October 16 2009

Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application

Part 10

ITAAC and Proposed License Conditions

Update Tracking Report

Revision 0

Revision History

Revision	Date	Update Description
0	10/16/2009	Original Issue Updated Sections: 1, 3, Appendix

Tracking Report Revision List

Change ID No.	Section	Page from Part 10 Rev.0	Reason for change	Change Summary	Rev. of T/R
RCOL2_05.03.02-3	2	3, 4	RAI No. 8 Response Luminant letter TXNB-09-028 Date 08/7/09	Added specific license condition	-
DCD_14.03.06-15	1 Appendix A.4	3 24	Add ITAAC	Added Offsite Power System ITAAC	0
DCD_13.06-21	1 Appendix C Table C-1 (Sheet 5 of 5)	3 41	Add ITAAC	Added Plant Specific Security Hardware ITAAC	0
CTS-00841	2.3, 2.4, 3,	3, 4	Proposed NRC Generic Combined License	License Conditions contained in Proposed Generic Combined License	0

Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application

Part 10 - ITAAC and Proposed License Conditions

1. ITAAC

The ITAAC for the COLA consist of the following:

1) Design Certification ITAAC are contained in DCD Tier 1 and are incorporated by reference.
2) Plant-Specific ITAAC are provided in Appendices A.1, A.2, ~~and~~ A.3, and A.4. The design description information contained in the Appendices is a compilation of information from various sources in the FSAR and is included to assist the reader in reviewing information pertinent to the Plant-Specific ITAAC. DCD_14.03.06-15
3) Emergency Planning ITAAC are provided in Appendix B.
4) Physical Security ITAAC for the DCD are contained in DCD Tier 1 and are incorporated by reference. Plant Specific Security ITAAC are provided in Appendix C. DCD_13.06-21

2. Proposed License Conditions

The NRC and industry are currently evaluating the appropriate license conditions for a Combined Operating License (COL). Identified below are several possible topics for license conditions that serve as a starting point for consideration. The listing is not final nor are all items necessarily appropriate. As a result, this section will not be updated during the COL review until further NRC and industry guidance is available. As specific license conditions are identified they will be added to section 3 below. RCOL2_05.03.02-3

2.1 Completion of ITAAC

Completion of the ITAAC listed in the previous section may be a proposed license condition to be satisfied prior to fuel load. However, this license condition may not be necessary as the ITAAC may be adequately controlled by the regulations.

2.2 COL Holder Items

COL Information Items are identified in Chapter 1 of the FSAR (Table 1.8-201) and are cross-referenced to identify the section in this COLA that addresses each Information Item from the referenced certified design. Items that cannot be resolved prior to issuance of the COL are identified as Holder Items. Implementation of all Holder Items by the milestone stated in the relevant section of the FSAR, is potential condition to the license. There are alternate methods to track these items including a commitment tracking system or NRC inspection schedules. If such alternate systems are found to be appropriate, a license condition may not be necessary or a more limited license condition addressing only selected Holder Items may be appropriate.

2.3 Operational Programs

Operational Programs are identified in Table 13.4-201 and their implementation by the milestones indicated in the Table is a potential condition to the license. Some of these programs may be adequately controlled by other methods such as the regulations, the technical specifications or a commitment tracking system and will not need to be addressed in a license condition. A proposed license condition is provided in section 3 below based upon the current information in Chapter 13 of the COLA FSAR. CTS-00841

2.4 Environmental Protection Plan

The Environmental Protection Plan (EPP) and its implementation may also be a potential condition to the license. The EPP has typically been an appendix to the operating license and that precedent may be followed for COLs as well. No plant specific environmental items have been identified which are not adequately controlled by regulations, the appropriate permits, etc. and thus an EPP has not been proposed and is not needed. CTS-00841

2.5 Technical Specifications

Implementation of Technical Specifications prior to fuel load could also constitute a potential condition to the license. The Technical Specifications have typically been an appendix to the operating license and that precedent may be followed for COLs as well.

2.6 Others

The current operating licenses have some typical license conditions in areas such as security, fire protection and others. These current license conditions may or may not apply to COLs.

3. Specific Proposed License Conditions

The ~~only~~ license conditions identified thus far during the COL development and review are ~~is~~:

CTS-00841

Proposed License Condition	Source
The plant-specific PTS evaluation of the as-procured reactor vessel material properties will be submitted to the NRC within 12 months following acceptance of the reactor vessel.	Answer to RAI 2353 (CP RAI #8) question 05.03.02-3 as provided in TXNB-09028 dated August 7, 2009.
The licensee shall implement the programs or portions of programs identified in the table below on or before the associated milestones.	COLA FSAR Table 13.4-201 Items 3, 5, 6, 8, 9, 10, 12, 15, 18, and 19.

