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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
TRANSMITTAL OF UPDATED OFFSITE DOSE
CALCULATION MANUAL (ODCM) TO SUPPORT
LICENSING/OPERATION OF UNIT 2

Gentlemen:

To facilitate NRC review necessary for the licensing and operation of CPSES Unit 2, TU Electric herewith submits an updated copy of the CPSES ODCM. The changes incorporated in this update of the ODCM have been approved and are identified as "Revision 8." The majority of the changes in this submittal were specifically incorporated to support dual unit operation. Some additional changes, not specifically related to dual unit operation, are also included. A general summary of the changes included in this updated version of the ODCM is attached.

Please be advised that all changes identified with this submittal will not become effective until a future date, tentatively identified as Unit 2 initial criticality. Prior to implementation of these changes, the most current approved version of the ODCM for Unit 1 operation will remain in effect (currently Pevision 7 approved December 4, 1991).

For any questions concerning this updated copy of the CPSES ODCM, please call Mr. Connie Wilkerson at (214) 812-8810 or Mr. Doug Kay at (817) 897-5204.

Sincerely,

William J. Cahill, Jr.

By: D R Woodlan
D. R. Woodlan
Docket Licensing Manager

CLW/ds
Attachment
Enclosure

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SUMMARY OF CPSES ODCM REVISION 8 CHANGES

The proposed Offsite Dose Calculation Manual (ODCM) change makes revisions to incorporate Unit 2 radioactive effluent release pathways and effluent monitoring instrumentation. Revisions are made, where applicable, to release limits and calculational methodologies to support 2 unit operations. In addition, several changes unrelated to Unit 2 are made. Of these, the most significant changes are deletion of the methodologies for determining instantaneous setpoints for the stack PIG monitors particulate and iodine channels, revision of the methodology for performing 31 day dose projections and addition of provisions for establishing a flow rate setpoint for liquid effluent releases. The changes included in this ODCM change are discussed in detail below:

A. Unit 2 related changes -

a) Part I, Control 3/4.3.3.4 - The Unit 2 Turbine Building Sump monitor (2RE-5100) and Station Service Water monitors (2RE-4269 and 2RE-4270) are added to the radioactive liquid effluent monitoring instrumentation requirements in Tables 3.3-7 and 4.3-3.

b) Part I, Control 3/4.11.1.1 - In Control 3.11.1.1, the words "from the site" are added to clarify that the concentration limits for liquid effluents are applicable to the combined liquid releases from the site, not from each unit. Item 1B.c of Table 4.11-1 is changed from "CCW Drain Tank" to "CCW Drain Tanks," since there is a tank for each unit.

c) Part I, Bases 3/4.11.1.2, 3/4.11.1.3, 3/4.11.2.2, 3/4.11.2.3 - The wording in these bases regarding proportionment of effluents among units sharing radwaste treatment systems is revised to be more plant specific. The previous wording was from standard technical specifications. The intent of this wording is not changed.

d) Part II, Section 1.0 - Changes to the description of the plant are made, as necessary, to reflect 2 unit operation.

e) Part II, Section 1.2.2 - The Unit 2 Turbine Building Sump monitor (2RE-5100) is added to this section.

SUMMARY OF CPSES ODCM REVISION 8 CHANGES

f) Part II, Section 1.2.3 - The Unit 2 Station Service Water monitors (2RE-4269 and 2RE-4270) are added to this section.

g) Part II, Section 1.3 - This section is revised to state how compliance with the dose limits for each unit will be demonstrated. This wording is consistent with the wording in the Bases regarding proportionment of effluents among units sharing radwaste treatment systems.

h) Part II, Section 1.4 - This section is revised to clarify that dose projection limits are applicable to each unit.

i) Part II, Table 1.1 and Figure 1.1 - Unit 2 release pathways and associated rad monitors are added to this table. The additional pathways are the Unit 2 CCW Drain Tank and Station Service Water Trains A and B.

j) Part II, Section 2.0 - Changes are made to the description of the plant to reflect 2 unit operation.

k) Part II, Section 2.1 and 2.2 - Based on the addition of the Unit 2 Containment gaseous release pathway, a revision to the calculational methodologies for determining the dose rates and alarm setpoints is necessary. The existing methodology calculated setpoints and dose rates based on the total concentration of radioactive materials present in the plant vent stacks from the combined plant vent continuous release and a batch release. This method for determining the combined concentration in the stacks from the continuous and batch sources was based on the assumption that only one batch release occurred at a time. For example, a WGDT release and a Containment vent could not occur simultaneously. Continued use of this methodology for 2 unit operation would require restricting simultaneous releases from Unit 1 and Unit 2 containments. This would present an undesirable operational restraint.

