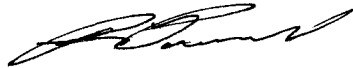




UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

May 27, 2011

MEMORANDUM TO: Timothy J. Kobetz
Chief, Reactor Inspection Branch
Division of Inspection and Regional Support

FROM: Raymond J. Powell 
Chief, Technical Support and Assessment Branch
Division of Reactor Projects

SUBJECT: Region I Completion of Temporary Instruction (TI)-184,
"Availability and Readiness Inspection of Severe Accident
Mitigation Guidelines (SAMGs)"

This memorandum documents Region I completion of TI-184.

The attachment to this memorandum contains the responses to the specific questions asked in Section 03.01 of the TI for each Region I site. The completion of this TI will also be documented in the second quarter 2011 NRC Integrated Inspection Report for each site. Please contact me at 610-337-6967 if you have any questions.

Attachment: As stated

May 27, 2011

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Division of Reactor Projects

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"Availability and Readiness Inspection of Severe Accident
Mitigation Guidelines (SAMGs)"

This memorandum documents Region I completion of TI-184.

The attachment to this memorandum contains the responses to the specific questions asked in Section 03.01 of the TI for each Region I site. The completion of this TI will also be documented in the second quarter 2011 NRC Integrated Inspection Report for each site. Please contact me at 610-337-6967 if you have any questions.

Distribution (w/encl):

W. Dean
D. Lew
D. Roberts
J. Clifford
C. Miller
P. Wilson
F. Brown

SUNSI Review Complete: RJP (Reviewer's Initials)

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NAME	R Powell/rjp						
DATE	05/27/11						

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EXHIBIT 1

TABLE OF RESULTS

BEAVER VALLEY

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			July 30, 2010.
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		Verified by inspector.
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No	FENOC states SAMGs not provided to EOF personnel since they have no SAMG implementation responsibilities.
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		Verified by inspector.
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		SAMGs are under Chapter 53E & 53F in document control system (FILENET) and subject to periodic review and revision.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		Design Interface Evaluations (DIEs) are conducted for SAMGs for design changes by Operations (DIE 5 & 9), and Training (DIE 8 & 46).
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		There is evidence of continual evaluation and updates to site-specific guidelines and training material to reflect industry standards based on inspector review of control document reviews.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			One-time, 1-day instructor-lead classroom training for licensed operators after NRC licensee exam is taken. No expiration date for initial training.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?		No	TSC staff received specific training for their emergency response position duties, separate from initial training, but without periodic training.
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would		No, with comment	The majority of people were able to articulate their SAMG responsibilities, but not all. All were aware that control room licensed operators implement BV SAMGs.

Letter or Number	Inspection Item	Yes	No	Response/Comments
	actually implement the licensee's SAMGs)?			
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?		No	

EXHIBIT 1

TABLE OF RESULTS

CALVERT CLIFFS

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			<ul style="list-style-type: none"> • ERPIP 600 05/12/2010 • ERPIP 601 07/07/2009 • ERPIP 602 03/21/2001 • ERPIP 603 03/21/2001 • ERPIP 604 03/21/2001 • ERPIP 605 03/21/2001 • ERPIP 606 03/21/2001 • ERPIP 607 03/21/2001 • ERPIP 608 03/21/2001 • ERPIP 609 03/21/2001 • ERPIP 610 03/21/2001 • ERPIP 611 04/15/2011 • ERPIP 612 05/27/2009 • ERPIP 613 07/28/2009
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		There are two controlled copies of the SAMGs in the TSC.
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		There are two controlled copies of the SAMGs in the EOF.
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		There is only one controlled copy of the SAMGs in the control room.
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		The periodic review is every two years. The inspectors identified that the last periodic review was not completed for 3 SAMGs (ERPIP 606, 608, and 610). The licensee initiated a condition report (CR) to review this issue.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		CNG-CM-1.01-1003, "Design Engineering and Configuration Control," Attachment 12, and CNG-FES-007, "Preparation of Design Inputs and Change Impact Screen," require that emergency preparedness and ERPIP impacts be evaluated. The SAMGs are located in the ERPIPs. Therefore, the inspector concluded that the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes.

Letter or Number	Inspection Item	Yes	No	Response/Comments
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		The SAMGs are consistent with the owner's group guidance.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Licensed operators and auxiliary operators received initial classroom training. Periodic training for licensed operators and auxiliary operators is provided every 4 years. However, the licensee had previously identified that continuing training is not defined for users of SAMGs who are members of the Emergency Response Organization but not covered by other continuing training programs. Only a discussion factor is required for qualification of personnel using SAMGs in their ERO position. The licensee issued a CR to review this issue.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		The Licensed operators received initial classroom training. The TSC Reactor Engineer also received initial classroom training. However, only a discussion factor was required for qualification of the remaining members of the TSC staff that were interviewed. The licensee issued a CR to review this issue.
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?		No, with comment	The licensed operators receive periodic classroom training every 4 years. The TSC Reactor Engineer receives periodic self-study training annually. The other members of the TSC staff did not receive periodic training unless the individual was a drill participant for the required annual exercise on SAMGs. The licensee issued a CR to review this issue.
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		In general, all of the licensed operators and TSC personnel interviewed articulated their responsibilities with the respect to the use of SAMGs and who would actually implement the SAMGs.

Letter or Number	Inspection Item	Yes	No	Response/Comments
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		The Constellation fleet requirement is every 6 years. However, Calvert Cliffs' internal requirement is annually. The last one conducted was April 6, 2011.

