

December 21, 1995

SUBJECT: Units 2/3 OFFSITE DOSE CALCULATION MANUAL Revision 28

Enclosed is Revision 28 to the Units 2/3 Offsite Dose Calculation Manual (ODCM). In this revision, the changes included: 1) modified R<sub>i</sub> tables due to the 1994 Land Use Census, 2) deleted CCWSL system from Table 1-1, 3) added the modesty garment laundry facility as a source to the blowdown processing system (BPS) sump, and 4) deleted reference to elevated releases in section 5.

The component cooling water salt line (CCWSL) was removed from Table 1-1. The CCWSL is a closed loop system and should not be considered a routine radioactive effluent release point. Accordingly, it is not a credited release point nor does it have a radiation monitor. A separate safety evaluation has been prepared to support this change.

The Unit 2/3 Laundry Facility was rerouted from the Unit 1 Sewage Treatment Plant to the Unit 2/3 BPS sump in 1995 under design change FCN F-10518 for Unit 2 and F-10520 for Unit 3. Even though an approved safety evaluation was issued for the construction, an additional safety evaluation to specifically address effluent issues has been generated for this change and is being included as part of this change package.

Section 5.2, Land Use Census, reflects the generic plan for nuclear sites in NUREG 0472. Because the generic guidance concerning elevated release sites is not applicable to San Onofre, it was removed.

Per NRC Generic Letter 89-01, no safety review was required or performed for the correction of typographical errors.

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The following is a complete list of the changes:

- a Indicates typographical, sequential and page numbering, and format changes.
- b The 1994 Land Use Census revealed increased occupancy factors at the Highway Patrol Weigh Station (Southbound) in sector G from 1880 to 2080 hours. One location, Former Nixon Estates, was renamed Cotton Point Estates with Garden. Because of the addition of a garden at that location, the food and ground pathway  $R_i$  values for all age groups except infant were increased. Leafy green vegetables were discovered at the San Clemente Resident with Garden at 4.4 miles in sector Q. The "food and ground"  $R_i$  values from this location were used since the San Clemente Resident with Garden at 4.1 miles did not have leafy green vegetables.
- c The outage resident was not present during 1994 and did not appear on the Land Use Census. Therefore, the page dedicated to them is removed.
- d The Radiological Environmental Monitoring Program (REMP) added three TLDs: #73 was placed at the South Yard Facility. Two transit TLDs (A and B) were added to replace the previous single transit #99. Also added was a "fader" TLD co-located with TLD #54 to compensate for temperature variation. A new local crop sampling location was added, Cotton Point Estates (Casa Pacifica) in sector P.
- e The installation and partial use of the new South Yard Facility (SYF) prompted several changes. Tables of  $R_i$  values were added for applicable sectors as defined in the Land Use Census. A table of Controlling Location Factors dedicated to the SYF was also added. Two flow charts were modified to show the effect of the SYF on various processes.
- iv<sup>b</sup> Replaced the three figures with four different figures supplied in the Land Use Census.
- v<sup>e</sup> Added Controlling Location Factors page as well as  $R_i$  tables for the South Yard Facility.
- vi<sup>a</sup> Corrected typographical error on a page number.
- 1-2 Deleted CCWSL from Table 1-1.
- 1-3<sup>a</sup> Corrected a typographical error by adding the word "only" to make it consistent with NUREG 0472.
- 1-26 Revised calibration constants for certain liquid monitors.
- 2-3<sup>a</sup> Corrected a typographical error by adding the word "only" to make it consistent with NUREG 0472.
- 2-11<sup>a</sup> Corrected the format of the definitions of equation 2-1.

- 2-12 Added clarifying phrase "for a landward sector" to X/Q definition. This is an administrative change.
- 2-18 Removed the label for equation 2-7a to put it on page 2-19. This is an administrative change.
- 2-19 Added equation 2-7a to calculate concentration at the monitor for Unit 3.
- 2-20 Clarified references for each unit for the maximum permissible alarm setting. This is an administrative change.
- 2-22 Corrected typographical error on PVS fan flow rate.
- 2-25 Revised calibration constants for certain gaseous monitors.
- 2-27 Clarified definition of X/Q by adding the term "landward". This is an administrative change.
- 2-29 Clarified definition of X/Q by adding the term "landward". This is an administrative change.
- 2-30 Clarified definition of X/Q by adding the term "landward". This is an administrative change.
- 2-33 Removed definition of X/Q for tritium under  $W_k$ . This was repetitive as X/Q is described earlier in the definition.
- 2-37<sup>b</sup> Added the "hunter" portion to the "deer consumer/hunter" location. This is an administrative change only.
- 2-39<sup>b</sup> Changed the name of the former Nixon Estates to Cotton Point Estates with Garden. It is the same location. Because of the new garden at this location, the  $R_i$  values were also changed for child, teen and adult food and ground pathway.
- 2-40a<sup>c</sup> Removed this page of  $R_i$  values for the Outage Resident.
- 2-47<sup>b</sup> With the discovery of a leafy vegetable garden at the San Clemente Resident with Garden at 4.4 miles in sector Q,  $R_i$  values for that location was used rather than the residence at 4.1 miles in the same sector without a garden.
- 2-77<sup>b</sup> Highway Patrol Weigh Station in sector G occupancy changed from 1880 to 2080 hours per year. This resulted in revised  $R_i$  values.
- 2-82 Revised explanation of direct dose calculation to better explain methodology.
- 2-83<sup>e</sup> Added listing of Control Location Factors for the South Yard Facility.
- 2-84<sup>e</sup> Added tables of  $R_i$  values for several locations due to the use of the thru South Yard Facility.

- 4-16<sup>e</sup> Modified Figure 4-5 to add the Laundry Facility flow path and remove CCWSL sampling.
- 4-17<sup>e</sup> Modified Figure 4-6 to add the South Yard Facility (SYF) flow path.
- 4-18 Modified Figure 4-7 to more accurately reflect the solid waste handling activities.
- 5-8 Added note indicating tritium sample limits of 2000 pCi/ml are for drinking water only. Also modified the title to reflect NUREG 0472.
- 5-11 Deleted sentence describing "elevated releases." Elevated releases are not performed at SONGS.
- 5-15<sup>d</sup> Removed the "deleted" notations of locations previously deleted from Table 5-4. Added note listing all previously deleted and removed locations.
- 5-16<sup>a</sup> Removed the "deleted" notations of locations previously deleted from Table 5-4. Added note listing all previously deleted and removed locations.
- 5-17<sup>d</sup> Removed the "deleted" notations of locations previously deleted from Table 5-4. Added location #73, South Yard Facility, per Land Use Census. Also added two transit location TLDs and a temperature "fader" correction TLD placed alongside #54. Added note listing all previously deleted and removed locations.
- 5-18 Removed the "deleted" notation of airborne location #6.
- 5-19<sup>d</sup> Added Cotton Point Estates Gardens (Casa Pacifica) to the Local Crops listing in the WNW direction.
- 5-23<sup>b</sup> Replaced existing three figures with new versions supplied in Land Use to Census. Added a page to account for new fourth page. The same  
5-26 information is contained in the new figures.