall have responsibility for the resolution of such disagreements.</p>	<p>APPENDIX B (Page 80) #B7.c. – <u>AUTHORITY</u></p> <p>Provide written notification within 24 hours to the Senior Vice President, NFHO, the Manager, NPAD, and RSRC of any disagreements between the SRC and the Site General Manager; however, the Site General Manager shall have responsibility for the resolution of such disagreements.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Remaining position titles and departmental names were abbreviated, and "RSRC" added.</p>	<p>Deletion of Big Rock Point information has no impact on Palisades' commitments. This is not a reduction in commitment.</p> <p>Editorial.</p>
124	<p>APPENDIX B (Page 74) #B7. – <u>AUTHORITY</u> Paragraph 5</p> <p>The PRC/SRC Chairman may recommend to the Site Vice President/Site General Manager approval of those items identified in B6. above based on a routing review provided the following conditions are met:</p>	<p>APPENDIX B (Page 81) #B7. – <u>AUTHORITY</u> Paragraph 5</p> <p>The SRC Chairman may recommend to the Site General Manager approval of those items identified in B6, above based on a routing review provided the following conditions are met:</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Big Rock Point information has no impact on Palisades' commitments. This is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
125	<p>APPENDIX B (Page 74) #B7. – <u>AUTHORITY</u> Paragraph 5 –</p> <p><u>For Palisades:</u></p> <p>(1) at least five PRC members including the Chairman and no more than 2 alternates, shall review the item, concur with determination as to whether or not the item constitutes an unreviewed safety question, and provide written comments on the item; (2) all comments shall be resolved to the satisfaction of the reviewers providing the comments; and (3) if the PRC Chairman determines that the comments are significant, the item (including comments and resolutions) shall be recirculated to all reviewers for additional comments</p>	<p>APPENDIX B (Page 81) #B7. – <u>AUTHORITY</u> Paragraph 5</p> <p>Removed in its entirety – related to Palisades only</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
126	<p>APPENDIX B (Page 74) #B7. – <u>AUTHORITY</u> Paragraph 6 – <u>For Big Rock Point:</u></p> <p>(1) at least three SRC members, including the Chairman and not more than one alternate, shall review the item, concur with determination as to whether or not the item constitutes an unreviewed safety question, and provide written comments on the item; (2) all comments shall be resolved to the satisfaction of the reviewers providing the comments; and (3) if the SRC Chairman determines that the comments are significant, the item (including comments and resolutions) shall be recirculated to all reviewers.</p>	<p>APPENDIX B (Page 81) #B7. – <u>AUTHORITY</u> Paragraph 6</p> <p>(1) at least three SRC members, including the Chairman and not more than one alternate, shall review the item, concur with determination as to whether or not the item requires prior NRC approval, and provide written comments on the item; (2) all comments shall be resolved to the satisfaction of the reviewers providing the comments; and (3) if the SRC Chairman determines that the comments are significant, the item (including comments and resolutions) shall be recirculated to all reviewers.</p>	<p>Removed "For Big Rock Point:" heading; "item constitutes an unreviewed safety questions", replaced with "item requires prior NRC approval"</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
127	<p>APPENDIX B (Page 74) #B7. – <u>AUTHORITY</u> Last Paragraph</p> <p>The item shall be reviewed at PRC/SRC meeting in the event that: (1) Comments are not resolved; or (2) the Site Vice President/Site General Manager overrides the recommendations of the PRC/SRC; or (3) a proposed change to the Technical Specifications involves a safety limit, a limiting safety system setting or a limiting condition for operation; or (4) the item was reportable to the NRC</p>	<p>APPENDIX B (Page 81) #B7. – <u>AUTHORITY</u> Last Paragraph</p> <p>The item shall be reviewed at SRC meeting in the event that: (1) Comments are not resolved; or (2) the Site General Manager overrides the recommendations of the SRC; or (3) a proposed change to the Technical Specifications involves a safety limit, a limiting safety system setting or a limiting condition for operation; or (4) the item was reportable to the NRC.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.</p>
