

BBNPP IMPACT TO SSES EMERGENCY PREPAREDNESS PROGRAM EVALUATION

1. PURPOSE

The purpose of this document is to evaluate whether the construction and operation of a new reactor, designated as Bell Bend Nuclear Power Plant (BBNPP), next to the Susquehanna Steam Electrical Station (SSES) adversely impacts and affects the implemented SSES Emergency Preparedness Program.

Specifically, it addresses items listed in Regulatory Guide 1.206, Section C.I.13.3.2, Emergency Plan Considerations for Multi-unit Sites.

2. STATEMENT OF INTENT

PPL Bell Bend, LLC proposes to construct a U.S. Evolutionary Power Reactor (U.S. EPR) to be designated as Bell Bend Nuclear Power Plant (BBNPP). {The new unit will be located on the same property currently occupied by SSES, but will be located approximately 0.6 miles away}. There will be two separate Emergency Plans for the site; one for SSES (the current SSES Emergency Plan) and the other for BBNPP. Combining the Emergency Plans may be considered at a later date following the licensing of BBNPP and will be accomplished through the 10 CFR 50.54(q) evaluation process. There will be no sharing of personnel in the respective Emergency Response Organizations (EROs). The Emergency Operations Facility (EOF), Joint Information Center (JIC), Near Site Assembly Area, and the Alert and Notification System (ANS) will be shared by all units.

3. MULTI-UNIT SITE CONSIDERATIONS

Note: Responses to the items cited in the Regulatory Guide are provided below each item.

Regulatory Guide 1.206, Section C.I.13.3.2 states:

If the new reactor is located on, or near, an operating reactor site with an existing Emergency Plan (i.e., multi-unit site), and the Emergency Plan for the new reactor includes various elements of the existing plan, the application should do the following:

- (1) Address the extent to which the existing site's Emergency Plan is credited for the new unit(s), including how the existing plan would be able to adequately accommodate an expansion to include one or more additional reactors and include any required modification of the existing Emergency Plan for staffing, training, emergency action levels, and the like.**

The SSES Emergency Plan does not take credit for any BBNPP equipment or personnel resources with regard to providing support to the existing program.

The BBNPP Emergency Plan will have a separate ERO, separate EP staff, separate training program, separate Emergency Action Levels (EALs), separate equipment and separate TSC/OSC.

Both stations will share the EOF, JIC, Near Site Assembly Area, and Alert and Notification System (ANS). There will be a limited sharing of equipment in the EOF, JIC, and Near Site Assembly Area. Sharing the EOF and JIC is desired to accommodate the response of offsite authorities to a single location for an event at the site. This will require modification to the SSES Emergency Plan to reflect shared resources and will be evaluated by EP staffs for programmatic impact using the 10 CFR 50.54(q) evaluation process.

A human factors evaluation will be performed to ensure the shared facilities and equipment used for event assessment are appropriately designed to distinguish between stations and are appropriate to accommodate multiple EROs.

A task analysis will be performed to ensure communications, accommodations and administrative resources in the EOF, JIC and near site assembly area are appropriately laid out to support BBNPP response requirements and address any impact to the existing SSES Emergency Plan.

Facility layout and furnishings will be evaluated and modified to the extent necessary to allow for combined use if concurrent events are declared at SSES and activation of both EROs is required.

Procedures will be developed for all EROs to address coordination of the flow of information during events involving multiple EROs.

A drill requiring mobilization and response activities of both EROs will be conducted prior to operation of BBNPP to demonstrate the ability of all utility emergency facilities to support a concurrent event. This drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and shared resources to ensure response functions for either unit are not degraded (in capability or timeliness) when responding to a concurrent event.

Shared use of the ANS does not impact the SSES Emergency Plan. The ANS applies to the EPZ based on the highest event declared at either station and is operated by offsite agencies.

- (2) Include a review of the proposed extension of the existing site's Emergency Plan pursuant to 10 CFR 50.54(q), to ensure that the addition of a new reactor(s) would not decrease the effectiveness of the existing plans and the plans, as changed, would continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50.**

See Sections 4 and 5 of this evaluation.

