

Enclosure 1

OFFSITE DOSE CALCULATION MANUAL

REVISION 17

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UNITS 2/3 ODCM CHANGES IN REVISION 17

Revision 17 to the Units 2/3 ODCM was adopted in order to accomplish a change to the historical atmospheric dispersion value (X/Q) and to add and delete isotopes listed in the Dose Calculational Tables. Additionally a change in the bioaccumulation factor for Niobium (from 30,000 to 100) was effected following a search of the literature and communication with G. W. Blaylock of Oak Ridge National Lab.

The changes in this revision to the ODCM do not reduce the accuracy or reliability of the dose calculations or setpoint determinations.

This revision was reviewed and found acceptable on June 18, 1985.

Changes are detailed below:

1. Table of Contents - pages #'s corrected
2. List of Tables - pages #'s corrected
3. Page 1-12 - definition of "R" (Blowdown flow rate) changed to a variable (500 gpm max).
4. Page 1-20 through 1-21, Table 1-2; Liquid Dose Commitment Factors
 - a. Deleted: P-32, Rb-86, Y-91, Te-125m, Te-127m, Te-131m since these isotopes have not been detected and there is little future likelihood of detection.
 - b. Added: Na-24, Mn-56, Co-57, Cn-64, Br-84, Rb-88, Y-90, Y-91m, Y-92, Sr-91, Sr-92, Nb-95m, Nb-97, Tc-99m, Sn-113, I-132, I-134, I-135, Cs-138, Ba-139, Nd-147, W-187
 - c. For Nb: changed the bioaccumulation factor for saltwater fish from the value of 30,000 given in Regulatory Guide 1.109 to a value of 100 based on the following references:
 - a. Letter from B. G. Blaylock (ORNL) to K. Helm, dated 4/3/85
 - b. Letter from J. T. Reilly to R. M. Rosenblum, "Status of Liquid Discharge Dose Calculations: Bioaccumulation factors and near field dilution," dated 4/3/85
 - c. EPRI NP-3840, "Environmental Radiation Doses from Difficult-to-Measure Nuclides" dated January 1985
 - d. DOE/TIC - 11468, "Models and Parameters for Environmental Radiological Assessments: C. W. Miller, Editor, dated 1984 (note that this report contains other reference for the 100 value for Nb)

UNITS 2/3 ODCM CHANGES IN REVISION 17 (Continued)

5. Page 2-2, changed value of historical $\overline{X/Q}$ from $2.4E-5 \text{ sec/m}^3$ to $4.8E-6 \text{ sec/m}^3$ based on the following reference:

- a. Memo from B. J. Mechalias (Stan Marsh) to R. M. Rosenblum, "San Onofre Meteorology," dated June 26, 1985

This letter references a study performed by Power & Moore of Atlanta which uses the 1979 through 1983 wind frequencies, continuous release mode, no decay, undepleted plume, site specific terrain recirculation factors.

6. Page 2-15, Table 2-1

- a. Deleted Monitors: 2/3RT-7814A, 2/3RT-7814B, 2RT-7865, 3RT-7865, 2RT-7870 and 3RT-7870 since 7814A & B are no longer Technical Specification required and the 7865 and 7870 monitors read-out in $\mu\text{Ci/sec}$ and do not require a calibration constant.
- b. The calibration constant values were changed to the current values where necessary.

7. Page 2-17, The value for $\overline{X/Q}$ was changed to $4.8E-6 \text{ sec/m}^3$ for the same reasons as in item 5 above.

8. Page 2-18, The value for W_k was changed to $4.8E-6 \text{ sec/m}^3$ for the inhalation pathway and to $4.3E-8 \text{ m}^{-2}$ for the food and ground pathway for the same reason as in item 5 above. Note that the value for the food and ground pathway is not given in the reference quoted in item 5 but is obtained from the same "XOQDOQ" computer run which gives the $\overline{X/Q}$ values in the reference of item 5.

9. Page 2-20, The value for $(\overline{X/Q})$ was changed to $4.8E-6$ (see item 5 above).

10. Page 2-25, Table 2-2:

Four nuclides were deleted since there are not observed in SONGS gaseous effluent. They are Kr-83m, Kr-89, Kr-90 and Xe-137.