128	<p>APPENDIX B (Page 74) #B8. – <u>RECORDS</u> Paragraph 1</p> <p>The PRC/SRC shall maintain written minutes of each PRC/SRC meeting and shall provide copies for Independent Safety Review.</p>	<p>APPENDIX B (Page 81) #B8. – <u>RECORDS</u> Paragraph 1</p> <p>The SRC shall maintain written minutes of each SRC meeting and shall provide copies to the RSRC.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Replaced "Independent Safety Review" with "RSRC" to reflect current Big Rock Point organization.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point' commitments. This is not a reduction in commitment.</p> <p>Editorial.</p>
129	<p>APPENDIX B (Page 74 and 75) #B9. <u>TECHNICAL SUPPORT FOR PALISADES PRC</u></p> <p>Sections B9.1-B9.4 removed in their entirety.</p>	<p>APPENDIX B (Page 81) #B9.</p> <p>Removed in its entirety – relates to Palisades only</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment</p>
130	<p>APPENDIX C, (Page 76) Title</p> <p>OPD MANUAL APPENDIX C INDEPENDENT SAFETY REVIEW</p>	<p>APPENDIX C, (Page 82) Title</p> <p>APPENDIX C RESTORATION SAFETY REVIEW COMMITTEE</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p>	<p>As described in Appendix C, the standing committee meets ANSI N18.7 requirements as endorsed by Regulatory Guide 1.33. This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi)</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
131	<p>APPENDIX C (Page 76) Table</p> <p><u>Paragraph</u>    <u>Exceptions/Interpretations</u></p> <p>C1.            2c, C4.1(d)    2d, C4.1(k)    2e, 2f</p>	<p>APPENDIX C (Page 82) Table</p> <p><u>Paragraph</u>    <u>Exceptions/Interpretations</u></p> <p>C1.            2, 2c, C2            2, 22 C3            2, 2b, 22 C4.1          2c C4.1(b)    2d, C4.1(i)    2e, 2f</p>	<p>Added to the Table – 1) item C1 Exception/Interpretation 2 (describes use of RSRC), 2) C2 with Exception/Interpretation 2 (describes use of RSRC) and 22 (qualification of restoration safety review function personnel), 3) C3 – same as C2 plus 2b (how Big Rock Point meets N18.7 section 4.3.1; 4); C4.1 – same as C1; and 5) moves C4.1 (d) to C4.1 (b) and C4.1 (k) to C4.1 (i), respectively.</p>	<p>ANSI/ANS N18.7-1976, as endorsed by Regulatory Guide 1.33 Rev. 2, provides requirements for independent review to be conducted by an organizational unit or a standing committee. The CPC-2A changes describing Big Rock Point change to an Restoration Safety Review Committee (RSRC) from an Independent Safety Review Group (ISRG) is not a reduction in commitment because the new RSRC, as described, meets the N18.7 requirements for a standing committee.</p>
132	<p>APPENDIX C (Page 76) C1. – <u>FUNCTION</u></p> <p>The Independent Safety Review Group (ISRG) shall function to provide independent review of activities in the areas of:</p> <p>a. Nuclear power plant operation/decommissioning b. Nuclear engineering c. Chemistry and radiochemistry d. Metallurgy e. Nondestructive testing f. Instrumentation and control g. Radiological safety h. Mechanical and electrical engineering i. Administrative controls and quality assurance practices j. Emergency Planning k. Training</p>	<p>APPENDIX C (Page 82) C1. – <u>FUNCTION</u></p> <p>The Restoration Safety Review Committee (RSRC) shall function to provide independent review of activities in the areas of.</p> <p>a. Nuclear power plant operation/decommissioning b. Nuclear engineering c. Chemistry and radiochemistry d. Metallurgy e. Nondestructive testing f. Instrumentation and control g. Radiological safety h. Mechanical and electrical engineering i. Administrative controls and quality assurance practices j. Emergency Planning k. Training</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
133	<p>APPENDIX C (Page 76) C2. – <u>COMPOSITION</u></p> <p>The ISRG shall include the Manager, NPAD, who reports to the Vice President – NFHO, and a full-time staff of persons reporting to the Manager, NPAD and designated as Nuclear Performance Specialists for the ISR function. The Manager, NPAD, and the Nuclear Performance Specialists shall meet or exceed the qualifications described in Section 4.7 of ANSI/ANS 3.1-1987. The ISRG shall have no direct responsibility for activities subject to its review.</p>	<p>APPENDIX C (Page 82) C2. – <u>COMPOSITION</u></p> <p>The RSRC shall report to the Senior Vice President, NFHO and shall consist of a Chairman and members appointed by the Senior Vice President – NFHO. RSRC members shall meet or exceed the qualifications described in Section 4.7 of ANSI/ANS 3.1-1987. The RSRC members shall have no direct responsibility for activities subject to their review.</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p>	<p>ANSI/ANS N18.7-1976, as endorsed by Regulatory Guide 1.33 Rev. 2, provides requirements for independent review to be conducted by an organizational unit or a standing committee. The CPC-2A changes describing Big Rock Point change to a Restoration Safety Review Committee (RSRC) from an Independent Safety Review Group (ISRG) is not a reduction in commitment because the new RSRC, as described, meets the N18.7 requirements for a standing committee.</p>