- (3) Describe any required updates to existing emergency facilities and equipment, including the alert notification system.**

Both stations will share the EOF, JIC, Near Site Assembly Area, and Alert and Notification System (ANS). This will require modification to the SSES Emergency Plan to reflect shared resources.

A human factors evaluation will be performed to ensure the shared facilities and equipment used for event assessment are appropriately designed to distinguish stations and are appropriate to accommodate multiple EROs.

A task analysis will be performed to ensure communications, accommodations and administrative resources in the EOF, JIC and near site assembly area are appropriately laid out to support BBNPP response requirements and address any impact to the existing SSES Emergency Plan.

Facility layout and furnishings will be evaluated and modified to the extent necessary to allow for combined use if concurrent events are declared at SSES and BBNPP and activation of both EROs is required.

Procedures will be developed for all EROs to address coordination of the flow of information during events involving multiple EROs.

A drill requiring mobilization and response activities of both EROs will be conducted prior to operation of BBNPP to demonstrate the ability of all utility emergency facilities to support a concurrent event. This drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and shared resources to ensure response functions for either station are not degraded (in capability or timeliness) when responding to a concurrent event.

Siting of BBNPP will require modification of the Emergency Planning Zone (EPZ), however no changes to the ANS are expected to be necessary. The 60 and 70 dB contour lines of the new siren system being installed at SSES extend beyond the West side of the existing EPZ. However, a study will be conducted to determine if additional sirens will be necessary. If required, new sirens will be installed and tested prior to initial low power testing. The previous 12 months data for the SSES NRC ANS Reliability Performance Indicator will be reviewed to ensure the existing system performance is sufficient for BBNPP prior to initial low power testing.

(4) Incorporate any required changes to the existing onsite and offsite emergency response arrangements and capabilities with state and local authorities or private organizations.

No changes to the SSES onsite emergency response arrangements or capabilities have been identified concerning the Commonwealth and local or private organizations.

No changes to the existing Commonwealth and local offsite emergency response arrangements or capabilities have been identified concerning private organizations.

Changes to the existing Commonwealth and local offsite emergency response arrangements will be necessary to account for the addition of Benton Township and additional areas of North Centre, South Centre, and Mifflin Townships to the EPZ.

Initial discussions for the construction of BBNPP have been conducted with Commonwealth and local authorities. As a result of these discussions, agreement letters were obtained from both Commonwealth and local authorities with Emergency Planning responsibilities indicating a commitment to participate in further development of the emergency response plans for BBNPP, including any required training and field demonstrations, and working with the licensee to identify any needed changes to their current commitment to execute their responsibilities.

(5) Justify the applicability of the existing 10-mile plume exposure EPZ and 50-mile ingestion control EPZ.

The offsite radiological consequences for the BBNPP design basis accident are below those of the SSES design basis accident.

The limiting dose at the 10 Mile EPZ boundary for BBNPP, based on the worst case design basis accident, is 0.95 Rem TEDE.

Due to the new BBNPP being located approximately 0.6 miles West of SSES Units the EPZ center will be shifted slightly (See attached drawing illustrating old and new EPZ boundaries). This shift has been reviewed and approved by the local authorities.

No change to the 50 Mile Ingestion Emergency Planning Zone will be made as the slight shift does not result in significant changes to the ingestion pathway planning. This has been approved by the Commonwealth of Pennsylvania Emergency Management Agency.

(6) Address the applicability of the existing ETE or provide a revised ETE, if appropriate.

A revised ETE study report conducted for the site, "Susquehanna Steam Electric Station (SSES)/Bell Bend Development of Evacuation Time Estimates", Revision 0, dated September, 2008 is provided for BBNPP. The revised ETE contains special site evacuation scenarios which consider the BBNPP construction workforce to determine the potential impact on the existing ETEs that could occur.

(7) If applicable, address the exercise requirements for co-located licensees, in accordance with Section IV.F.2.c of Appendix E to 10 CFR Part 50, and the conduct of EP activities and interactions discussed in RG 1.101.