RCOL2_05.03.02-3

Operational Programs to be implemented per License Condition above: CTS-00841

Program Title	Milestone
Environmental Qualification Program	Prior to Initial Fuel Load
Reactor Vessel Material Surveillance Program	Prior to Initial Criticality
Preservice Testing Program	Prior to Initial Fuel Load
Fire Protection Program	Prior to fuel receipt for elements of the Fire Protection Program necessary to support receipt and storage of fuel on-site. Prior to initial fuel load for elements or the Fire Protection Program necessary to support fuel load and plant operation.
Process and Effluent Monitoring and Sampling Program – Radiological Effluent Technical Specifications/Standard Radiological Effluent Controls	Prior to receipt of radioactive material on-site
Process and Effluent Monitoring and Sampling Program – Offsite Dose Calculation Manual	Prior to receipt of radioactive material on-site
Process and Effluent Monitoring and Sampling Program – Radiological Environmental Monitoring Program	Prior to receipt of radioactive material on-site
Process and Effluent Monitoring and Sampling Program – Process Control Program	Prior to receipt of radioactive material on-site
Radiation Protection Program	Prior to initial receipt of by-product, source, or special nuclear materials (excluding Exempt Qualities as described in 10 CFR 30.18) for those elements of the Radiation Protection (RP) Program necessary to support such receipt Prior to fuel receipt for those elements of the RP Program necessary to support receipt

CTS-00841

Program Title	Milestone
	and storage of fuel on-site. Prior to fuel load for those elements of the RP Program necessary to support fuel load and plant operation Prior to first shipment of radioactive waste for those elements of the RP Program necessary to support shipment of radioactive waste.
Reactor Operator Training Program	18 months prior to scheduled fuel load.
Security Program – Physical Security Program	Prior to receipt of fuel on site.
Security Program- Safeguards Contingency Program	Prior to receipt of fuel on site.
Security Program – Training and Qualification Program	Prior to receipt of fuel on site.
Motor-Operated Valve Testing	Prior to initial fuel load.
Initial Test Program	Prior to the first construction test for the Construction Test Program. Prior to the first preoperational test for the Preoperational Test Program. Prior to initial fuel loading for the Startup Test Program.
Fitness for Duty Program – Construction Mgt & Oversight personnel	Prior to on site construction of safety or security related SSCs.
Fitness for Duty Program – Construction Workers & first Line Supv.	Prior to on site construction of safety or security related SSCs.
Fitness for Duty Program – Operations Phase Program	Prior to fuel receipt

DCD_14.03.06-15

PART 10 - APPENDIX A.4

OFFSITE POWER SYSTEM (PORTIONS OUTSIDE THE SCOPE OF THE CERTIFIED DESIGN)

A.4.1 Inspections, Tests, Analysis, and Acceptance Criteria

Table A.4-1 describes the inspections, tests, analyses, and associated acceptance criteria for the Offsite power system portions outside the scope of the certified design.

Table A.4-1 (Sheet 1 of 2)

DCD_14.03.06-15

Offsite Power System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The electrical system has a minimum of two independent offsite transmission circuits from the transmission network (TN) to the safety buses with no intervening non-safety buses (direct connection).	1. Inspection of the as-built transmission circuits will be performed.	1. The as-built electrical system has two independent offsite transmission circuits from the TN to the safety buses with no intervening non-safety buses (direct connection).
2. The offsite TN, during steady-state operation, does not cause voltage variations beyond an acceptable tolerance of the loads' nominal ratings.	2. Analyses of the as-built offsite TN voltage variability and steady state load requirements will be performed.	2. A report exists and concludes that the as-built offsite TN, during steady state operation, does not cause voltage variations beyond design limits.
3. The offsite TN normal steady state frequency is within an acceptable tolerance of 60Hz during recoverable periods of system instability.	3. Analyses of the as-built offsite TN normal steady state frequency will be performed.	3. A report exists and concludes that the as-built TN normal steady state frequency is within design frequency limits during recoverable periods of instability.
4. The offsite transmission circuits have the capacity and capability to power the required loads during steady state, transient, and postulated events and accident conditions.	4. Analyses of the as-built offsite transmission circuits from the TN to the safety buses will be performed.	4. A report exists and concludes that the as-built offsite transmission circuits have the capacity and capability to power the required loads during steady state, transient, and postulated events and accident conditions.
5.a Independence between the offsite circuits and the onsite Class 1E electrical system and components is maintained.	5.a Tests and analyses on the as-built offsite circuits and onsite class 1E electrical system and components will be performed.	5.a The offsite circuits are isolated from the onsite Class 1E electrical system and components.
5.b The offsite circuits are physically separated from the onsite Class 1E electrical system and components.	5.b Inspections of the as-built offsite circuits and onsite Class 1E electrical system and components will be performed.	5.b The as-built offsite circuits are physically separated from the onsite Class 1E electrical system and components.
6. Lightning protection and grounding features are provided for the offsite circuits from the TN to the safety buses.	6. Inspection of the as-built offsite circuits from the TN to the safety buses will be performed.	6. Lightning protection and grounding features exist for the system and components of the offsite circuits from the TN to the safety buses.