11. Page 2-26, Table 2-3: Gaseous Dose Parameters,

- a. The following nuclides were added to the list: Cr-51 and Co-57.

UNITS 2/3 ODCM CHANGES IN REVISION 17 (Continued)

- b. The following nuclides were deleted from the list since they either have a half life less than 8 days or are not seen in SONGS gaseous effluent:

C-14, Na-24, P-32, Cr-54, Mn-56, Fe-55, Fe-59, Ni-63, Ni-65, Cn-64, Zn-65, Br-83, Br-84, Br-85, Rb-86, Rb-88, Rb-89, Sr-91, Sr-92, Y-90, Y-91m, Y-91, Y-92, Y-93, Zr-97, Mo-99, Tc-99m, Tc-101, Ru-103, Ru-105, Ru-106, Ag-110m, Te-125m, Te-127m, Te-127, Te-129, Te-131m, Te-131, Te-132, I-130, Cs-138, Ba-139, Ba-141, Ba-142, La-140, La-142, Ce-143, Pr-143, Pr-144, Nd-147, W-187, Nb-239.

12. Pages 2-27 through 2-59, Table 2-4 through 2-15: Gaseous Dose Parameters,

- a. The following nuclide was added: Co-57
- b. The following nuclides were deleted since they either have a half-life less than 8 days or are not seen in SONGS gaseous effluent:

P-32, Fe-55, Fe-59, Ni-63, Zn-65, Rb-86, Y-91, Mo-99, Ru-103, Ru-106, Ag-110m, Cd-115m, Sn-123, Sn-126, Sb-124, Sb-125, and Te-127m.

- c. The values in Tables 2-5 through 2-14 are obtained using the "PARTS" code based upon the input data given in Table 2-15 which is appropriate to the 1984 Land Use Census occupancy data. The reading for Table 2-5 through 2-14 giving the receptor distance, sector, X/Q and D/Q information is obtained from the "XQQDOQ" code as discussed below (D).
- d. The receptor locations (distance and sector) were obtained from the 1984 Land Use Census* and are based on the midpoint between Units 2 and 3. The X/Q and D/Q for each receptor is obtained from the "XQQDOQ" code using the same assumptions as given in item 5 above (79-83 wind frequencies, continuous release, site specific terrain recirculation factors) except that instead of the EAB distance, the actual distance to the receptor in each sector is used.
- e. The values in Table 2-4 (Controlling Location Factors) are the maximum values for each nuclide of the product of X/Q (Inhalation Pathway) or D/Q (Food and Ground Pathway) and the value of R_i in Tables 2-5 through 2-14.

13. Page 3-1, Section 3.1.2, Liquid Dose Projection; and Section 3.2.2, Gaseous Dose Projection; were rewritten to clarify the term "average monthly dose."

UNITS 2/3 ODCM CHANGES IN REVISION 17 (Continued)

14. Figures 4-1, SONGS 2 and 3 Radioactive Liquid Waste Treatment Systems and 4-2, SONGS 2 and 3 Radioactive Gaseous Waste Treatment System were revised to reflect the "as built" structures and systems. Figure 4-3, Solid Waste Handling, was revised to reflect current Solid Radwaste and Process Control Program procedures.
15. Page 5-9, Table 5-3, This table now has the correct Table number (was incorrectly numbered 5-2).

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1.1.2.1 NEUTRALIZATION SUMP DISCHARGE LINE MONITORS
(2RT-7817, 3RT-7817)

The value for C_2 or C_3 , the concentration limit at the Unit 2 or Unit 3 detector is determined by using:

$$C_2 \leq \frac{(B_2)(0.1)(F)\sum_i C_{\gamma i}}{RC/MPC_{eff}} \quad (1-11)$$

$$C_3 \leq \frac{(B_3)(0.1)(F)\sum_i C_{\gamma i}}{RC/MPC_{eff}} \quad (1-12)$$

Where:

C , $\sum_i C_{\gamma i}$, MPC_{eff} = The values of C , $\sum_i C_{\gamma i}$ and MPC_{eff} as defined in STEPS 1) and 2) for the Steam Generator blowdown.

R = blowdown flow rate (maximum of 500 gpm)

Where R is the effluent flow rate at the radiation monitor as defined in STEP 2.