Both the SSES and BBNPP Emergency Plans include discussion that the offsite plans specify a FEMA evaluated full participation exercise for the site be performed biennially.

Both the SSES and BBNPP Emergency Plans require participation by each licensee to:

- (1) Conduct an exercise biennially of its onsite Emergency Plan; and*
- (2) Participate quadrennially in an offsite biennial full or partial participation exercise;*

Both stations participate in emergency preparedness activities and interaction with offsite authorities during the period between exercises. Each station's Emergency Plan administrative procedures will be written to complement one another regarding the coordination and scheduling of the exercise schedule for the multi-unit site.

(8) If applicable, include ITAAC which will address any changes to the existing Emergency Plans, facilities and equipment, and programs that are to be implemented, along with a proposed schedule.

The BBNPP Emergency Plan will have a separate ERO, separate EP staff, separate training program separate Emergency Action Levels (EALs), separate equipment and separate TSC/OSC.

Both stations will share the EOF, JIC, Near Site Assembly Area and Alert and Notification System (ANS). This will require modification to the SSES emergency plan to reflect shared resources and will be evaluated by SSES EP staff for programmatic impact using the 10 CFR 50.54(q) evaluation process.

A drill requiring mobilization and response activities of both EROs will be conducted prior to operation of BBNPP to demonstrate the ability of all utility emergency facilities to support a concurrent event. This drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and shared resources to ensure response functions for either station are not degraded (in capability or timeliness) when responding to a concurrent event.

An addendum to the SSES Emergency Plan will be developed and implemented prior to the start of BBNPP construction to address temporary site impacts due to the presence of additional equipment, materials and personnel within the OCA during the construction phase. This addendum will be reviewed and approved using the 10 CFR 50.54(q) evaluation process for SSES.

Following construction and prior to operational testing, the addendum will be reviewed, evaluated, and retired. Prior to retiring the document, the SSES Emergency Plan will be reviewed to address any permanent impact from the limited sharing of resources and operational logistics that are planned to occur when the new unit is licensed for operation.

No ITAAC is necessary to address construction phase changes to the existing SSES Emergency Plan.

(9) Describe how Emergency Plans, to include security, are integrated and coordinated with Emergency Plans of adjacent sites.

The BBNPP Emergency Plan assigns the Emergency Preparedness Manager the responsibility to coordinate with SSES Emergency Preparedness Staff to ensure:

- Consistency in planning with offsite authorities.*
- Consistency in providing emergency preparedness information to the public.*
- Operations and maintenance of shared Emergency Plan equipment and facilities.*
- Site wide protective actions (notifications, assembly, evacuation, etc) including Security's actions.*
- Proper scheduling of full participation exercises.*

A letter of agreement between the licensees outlining these shared responsibilities will be executed prior to pre-operational testing of BBNPP.

4. PRELIMINARY 10CFR 50.54(Q) EVALUATION

The preliminary evaluation analyzed the impact of BBNPP construction and operation on the following planning standards implemented at SSES by answering the question: Does the plan for the construction and operation of BBNPP or the BBNPP Emergency Plan impact any of the following?

Yes No

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1. [50.47(b)(1)] Primary responsibilities of SSES, offsite agencies or support organizations.

OR

The ability to respond initially or on a continuous basis.

Comments: The SSES ERO, offsite agency response organizations or support organization responders primary responsibilities are not impacted. Since no changes are being made to the capability or timeliness of the responder's functions/responsibilities, this item will not be impacted by BBNPP.

From a staffing perspective, SSES personnel are not used for the BBNPP ERO and therefore the ability to respond initially or on a continuous basis will not be impacted by BBNPP.

Offsite agency personnel located in the EOF and JIC are not impacted as the facilities are to be shared by both units.

Support organization (such as law enforcement, fire and medical) function under an all hazards plan that utilizes the National Incident Management System (NIMS) process for unified and forward command processes, and therefore the ability to respond initially or on a continuous basis will not be impacted by BBNPP.