DCD_14.03.06-15

Table A.4-1 (Sheet 2 of 2)

Offsite Power System
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7. MCR alarms and displays for monitoring the switchyard equipment status can be retrieved in the MCR.	7. Inspection will be performed for the retrievability of the as-built switchyard equipment status in the as-built MCR.	7. MCR alarms and displays for monitoring the switchyard equipment status can be retrieved in the as-built MCR.
8. If power through the preferred power supply is not available, the offsite electrical system has the capability to automatic fast transfer to the non-preferred power supply if available.	8. Inspection of the as-built offsite electrical system will be performed.	8. The as-built offsite electrical system is automatically transferred to the non-preferred power supply in power is not available through the preferred power supply.
9. The Switchyard agreement and protocols between the NPP and the TN system operator/owner assess the risk and probability of a loss of offsite power due to performing maintenance activities on the electrical system.	9. Inspection of the switchyard agreement and protocols between the NPP and the TN owner/operator will be performed.	9. The switchyard agreement and protocols between the NPP and the TN owner/operator assess the risk and probability of a loss of offsite power due to performing maintenance activities on the electrical system.
10. The offsite electrical system (switchyard) design assesses the probability of losing electric power as a result of or coincident with, the loss of power generated by the nuclear unit, the loss of power from the TN, or the loss of the largest load.	10. Analyses of the as-built offsite electrical system for transient stability will be performed.	10. A report exists and concludes that the as-built offsite electrical system design assesses the probability of losing electric power as a result of or coincident with the loss of power generated by the nuclear unit, the loss of power from the TN, or the loss of the largest load.

PART 10 - APPENDIX C
PHYSICAL SECURITY HARDWARE

DCD_13.06-21

C.1 Inspections, Tests, Analyses, and Acceptance Criteria

Table C-1 describes the inspections, tests analyses, and associated acceptance criteria for the site-specific physical security hardware.

Appendix C

DCD_13.06-21

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 5)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1.b Access to vital equipment requires passage through at least two physical barriers.	1.b Inspections will be performed of vital equipment locations.	1.b. Vital equipment is located such that access to the vital equipment requires passage through at least two physical barriers.
2.a Physical barriers for the protected area perimeter are not part of vital area barriers.	2.a Inspections of the protected area perimeter barriers will be performed.	2.a Physical barriers at the perimeter of the protected area are separated from any other barrier designated as a Vital Area barrier.
2.b Penetrations through the protected area barrier must be secured and be capable of being monitored.	2.b Inspections will be performed of penetrations through the protected area barrier.	2.b Penetrations and openings of a passable size through the protected area barrier are secured and monitored by intrusion detection equipment.
2.c Unattended openings of passable size that intersect a security boundary such as underground pathways must be protected by a physical barrier and monitored by intrusion detection equipment.	2.c Inspections will be performed of unattended openings of passable size within the protected area barriers.	2.c Unattended openings of a passable, (such as underground pathways) that intersect a security boundary (such as the protected area barrier), are protected by a physical barrier and monitored by intrusion detection equipment
3.a Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area that allow sufficient size for observation and assessment on either side of the barrier.	3.a Inspections of the isolation zones outdoor areas adjacent to the physical barrier will be performed.	3.a The isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and allow 20 feet for observation and assessment of the activities of people on either side of the barrier.
3.b Where permanent buildings do not allow a sufficient distance for observation on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier, and the (license applicant specified) observation distance does not apply.	3.b Inspections of the part of the building that constitutes the protected area will be performed.	3.b Where permanent buildings do not allow a 20 feet distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier and the 20 feet observation distance does not apply.

DCD_13.06-21

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 2 of 5)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
4.a Intrusion detection system (IDS) can detect penetration or attempted penetration of the protected area perimeter barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).	4.a Tests, inspections or a combination of tests and inspections of the intrusion detection system will be performed.	4.a The intrusion detection system can detect penetration or attempted penetration of the protected area perimeter barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).
4.b Video image recording equipment with real-time and play-back capability provides the ability to assess detected assessment activities before and after each alarm annunciation within the isolation zone.	4.b Tests, inspections or a combination of tests and inspections of the video assessment equipment will be performed.	4.b Video image recording equipment with real-time and play-back capability provide the ability to display activities before and after each alarm annunciation within the isolation zone.
4.c Intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.	4.c Tests, inspections or a combination of tests and inspections of the uninterruptible power supply will be performed.	4.c Intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.
5. Isolation zones and exterior areas within the protected area are provided with illumination to permit observation of abnormal presence or activity of persons or vehicles.	5. Inspections of the Illumination in isolation zones and exterior areas of the protected will be performed.	5. Illumination in isolation zones and exterior areas within the protected area is 0.2 foot-candles measured horizontally at ground level or, alternatively, sufficient to permit observation.
6.b The external walls, doors, ceiling and floors in the secondary alarm station and the last access control function for access to the protected area are bullet resistant.	6.b Type test, analysis or a combination of type test and analysis of the external walls, doors, ceiling and floors in the secondary alarm station and the last access control function for access to the protected area will be performed.	6.b A report exists and concludes that the external walls, doors, ceilings, floors in the secondary alarm station and the last access control function for access to the protected area are bullet resistant to , UL752 (2006) Level 4.