C_2 = the instantaneous concentration at the Unit 2 detector (2RT-7817) in $\mu\text{Ci/cc}$

C_3 = the instantaneous concentration at the Unit 3 detector (3RT-7817) in $\mu\text{Ci/cc}$

B_2 and B_3 are administrative values used to account for simultaneous releases from both SONGS 2 and SONGS 3 neutralization sumps. The fractions B_2 and B_3 will be assigned such that $B_2 + B_3 \leq 1.0$.

TABLE 1-2

DOSE COMMITMENT FACTORS*, A_{it}
(mrem/hr per $\mu\text{Ci}/\text{m}\ell$)

Radio-Nuclide	Total Body	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI
H-3	2.80E-1		2.80E-1	2.80E-1	2.80E-1	2.80E-1	2.80E-1
Na-24	4.57E-1	4.57E-1	4.57E-1	4.57E-1	4.57	4.57E-1	4.57E-1
Cr-51	5.60			3.30	1.20	7.04	1.40E3
Mn-54	1.35E3		7.08E3		2.11E3		2.17E4
Mn-56	3.15E1		1.78E2		2.26E2		5.67E3
Fe-55	8.24E3	5.12E4	3.53E4			1.97E4	2.03E4
Fe-59	7.27E4	8.07E4	1.90E5			5.30E4	6.23E5
Co-57	2.36E2		1.42E2				3.60E3
Co-58	1.35E3		6.04E2				1.22E4
Co-60	3.83E3		1.74E3				3.26E4
Cu-64	1.01E2		2.14E2		5.40E2		1.83E4
Zn-65	2.32E5	1.61E5	5.13E5		3.43E5		3.23E5
Br-84	9.39E-2		2.14E2				7.37E-7
Rb-88	9.49E-1		1.79E0				0.00E0
Sr-89	1.43E2	4.99E3					8.00E2
Sr-90	3.01E4	1.23E5					3.55E3
Sr-91	3.70E1						4.37E2
Sr-92	1.50E0	3.48E1					6.90E2
Y-90	1.62E-1	6.06E0					6.42E4
Y-91m	2.22E-3	5.72E-2					1.68E-1
Y-92	1.55E-2	5.32E-1					9.32E3
Zr-95	3.47	1.60E1	5.12		8.03		1.62E4
Zr-97	8.14E-2	8.80E-1	1.80E1		2.70E-1		5.51E4
Nb-95	5.51E-1	1.84E0	1.02E0		1.01E0		6.22E3
Nb-95m	5.51E-1	1.84E0	1.02E0		1.01E0		6.22E3
Nb-97	1.43E-3	1.55E-2	3.91E-3		4.56E-3		1.44E1
Mo-99	2.44E1		1.28E2		2.90E2		2.97E2
Tc-99m	4.66E-1	1.30E-2	3.66E-2		5.56E-1	1.79E-2	2.17E1
Ru-103	4.61E1	1.07E2			4.08E2		2.25E4
Ru-106	2.01E2	1.59E3			3.07E3		1.03E5
Ag-110m	8.61E2	1.57E3	1.45E3		2.85E3		5.91E5
Sn-113							2.20E5
Sb-124	1.10E2	2.77E2	5.23	6.70E-1			7.85E3
Sb-125	4.42E1	2.20E2	2.37	2.00E-1		2.30E4	1.94E3
Te-129m	1.48E2	9.33E2	3.48E2	3.20E2	3.89E3		4.67E3
Te-132	1.24E2	2.40E2	1.32E2	1.46E2	1.27E3		6.25E3
I -131	1.79E2	2.18E2	3.12E2	1.02E5	5.36E2		8.24E1
I -132	9.96E0	1.06E1	2.84E1	9.96E2	4.54E1		5.35E0
I -133	3.95E1	7.46E1	1.30E2	1.91E4	2.26E2		1.17E2
I -134	5.40E0	5.56E0	1.51E1	2.52E2	2.40E1		1.32E-2
I -135	2.24E1	2.32E1	6.08E1	4.01E3	9.75E1		6.87E1

*Source: USNRC NUREG-0113, Section 4.3.1

TABLE 1-2

DOSE COMMITMENT FACTORS*, A_{it}
(mrem/hr per $\mu\text{Ci}/\text{m}\ell$)