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2. [50.47(b)(2)] The assignment of responsibilities of personnel.

OR

Minimum staffing or timely augmentation.

OR

The interface between onsite and offsite support response activities.

Comments: An additional responsibility for SSES onshift personnel is needed to ensure BBNPP personnel are notified of an event at SSES.

The number of SSES personnel needed for minimum staffing will not be impacted by BBNPP. However, timely augmentation of SSES ERO personnel may be potentially impacted if there is a concurrent or ongoing BBNPP event. Emergency plan procedures will be reviewed for entry {onto the site} by ERO personnel.

The SSES interface with Support organization (such as law enforcement, fire and medical) will not be impacted by BBNPP.

Yes No

- ☒ ☐ 3. [50.47(b)(3)] Arrangements for requesting and effectively using assistance or resources from offsite authorities.

OR

The accommodations for federal, state, and/or local staff at the EOF.

Comments: The current arrangements in place for SSES to request and effectively use assistance or resources from offsite authorities will not be impacted by BBNPP. The scope of resources used is based primarily on offsite actions such as public notification, evacuation and monitoring and therefore do not change with the addition of BBNPP to the site. Arrangements involving the need for law enforcement, fire or medical support will not be impacted by BBNPP.

Although no impacts on arrangement for requesting and effectively using assistance or resources from offsite authorities have been identified at this time, planning efforts for BBNPP include agreement letters from the same Commonwealth and local offsite authorities supporting SSES indicating their commitment to work with UniStar Nuclear to identify any needed changes to the current arrangements with the site as the process continues.

The accommodations for offsite agencies in the EOF have been taken into consideration if an event is declared at SSES and BBNPP, with the need to activate both EROs. A combined drill involving activation of both EROs will be conducted prior to BBNPP operation to ensure the adequacy of emergency facilities to support concurrent events. The drill will evaluate the adequacy of space, furnishing, communications and monitoring systems and coordination of shared resources. This will also be used to verify that there would be sufficient space and resources for local agency and federal staff at the shared facility or facilities.

- ☐ ☒ 4. [50.47(b)(4)] Emergency Action Levels.

Comments: No changes to the SSES EALs are required due to the addition of BBNPP.

- ☒ ☐ 5. [50.47(b)(5)] Notification procedures to either the ERO, local, state, or federal entities.

OR

The content of initial and follow-up messages.

Comments: A requirement to notify BBNPP of an event at SSES will be added to the SSES Emergency Plan. The SSES and BBNPP EP staff will work with the Commonwealth and locals on the inclusion of BBNPP in both the initial or follow-up information forms.

Yes No

- ☐ ☒ 6. [50.47(b)(6)] Communications capability among principal response organizations to emergency personnel or the public.

Comments: Current SSES communications capability among principal response organizations to emergency personnel or the public will not change. The BBNPP Emergency Plan will have a separate ERO and separate equipment thus not requiring any modifications to the SSES Emergency Plan.

- ☒ ☐ 7. [50.47(b)(7)] Dissemination of coordinated information to the general or transient public including periodic information dissemination (brochures).

Comments: The dissemination of Emergency Planning information to the public will be coordinated between BBNPP and SSES to avoid duplicate efforts. This information will be updated to reflect the addition of BBNPP prior to full power operation.

- ☒ ☐ 8. [50.47(b)(8)] Provisions for or maintenance of emergency facilities and equipment.

OR

The periodicity of communications and emergency equipment tests.

Comments: Sharing of the EOF, JIC, Near Site Assembly Area, and ANS will require coordination of administrative procedures for maintenance and testing of those facilities and equipment. This will ensure that tests are conducted at required periodicities but not unnecessarily duplicated.

- ☐ ☒ 9. [50.47(b)(9)] Methods, systems and/or equipment for the assessment and monitoring of actual or potential offsite radiological consequences.

Comments: BBNPP will utilize its own instrumentation, equipment, field monitoring teams and Dose Assessment program therefore the SSES program will not be affected.

