

Table 13.6-2 COL Action Items

February 13, 2007

Open Item #	DCD Section	Description of Action Item as in text of SER/OI.	NRC staff explanatory notes and cross-references to other text (if applicable).
1	13.6.1.1.4, "Communications"	<p>The design of security communications system that enables continuous communications between the alarm stations and on-duty guard force personnel, and the alarm stations and local law enforcement, is the responsibility of the COL applicant. The staff finds this approach acceptable with the exception of designing the location of the secondary power supply system, and the penetrations (i.e., for cabling to convey power and electrical and/or optical signals) necessary to enable the system itself, which is required to be in a vital area and provide back-up power for those non-portable communications equipment located in alarm stations as described in 10 CFR 73.55(e)(1). Design of the site communications system, minus the location of the secondary power supply system and its cable pathways, is COL action item 13.6-1.</p>	
2	13.6.1.1.5, "Access Controls"	<p>The means to control access of personnel, vehicles and materials into the protected area shall be provided. The Section also states that these access control measures shall ensure positive identification and authorization and search of personnel, vehicles and materials prior to entry into the protected area and shall limit vital area access to only authorized personnel. Further; the Section states that protected area and vital area access controls are the responsibility of the COL applicant. The staff agrees with this approach with the exception of, at a minimum, accommodating these access control features in the design of vital areas. This was previously identified by the staff as Open Item 13.6-2. Design of the remainder of the site protected area and vital area access control measures (i.e., those vital area access control characteristics that are not included within the scope of the ESBWR design) is COL action item 13.6 2.</p>	<p>A COL applicant should refer to Open Item 13.6-2 to fully understand scope of access control design required.</p>

3	13.6.1.1.7, "Security Power Supply"	The preliminary design (i.e., approximate capacity and subsequent physical size) of the secondary power supply, so that it will have the capability to enable alarm annunciator equipment and non-portable communications equipment, has been identified by the staff as Open Item 13.6-4. The Open item associated with locating the secondary power supply in a vital area is identified under the evaluation of DCD Tier 2 Chapter 13.6.2.2, "Vital Areas," below. Final design of the secondary power supply system to enable alarm annunciator and non-portable communications equipment, minus designing the location to be within a vital area, is COL action item 13.6-3.	
4	13.6.1.1.8, "Testing and Maintenance of Security Systems"	The requirement for test and maintenance of security systems is described in 10 CFR 73.55(g) and includes physical barriers. The recommended testing and maintenance of any physical barriers and security related features and equipment identified in the design of the ESBWR is identified by the staff as Open Item 13.6-5. Meeting the remaining requirements of site testing and maintenance in accordance with 10 CFR 73.55(g) is COL action item 13.6-4.	
5	Section 13.6.2.2, "Vital Areas"	Locating vital equipment in vital areas, as specified in the ESBWR design, is COL action item 13.6-5.	
6	Section 13.6.2.4, "Additional Access Control Measures"	Vital areas are part of the ESBWR design and unattended openings that cross a vital area boundary, with the dimensional characteristics of dimensions as stated, must have designed physical features that secure the opening to prevent unauthorized personnel access. The staff notes that barriers applied to such openings are to preclude unauthorized personnel access and that other types of barriers, with smaller final dimensions, may be necessary if their purpose is to prevent the introduction of material that can be used for sabotage or assist in the theft of nuclear material. The design of specific barriers for these unattended openings, with dimensional characteristics of 96 square inches of open area and greater than six inches in any one dimension, that traverse vital area boundaries is identified by the staff as Open Item 13.6-9. The identification and design of the remainder of barriers (i.e., those not within the scope of the ESBWR design) for unattended openings that traverse or intersect a security boundary or area (e.g., vital area, protected area, controlled access area) is COL Action Item 13.6-6.	

