

SNUPPS

Standardized Nuclear Unit  
Power Plant System

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August 28, 1980

SLNRC 80-40 FILE: 0541  
SUBJ: Responses to Acceptance  
Review Questions

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

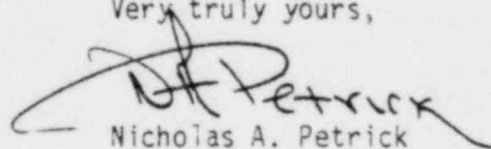
Docket Nos. STN 50-482, STN 50-483, STN 50-486

- References: 1. NRC letter (D.G. Eisenhower) to Union Electric Company (J. K. Bryan), dated July 31, 1980: Acceptance Review for the Callaway Plants, Unit No. 1 and 2.  
2. NRC letter (D.G. Eisenhower) to Kansas Gas and Electric Company (G.L. Koester), dated July 31, 1980: Acceptance Review for the Wolf Creek Generating Station, Unit No. 1

Dear Mr. Denton:

The referenced letters included requests for additional information that resulted from the preliminary review of the SNUPPS FSAR and the Callaway and Wolf Creek Site Addenda. The enclosure to this letter provides the responses to those requests. The questions and responses will also be incorporated in the next revision to the FSARs.

Very truly yours,

  
Nicholas A. Petrick

RLS:dck:lall

cc: J. K. Bryan UE  
G. L. Koester KGE  
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SNUPPS Responses to Acceptance Review Questions

- 110.01 Section 3.10(b).2 addresses only Bechtel's scope of supply. Discuss your compliance with IEEE 344, 1975 and Regulatory Guide 1.100 for equipment outside Bechtel's scope of supply.

Response

Section 3.10 is presented in two parts: 3.10(B) and 3.10(N). Section 3.10(N) contains discussions on the compliance of the NSSS (Westinghouse) equipment to IEEE-344, 1975 and Regulatory Guide 1.100. All equipment subject to R.G. 1.100 is discussed in either 3.10(B) or 3.10(N).

- 040.01 Figure 8.3-1 shows a "hold" symbol next to MCC PG 12J. Explain.

Response

The circle next to MCC PG 12J on Figure 8.3-1 was inadvertently not removed for the original submittal of the FSAR. The circle indicates that a change had taken place from the previous revision of the P&ID.

- 040.02 Figure 8.3-2 has several loads listed as "later". Indicate the status of these loads.

Response

Since the original revision of the FSAR, Figure 8.3-2 has been revised to provide information for all "laters".

- 010.01 Describe the device located on the suction side of the auxiliary feedwater pumps. This item is identified as SS001, SS002 and SS003 on Figure 10.4-9.

Response

The P&ID legend is provided on FSAR Figure 1.1-1. The subject device is a startup strainer. The strainers are used during the preoperational cleaning and testing program. Startup strainers in safety-related systems will be removed prior to fuel load.

Wolf Creek Responses to Acceptance Review Questions

- 310.01 Figure 2.1-7 shows an abandoned A.T. & S.F. railroad line passing through the Wolf Creek site. Please explain the status of this line. Discuss any easements which may exist relative to this railroad line.

Response

The Santa Fe Railroad and right-of-way located 0.3 miles west of the plant site is abandoned. By Interstate Commerce Commission Order in Finance Docket No. 26591, dated February 4, 1972, captioned Atchison, Topeka and Santa Fe Railroad Company Abandonment, B. H. Junction and Gridley, Franklin and Coffey Counties, it was ordered that the branch line of the railroad extending between milepost 0.0 at B. H. Junction, Kansas, and milepost 52 plus 1,518 feet at Gridley, Kansas, be abandoned. With this abandonment, title of the right-of-way property reverted to the fee simple title owners.

- 310.02 The population of Burlington in the year 2010, as shown in Figure 2.1-13, is difficult to read. Please provide the population estimates for Burlington for the years 1990, 2000, 2010 and 2020.

Response

The population estimates for Burlington are given in the following table.

<u>Reference Figure</u>	<u>Year</u>	<u>Burlington Population</u>
2.1-10	1980	1560
2.1-11	1990	1730
2.1-12	2000	1880
2.1-13	2010	1700
2.1-14	2020	1500

- 310.03 Discuss any recreational areas within the Wolf Creek site boundary.