134	<p>APPENDIX C (Page 76) C3. – <u>CONSULTANTS</u></p> <p>If sufficient expertise is not available within the ISRG to review particular issues, the ISRG shall have the authority to utilize consultants or other qualified organizations for expert advice.</p>	<p>APPENDIX C (Page 82 and 83) C3. – <u>SUPPORT PERSONNEL</u></p> <p>If sufficient expertise is not available within the RSRC to review particular issues, the RSRC shall have the authority to utilize consultants or other qualified organizations for expert advice. Support personnel shall meet or exceed the qualifications described in Section 4.7 of ANSI/ANS 3.1-1987. Support personnel shall have no direct responsibility for activities they review.</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p> <p>Maintains qualification requirements and prohibits support personnel from having direct responsibility for activities assigned for review.</p>	<p>ANSI/ANS N18.7-1976, as endorsed by Regulatory Guide 1.33 Rev. 2, provides requirements for independent review to be conducted by an organizational unit or a standing committee. The CPC-2a changes describing Palisades change to an Off-Site Safety Review Committee (OSRC) from an Independent Safety Review Group (ISRG) is not a reduction in commitment because the new OSRC, as described, meets the N18.7 requirements for a standing committee.</p>
135	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u></p> <p>The ISRG shall review.</p>	<p>APPENDIX C (Page 83) C4.1 – <u>REVIEW</u></p> <p>The RSRC shall review.</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
136	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u> C4.1a., b., &amp; c.</p> <p>a. The safety evaluations for: 1) changes to procedures, equipment or systems, and 2) tests or experiments completed under the provisions of 10 CFR 50.59 to verify that such actions do not constitute an unreviewed safety question.</p> <p>b Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in 10 CFR 50.59.</p> <p>c. Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50 59.</p>	<p>APPENDIX C (Page 83) C4.1 – <u>REVIEW</u> C4.1a.</p> <p>a. 50.59 and 72.48 evaluations for proposed changes in the facility, procedures or conduct of tests or experiments completed under the provisions of 10 CFR 50.59 and 72.48 to verify that an acceptable safety analysis is provided and prior NRC approval was requested as required by 10 CFR 50.59 and 72 48</p>	<p>Adds 72.48 evaluations to reflect operation of ISFSI at Big Rock Point.</p> <p>Replaced notion of unreviewed safety questions with concept of prior NRC approval requested.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p> <p>Editorial</p>
137	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u> C4.1d.</p> <p>d. Proposed changes to Technical Specifications or the Operating License.</p>	<p>APPENDIX C (Page 83), C4.1 – <u>REVIEW</u> C4.1b. &amp; c.</p> <p>b. Proposed changes to Technical Specifications, the ISFSI License, or the Spent Fuel Cask Storage System Certificate of Compliance to verify that the changes are consistent with applicable requirements and that an acceptable safety analysis is provided.</p> <p>c. Proposed changes to the Operating License.</p>	<p>Adds 72.48 evaluations to reflect operation of ISFSI at Big Rock Point.</p> <p>Separates Technical Specification and the Operating License to two paragraphs (b and c).</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p> <p>Editorial</p>
138	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u></p> <p>C4.1e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance</p>	<p>APPENDIX C (Page 83) C4.1 – <u>REVIEW</u></p> <p>C4.1d. Violations of codes, regulations, orders, Technical Specifications, license requirements, Cask Storage System Certificate of Compliance, or of internal procedures or instructions having nuclear safety significance.</p>	<p>Adds "Cask Storage System Certificate of Compliance" to reflect operation of ISFSI at Big Rock Point.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
139	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u></p> <p>C4.1f. Significant operating abnormalities or deviations from normal and expected performance of unit equipment that affects nuclear safety.</p>	<p>APPENDIX C (Page 83) C4.1 – <u>REVIEW</u></p> <p>C4.1e. Significant operating abnormalities or deviations from normal and expected performance of unit equipment or the ISFSI that affects nuclear safety.</p>	<p>Added "or the ISFSI" to reflect conditions at Big Rock Point.</p>	<p>Editorial.</p>
