

## **Enclosure 2**

**MFN 15-038**

### **GEH Response to Item #12**

### **ABWR DCD DRAFT Revision 6 Markup**

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**Table 1.9-1 Summary of ABWR Standard Plant  
COL License Information (Continued)**

Item No.	Subject	Subsection
3.28	ASME Class 2 or 3 Quality Group Components with 60-Year Design Life	3.9.7.2
3.29	Pump and Valve Testing Program	3.9.7.3
3.30	Audits of Design Specifications and Design Reports	3.9.7.4
3.31	Not Used	3.9.7.5
3.32	Not Used	3.9.7.6
3.33	Not Used	3.9.7.7
3.34	Not Used	3.9.7.8
3.35	Not Used	3.9.7.9
3.36	Not Used	3.9.7.10
3.37	Equipment Qualification	3.10.5.1
3.38	Dynamic Qualification Report	3.10.5.2
3.39	Qualification by Experience	3.10.5.3
3.40	Environmental Qualification Document (EQD)	3.11.6.1
3.41	Environmental Qualification Records	3.11.6.2
3.42	Surveillance, Maintenance, and Experience Information	3.11.6.3
3.43	Radiation Environment Conditions	3I.3.3.1
4.1	Thermal Hydraulic Stability	4.3.5.1
4.2	Power/Flow Operating Map	4.4.7.1
4.3	Thermal Limits	4.4.7.2
4.4	CRD Inspection Program	4.5.3.1
4.5	CRD and FMCRD Installation and Verification During Maintenance	4.6.6.1
5.1	<del>Conversion of Indicators</del> <a href="#">Leak Detection Monitoring</a>	5.2.6.1
5.2	Plant Specific ISI/PSI	5.2.6.2
5.3	Reactor Vessel Water Level Instrumentation	5.2.6.3
5.4	Fracture Toughness Data	5.3.4.1
5.5	Materials and Surveillance Capsule	5.3.4.2
5.6	Plant Specific Pressure-Temperature Information	5.3.4.3
5.7	Testing of Mainsteam Isolation Valves	5.4.15.1
5.8	Analyses of 8-hour RCIC Capability	5.4.15.2
5.9	ACIWA Flow Reduction	5.4.15.3

license information). The LDS is equipped with provisions to permit testing for operability and calibration during the plant operation using the following methods:

- (1) Simulation of trip signal.
- (2) Comparing channel to channel of the same leak detection method (i.e., area temperature monitoring).
- (3) Operability checked by comparing one method versus another (i.e., sump fillup rate versus pumpout rate and particulate monitoring or air cooler condensate flow versus sump fillup rate).
- (4) Continuous monitoring of floor drain sump level, and a source of water for calibration and testing is provided.

These satisfy Position C.8 requirements.

Limiting unidentified leakage to 3.785 liters/min and identified leakage to 95 liters/min satisfies Position C.9.

## 5.2.6 COL License Information

### 5.2.6.1 ~~Conversion of Indications~~ Leak Detection Monitoring

~~Procedures and graphs will be provided by the COL applicant to operations for converting the various indicators into a common leakage equivalent (Subsection 5.2.5.9). The COL Applicant will include in its operating procedure development program:~~

- Procedures to convert different parameter indications for identified and unidentified leakage into common leak rate equivalents and leak rate rate-of-change values.
- Procedures for monitoring, recording, trending, determining the source(s) of leakage, and evaluating potential corrective action plans.
- Milestone for completing this category of operating procedures.

The licensee is responsible for the development of a procedure to convert different parameter indications for identified and unidentified leakage common leak rate equivalents (volumetric or mass flow) and leak rate rate-of-change values. Typical monitoring includes parameters such as sump pump run time, sump level, condensate transfer rate, process chemistry/radioactivity. The monitored leakage equivalent provides information used by the plant operators to manage the leakage and establish whether the leakage rates are within the allowable Technical Specifications and determine the trend (Subsection 5.2.5.9).

The licensee is responsible for the development of procedures for monitoring, recording, trending, determining the source(s) of leakage, and evaluating potential corrective action plans.

[An unidentified leakage rate-of-change alarm provides operators an early alert to initiate response actions prior to reaching the Technical Specifications limit.](#)

### 5.2.6.2 Plant-Specific ISI/PSI

COL applicants will submit the complete plant-specific ISI/PSI program. Each applicant will submit or address the following:

- (1) The PSI program should include reference to the edition and addenda of ASME Code Section XI that will be used for selecting of components for examinations, lists of the components subject to examination, a description of the components exempt from examination by the applicable code, and isometric drawings used for the examination.
- (2) Submit plans for preservice examination of the reactor pressure vessel welds to address the degree of compliance with Regulation Guide 1.150.
- (3) Discuss the near-surface examination and resolution with regard to detecting service-induced flaws and the use of electronic gating as related to the volume of material near the surface that is not being examined. Discuss how the internal surfaces (e.g., inner radius of a pipe section and reactor vessel internals) will be examined.
- (4) Submit an acceptable resolution of the information requested regarding the ISI/PSI program.
- (5) Submit all relief requests, if needed, with a supporting technical justification.

### 5.2.6.3 Reactor Vessel Water Level Instrumentation

The COL applicant will design the reactor vessel water level instrumentation flow control system to provide flow rates determined by the results of the BWR Owners group testing. (See Subsection 5.2.5.2.1(12)).

### 5.2.7 References

- 5.2-1 D.A. Hale, "The Effect of BWR Startup Environments on Crack Growth in Structural Alloys", Trans. of ASME, Vol. 108, January 1986.
- 5.2-2 F.P. Ford and M. J. Povich, "The Effect of Oxygen/Temperature Combinations on the Stress Corrosion Susceptibility of Sensitized T-304 Stainless Steel in High Purity Water", Paper 94 presented at Corrosion 79, Atlanta, GA, March 1979.
- 5.2-3 "BWR Normal Water Chemistry Guidelines: 1986 Revision", EPRI NP-4946-SR, July 1988.