Response

A feasibility study of the uses of the Wolf Creek cooling lake is provided in Appendix 2A of the Wolf Creek Generating Station Environmental Report-Operating License Stage. No

recreational areas presently exist and none are planned to exist within the Wolf Creek site boundary.

- 422.01 Please provide the Administrative Controls Section of the Technical Specifications which describes the PSRC supervisory and technical personnel referenced in Section 13.4.1.1.

Response

A copy of the proposed Section 6.5.1, Plant Safety Review Committee, of the Plant Technical Specifications is attached.

- 440.01 Please provide a scheduled completion date for the plant administrative procedures which are referred to in Section 13.5.1.

Response

These procedures have been written, approved and issued for use at Wolf Creek. Staffing changes and reorganization have required these procedures to be rewritten. It is expected that revisions to these procedures will be made by 12-1-81.

- 440.02 Please indicate that you intend to include procedures for design change processing, retest after design changes, and control of plant documents and records in the plant administrative procedures.

Response

Administrative procedures governing design change processing, providing general retest requirements after design changes and controlling plant documents and records in the plant administrative procedures will be written.

6.5.1 PLANT SAFETY REVIEW COMMITTEE

FUNCTION

6.5.1.1 The Plant Safety Review Committee shall function to advise the Plant Superintendent on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The Plant Safety Review Committee (PSRC) shall be composed of the:

Chairman	Plant Superintendent
Member	Operations Supervisor
Member	Technical Support Supervisor
Member	Maintenance Supervisor
Member	Plant Support Supervisor
Member	Instrument and Control Supervisor
Member	Reactor Supervisor
Member	Health Physicist
Member	Chemist
Member	Results Supervisor

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PSRC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PSRC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PSRC shall meet at least once per calendar month or as convened by the PSRC Chairman or his designated alternate.

QUORUM

6.5.1.5 The minimum quorum of the PSRC necessary for the performance of the PSRC responsibility and authority provisions of these technical specifications shall consist of the Chairman or his designated alternate and four members including alternates.

RESPONSIBILITIES

6.5.1.6 The Plant Safety Review Committee shall be responsible for:

- a. Review of 1) all procedures required by Specification 6.8 and changes thereto, 2) any other proposed procedures or changes thereto as determined by the Plant Superintendent to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes to Appendix "A" Technical Specifications.
- d. Review of all proposed changes or modifications to unit systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications, including the review and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Director of Nuclear Operations and to the Nuclear Safety Review Committee.
- f. Review of events requiring 24 hour written notification to the Commission.
- g. Review of unit operations to detect potential nuclear safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Plant Superintendent or the Nuclear Safety Review Committee.
- i. Review of the Security Plan and implementing procedures and shall submit recommended changes to the Nuclear Safety Review Committee.
- j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Nuclear Safety Review Committee.

AUTHORITY

6.5.1.7 The Plant Safety Review Committee shall:

- a. Recommend in writing to the Plant Superintendent approval or disapproval of items considered under 6.5.1.6(a) through (d) above.

- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide written notification within 24 hours to the Director of Nuclear Operations and the Nuclear Safety Review Committee of disagreement between the PSRC and the Plant Superintendent; however, the Plant Superintendent shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

- 6.5.1.8 The Plant Safety Review Committee shall maintain written minutes of each meeting that, at a minimum, document the results of all PSRC activities performed under the responsibility and authority provisions of these technical specifications. Copies shall be provided to the Director of Nuclear Operations and the Nuclear Safety Review Committee.

Callaway Responses to Acceptance Review Questions

- 310.01 Discuss the mineral rights for all land within the Callaway exclusion area.

Response

Union Electric owns all land within the exclusion area. The nature and source of authority to determine all activities on this property is by virtue of the rights of ownership thereof. As the exclusion area lands are owned in fee simple, Union Electric has complete ownership of the minerals on and under their lands.

- 310.02 Discuss any recreational areas within the Callaway site boundary.

Response

Various types of public use or development are permitted within the Union Electric property boundaries. Public use is governed by Union Electric policy and NRC regulations relating to the Protected Zone, the Exclusion Zone, and the Restricted Zone. The anticipated use within these zones during the operating life of the plant is discussed below.