140	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u></p> <p>C4.1i. Reports and meeting minutes of the Plant Review Committee/Safety Review Committee.</p>	<p>APPENDIX C (Page 83) C4.1 – <u>REVIEW</u></p> <p>C4.1h. Reports and meeting minutes of the SRC.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Abbreviated Safety review Committee as "SRC".</p>	<p>Deletion of Palisades information has no impact on Big Rock Point' commitments. This is not a reduction in commitment.</p> <p>Editorial.</p>
141	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u></p> <p>C4.1j. Fire Protection Program and Implementing Procedure Changes (Palisades only).</p>	<p>APPENDIX C (Page 83) C4.1 – <u>REVIEW</u></p> <p>C4.1j. Removed in its entirety. Remaining item renumbered</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p>	<p>Deletion of Palisades information has no impact on Big Rock Point' commitments. This is not a reduction in commitment.</p>
142	<p>APPENDIX C (Page 77) C4.1 – <u>REVIEW</u> Last Paragraph, 1<sup>st</sup> &amp; 2<sup>nd</sup> sentences</p> <p>ISRG review of the subjects in C4 above shall be performed by an assigned Nuclear Performance Specialist selected on the basis of technical expertise relative to the subject being reviewed. If the assigned Nuclear Performance Specialist determines the need for interdisciplinary review, a committee consisting of the Manager, NPAD, or his designate, and at least four Nuclear Performance Specialists, shall be assigned.</p>	<p>APPENDIX C (Page 83)    C4.1 – <u>REVIEW</u> Last Paragraph, 1<sup>st</sup> &amp; 2<sup>nd</sup> sentences</p> <p>RSRC review of the subjects in C4 above shall be performed by members or support personnel selected on the basis of technical expertise relative to the subject being reviewed. If the assigned reviewer determines the need for interdisciplinary review, a committee consisting of the RSRC Chairman, or his designate, and at least four RSRC members or qualified support personnel, shall be assigned.</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
143	<p>APPENDIX C (Page 77) C5 – <u>AUTHORITY</u></p> <p>The ISRG shall report to and advise the Vice-President, NFHO, of significant findings associated with those areas of responsibility specified in C4 above and Appendix D, Audit Frequencies.</p>	<p>APPENDIX C (Page 84) C5 – <u>AUTHORITY</u></p> <p>The RSRC shall report to and advise the Senior Vice-President, NFHO, of significant findings associated with those areas of responsibility specified in C4 above and Appendix D, Audit Frequencies.</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p> <p>Reflects a title change from "Vice-President, NFHO" to "Senior Vice-President, NFHO".</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p> <p>Editorial.</p>
144	<p>APPENDIX C (Page 77) C6 – <u>RECORDS</u></p> <p>Records of ISRG activities shall be maintained. Reports shall be prepared and distributed as indicated below:</p> <p>a. The results of reviews performed pursuant to C4 above shall be reported to the Vice-President, NFHO, at least monthly.</p> <p>b. A report assessing each plant's overall nuclear safety performance shall be provided to senior Consumers Energy management annually.</p>	<p>APPENDIX C (Page 84) C6 – <u>RECORDS</u></p> <p>Records of RSRC activities shall be maintained. Reports shall be prepared and distributed as indicated below:</p> <p>a. The results of reviews performed pursuant to C4 above shall be reported to the Senior Vice-President, NFHO, at least monthly.</p> <p>b. A report assessing Big Rock's overall nuclear safety performance shall be provided to senior Consumers Energy management annually.</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p> <p>Reflects a title change from "Vice-President, NFHO" to "Senior Vice-President, NFHO".</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p> <p>Editorial.</p>
145	<p>APPENDIX D (Page 79) Title</p> <p>QPD MANUAL APPENDIX D AUDIT FREQUENCIES</p>	<p>APPENDIX D (Page 85) Title</p> <p>APPENDIX D AUDIT FREQUENCIES</p>	<p>Removed "QPD Manual" from the title.</p>	<p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