EXHIBIT 1

TABLE OF RESULTS

FITZPATRICK

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			<ul style="list-style-type: none"> • SAOG 1a 24 October 2006 • SAOG-1b 12 October 2004 • SAOG-1c 12 October 2004 • SAOG-1d 12 October 2004 • SAOG-1e 12 October 2004 • SAOG-1f 12 October 2004 • SAOG-2 24 October 2006
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	<p>Yes, the SAOGs are covered by FitzPatrick's procedure control and document management system. Specifically, the SAOGs are controlled by AP-02.02, "Emergency Operating Procedures and Severe Accident Operating Guidelines."</p> <p>No, the SAOGs are not subject to a requirement for periodic review and revision. AP-02.02 states, "Perform EOP and SAOG periodic reviews per AP-02.04 [Control of Procedures]." AP-02.04 lists procedures that require periodic review, and the SAOGs are not on that list.</p>
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		<p>Yes, FitzPatrick's design change management procedure, EN-DC-115, "Engineering Change Process," would cause the licensee to update the SAOGs to reflect design changes. Specifically, one of the impact screening criteria is to determine whether the proposed activity affects severe accident procedures (SAPs), SAP actions, or SAP input parameters. Also, AP-02.02, "Emergency Operating Procedures and Severe Accident Operating Guidelines," requires that SAOG changes be screened per EN-LI-100, "Process Applicability</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<p>Determination," which performs 10 CFR 50.59 screening.</p> <p>The inspectors noted that the design change update process does not extend back to the SAOG bases document, "James A. FitzPatrick Nuclear Power Plant Emergency Procedure and Severe Accident Guidelines." Specifically, the inspectors noted that the bases document references the steam condensing mode of RHR as a possible path to vent the reactor pressure vessel, although the steam condensing mode of RHR has long been retired. The licensee entered this issue into their corrective action program.</p>
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		<p>The inspectors performed a high-level comparison of applicable portions of the industry bases for SAMGs, "BWR Owner's Group Emergency Procedures and Severe Accident Guidelines," and FitzPatrick's bases document, "James A. FitzPatrick Nuclear Power Plant Emergency Procedure and Severe Accident Guidelines." The two documents were nearly identical, with the difference being inclusion in the FitzPatrick document of site specific systems and parameters, deletion of non-existent equipment, and deletion of materials that were not applicable.</p> <p>The inspectors performed a high-level comparison of the industry standard BWR severe accident guideline (SAG) flow charts, SAG-1, "Primary Containment Flooding," and SAG-2, "Containment and Radioactivity Release Control," and the FitzPatrick SAOGs. The inspectors noted that FitzPatrick had broken down SAG-1 into six separate SAOGs, 1a - 1f, that correspond to steps RC/F-1 through RC/F-6. Also, FitzPatrick combined the RPV pressure and reactor power (RC/P and RC/Q) legs, and located it in SAOG-2, as opposed to separate legs in SAG-1. Beyond these (and other) organizational differences, the inspectors did not note any major content differences between the industry standard SAGs and FitzPatrick's SAOGs.</p>
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of			SAOG training is conducted as a part of initial licensed operator qualification training (three 3-hour classroom sessions), and every two years as a part of licensed operator requalification training (LORT) (one

Letter or Number	Inspection Item	Yes	No	Response/Comments
	training?			<p>3-hour classroom/tabletop session). The inspectors verified that LORT on the SAOGs was last conducted during the fourth quarter of 2009, and is next scheduled for fourth quarter 2011.</p> <p>Four positions in the Emergency Response Organization (ERO) (System Assessment Advisor, Parameter Assessment Advisor, Reactor Engineer, and TSC Radiological Coordinator) receive computer-based training on severe accident management, including the SAOGs, during initial qualification and periodically thereafter (every two years). There is no formal initial or periodic training on the SAOGs for other members of the ERO.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)		No, with comment	The SROs and ROs indicated that they received training on the SAOGs during initial training for initial qualification and that SAOG training is included in the continuing requalification program.
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?		No, with comment	The TSC personnel (two Emergency Plant Managers and two TSC Managers) indicated that they did not receive initial or periodic training on the SAOGs as a part of their ERO qualification.
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?		No, with comment	<p>Among the individuals interviewed, a few indicated that the SAOGs would be implemented by the ERO (i.e., from the TSC/EOF), with the control room operators playing a support role. However, most indicated that the Shift Manager (SM) would direct transition and run the SAOGs, with the ERO providing support.</p> <p>The Emergency Preparedness Director indicated that the SAOGs were controlled by Operations, and that the SM would direct transition to, and implementation of the SAOGs.</p>
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them		No	

Letter or Number	Inspection Item	Yes	No	Response/Comments
	during an emergency (Y/N/document periodicity)?			

EXHIBIT 1

TABLE OF RESULTS

R. E. GINNA

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			All SAMGs were last updated in 1998 with the exception of SAG-1 and CA-2, which were last updated in 2010. Following issuance of WOG guidance in 2001, some of the SAMGs should have been updated, but were not. The licensee identified this on May 5, 2011, and entered this issue into the corrective action program (CAP).
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		Two had a few pages missing – licensee placed into CAP
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No, with comment	Accessible by computer – no hard copies
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		Only SACRG-1 and SACRG-2; SACRG-2 was missing a page – licensee placed into CAP
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		SAMGs are covered by a similar, but separate process than other procedures such as EOPs; periodic review is required once every 5 years
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)		No	Licensee identified this on May 6, 2011 – licensee placed into CAP
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		Very closely match and are consistent with the WOG guidance; however, have not been updated with 2001 WOG guidance; licensee identified this on May 5, 2011 – licensee placed into CAP
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			TSC ERO and control room operators receive initial classroom training; TSC ERO receive tabletop refresher training at 36 month periodicity (TSC ERO includes: TSC Director; Operations Assessment Manager; Technical Assessment Manager; and Nuclear

Letter or Number	Inspection Item	Yes	No	Response/Comments
				Assessment); licensee has records of completed training; SROs/ROs receive refresher training annually.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		All received initial classroom training
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		TSC ERO receive periodic training (36 month periodicity); SROs/ROs receive some periodic training during LORT – licensee is evaluating enhancing this training; training covers how SAMGs relate to assigned duties
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		All TSC ERO and SROs/ROs interviewed knew that the control room implements the initial SAMGs (SACRG-1 or SACRG-2), and all other SAMGs are implemented in the TSC
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?		No, with comment	Licensee requirement to conduct SAMG exercises was established in 2009 with a 6 year periodicity; exercises are currently being planned

EXHIBIT 1

TABLE OF RESULTS

HOPE CREEK

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			11/19/2009
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No	
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Training is conducted in the classroom Licensed operators are trained every 2 years TSC staff are trained every 6 years
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		Training is conducted every 6 years
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		The shift personnel would implement the SAMGs under the direction of the Shift Manager (SM). The SM would be given recommendations by the technical support supervisor in the TSC.