7	Section 13.6.2.4, "Additional Access Control Measures"	The third paragraph of this Section states recommended security measures for specific security areas located within vital areas. These recommendations include: administrative controls, locks, and tamper alarms. Site security procedures, which would include the development of security administrative controls, are required as described in 10 CFR 73.55(b)(3), tamper alarms are required as described in 10 CFR 73.55(e)(2), key control measures are required as described in 10 CFR 73.55(d)(8) and physical barriers are required as described in 10 CFR 73.55(c). Identification of these specific security areas (i.e., specific location and type of rooms and cabinets) within vital areas for which these recommendations apply is identified as Open Item 13.6-10. Addressing these recommended security measures for these specific security areas within vital areas is COL Action Item 13.6-7.	
8	Section 13.6.2.5, "Bullet Resisting Vital Areas"	Design of a comprehensive approach to the "single act" requirement is COL Action Item 13.6-8.	
9	13.6.2.6.2, "Mitigation Through Early Detection"	Design of the line supervision alarms, as stated in the Second paragraph of this Section, has been identified by the staff as Open Item 13.6-12. Implementation of the designed line supervision alarms as specified in Open Item 13.6-12 into a site physical protection system is COL Action Item 13.6-9.	
10	13.6.2.6.2, "Mitigation Through Early Detection,"	Identification of regular test intervals for those applicable components as noted Open Item 13.6-13 and implementation of these test intervals and the designed process/system alarms, as specified in Open Item 13.6-13, into the site physical protection system is COL Action Item 13.6-10.	
11	13.6.2.6.3, "Detection and Mitigation with State of the Art Electronics for Plant Control and Instrumentation"	The staff has identified the design of the alarms generated for detected component failures, as stated in paragraph one of this Section, as Open Item 13.6-14. Implementation of these alarms, generated for component failure, designed in Open Item 13.6-14, into a site physical protection system is COL Action Item 13.6-11.	

12	13.6.2.6.3, "Detection and Mitigation with State of the Art Electronics for Plant Control and Instrumentation"	Design of the annunciation in the Main Control Room, due to the condition as stated in the second paragraph of this Section, is identified by the staff as Open Action 13.6-15. Implementation of this annunciation in the Main Control room, due to the condition as stated in the second paragraph of this Section, into a site physical protection system is COL Action Item 13.6-12.	
13	13.6.2.6.3, "Detection and Mitigation with State of the Art Electronics for Plant Control and Instrumentation"	Design of the alarms provided in the Main Control Room for the current monitors as stated in the third paragraph of this Section is identified by the staff as Open Item 13.6-16. Implementation of these alarms provided in the Main Control Room for current monitors, as stated in the third paragraph of this Section, into a site physical protection system is COL Action Item 13.6-13.	
14	13.6.2.6.3, "Detection and Mitigation with State of the Art Electronics for Plant Control and Instrumentation"	Design of the procedures for the manual actuation of components, as stated in the fifth paragraph of this Section is identified as Open Item 13.6 18. Design of a physical protection system that can take credit for these operator actions during a security incident is COL Action Item 13.6-14.	
15	13.6.2.7.1, "Main Control Room"	Development of site procedures, that address the recommended two listed administrative controls at the end of this Section, are COL Action Item 13.6-15.	
16	13.6.2.7.2, "Gravity Driven Cooling System"	Design of the cabinets, and locks for the cabinets that address the first recommended security measure listed at the end of this Section has been identified by the staff as Open Item 13.6-19. Establishing and implementing administrative controls for the keys to these locks, for the cabinets described in the first listed security measure at the end of this Section into a site physical protection system, is COL Action Item 13.6-16.	
17	13.6.2.7.2, "Gravity Driven Cooling System"	Design of the alarms, as described in the second listed security measure at the end of this Section, and implementation of those alarms into a site physical protection system is COL Action Item 13.6-17.	

18	13.6.2.7.2, "Gravity Driven Cooling System"	The development and implementation, into a site physical protection system, of procedures that address the third listed security measure (which is an administrative control) at the end of this Section is COL Action Item 13.6-18.	
19	13.6.2.7.3, "Standby Liquid Control System"	Design of the cabinets, and locks for the cabinets that address the first recommended security measure listed at the end of this section has been identified by the staff as Open Item 13.6-21. Establishing and implementing administrative controls for the keys to these locks, for the cabinets described in the first listed security measure at the end of this Section, into a site physical protection system, is COL Action Item 13.6-19.	
20	13.6.2.7.3, "Standby Liquid Control System"	Design of the cabinets, as described in the second listed security measure at the end of this Section, to contain a tamper alarm, has been identified by the staff as Open Item 13.6-22. Design of the alarms, as described in the second listed security measures at the end of this Section, and implementation of those alarms into a site physical protection system is COL Action Item 13.6-20.	
21	13.6.2.7.3, "Standby Liquid Control System"	Development and implementation of the administrative control, as described in the third security measure at the end of this Section, into a site physical protection system is COL Action Item 13.6-21.	
22	13.6.2.7.3, "Standby Liquid Control System"	Design of the location and room (or other suitable enclosure that acts as a physical barrier) to house components, design of the locks, and design of the room or enclosure to accommodate security alarm devices, as described in the fourth security measure at the end of this Section, has been identified by the staff as Open Item 13.6-23. Design of the alarm annunciation, from those alarms as designed in the fourth security measure described at the end of this Section, and implementation of those annunciations into the site physical protection system is COL Action Item 13.6-22.	
23	13.6.2.7.3, "Standby Liquid Control System"	Development of the administrative controls, as described in the fifth security measure at the end of this Section, and implementation of them into a site physical protection system is identified as COL Action Item 13.6-23.	