- ☒ ☐ 10. [50.47(b)(10)] Protective Actions developed for either the Plume or Ingestion Exposure Pathways including onsite protective actions.

Comments: Onsite evacuation routes and assembly areas will be evaluated to ensure construction and/or operation of BBNPP does not reduce the level of safety for plant workers. Protective Action Recommendations to offsite authorities will be consistent from both stations at the site.

Yes No

- ☐ ☒ 11. [50.47(b)(11)] Means for controlling emergency worker radiation exposures consistent with the guidelines established by the EPA.

Comments: SSES current means for controlling emergency worker radiation exposures are not impacted by BBNPP. BBNPP will have separate procedures and equipment for controlling emergency worker radiation exposures thus not requiring any modifications to the SSES Emergency Plan and procedures.

- ☐ ☒ 12. [50.47(b)(12)] Arrangements for medical services for contaminated injured individuals.

Comments: SSES current arrangements with medical services will not be impacted by BBNPP. BBNPP has obtained agreement letters from the same SSES medical services for contaminated individuals indicating their commitment to participate in any further development of the emergency response plans and to work with PP&L to identify any needed changes to the current Letter of Agreement with the SSES site if applicable.

- ☒ ☐ 13. [50.47(b)(13)] Plans for plant reentry and/or recovery organization operations.

Comments: The BBNPP Emergency Plan will have a separate plant reentry and recovery organization. However, while the organization will not change, SSES reentry and recovery plans will be revised to reflect additional considerations as a result of BBNPP; such as how BBNPP personnel may reenter the site to continue BBNPP operation.

- ☒ ☐ 14. [50.47(b)(14)] Periodicity of drills and/or exercises as well as deficiency resolution.

Comments: There are no required changes to the SSES Emergency Plan due to the addition of the BBNPP. However, Regulatory Guide 1.101 addresses exercise requirements for multi units at a single location with dual-licensees. SSES and BBNPP will coordinate conduct of full scale or partial exercises with Commonwealth and local authorities.

- ☒ ☐ 15. [50.47(b)(15)] Training requirements for ERO or local site support personnel.

Comments: Current training requirements for the SSES ERO are not impacted as BBNPP will have a separate ERO and training program.

Training of local support personnel will be coordinated between SSES and BBNPP to avoid duplicate training. BBNPP has obtained agreement letters from the same SSES Commonwealth and local support agencies indicating their commitment to participate in any required training and field demonstrations.

Yes No

- ☐ ☒ 16. [50.47(b)(16)] Responsibilities for Emergency Plan development, maintenance, and review as well as training requirements for personnel maintaining the plan.

Comments: SSES current responsibilities for Emergency Plan development, maintenance, and review as well as training requirements for personnel maintaining the plan will not be impacted as the BBNPP Emergency Plan will have a separate EP staff with separate training requirements.

- ☒ ☐ 17. Implementation of other federal regulations (primarily Appendix E to 10 CFR Part 50) and requirements or formal commitments related to the SSES Emergency Preparedness Program.

Comments: Section IV.E.8 of Appendix E to 10 CFR Part 50 states the licensee shall include: "A licensee onsite technical support center and a licensee near-site emergency operations facility from which effective direction can be given and effective control can be exercised during an emergency."

SSES and BBNPP will share a single EOF. This will affect SSES emergency response if an event is declared for BBNPP at the same time.

A human factors evaluation will be performed to ensure the shared facilities and equipment used for event assessment are appropriately designed to distinguish between stations and are appropriate to accommodate multiple EROs.

Facility layout and furnishings will be evaluated and modified to the extent necessary to allow for combined use if concurrent events are declared at SSES and BBNPP and activation of both EROs is required.

Procedures will be developed for all EROs to address coordination of the flow of information during events involving multiple EROs.

A drill requiring mobilization and response activities of both EROs will be conducted prior to operation of BBNPP to demonstrate the ability of all utility emergency facilities to support a concurrent event. This drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and shared resources to ensure response functions for either station are not degraded (in capability or timeliness) when responding to a concurrent event.