Letter or Number	Inspection Item	Yes	No	Response/Comments
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		Periodic exercises that use the SAMGs are conducted every 6 years

EXHIBIT 1

TABLE OF RESULTS

INDIAN POINT UNIT 2

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			April 2011
	Are <u>controlled</u> copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No	
	Are <u>controlled</u> copies of the SAMG located in the control room? (Y/N)	Yes		Only required to have SACRG-1 and SACRG-2 procedures staged.
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	All SAMG documents are covered by the site procedure control and management system. There is, however, no requirement for periodic review.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		
d	Perform a <u>high-level</u> comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owner's group guidance (if any) having been incorporated (Y/N/comments)?	Yes		The SAMG's are closely aligned with the industry guidance. However, background and deviation documents were not available for review. Entergy personnel believe they were developed but their location unknown. Licensee entered issue in corrective action program.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Initial and periodic training is provided by operations for licensed operators and by the emergency preparedness organization for TSC staff (SAMG Evaluators) and TSC Manager [Emergency Plant Managers (EPM)]. Licensed operators are trained on SACRG-1 and SACRG-2 but they do not receive training on the remaining SAMG procedures. Specifically, the training is limited to pointing out the

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<p>SAMG procedures.</p> <p>Licensed Operators (SROs/ROs): Initial training is conducted as a classroom presentation.</p> <p>Periodic refresher training is conducted as a classroom presentation every 5 years. Some licensed operators have participated in SAMG drills but it is not a training requirement.</p> <p>SAMG Evaluators and EPMs: Initial training is conducted as a classroom presentation and drill/tabletop exercise.</p> <p>Periodic refresher training is conducted as an annual computer based training.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			<p>Interviewed the following personnel:</p> <p>2 ROs</p> <p>2 SROs (1 STA qualified)</p> <p>2 SAMG Evaluators</p> <p>2 EPMs</p>
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		<p>Licensed Operators: Refresher classroom training once every 5 years.</p> <p>SAMG Evaluators and EPMs: Annual computer based refresher training.</p>
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		<p>Licensed operators: Implement the initial phase of the SAMGs from the control room and transfer control of the SAMG implementation to the TSC once operational.</p> <p>SAMG Evaluators and EPMs:</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				Once the TSC has assumed control of SAMG implementation, the SAMG Evaluator recommends actions to the EPM (SAMG decision maker) for execution.
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		SAMG Drills/Tabletop exercises are performed every 2 years.

EXHIBIT 1

TABLE OF RESULTS

INDIAN POINT UNIT 3

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			April 2011
	Are <u>controlled</u> copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No	
	Are <u>controlled</u> copies of the SAMG located in the control room? (Y/N)	Yes		Only required to have SACRG-1, SACRG-2, SAGs, SAEG-2, and DFC procedures staged.
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	All SAMG documents are covered by the site procedure control and management system. There is, however, no requirement for periodic review.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		
d	Perform a <u>high-level</u> comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owner's group guidance (if any) having been incorporated (Y/N/comments)?	Yes		
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Initial and periodic training is provided by operations for licensed operators and by the emergency preparedness organization for TSC staff (SAMG Evaluators) and TSC Manager [Emergency Plant Managers (EPM)]. Licensed Operators (SROs/ROs): Initial training is conducted as a

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<p>classroom presentation.</p> <p>Periodic refresher training is conducted as a classroom presentation every 5 years. Some licensed operators have participated in SAMG drills but it is not a training requirement.</p> <p>SAMG Evaluators and EPMs:</p> <p>Initial training is conducted as a classroom presentation and drill/tabletop exercise.</p> <p>Periodic refresher training is conducted as an annual computer based training.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			<p>Interviewed the following personnel:</p> <p>2 ROs</p> <p>2 SROs (1 STA qualified)</p> <p>2 SAMG Evaluators (TSC staff)</p> <p>2 EPMs (TSC Managers)</p>
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		<p>Licensed Operators: Classroom refresher training once every 5 years.</p> <p>SAMG Evaluators and EPMs: Annual computer based refresher training.</p>
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		<p>Licensed operators: Implement the initial phase of the SAMGs from the control room and transfer control of the SAMG implementation to the TSC once operational.</p> <p>SAMG Evaluators and EPMs: Once the TSC has assumed control of SAMG implementation, the SAMG Evaluator recommends actions to the EPM (SAMG decision maker) for execution.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		SAMG Drills/Tabletop exercises are performed every 2 years.

EXHIBIT 1

TABLE OF RESULTS

LIMERICK

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			Severe Accident Management Procedures (SAMP) 1, RPV and Primary Containment Flooding Control, May 6, 2011 SAMP-2, Containment and Radioactive Release Control, September 2, 2010
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	Controlled hard copies of the SAMPs are maintained in pre-established locations on site (such as the main control room, TSC, etc). The SAMPs are also available electronically through the licensee's electronic document management system. However, there is no requirement for periodic review or revision of the SAMPs.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		Per procedure CC-AA-102, "Design Input and Configuration Change Impact Screening," Section 4.1.21, interface with Operations/Operations support is required if a configuration change package has the potential to impact station Emergency Operating Procedures or SAMPs.

Letter or Number	Inspection Item	Yes	No	Response/Comments
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g. owner's group guidance document and other industry standards as applicable). Do the SAMGs line up with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		Limerick's SAMP-1 and SAMP-2 procedures are in close alignment with Revision 2 of BWR Emergency Procedure Guidelines/Severe Accident Guidelines. Slight variations exist to accommodate plant specific design differences, preferred procedure formatting, and site preferred terminology. These differences, and the basis for them, are detailed in Appendix A to SAMP-1 and SAMP-2.
e	<p>How is training conducted on the SAMGs?</p> <p>Who is trained on the SAMGs?</p> <p>What is the periodicity of training?</p>			<p>All initial training is conducted by classroom instruction. Refresher training may be conducted in the classroom or by read-and-sign (for certain positions – details below).</p> <p>All licensed operator candidates, TSC manager candidates, and certain TSC staff receive training on the SAMPs. The licensed operator candidates receive 24 hours of classroom instruction for initial training. TSC managers (Site Emergency Directors) receive 2 hours of initial classroom instruction to become qualified as "SAMP Decision-Makers." Certain TSC staff (the Technical and Operations Managers) receive 2 hours of initial classroom instruction to become qualified as "SAMP Evaluators."</p> <p>Licensed operators are trained annually on SAMP procedures. All Decision-Makers and Evaluators are trained annually by attending 1 hour of classroom instruction or completing read-and-sign training.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		

Letter or Number	Inspection Item	Yes	No	Response/Comments
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		Implementer - Control Room Supervisor Decision-Maker - Site Emergency Director Evaluators – Technical and Operations Manager in TSC
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		Per EP-AA-122-1001, Drills and Exercise Scheduling, Development and Conduct, Revision 13, SAMG exercises are to be performed on at least a 6 year periodicity. The last SAMP exercise performed at Limerick was on June 13, 2006.