24	13.6.2.7.4, "Control Rod Drive System"	Design of the locking devices, as described at the end of the, "Scram Function," subsection, has been identified by the staff as Open Item 13.6-24. Development and implementation of the key control measures, as described at the end of the, "Scram Function," subsection, into a site physical protection system, is COL Action Item 13.6-24.	
25	13.6.2.7.4, "Control Rod Drive System"	Development and implementation of the administrative controls, as described at the end of the, "Normal Rod Insertion," subsection, into a site physical protection system, is COL Action Item 13.6-25.	
26	13.6.2.7.4, "Control Rod Drive System"	Implementation of the status indicators in the Main Control Room for the two components, as described in the third paragraph within the, "High Pressure Makeup Function," subsection, into a site physical protection system, is COL Action Item 13.6-26.	
27	13.6.2.7.5, "Automatic Depressurization System"	The design, location and locks for the cabinets, as described in the first security measure listed at the end of this Section, has been identified by the staff as Open Item 13.6-25. Development and implementation of the key control measures, as described in the first security measure listed at the end of this Section, is COL Action Item 13.6-27.	
28	13.6.2.7.5, "Automatic Depressurization System"	Design of the tamper switch alarms to annunciate in both the alarm stations and the Main Control Room, and design of the tamper switches themselves into the cabinets, as described in the second security measure listed at the end of this Section, and implementation of those annunciations into a site physical protection strategy is COL Action Item 13.6-28.	
29	13.6.2.7.5, "Automatic Depressurization System"	Development of the administrative control, as described in the third listed security measure at the end of this Section, and implementation of this administrative control into a site physical protection system is COL Action Item 13.6-29.	

30	13.6.2.7.5, "Automatic Depressurization System"	Design of the enclosures, doors and locks to provide access control for the components, as described in the fifth listed security measure at the end of this Section, has been identified by the staff as Open Item 13.6-28. Development of key control measures, as described in the fifth listed security measure at the end of this Section, and implementation of those key control measures into a site physical protection system, is COL Action Item 13.6-30.	
31	13.6.2.7.5, "Automatic Depressurization System"	Development of the administrative control, as described in the sixth listed security measure at the end of this Section, and implementation of the administrative control into a site physical protection system is COL Action Item 13.6-31.	
32	13.6.2.7.6, "Fuel and Auxiliary Pools Cooling System"	The staff has identified providing a specific list of the alternate methods, as described in the last sentence of this Section, as Open Item 13.6-29. Development of procedures that would enable the use of these alternate methods during a design basis threat attack, as described in the last sentence of this Section, and implementation of those procedures into a site physical protection strategy is COL Action Item 13.6-32.	
33	13.6.2.7.7, "(title of Section redacted (identified by the staff as 10 CFR 2.390 information))"	Development of a procedure for the checks, as described in the last sentence of the second paragraph of this Section, and implementation of this procedure into a site physical protection system is COL Action Item 13.6-33.	
34	13.6.2.7.8, "Vital System AC Power Supplies"	Design of these annunciators, as described in the last sentence of this Section, to announce in the Main Control Room, and implementation of those annunciators into a site physical protection strategy is COL Action Item 13.6-34.	
35	13.6.2.7.9, "Vital System DC Power Supplies"	Design of these alarms and annunciators, as described in the third paragraph of this Section, to announce in the Main Control Room, and implementation of those alarms and annunciators into a site physical protection system is COL Action Item 13.6-35.	

36	13.6.2.7.10, "Containment Integrity"	Developing a procedure that utilizes the abnormal indication or alarm that annunciate in the Main Control Room, as described in the fourth paragraph of this Section, and implementing this procedure into a site physical protection strategy is COL Action Item 13.6-36.	
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