5. DETAILED 10 CFR 50.54(Q) EVALUATION

Further discussion of any planning standard marked as “yes” in section 3.

- PLANNING STANDARD #2

The impact on Planning Standard #2 is classified as a difference. Communication between each unit’s control rooms would need to be established for notification and information dissemination should an event occur at either unit. A requirement to notify BBNPP of an event at SSES will be added to the SSES Emergency Plan. SSES Emergency Plan procedures will be revised to ensure BBNPP Control Room personnel are notified of a declaration of an event occurring at SSES. This will not reduce the effectiveness of the SSES Emergency Plan efforts as it does not change commitments to current requirements and does not reduce any ERO capabilities. The addition to notify BBNPP will not negatively impact the control room staff or delay the completion of currently assigned operations and Emergency Plan tasks.

The timely augmentation of the SSES ERO may be potentially impacted in the unlikely event of a concurrent or ongoing BBNPP event. SSES ERO personnel responding to the event may be slowed into the site due to the ingress of BBNPP personnel. Therefore, the SSES Emergency Plan procedures will be reviewed and evaluated for potential entry impediments into the site by ERO personnel to ensure there is no decrease in SSES program effectiveness.

- PLANNING STANDARD #3

The impact on Planning Standard #3 for accommodations for federal, Commonwealth and/or local staff at the EOF would be a difference only if both EROs are activated and the event is classified at a Site Area Emergency or higher (full response by offsite agencies). Emergency plan procedures will be modified to address joint activation of the shared facilities. Some modification (additional furniture, communications systems etc.) to the shared facilities will be performed to maintain current capabilities and effectiveness. These modifications will be based upon the performance results of the human factors evaluation on the shared systems used for event assessment at the EOF and the task analysis on communications, accommodations and administrative resources in the EOF, JIC and near site assembly area.

A combined drill requiring mobilization and response activities of the SSES and BBNPP EROs will be conducted prior to operation of BBNPP to ensure the adequacy of all utility emergency facilities to support concurrent events. The drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and coordination of shared resources to ensure response functions for either station are not a decrease in program effectiveness.

- PLANNING STANDARD #5

The impact on Planning Standard **#5** is classified as a difference. Communication between each unit's control rooms would need to be established for notification and information dissemination should an event occur at either unit. A requirement to notify BBNPP of an event at SSES will be added to the SSES Emergency Plan. SSES Emergency Plan procedures will be revised to ensure BBNPP Control Room personnel are notified of a declaration of an event occurring at SSES. This will not reduce the effectiveness of the SSES response efforts as it does not change commitments to current requirements and does not reduce any ERO capabilities. The additional notification to BBNPP will not negatively impact the control room staff or delay the completion of currently assigned operations and Emergency Plan tasks.

The format and content of the notification forms will change only in that it will need to include a designator position for an emergency at BBNPP. The SSES and BBNPP EP staffs will work with Commonwealth and local personnel to determine how best to add BBNPP to the notification forms.

- PLANNING STANDARD #7

The impact on Planning Standard **#7** does not affect the ability to respond to an emergency. The impact is on the provision of emergency preparedness information to the general public (prior to an actual emergency being declared) in a consistent manner. This will be addressed in the emergency preparedness administrative procedures providing for the coordination of efforts to ensure appropriate SSES and BBNPP information is generated and routinely disseminated. This coordinated effort will ensure there is no decrease in effectiveness of planning efforts.

- PLANNING STANDARD #8

The impact on Planning Standard **#8** is a difference and will be addressed in the emergency preparedness administrative procedures providing for the coordination of efforts of both EP staffs to ensure all shared facilities, and ANS are properly maintained. This coordinated effort will ensure there is no decrease in the current effectiveness of planning efforts.