146	<p>APPENDIX D (Page 79) D1. – <u>AUDITS</u> Paragraph 1</p> <p>Audits of operational and decommissioning activities subject to this Program are performed by the NPAD staff under the cognizance of Nuclear Performance Specialists. These audits encompass:</p>	<p>APPENDIX D (Page 85) D1. – <u>AUDITS</u> Paragraph 1</p> <p>Audits of operational and decommissioning activities subject to this Program are performed by the NPAD staff under the cognizance of the RSRC. These audits encompass:</p>	<p>Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.</p>	<p>This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).</p>
147	<p>APPENDIX D (Page 79) D1a. – <u>AUDITS</u></p> <p>The conformance of plant operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.</p>	<p>APPENDIX D (Page 85) D1.a. – <u>AUDITS</u></p> <p>The conformance of plant operation to provisions contained within the Technical Specifications, applicable license conditions, and the Spent Fuel Storage Cask System Certificate of Compliance at least once per 12 months.</p>	<p>Added, "the Spent Fuel Storage Cask System Certificate of Compliance" to reflect the condition of Big Rock Point.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>
148	<p>APPENDIX D (Page 79) D1.c. – <u>AUDITS</u></p> <p>The performance of activities required by the Quality Program Description for Operational Nuclear Power Plants (CPC-2A) to meet the criteria of 10 CFR 50, Appendix B at least once per 24 months.</p>	<p>APPENDIX D (Page 85) D1.c. – <u>AUDITS</u></p> <p>The performance of activities required by the QPD for Nuclear Power Plants (CPC-2A) to meet the criteria of 10 CFR 50, Appendix B at least once per 24 months.</p>	<p>Abbreviated "Quality Program Description" as "QPD".</p>	<p>Editorial.</p>
149	<p>APPENDIX D (Page 79) D1.f. – <u>AUDITS</u> Paragraph 1</p> <p>Any other area of plant operation considered appropriate by NPAD or the Vice President - NFHO.</p>	<p>APPENDIX D (Page 85) D1.f. – <u>AUDITS</u> Paragraph 1</p> <p>Any other area of plant/ISFSI operation considered appropriate by NPAD or the Senior Vice President, NFHO.</p>	<p>Added, "ISFSI" to reflect the condition of Big Rock Point.</p> <p>Reflects a title change from "Vice-President, NFHO" to "Senior Vice-President, NFHO".</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p> <p>Editorial.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
150	<p>APPENDIX E (Page 80) Title</p> <p>QPD MANUAL APPENDIX E RECORD RETENTION</p>	<p>APPENDIX E (Page 87) Title</p> <p>APPENDIX E RECORD RETENTION</p>	Removed "QPD Manual" from the title.	Editorial.
151	<p>APPENDIX E (Page 80) E1. Paragraph 1</p> <p>In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated:</p>	<p>APPENDIX E (Page 87) E1. Paragraph 1</p> <p>In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated. Where 10CFR 72 or the Part 72 license conditions do not specify a retention period for a record, the records shall be retained until the NRC terminates the license.</p>	Added 2 <sup>nd</sup> sentence to reflect 10CFR 72 record retention requirements.	The addition of new information and commitments is not a reduction in commitment.
152	<p>APPENDIX E (Page 80)</p> <p>E2.c. All reportable events as defined in 10 CFR 50.72 and 50.73.</p>	<p>APPENDIX E (Page 87)</p> <p>E2.c. All reportable events as defined in 10 CFR 50.72, 50.73, 72.74, and 72.75.</p>	Added reference to 72.74, and 72.75.	The addition of new information and commitments is not a reduction in commitment.
153	<p>APPENDIX E (Page 80) E3.</p> <p>The following records shall be retained for the duration of the Facility 10 CFR 50 License:</p>	<p>APPENDIX E (Page 87) E3.</p> <p>The following records shall be retained for the duration of the Facility 10 CFR 50 or Part 72 License:</p>	Added reference to Part 72.	The addition of new information and commitments is not a reduction in commitment.
154	<p>APPENDIX E (Page 80)</p> <p>E3.a. Record and drawing changes reflecting facility design modifications made to systems and equipment described in the Palisades Updated Final Safety Analysis Report or Big Rock Point Updated Final Hazards Summary Report.</p>	<p>APPENDIX E (Page 87)</p> <p>E3.a. Record and drawing changes reflecting facility design modifications made to systems and equipment described in the BRP UFHSR.</p>	<p>Information related to Palisades was removed from the Big Rock Point Specific Program.</p> <p>Abbreviated Big Rock Point Updated Final Hazards Summary Report</p>	<p>Deletion of Palisades information has no impact on Big Rock Point' commitments. This is not a reduction in commitment.</p> <p>Editorial</p>

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155	APPENDIX E (Page 80) E3.g. Records of Quality Assurance activities required by the Quality Program Description.	APPENDIX E (Page 88) E3.g. Records of Quality Assurance activities required by the QPD.	Abbreviated "Quality Program Description" as "QPD".	Editorial.