EXHIBIT 1

TABLE OF RESULTS

MILLSTONE

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			Unit 2: 7/08 Unit 3: 4/11
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		Both units' SAMG's are consistent with owner's group guidance.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Training is provided by slide based classroom presentations followed up with a table top. Site ERO members and licensed operators The training is provided once per license cycle (every other year).
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs			

Letter or Number	Inspection Item	Yes	No	Response/Comments
	during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		Every other year
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?		No	

EXHIBIT 1

TABLE OF RESULTS

NINE MILE POINT

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			<ul style="list-style-type: none"> • N1-SAP-1 4/15/2011 • N1-SAP-2 4/15/2011 • N2-SAP-1 9/19/2008 • N2-SAP-2 4/27/2011
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	Procedure S-ODP-PRO-0301, Rev 00400, 'EOP Revisions' is the governing document for Emergency Operating Procedures (EOPs) and Severe Accident Procedure (SAP) changes. The procedure does not mandate a periodic review of EOPs/SAPs.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		Procedure CNG-FES-007, Rev 00010, 'Preparation of Design Inputs and Change Impact Screen' which is implemented by CNG-CM-1.01-1003, Rev 00400, 'Design Engineering and Configuration Control' requires engineers to update SAMGs when necessary to support design changes.
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		The procedure format and content follows the generic industry guidance.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Licensed operators (LO)s receive SAMG training as part of their initial training program. LOs receive refresher training on a four year periodicity. The LO initial and requalification training consists of simulator and classroom instruction.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC			

Letter or Number	Inspection Item	Yes	No	Response/Comments
	managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)		No, with comment	LOs receive SAMG training as part of their initial training program. At NMP, responsibility for implementing the SAMGs resides with the control room. As such, TSC personnel do not receive SAMG training as part of their TSC qualification program.
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?		No, with comment	LOs receive refresher training on a four year periodicity. As discussed above, TSC personnel do not receive SAMGs training.
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		The SAMGs would be implemented by LOs. During interviews LOs were able to articulate their roles and responsibilities implementing the SAMGs.
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		There have been three emergency preparedness exercises since 2005 that have required site personnel to implement the SAMGs

EXHIBIT 1

TABLE OF RESULTS

OYSTER CREEK

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			The SAMGs were last updated in 2000. In 2007, the SAMG procedure number was changed and reissued as revision 0. No substantive changes were made, only typographical errors were corrected. There is one expedited (pen and ink) change that was made in 2007 and will be incorporated in the next change.
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No	
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	The SAMGs have their own procedure for document control, AD-OC-103, "EOP/SAM PROGRAM CONTROL." Exelon's nuclear oversight group (NOS) identified that although there is a requirement for a routine biennial review, there is no guidance regarding what topics are to be covered during the review or how the review should be tracked and documented. NOS documented this deficiency in issue report (IR) 1214497. The licensee provided a verbal response that the biennial reviews have been completed. No documentation for these reviews exists.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		Screening criteria is contained in CC-AA-102, "Design Input and Configuration Change Impact Screening."
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners	Yes		Exelon Procedure AD-OC-103, "EOP/SAM PROGRAM CONTROL", contains the requirements for Oyster Creek's EOP and SAMG development and maintenance. Oyster Creek's SAMGs are based upon the BWR Owner's Group Emergency Procedure and Severe Accident Guidelines,

Letter or Number	Inspection Item	Yes	No	Response/Comments
	group guidance (if any) having been incorporated (Y/N/comments)?			<p>Revision 2, dated March 2001. Oyster Creek's SAMGs are contained in three site procedures. AD-OC-103 requires that any deviations from the BWROG EPG/SAMGs be documented and technically justified and shall be contained in a controlled document entitled, "Appendix A to the PSTGs - Justification for Deviations of the Severe Accident Management Guidelines from the BWR Owner's Group Severe Accident Guidelines", which is identified as Oyster Creek procedure 2000-GLN-3200.04. The licensee cannot locate this document and it is not in their controlled records management system. The licensee has entered this issue into the corrective action program as IR 1219591. The licensee further identified that the deviations from the BWROG guidance for the SAMGs were previously included with the deviations for the Emergency Operating Procedures in procedure 2000-GLN-3200.03.</p> <p>In lieu of reviewing the Appendix A to the PSTG document, the inspector performed a high level review of the BWROG guidance to the SAMG flowcharts. There is a strong correlation between the two documents, but differences and justification between the two are not documented.</p>
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			<p>Training for SAMGs is a combination of classroom and read and sign training. SAMG training is given to licensed operators (Senior Reactor Operators, Reactor Operators) and select emergency response organization (ERO) members (Site Emergency Directors, TSC Operations Managers, TSC Technical (engineering) Managers and TSC Core/Hydraulic Engineers). Licensed operators receive SAMG classroom training as part of their initial licensing training. Initial training for ERO members is an instructor led, classroom course. Annual refresher training is given to the licensed operators as part of their continuing training program. Annual refresher training for ERO members is either a classroom course or a read and sign document.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		
	Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		Exelon procedure EP-AA-122-1001 contains the requirements for exercising the SAMGs. The SAMGs are exercised on a 6-year frequency. The first exercise was completed on November 11, 2009.

EXHIBIT 1

TABLE OF RESULTS

PEACH BOTTOM

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			<ul style="list-style-type: none"> • SAMP-1, Sheet 1 10/05/10 • SAMP-1, Sheet 2 10/05/10 • SAMP-1, Sheet 3 05/04/07 • SAMP-1, Sheet 4 10/05/10 • SAMP-1, Sheet 5 10/05/10 • SAMP-1, Sheet 6 10/05/10 • SAMP-1, Sheet 7 10/05/10 • SAMP-1, Bases, 10/05/10 • SAMP-2, Sheet 1 05/04/07 • SAMP-2, Sheet 2 05/04/07 • SAMP-2, Sheet 3 03/23/11 • SAMP-2, Bases 05/04/07 • TSG-1.1 05/08/07 • TSG-1.2 12/15/04 • TSG-1.3 05/04/07 • TSG-2.1 10/23/98 • TSG-2.2 01/25/11 • TSG-3.1 10/23/98 • TSG-3.2 02/05/03 • TSG-3.3 02/05/03 • TSG-4.1 02/17/11 • TSG-4.2 12/10/10 • PSSMG-SAMP-1 10/05/10 • PSSMG, App. A, SAMP-1 10/05/10 • PSSMG, App. B, SAMP-1 10/05/10 • PSSMG- SAMP-2 05/04/07 • PSSMG, App. A, SAMP-2 05/04/07 • PSSMG, App. B, SAMP-2 05/04/07
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		Information provided by the licensee. SAMPs, SAMPs' Bases, and TSGs
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		Information provided by the licensee. SAMP-1, Sheets 1 – 7 and SAMP-2, Sheets 1-3 are in the EOF, but the SAMP Bases and TSGs are not in the EOF.
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		The resident inspectors verified that a copy of the current revision of the SAMPs, SAMPs' Bases, and TSGs are in both the Unit 2 and Unit 3 side of the main control room.