- PLANNING STANDARD #10

The impact on Planning Standard **#10** would be a deviation. Onsite evacuation routes and assembly areas will be evaluated to ensure construction and/or operation of the new unit does not reduce the level of safety for plant workers. During the construction phase of BBNPP, the SSES Security Plan will incorporate, if necessary, NEI 03-12, Appendix E, "Additional Security Measures for Operating Reactors during Construction of New Reactor Plants within the Owner Controlled Area" through the 10 CFR 50.54(p) process. Section 2.6 of Appendix E addresses evacuation routes for SSES remaining open during the construction phase of BBNPP. Current primary and secondary egress capabilities will be maintained to ensure the health and safety of site personnel.

- PLANNING STANDARD #13

For Planning Standard **#13**, additional considerations by the SSES recovery organization concerning the presence of BBNPP would need to be reflected in the SSES recovery plans and is considered a difference. The potential impact to the continued safe operation and maintenance of BBNPP, from reentry and recovery planning following a declared emergency at SSES will have to be considered on an event by event basis. Should an event occur at SSES that does not adversely impact BBNPP operations, at a minimum the continued operation of BBNPP, including access to the site, would need to be considered. These additional considerations will be added to the SSES recovery plans and procedures to ensure there is no decrease in SSES program effectiveness.

- PLANNING STANDARD #14

The impact on Planning Standard **#14** would be a deviation – The exercise requirements for SSES will be changed to be in full compliance with the requirements of 10 CFR 50 Appendix E and Regulatory Guide 1.101. This change is allowed by Appendix E to 10 CFR Part 50, and Regulatory Guide 1.101 - and therefore does not negatively affect program effectiveness - which states:

Co-located licensees are two different licensees whose licensed facilities are located either on the same site or on adjacent, contiguous sites, and that share most of the following Emergency Planning and siting elements:

- (a) plume exposure and ingestion Emergency Planning zones,*
- (b) offsite governmental authorities,*
- (c) offsite emergency response organizations,*
- (d) public notification system, and/or*
- (e) emergency facilities.*

This regulatory guide provides guidance to co-located licensees and co-located applicants on methods that the staff of the U.S. Nuclear Regulatory Commission (NRC) considers acceptable for complying with the agency's regulations for emergency response plans and preparedness relative to conducting emergency response planning activities and interactions (A&I) in the years between participation in the offsite full or partial participation exercises with offsite authorities. This regulatory guide does not impose any new positions or requirements. Licensees and applicants are not required to use the methods specified in the regulatory position set forth in this guide, and are free to propose other means to achieve compliance with the applicable regulations.

- PLANNING STANDARD #15

The impact on Planning Standard **#15** is a difference. The responsibility for training offsite groups that support the Emergency Preparedness Program will be shared by both EP staffs and will be addressed in emergency preparedness administrative procedures to coordinate the required training of offsite support personnel. This coordinated effort will ensure there is no decrease in effectiveness of the current offsite support personnel training program elements.

Additionally, SSES ERO personnel will be trained on the requirement to notify BBNPP personnel of a classified event at SSES as well as the potential impact of the BBNPP ERO with respect to shared facility space during co-declared events. This added training will not reduce the effectiveness of the SSES Emergency Planning training program.

- PLANNING STANDARD #17

The impact on Planning Standard **#17** for accommodations for federal, Commonwealth and/or local staff at the EOF would be a difference only if both EROs are activated and the event is classified at a Site Area Emergency or higher (full response by offsite agencies). Emergency plan procedures will be modified to address joint activation of the shared facilities. Some modification (additional furniture, communications systems etc.) to the shared facilities will be performed to maintain current capabilities and effectiveness. These modifications will be based upon the performance results of the human factors evaluation on the shared systems used for event assessment at the EOF and the task analysis on communications, accommodations and administrative resources in the EOF, JIC and near site assembly area.

A drill requiring mobilization and response activities of the SSES and BBNPP EROs will be conducted prior to operation of BBNPP to ensure the ability of all utility emergency facilities to support a concurrent event. The drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and coordination of shared resources to ensure response functions for either station are not a decrease in program effectiveness.

6. SUMMARY

Since there will be no sharing of personnel in the respective Emergency Response Organizations (EROs) and only the Emergency Operations Facility (EOF), Joint Information Center (JIC), Near Site Assembly Area, and Alert and Notification System (ANS) will be shared by both stations, the impact on SSES emergency preparedness program will be minimal.