The Protected Zone is a fenced area surrounding the reactor building and safety-related facilities within the plant site area. This area is covered by plant security and access is granted only to authorized personnel.

The Exclusion Zone is the area around the plant to a radial distance of 1,200 meters. Union Electric retains control of this area, and residence in this zone is prohibited. No developments attracting uncontrolled public activity in or encouraging casual public entry into the area are permitted.

The Restricted Zone includes all property defined by Union Electric as "plant site area" (see FSAR Site Addendum Figure 2.1-2 for this boundary). No residence or dairying operations will be permitted within this zone during plant operation. Developments with public attractions are permitted within this zone outside the Exclusion Zone.

Within the Union Electric ownership area, outside the plant site area, residence is permitted and developments may include public attractions.

In cooperation with Union Electric, the Missouri Department of Conservation in 1976 prepared a plan for the development



and management of the forest, fish, and wildlife resources within the Callaway Plant property. Because of the zone controls and the need to effect evacuation procedures in the event of postulated accidental radiation releases, the land use programs ultimately recommended for the Callaway Plant site are of a low-intensity nature. Recommendations included the following: forest management, agriculture, research, wildlife management, hunting, fishing, picnicking, vistas and special areas. The plan is flexible, and recommended activities can be further emphasized or modified to accommodate additional priorities or restrictions.

In 1977, Union Electric and the Missouri Conservation Commission entered into an agreement for an initial 5-year management plan that would be self-supporting and less intensive than the original plan. This plan presently allows public recreational use on designated lands within the Callaway Plant property boundaries; however, camping and use of firearms (firing a single projectile) are not permitted. User data on the Reform Wildlife Management Area is given in FSAR Section 2.1.3.3.

- 310.03 Explain the statement in Section 2.1.1.3.1 which reads "Future developments may include public attractions without entry restriction".

Response

The statement means that the general public will be allowed to enter the restricted area to take advantage of public attractions as described in the response to item 310.02, without security restrictions.

- 310.04 Discuss the projections of industrial growth (2.2.2.6).

Response

The Callaway Plant is located in a sparsely populated rural area, with little existing or projected urban or industrial development within a 5-mile radius.

The primary land use trend in Callaway County has been the continued abandonment and consolidation of farms. Approximately seven percent of the county's land area went out of farm production within the ten-year period from 1964 to 1974.

No trends have been identified that would disturb the rural agriculture and forested characteristics present today within five miles of the Callaway Plant. This projection is based on population projections and trends observed over several years. A field reconnaissance by Dames & Moore in 1979 noted only minor new developments since 1973 within five miles of

the Callaway Plant, not including site construction activities. New developments include approximately six homes, two taverns, four small trailer parks, two gas stations, a cafe, and two small trucking companies. A review of 1979 aerial photographs indicated a conversion of approximately 1,240 acres of pasture to cropland within five miles of the Callaway Plant since 1973. Changes in all other land use types were less than 1 percent during the same period.

310.05 Discuss chlorine storage including volumes and location at the Callaway site.

Response

No gaseous or liquid chlorine is stored or used at the Callaway Site. Sodium hypochlorite solution is added to the Circulating and Service Water Systems to prevent the systems from fouling with organic growths.

The sodium hypochlorite is produced on-site using a packaged electrolytic generation system. The hypochlorite generation system, along with other chemical feed equipment, is located in the Cooling Water Chemical Control System Building which is near the Circulating and Service Water Pumphouse adjacent to the natural draft cooling tower. Rock salt is used as a raw material to produce a 0.8% sodium hypochlorite solution. Approximately 17,500 lb/day of rock salt will be used at maximum system capacity, which is 5,000 lb/day of equivalent available chlorine. Rock salt is stored in two brinemaking tanks. The upper portion of each tank provides dry salt storage. Water is introduced in the lower portion to produce a saturated brine solution. The brine is diluted with softened water before entering the electrolytic cell, where the conversion to sodium hypochlorite occurs. The hypochlorite solution is pumped from the cell to three 25,000-gallon vertical storage tanks. Centrifugal pumps feed the hypochlorite to the circulating and service water pump intake bays. The hypochlorite circulates through the system being treated and the cooling tower before entering the blowdown discharge stream.