DCD_13.06-21

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 3 of 5)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7. The vehicle barrier system is installed and located at the necessary stand-off distance to protect against the DBT vehicle bombs.	7. Inspections will be performed for the vehicle barrier system.	7. The vehicle barrier system will protect against the DBT vehicle bombs based upon the stand-off distance for the system.
8.a Access control points are established to control personnel and vehicle access into the protected area.	8.a Tests, inspections, or combination of tests and inspections of installed systems and equipment will be performed.	8.a Access control points exist for the protected area and are configured to control access.
8.b Access control points are established to detect firearms, explosives, and incendiary devices at the protected area personnel access points.	8.b Tests, inspections, or combination of tests and inspections of installed systems and equipment will be performed.	8.b The detection equipment at the protected area personnel access points is capable of detecting firearms, explosives, and incendiary devices.
9. A security access control system with numbered picture badges is installed for use by individuals who are authorized access to protected areas without escort.	9. Tests of the access control system with numbered picture badges will be performed.	9. The access authorization system utilizes numbered picture badges, and authorizes protected area access only to those personnel with unescorted access authorization.
10.b Unoccupied vital areas are locked and alarmed with activated intrusion detection systems that annunciate in the secondary alarm station.	10.b Tests, inspections, or a combination of tests and inspections of unoccupied vital areas intrusion detection equipment and locking devices will be performed.	10.b Unoccupied vital areas are locked and intrusion is detected and annunciated in the secondary alarm station.
11.a-2 Security alarm annunciation and video assessment information are available concurrently in the secondary alarm station.	11.a-2 Tests, inspections or a combination of tests and inspections of alarm annunciation and video assessment equipment will be performed.	11.a-2 Security alarm annunciation and video assessment equipment information is available concurrently in the secondary alarm station.
11.b-2 The secondary alarm station is located inside a protected area and the interior of the secondary alarm station is not visible from the perimeter of the protected area	11.b-2 Inspections of the secondary alarm station locations will be performed.	11.b-2 The secondary alarm station is located inside a protected area and the interior of the secondary alarm station is not visible from the perimeter of the protected area.

Appendix C

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 4 of 5)

DCD_13.06-21

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
11.c Central and secondary alarm stations are designed and equipped such that, in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to: (1) detect and assess alarms (2) initiate and coordinate an adequate response to alarms (3) summon offsite assistance, and (4) provide effective command and control.	11.c Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	11.c Central and secondary alarm stations are designed, equipped and constructed such that , in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to: (1) detect and assess alarms (2) initiate and coordinate an adequate response to alarms (3) summon offsite assistance, and (4) provide effective command and control.
11.d Both the central and secondary alarm stations are constructed, protected, and equipped to the standards for the central alarm station (stations need not be identical in design).	11.d Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	11.d The central alarm station and secondary alarm station are constructed, protected, and equipped to the same standards for functional redundancy (stations need not be identical in design).
13.b-2 Intrusion detection and assessment systems are designed to provide visual display and audible annunciation in the secondary alarm station.	13.b-2 Tests will be performed on Intrusion detection and assessment systems.	13.b-2 The intrusion detection system provides a visual display and audible annunciation of alarms in the secondary alarm station.
15.b Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.	15.b Tests, inspections or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.	15.b Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.

DCD_13.06-21

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 5 of 5)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
16.a-2 The secondary alarm station has conventional (land line) telephone service with local law enforcement authorities and a system for communication with the main control room.	16.a-2 Tests, inspections, or a combination of tests and inspections of the secondary alarm station communications capability with local law enforcement authorities and main control room will be performed	16.a-2 The secondary alarm station is equipped with conventional (land line) telephone service with local law enforcement authorities and has a system for continuous communication with the main control room.
16.b-2 The secondary alarm station is capable of continuous communication with security personnel.	16.b-2 Tests, inspections, or a combination of tests and inspections of the secondary alarm station continuous communication capabilities will be performed.	16.b-2 The secondary alarm station is capable of continuous communication with security officers, watchmen or armed response individuals, or other security personnel that have responsibilities during a contingency event.