Letter or Number	Inspection Item	Yes	No	Response/Comments
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	The SAMPs and TSGs are in the licensee's controlled procedure and document management system; however, the licensee does not have a requirement for periodic review and revision of any procedure.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		CC-AA-102, Step 4.1.21.3
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owner's group guidance (if any) having been incorporated (Y/N/comments)?	Yes		Comparison with BWROG SAG, Revision 2, March 2001, and basis for any deviations documented in the PSSMGs.
e	How is training conducted on the SAMGs?			<p><u>Operators:</u> Based on discussion with the Operations Training Manager, initial classroom training is provided per PLOT-1562 and PLOT-1695 during "gap" training after their NRC exam. Simulator scenarios are limited to recognizing when to "transition" from TRIPS (EOPs) to SAMPs (SAMGs).</p> <p><u>Emergency Response Organization (ERO):</u> Based on discussion with the site EP Manager, Initial Classroom Training with an ILT class and an Annual "Read and Sign" package as required by TQ-AA-113. PLOT-1562 and PLOT-1695 are used to provide the initial training.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
	Who is trained on the SAMGs?			<u>Operators:</u> Senior Reactor Operators (SROs), Reactor Operators (ROs) and, to a lesser extent, Equipment Operators (EOs)
				<u>Emergency Response Organization (ERO):</u> Shift Emergency Directors (all SROs), Station Emergency Directors (TSC), TSC Operations Managers, and TSC Technical Managers
	What is the periodicity of training?			<p><u>Operators:</u> While there is a commitment to conduct operator requalification training on B.5.b mitigation strategies, there is no commitment to perform requal training on SAMPs and non-B.5.b TSGs. However, the Ops Training Manager demonstrated that SAMP <u>or</u> Severe Accident Overview Training was provided during each of the last three 2-year licensed operator requalification training cycles.</p> <p>As a member of the ERO, SROs must complete the annual "Read and Sign" package.</p> <p><u>Emergency Response Organization (ERO):</u> Based on discussion with the site EP Manager, Initial Classroom Training with an ILT class and an Annual "Read and Sign" package as required by TQ-AA-113.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		<p><u>RO:</u> Yes, when the SAMPs were initially issued or in Initial License Training (ILT).</p> <p><u>SRO/Shift Emergency Director:</u> Yes, when the SAMPs were initially issued or in ILT.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<u>TSC/Station Emergency Director</u> : Yes, when the SAMPs were initially issued or in ILT.
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		<p><u>RO</u>: Yes, as part of licensed operator requalification training (LORT) but do not remember how often.</p> <p><u>SRO/Shift Emergency Director</u>: Yes, as part of LORT but do not remember how often.</p> <p>Yes, for their ERO role in the form of an Annual "Read and Sign" package</p> <p><u>TSC/Station Emergency Director</u>: Annual "Read and Sign" package</p> <p><u>TSC Operations and Technical Managers</u>: Annual "Read and Sign" package</p>
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?		No, with comment	<p><u>RO</u>: Yes, they recognized that they would be implementers that would carry out direction from SROs and make plant manipulations.</p> <p><u>SRO/Shift Emergency Director</u>: Yes, generally recognized that they could be either a decision maker or evaluator/implementer depending on whether the MCR or the TSC has control of the event.</p> <p><u>TSC/Station Emergency Director</u>: Both SEDs interviewed recognized that they would be the decision makers for the SAMPs and TSGs once the TSC is activated and has accepted event control. This is consistent with initial training provided per PLOT-1562.</p> <p><u>TSC Operations and Technical Managers</u>: Some confusion about their roles. Believe that they would be decision makers versus evaluators as described in PLOT-1562.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<u>TSC Operations and Technical Managers:</u> Some confusion about their roles. Believe that they would be decision makers versus evaluators as described in PLOT-1562.
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		As required by EP-AA-122-1001, Peach Bottom has an EP objective to demonstrate the use of their SAMPs once every six years. Exelon procedure states that this is consistent with NUREG 0654. This exercise would involve one of five Emergency Response Organization (ERO) teams. Licensee reports that this drill objective was last evaluated on 11/9/2009.

EXHIBIT 1

TABLE OF RESULTS

PILGRIM

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			SAG-01 and SAG-02 were updated 12/21/10 due to EAL update. Technical Support Guideline (TSG)-100, Functional Status Assessment Guideline, was updated 5/9/11 due to a permanent modification to the Safety Relief Valves.
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		All SAMG documents are available in Merlin (on-line document revision control and retrieval system) and in the emergency response facilities. Additionally, SAMGs are located in the Alternate TSC in Chiltonville.
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	All SAMG documents are available in Merlin and Document Control Center (DCC). There is, however, no requirement for periodic review.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		Plant modification changes are made in accordance with the Design Inputs Process and design change processes and SAMGs would be revised if they were affected.
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry	Yes		It appears that the licensee utilized the NEI guidance to conduct a risk based evaluation of what events might require additional guidance in the form of SAMGs. Some events evaluated under this

Letter or Number	Inspection Item	Yes	No	Response/Comments
	standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?			guidance refer to SAG-01 and SAG-02 which were developed by the licensee to implement the industry SAMG expectations.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			<p>Training on SAMGs (or SAGs at Pilgrim) is given addressing the SAGs themselves, Severe Accident Management Phenomenology (RPV and Containment phenomena are analyzed for corrective action consideration), and Technical Support Guidelines procedures.</p> <p>After an SRO receives their license, SAMG training (approximately 3 days) is included in the approximately 2 weeks of miscellaneous training (administrative procedures probabilistic risk analysis, etc) provided to the SRO. Technical Support Center (TSC) Managers and staff and Emergency Operations Facility (EOF) Managers and staff are also provided initial SAMG training.</p> <p>Requalification training on SAMGs for SROs is required every two (2) years.</p> <p>Emergency Response Team Manager and staff periodic training is every two (2) years.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			