156	APPENDIX E (Page 80) E3.h. Records of reviews performed for changes made to procedures or equipment, or reviews of tests and experiments pursuant to 10 CFR 50.59 and 10 CFR 50.82.	APPENDIX E (Page 88) E3.h. Records of reviews performed for changes made to procedures or equipment, or reviews of tests and experiments pursuant to 10 CFR 50.59, 10 CFR 50.82 and 72.48.	Added reference to 10 CFR 72.48.	The addition of new information and commitments is not a reduction in commitment.
157	APPENDIX E (Page 80) E3.i. Records of meetings of the PRC/SRC, and reviews performed by NPAD, according to Appendixes B and C.	APPENDIX E (Page 86) E3.i. Records of meetings of the SRC, and reviews performed by the RSRC, according to Appendixes B and C.	Information related to Palisades was removed from the Big Rock Point Specific Program.  Reflects the change from an organizational unit (NPAD) to a standing committee (RSRC) for independent review activities.	Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.  This is not a reduction in commitment per 10 CFR 50.54(a)(3)(vi).
158	APPENDIX E (Page 81) E.3.k Records of secondary water sampling and quality (Palisades only)	APPENDIX E (Page 88) E3.k. Removed in its entirety. Remaining items renumbered.	Information related to Palisades was removed from the Big Rock Point Specific Program.	Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.
159	APPENDIX E (Page 81) E.3.l. – Records of the service lives of all hydraulic and mechanical snubbers covered by Technical Specifications. This shall include the date at which the service life commences and associated installation and maintenance records (Palisades only)	APPENDIX E (Page 88) E3.l. Removed in its entirety. Remaining items renumbered.	Information related to Palisades was removed from the Big Rock Point Specific Program.	Deletion of Palisades information has no impact on Big Rock Point's commitments. This is not a reduction in commitment.

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160	<p>APPENDIX E (Page 81) E4.</p> <p>Blank</p>	<p>APPENDIX E (Page 88) E4. The following records shall be retained as long as the associated material is stored and for a period of five years after the material is transferred out of the ISFSI:</p> <p>a. Records of receipt, inventory (including location), disposal, acquisition, and transfer of all spent fuel and high level waste in storage.</p>	<p>Reflects Big Rock Point ISFSI. Meets the intent of 10 CFR 72.48.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>
161	<p>APPENDIX E (Page 81) E5.</p> <p>Blank</p>	<p>APPENDIX E (Page 88) E5. The following records shall be retained until the NRC terminates the 10 CFR Part 72 General License for the ISFSI:</p> <p>a. Records of the current inventory of all spent fuel and high-level waste. b. Current material control and accounting procedures. c. ISFSI and Cask Storage System records pertaining to the design, fabrication, erection, testing, maintenance, and use of structures systems and components important to safety.</p>	<p>Reflects Big Rock Point ISFSI. Meets the intent of 10 CFR 72.48.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>

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162	<p>APPENDIX E (Page 81) E6.</p> <p>Blank</p>	<p>APPENDIX E (Pages 88-89) E6. The following records shall be retained and forwarded to the appropriate NRC Regional Office prior to the ISFSI General License termination:</p> <p>a. Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment or site. These records may be limited to instances when contamination remains after any clean-up procedures or when there is a reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. The records must include any known information on identification of involved nuclides, quantities, forms, and concentrations.</p> <p>b. As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored, and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.</p>	<p>Reflects Big Rock Point ISFSI. Meets the intent of 10 CFR 72.48.</p>	<p>The addition of new information and commitments is not a reduction in commitment.</p>

Item	Revision 19	Revision 20	Reason for Change	Basis for Conclusion
163	APPENDIX E (Page 81) E6.  Blank	<p>APPENDIX E (Page-89) E6.</p> <p>c. A list contained in a single document and updated no less than every 2 years of the following:</p> <p>(1) All areas designated and formerly designated as restricted areas as defined under 10 CFR 20.1003; and</p> <p>(2) All areas outside of restricted areas that require documentation under 10 CFR 72.30(d)(1).</p> <p>d. Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.</p> <p>e. Records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment. This includes those records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment under the standards for protection against radiation in effect prior to January 1, 1994.</p>	Reflects Big Rock Point ISFSI. Meets the intent of 10 CFR 72.48.	The addition of new information and commitments is not a reduction in commitment.