Accommodations will be made for inter-unit notifications, limited sharing of facilities and equipment, onsite protective actions and coordination of interfacing program maintenance items (public information, offsite interfaces, maintenance of shared facilities, etc.).

These changes either individually or in total will not reduce the current effectiveness of the SSES Emergency Plan.

Summary of Action Items

1. A human factors evaluation will be performed to ensure the shared systems used for event assessment are appropriately designed to distinguish BBNPP from SSES.
2. A task analysis will be performed to ensure communications, accommodations and administrative resources in the EOF, JIC and near site assembly area are appropriately laid out to support BBNPP response requirements and address any impact to the existing SSES Emergency Plan.
3. A drill requiring mobilization and response activities of both EROs will be conducted prior to operation of BBNPP to demonstrate the ability of all utility emergency facilities to support a concurrent event. This drill will evaluate the adequacy of space, furnishing, communications, monitoring systems and shared resources to ensure response functions for either unit are not degraded (in capability or timeliness) when responding to a concurrent event.
4. SSES and BBNPP Emergency plan implementing procedures will be modified to address joint activation of the shared facilities.
5. A study will be conducted to determine if additional sirens would be needed due to the expansion of the EPZ. As required, new sirens will be installed and tested prior to low power testing. The previous 12 months data for the SSES NRC ANS Reliability Performance Indicator will be reviewed to ensure the existing system performance is sufficient for BBNPP.
6. Changes to the existing Commonwealth and local offsite emergency response arrangements will be necessary to account for the change in the EPZ.
7. SSES and BBNPP Emergency Plan administrative procedures will be written to complement one another regarding the coordination and scheduling of the exercise schedule for the multi-unit site.
8. An addendum to the SSES Emergency Plan will be developed and implemented prior to the start of BBNPP construction to address temporary site impacts due to the presence of additional equipment, materials and personnel within the OCA during the construction phase. This addendum will be reviewed and approved using the 10 CFR 50.54(q) evaluation process for SSES.

Following construction and prior to operational testing, the addendum will be reviewed, evaluated, and retired. Prior to retiring the document, the SSES Emergency Plan will be reviewed to address any permanent impact from the limited sharing of resources and operational logistics that are planned to occur when the BBNPP is licensed for operation.

9. Onsite evacuation routes and assembly areas will be evaluated to ensure construction and/or operation of the new unit does not reduce the level of safety for plant workers. SSES Emergency Plan procedures will be reviewed and evaluated for potential entry impediments into the site by ERO personnel to ensure there is no decrease in SSES program effectiveness.
10. A letter of agreement between the licensees of SSES and BBNPP outlining shared responsibilities will be executed.
11. Emergency plan procedures will be reviewed for entry into the site by ERO personnel to address timely augmentation of SSES ERO personnel if there is a concurrent or ongoing BBNPP event.
12. A requirement to notify BBNPP of an event at SSES will be added to the SSES Emergency Plan. SSES Emergency Plan procedures will be revised to ensure BBNPP Control Room personnel are notified of a declaration of an event occurring at SSES.
13. SSES and BBNPP emergency preparedness administrative procedures will provide for the coordination of efforts to ensure appropriate SSES and BBNPP information is generated and routinely disseminated.
14. SSES and BBNPP emergency preparedness administrative procedures will provide for the coordination of efforts of both EP staffs to ensure all shared facilities, and ANS are properly maintained.
15. SSES reentry and recovery plans will be revised to reflect additional considerations as a result of BBNPP.
16. SSES and BBNPP emergency preparedness administrative procedures will provide for the coordination of required training of offsite support personnel.
17. SSES ERO personnel will be trained on the requirement to notify BBNPP personnel of a classified event at SSES as well as the potential impact of BBNPP ERO with respect to shared facility space during co-declared events.
18. The SSES and BBNPP EP staffs will work with the Commonwealth and locals to determine how best to add BBNPP to both the initial and follow-up information.