Letter or Number	Inspection Item	Yes	No	Response/Comments
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes, with comment		SRO – Yes SRO – Yes TSC Mgr – Yes TSC Mgr – Yes TSC Staff – Yes TSC Staff – Yes RO's – Do not receive training on SAMGs. They are trained on tasks which are required during emergencies and which may be undertaken under EOPs or SAMGs but are not specifically trained on the SAMGs themselves.
	Did they receive periodic training (Y/N/ document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes, with comment		SRO – Yes, every 2 years SRO – Yes, every 2 years RO – see above TSC Mgr – Not yet (took initial SAMG training last year), every 2 years TSC Mgr – Yes, every 2 years TSC Staff – Not yet (took initial SAMG training last year), every 2 years TSC Staff – Not yet (took initial SAMG training last year), every 2 years
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/ document who would actually implement the licensee's SAMGs)?	Yes		SRO – Yes, recommendations made to Operations Manager in control room. SRO – Yes, same. RO – see above TSC Mgr – Yes, recommendations made to Emergency Response Manager. TSC Mgr – Yes, same. TSC Staff – Yes, same. TSC Staff – Yes, same.
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?		No	There was one exercise when the SAMGs were first implemented. Per the licensee, a future EP Drill where SAMGs will be required to be utilized is being planned

EXHIBIT 1

TABLE OF RESULTS

SALEM

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			12/18/1998. Guidance has not been updated for Revision 1 of the Westinghouse Owners Group (WOG) guidance which was issued in October 2001.
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)		No	
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		Salem's SAMGs are consistent with WOG guidance but have not been updated for Revision 1 of the WOG guidance which was issued in October 2001.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Classroom training is conducted. Licensed operators are trained every 2 years and TSC staff are trained every 6 years.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		

Letter or Number	Inspection Item	Yes	No	Response/Comments
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		The Shift Manager (SM) would implement the SAMGs using shift personnel until the TSC is manned. When TSC is manned, the TSC technical support supervisor would give guidance to the SM to implement the SAMGs.
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		Periodic exercises that use the SAMGs are conducted at least every 6 years.

EXHIBIT 1

TABLE OF RESULTS

SEABROOK

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			1998. They have not been updated with 2001 WOG guidance.
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes, with comment		A complete set was not available at the EOF. Specifically, SACRG-1 and SACRG-2 were missing. The station will be adding the two procedures, but considers the addition an enhancement and noted that it was not required for EOF responders. The licensee entered this into the corrective action program as AR1651436.
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		<p>Seabrook SAMGs are controlled and maintained by administrative procedure NM17750, Severe Accident Management. However, it was not until November 2003 (NM 11750, Revision 2) that a 3-year period review was implemented for SAMGs.</p> <p>The last review, per NM11750, was completed in November 2007 by the PRA engineering group. Operations, who assumed ownership of the SAMGs in 2008, failed to perform the subsequent three-year review in November 2010. The licensee entered this into the CAP as AR 1652093. The station did however perform a review of the SAMGs during their review of IER 11-1, but not specifically to satisfy the three-year review.</p> <p><u>Additional info:</u> FPL-1, Quality Assurance Topical Report, Revision 9, Appendix B, "Procedures" states, in part, that "Seabrook is committed to the use of Appendix A of Regulatory guide 1.33 as guidance for establishing the types of procedures that are necessary to control and support plant operations."</p> <p>Several generic procedure types are</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<p>defined with a broad description of the activities to be included (e.g., calibration and test, chemical-radiochemical control, emergency plan implementing, and emergency procedures). However, no specific procedure type describes beyond design basis mitigation procedures.</p> <p>The current QATR does not recognize SAMGs nor does it require periodic review.</p>
c	<p>Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)</p>		No, with comment	<p>Although not explicitly addressed in the configuration control and change management systems, Seabrook procedure NM11750, Severe Accident Management, section 4.3.4.3, states, "updates to the SAMGs and their training materials shall be published on as as-needed basis considering the following:</p> <ul style="list-style-type: none"> • NRC requirements published as regulations, issues and resolutions, audit findings or drill observations • Feedback from the Emergency Response Organization and the Station staff performing periodic table-top and / or inter-facility mini drills • Additional insights from the Probabilistic Safety Assessment • Scientific and technical advances in the understanding of severe accidents, and • Plant modifications and procedure changes."
d	<p>Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?</p>	Yes, with comment		<p>Seabrook SAMGs were determined to be consistent with the guidelines established for WOG SAMG Revision 0. The SAMGs have not been updated with 2001 WOG guidance (Rev.1).</p> <p>Seabrook plans to transition to Revision 1. However, they will not know the specific impact of any required changes to Revision 1 until their engineering analysis is completed at a time still to be determined.</p> <p>The WOG published revision 1 of the SAMGs in October 2001. In 2003 (CR 03-2379) Seabrook oversight identified that changes to SAMGs were warranted. At that time, only minor enhancements were incorporated and noted that the SAMGs would work as written.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				In March 2011, Seabrook identified the need to incorporate changes identified in WOG SAMGs Revision 1 (AR 1635016). Further, Seabrook identified that ERP-98004, SAMG set point basis document had not been revised since initial issuance in 1998 and may have been impacted by subsequent power up rate in 2005. (AR 1635180)
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Training for SAMGs is conducted using traditional classroom, tabletop, and job performance measure walkdowns. No emergency preparedness drills or operations simulator drills include SAMGs. Training is provided to licensed operators, non-licensed operators, and technical support staff (TSC) Training is conducted on a two year cycle for SAMGs.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		Training is conducted on a two year cycle for SAMGs
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		Following guidance provided in SACRG-1, Severe Accident Control Room Guideline Initial Response, those interviewed denoted that the Shift Manager (Site Temporary Emergency Director) would have the responsibility for implementing the SAMGs if the emergency response facilities were not activated or available. Otherwise, the SM would implement accident mitigation strategies as directed by the SED [Site Emergency Director]. Per NM 11750, Severe Accident Management; implementers are all

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<p>license holders, decision makers are SED, evaluators are emergency operations technician, reactor engineers, engineering coordinators, and nuclear safety evaluators.</p> <p>Following guidance provided in SACRG-2, Severe Accident Control Room Guideline for Transients After the TSC is Activated those interviewed denoted that the SED would have the responsibility for implementing the SAMGs, if the emergency response facilities were not activated or available.</p>
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?		No, with comment	<p>SAMG events are not integrated into the stations combined functional drills. However, the station provides the opportunity for participants to conduct SAMG activities during training and tabletop events. This type of training / tabletop is provided for selected ERO positions (e.g., Operations Technician, Reactor Engineer, Engineering Coordinator, and Site Emergency Directors).</p>