Therefore, the calculational methodology is revised to determine the release rate and corresponding dose rate for each individual release source based on the concentration and flow rate for that source. The dose rates for all simultaneous releases are then summed for comparison to the site dose rate limit. The rad

SUMMARY OF CPSES ODCM REVISION 8 CHANGES

monitor alarm setpoints are then calculated based on the total site dose rate The revised methodology yields the same answers as the existing methodology, with the exception of the auxiliary building vent monitor and containment atmosphere monitor setpoints for WGDT and containment releases, respectively. Because the existing methodology assumed that only one batch release was occurring at a time, it was also assumed that all other release sources were negligible relative to the batch release. In the revised methodology, it is assumed that all concurrent releases could potentially contribute equally to the total site release rate and dose rate. For containment releases, the possible concurrent release sources are Stack A, Stack B, U1-Containment and U2-Containment. For a WGDT release, the possible concurrent release sources are Stack A, Stack B and a WGDT. Thus release factors of 1/4 for containment releases and 1/3 for WGDT releases are used in the revised methodology. The resulting setpoints determined using the revised methodology will be lower by a factor of 4 for containment releases and by a factor of 3 for WGDT releases. This will ensure that the site dose rate and corresponding release rate limits will not be exceeded for simultaneous releases from multiple sources.

l) Part II, Section 2.3 - This section is revised to state how compliance with dose limits for each unit will be demonstrated. This wording is consistent with the wording in the Bases regarding proportionment of effluents among units sharing radwaste treatment system.

m) Part II, Section 2.4 - This section is revised to clarify that dose projection limits are applicable to each unit.

B. Changes not related to Unit 2 -

a) Part I, Control 3/4.3.3.4, Table 3.3-7, Actions 31 and 32 - Clarification regarding the specified LLD's in these actions was provided in ODCM Appendix G, Supplemental Guidance Statement #1. These actions are revised to incorporate this guidance and Supplemental Guidance Statement #1 is deleted.

SUMMARY OF CPSES ODCM REVISION 8 CHANGES

b) Part I, Control 3/4.11.1.1., Table 4.11-1, Notation 3 - Clarification regarding the specified LLD's for dissolved and entrained gases in liquid effluent samples was provided in ODCM Appendix G, Supplemental Guidance Statement #2. Table 4.11-1, Notation 3 is revised to incorporate this guidance and Supplemental Guidance Statement #2 is deleted.

c) Part I, Surveillance Requirement 4.11.2.1 - The wording of this surveillance requirement was revised to be consistent with the wording of Surveillance Requirement 4.11.1.1 for liquid effluents. The existing wording did not clearly refer to sampling and analyzing airborne waste streams for noble gases. This revision is made for clarification and the intent and requirements of the surveillance are not changed.

d) Part I, Control 3/4.12.1, Table 4.12-1, Notation 3 - The term "t" is added to the equation for determination of LLD. This term had been inadvertently omitted from the previous revision.

e) Part I, Administrative Control 6.9.1.3 - The sentence requiring that the initial report include copies of reports of the pre-operational monitoring program for at least two years prior to initial criticality is deleted. This requirement was met with the first report submitted for Unit 1. The pre-operational program ended with the initial criticality of Unit 1.

f) Part II, Section 1.0 - Wording is added to this section to describe the methods used for mixing liquid batch releases to assure representative sampling. Part I, Table 4.11-1, Notation 2 requires that the method for mixing be described in the ODCM. This information was not included in previous revisions.

g) Part II, Section 1.2 - Wording is added to this section to allow for establishing a flow rate setpoint for liquid waste discharges when a flow rate less than the maximum flow rate is used for calculations. This setpoint will ensure that 10CFR20, Appendix B, Table II, Column 2 MPC's are not exceeded. The previous revision required that the maximum flow rate always be used in effluent calculations and a flow rate setpoint was not required. The establishment of a flow rate setpoint is consistent with the requirements of Control 3/4.3.3.4 for liquid effluent monitoring instrumentation.

SUMMARY OF CPSES ODCM REVISION 8 CHANGES

h) Part II, Sections 1.4 and 2.4 - The methodology for performing liquid and gaseous 31-day dose projections is revised. The existing methodology divides the quarter-to-date cumulative dose by the number of days into the quarter and to determine an average dose per day. This dose per day is multiplied by 31 to calculate the 31 day dose projection. By using the quarter-to-date dose, the average dose per day is based on a variable time period. The methodology is revised to use the cumulative dose for the previous 3 month period, rather than the quarter-to-date. This will result in a consistent time period used for determination of average daily dose for dose projections.

i) Part II, Section 2.0 - This section is revised to include a more detailed discussion of all gaseous release sources. This information is descriptive in nature and does not affect dose or setpoint calculation methods.

j) Part II, Section 2.0 and 2.2 - The methodologies for determining instantaneous setpoints for the stack PIG's particulate and iodine channels is deleted. Operational experience has shown that determination of setpoints for these monitors is not practical. This change is consistent with the guidance of NUREG-0133 which states that it is not practical to establish instantaneous setpoints for integrating type monitors. Additionally these monitoring channels are not required by the gaseous effluent monitoring instrumentation requirements established in Control 3/4.3.3.5. The requirement for sampling of particulates and iodines in Table 3.3-8 is met by the particulate and iodine sample collection devices on the WRGM skid. Compliance with the instantaneous release limits for particulates and iodines is demonstrated by calculations based on the analysis of these samples. Therefore, deletion of the methodology for determination of these setpoints will not adversely affect the existing level of effluent control or accountability.

k) Part II, Appendix D - The not discussing parameters used for calculation of goat milk factors is revised to address the Q_F parameter. This value was used for R values tabulated in the ODCM, but was not discussed in the appendix.

SUMMARY OF CPSES ODCM REVISION 8 CHANGES

1) Part II, Appendix G, Supplemental Guidance Statement #4 - This guidance statement clarifies that it is acceptable to route the CCW Drain Tank contents to the Waste Water Holdup Tanks (WWHTs) to meet batch sampling requirements. Table 4.11-1, Notation 7 already states that sampling of the CCW Drain Tank is not required when it is routed to the WWHT's. Therefore, this supplemental guidance statement is deleted.