EXHIBIT 1

TABLE OF RESULTS

SUSQUEHANNA

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			<p>PSTG Rev 9 was issued in April 2005 to upgrade EOPs to BWROG EPG/SAG Rev.2 guidance.</p> <p>Site EOPs are based on BWROG Rev.2 and site SAGs are based on BWROG Rev.1 guidance. PPL chose not to update the SAMG procedures (EP-DS series) to Rev.2 guidance.</p> <ul style="list-style-type: none"> • EP-DS-001 10/20/2010 • EP-DS-002 4/27/2011 • EP-DS-004 1/26/2010 • EP-DS-003 4/29/2011 • EP-DS-005 4/27/2011 • EP-DS-006 10/26/2010
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		<p>(1) copy of the EP-DS procedures.</p> <p>(2) copy of the EP-DS hard cards.</p>
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		<p>(2) copies of the EP-DS procedures.</p> <p>(2) copies of the EP-DS hard cards.</p>
	Are controlled copies of the SAMG located in the control room? (Y/N)		No	<p>(0) copies of the EP-DS procedures.</p> <p>(1) copy of the EP-DS hard cards. The inspectors noted there were to be three hard card sets in the TSC but could only identify two. The third copy of the hard cards was actually misplaced to the control room and should have been located in the TSC. Procedurally, no controlled copies of the EP-DS procedures or hard cards are to be in the control room. This issue was entered in PPL's corrective action program (CAP) (ARs 1406627, 1405215).</p>
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Yes		<p>PSTG control is established by NDAP-QA-0330 and requires changes prior to or in parallel with procedural changes. The SAMG procedures (EP-DS series) are covered by periodic review via NDAP-QA-0002.</p>
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		<p>Plant changes that affect the SAMGs area covered by NDAP-QA-1220 and NDAP-QA-0330. Deviations from the BWROG EPG/SAG shall be documented by 10 CFR 50.59 per NDAP-QA-0330.</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		Site SAGs are based on BWROG EPG/SAG Rev.1 guidance. PPL has not updated the SAMG procedures (EP-DS series) to BWROG EPG/SAG Rev.2 guidance.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			<p>The courses below are broken down by course number/title/method of delivery/assessment/periodicity and a list of the Emergency Response Organization positions that receive the training.</p> <p>EP076/"Severe Accident Management (SAM) Overview and Transition"/Read and Sign/Not assessed/Single Performance: Dose Assessment Supervisor, Emergency Director-TSC, Emergency Director/Control Room(Shift Manager), Engineering Support Supervisor, HPN Communicator-EOF, Liaison Support Supervisor-EOF, Operations Coordinator – TSC, Public Information Manager, Public Information Technical Briefers, Radiation Protection Coordinator/HPN Communicator, Recovery Manager, Severe Accident Management Coordinator, Technical Support Coordinator-TSC, TSC Lead Engineer, Unit Supervisor.</p> <p>EP077/ "Severe Accident Progression and Phenomena"/Classroom/Not Assessed/Single Performance: Emergency Director-TSC, Emergency Director/Control Room(Shift Manager), Operations Coordinator –TSC, Severe Accident Management Coordinator. Licensed operators and STAs also receive this training during initial licensing coursework.</p> <p>EP078E/"Damage Support Procedures"/Self-Study/Assignment but not testable/Single Performance; Annual Performance only for the SAM Coordinator: Emergency Director/Control Room(Shift Manager), Operations Coordinator –TSC, Severe Accident Management Coordinator.</p> <p>Inspectors noted that PPL has a designated</p>

Letter or Number	Inspection Item	Yes	No	Response/Comments
				position called the SAM Coordinator as an element of the Emergency Response Organization in the TSC. Inspectors also noted during this TI that the STA is expected to act as the SAM Coordinator until the TSC is staffed in the case that an accident evolves to the point that the SAMG entry criteria are met. The inspectors identified that the while the STAs receive initial training on the SAMGs, they do not receive periodic refresher training. This issue was entered in PPL's CAP as AR 1406734.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		All licensed operators receive initial training on the SAMG procedures. While some licensed operators could not recall if they had received initial training on the SAMG procedures, inspectors verified that those interviewed had received training. TSC staff received initial training based on position-specific requirements (see e. above).
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?		No, with comment	Periodic training on the SAMG procedures is position-specific and is only received by the Severe Accident Management Coordinator.
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?		No, with comment	EP exercises/drills have periodically incorporated entry in the SAMG procedures (EP-DS series) but these scenarios were developed to support ERO declaration of a General Emergency as required by EP drill regulations. The SAMG procedures were not performed to completion or recovery.

EXHIBIT 1

TABLE OF RESULTS

THREE MILE ISLAND UNIT 1

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			May 12, 2010
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		Verified directly by inspector.
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		Inspector verified by interview of Exelon staff responsible for EOF procedures.
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		Verified directly by inspector.
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	SAMGs are developed, verified, approved, and revised using the licensee process AD-AA-101, Processing of Procedures and T&RMs, Rev. 22. SAMGs are considered Training & Reference Material (T&RM) instead of an actual procedure. Their use category is Level 3, which is informational use. Many station procedures are also Level 3. T&RMs (such as the SAMGs) are not subject to periodic review.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		CC-AA-102, Design Input and Configuration Change Impact Screening, Rev. 20 sections 4.1.17, 4.1.22.3, and Attachment 8 address updating SAMGs when affected by design or configuration changes.
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		TMI SAMGs (ER-TM-TSC-0010, TMI-1 Severe Accident Management Guidelines, Rev. 2 is consistent with the B&WOG guidelines - Generic Severe Accident Guideline (GSAG) and Generic Severe Accident Guideline Technical Basies Document (GSAGTBD) document 69-1224353-02 dated March 1997.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Initial instructor-led classroom training is conducted for all licensed operators (RO, SRO), and members of the emergency response organization (ERO) staff assigned SAMG responsibilities as Evaluators, Decision-Makers, and Implementers. Most of these ERO members fill the TSC staff positions of Emergency Director, Operations Manager, Technical Manager, Core/Thermal Hydraulic engineer, Mechanical Engineer, or Electrical Engineer.

Letter or Number	Inspection Item	Yes	No	Response/Comments
				Hydraulic engineer, Mechanical Engineer, or Electrical Engineer. Refresher training is required annually. The refresher training is shorter and can be done as a read & sign or as classroom training.
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			In addition to the 8 personnel interviewed, the inspectors selected 4 additional SAMG-qualified individuals at random and verified their qualification status was current.
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		No comments.
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		They each receive periodic refresher training. The periodic refresher training for ERO members is a general read & sign of the SAMG procedures. It is not customized to the individual's duties. Most of the ERO has also received SAMG training during table-top exercises.
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?	Yes		The licensed operators (RO, SRO), and members of the emergency response organization (ERO) staff assigned SAMG responsibilities as Evaluators, Decision-Makers, and Implementers each could articulate their responsibilities with respect to SAMG evaluation, decision making, and implementation. The associated ERO members fill the TSC staff positions of Emergency Director, Operations Manager, Technical Manager, Core/Thermal Hydraulic engineer, Mechanical Engineer, or Electrical Engineer.
g	Have there been <i>periodic</i> exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		An EP Exercise requiring SAMG implementation was conducted on September 22, 2009. NRC DEP PIs were counted during this exercise. Additionally, each ERO team (5 teams) performed a SAMG table-top exercise in the mid-2009 timeframe. There is no periodic requirement.

EXHIBIT 1

SUMMARY OF RESULTS

VERMONT YANKEE

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			<ul style="list-style-type: none"> • RPV & Containment EOP/SAG Reference and Action Levels – 03/05/07 • Appendix A, Vermont Yankee Severe Accident Guidelines Implementation Guide – 03/16/06 • Appendix B, SAG Design Notes – 12/29/98 • Appendix C, Plant-Specific Modifications – 12/29/98 • Attachment D SAG-1 – 02/01/06 • Attachment D SAG-2 – 09/14/09 • Appendix E, Technical Support Guidelines (TSG): Foreword and Figure 2 – 10/11/01 • Appendix E, Section 1, Introduction – 10/11/01 • Appendix E, Section 2, General Information – 10/11/01 • Appendix E, Section 3, Control Parameter Assessment Guideline – 03/08/07 • Appendix E, Section 4, Plant Status Assessment Guideline – 04/14/11 • Appendix E, Section 4, Attachment 1, Core Damage Assessment Methodology – 02/16/06 • Appendix E, Section 5, System Status Assessment Guideline – 10/11/01 • Appendix E, Section 6, EOP/SAG Action Assessment Guideline – 03/08/07 • Appendix E, Section 7, Containment Venting Guideline – 03/08/07 • Appendix F, Validation Program – 12/29/98 • Appendix G, Loss of Large Areas of the Plant Due to Fire or Explosion – 04/14/11 • Appendix H, EMG-I, Emergency Management Guideline – 02/26/09
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Yes		The inspectors verified that there are two controlled copies of the SAMGs in the technical support center. The inspectors identified an extra uncontrolled copy of App. E, Sec. 4, Att. 1 – Core Damage

Letter or Number	Inspection Item	Yes	No	Response/Comments
				Assessment Methodology with an outdated revision. Entergy entered the issue into their corrective action program, and immediately corrected the deficiency.
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Yes		The inspectors verified that there is one controlled copy in the EOF.
	Are controlled copies of the SAMG located in the control room? (Y/N)	Yes		The inspectors verified that there is one controlled copy in the control room.
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)		No, with comment	The SAMG manual is a controlled document, so periodic audits are conducted to verify the correct revisions are in place in hard copy. VY is not required to do periodic reviews of their procedures, per the current revision of the QA Manual. The QA master audit plan for the operations department includes emergency operation procedures (EOPs), but does not specifically mention the SAMGs.
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)	Yes		EN-DC-115, the corporate procedure for engineering changes, includes screening questions to determine if a review is needed to assess the change for impacts to the SAMGs. The review, if needed, is performed by the senior reactor operator (SRO) responsible for the SAMGs.
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?	Yes		The inspectors performed a high level review and verified that the SAMGs are consistent with the BWR owners' group recommendations. The inspectors also verified that Entergy added plant specific information where appropriate. Entergy's 10 CFR 50.54(hh) information is included in Appendix G to the SAMG manual. Appendix H to the SAMG manual contains information on severe accident management, including considerations of offsite power availability, spent fuel pool level, security concerns and medical concerns.
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			Entergy conducts classroom training for licensed operators on the Severe Accident Guidelines (SAGs), the Technical Support Guidelines (TSGs), Severe Accident Management, and Primary Containment Venting. Licensed operators are trained on all four, initially and once every two years. Non-licensed operators are trained on the

Letter or Number	Inspection Item	Yes	No	Response/Comments
				<p>SAGs and Primary Containment Venting, initially and once every two years. Non-licensed operators are trained on Severe Accident Management in requalification only. The emergency plant manager, who directs personnel in the TSC and the OSC, attends classroom training with the licensed operators, initially and then every three years, for all topics but primary containment venting. The Emergency Operations Facility (EOF) Emergency Director attends Severe Accident Management with the licensed operators initially and every three years.</p> <p>Once every two years licensed operators are given a simulator scenario that requires SAG entry. The operators proceed through the SAGs in a tabletop discussion, due to limitations on severe accident simulation. Licensed and non-licensed operators perform in-plant walkdowns during initial and requalification training that involves the EOPs and SAGs.</p> <p>Engineering staff members are given a brief overview of the SAGs during initial engineering training.</p>
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			The inspectors performed all of the required interviews.
	(1) Did they receive initial training on the SAMGs? (Y/N)	Yes		
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?	Yes		Those who had been qualified in their position long enough to need requalification training have received it. See periodicity listed in question "e" above.
	(2) Can they articulate their responsibilities with respect to the use of	Yes		The Control Room Supervisor (CRS) is responsible for recognizing the entry criteria into the SAGs (along with the TSC), has command and control of the SAGs, and makes decisions with TSC input if

Letter or Number	Inspection Item	Yes	No	Response/Comments
	SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?			<p>available.</p> <p>The reactor operators (ROs) implement SAMG actions as directed by the control room supervisor, and based on their training can provide for a second check for the control room supervisor (CRS).</p> <p>The shift technical advisor (STA) is responsible for monitoring entry criteria into the SAGs. The STA also tracks control room priorities based on those listed in each "leg" (procedure section).</p> <p>The TSC operations coordinator (an active SRO) is the SAG decision maker in the TSC. The operations coordinator assesses plant conditions to determine if there has been a core breach. They determine priorities based on the leg in use, coordinate with the OSC to take actions and keep the control room informed. They also use App H to monitor longer term concerns.</p> <p>The emergency plant manager directs actions in the TSC/OSC, and provides a second check for the ops coordinator. The emergency plant manager is not considered to be an SAG decision maker.</p>
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?	Yes		<p>Entergy conducts an emergency drill which includes an entrance into the SAGs via the EOPs every three years. Additionally, VY has conducted one emergency drill involving SAMG entry for a plane crash on site. Of the eight individuals interviewed, two could remember participating in a drill requiring the SAMGs.</p>