Radio-Nuclide	Total Body	Bone	Liver	Thyroid	Kidney	Lung	GI-LLI
Cs-134	1.33E4	6.84E3	1.63E4		5.27E3	1.75E3	2.85E2
Cs-136	2.04E3	7.16E2	2.83E3		1.57E3	2.16E2	3.21E2
Cs-137	7.85E3	8.77E3	1.20E4		4.07E3	1.35E3	2.32E2
Cs-138	5.94E0	6.07E0	1.20E1		8.81E0	8.70E-1	5.11E-5
Ba-139	2.30E-1	7.85E0	5.59E-3		5.23E-3	3.17E-3	1.39E1
Ba-140	1.08E2	1.65E3	2.07		7.00E-1	1.18	3.39E3
La-140	2.10E-1	1.58	8.00E-1				5.84E4
Ce-141	2.60E-1	3.43	2.32		1.08		8.86E3
Ce-143	4.94E-2	6.00E-1	4.47E-2		2.00E-1		1.67E4
Ce-144	9.59	1.99E2	7.47E1		4.43E1		6.04E4
Nd-147	2.74E-1	3.96E0	4.58E0		2.68E0		2.20E4
W -187	2.68E0	9.16E0	7.66E0				2.51E3
Np-239	1.92E-3	3.53E-2	3.47E-3		1.08E-2		7.13E2

*Source: USNRC NUREG-0133, Section 4.3.1

2.1.1 PLANT VENT STACK - 2/3RT-7808, 2RT-7865-1, 3RT-7865-1
(Continued)

K_i = the total body dose conversion factor for the i^{th} gamma emitting noble gas, mrem/yr per $\mu\text{Ci}/\text{m}^3$, from Table 2-2

C_i = Concentration of the i^{th} noble gas, as determined by sample analysis, $\mu\text{Ci}/\text{cc}$

C_{tot} = Total concentration of noble gases, as determined by sample analysis, $(\mu\text{Ci}/\text{cc}) = \sum_i C_i$

Flow Rate = the plant vent flow rate, cfm
= 83,000 cfm/fan (x no. of fans to be run)

2120 = conversion constant, cfm per m^3/sec

500 mrem/yr = total body dose rate limit, as specified by Technical Specification 3.11.2.1.a

X/Q = historical annual average dispersion factor, sec/m^3
= $4.8\text{E}-6$ sec/m^3

The concentration at the detector corresponding to a 3000 mrem/yr skin dose rate at the exclusion area boundary is determined by:

$$C_{det} = \frac{(0.45)(2120 \frac{\text{cfm}}{\text{m}^3/\text{sec}}) (3000 \text{ mrem/yr}) (10^{-6} \text{ Ci}/\mu\text{Ci})}{(\text{Flow rate, cfm}) (X/Q, \text{sec}/\text{m}^3) [\sum_i (L_i + 1.1M_i, \frac{\text{mrem/yr}}{\mu\text{Ci}/\text{m}^3}) (\frac{C_i}{C_{tot}})]} \quad (2-2)$$

Table 2-1^(a)
Gaseous Effluent Radiation Monitor
Calibration Constants

MONITOR	Kr-85*	Xe-133*
2RT-7804-1C	3.07E-8	3.86E-8
3RT-7804-1C	2.76E-8	3.93E-8
2/3RT-7808C	2.90E-8	4.23E-8
2RT-7818A	3.67E-8	5.30E-8
2RT-7818B	6.30E-5	1.33E-5
3RT-7818A	3.88E-8	4.40E-8
3RT-7818B	6.49E-5	3.14E-5

*($\mu\text{Ci/cc/cpm}$)

(a) This table provides typical (±20%) calibration constants for the gaseous effluent radiation monitors.

2.2.1 FOR NOBLE GASES: (Continued)

L_i = skin dose factor due to the beta emissions for each identified noble gas radionuclide, i , in mrem/yr per $\mu\text{Ci}/\text{m}^3$ from Table 2-2

M_i = the air dose factor due to gamma emissions for each identified noble gas radionuclide, i , in mrad/yr per $\mu\text{Ci}/\text{m}^3$ from Table 2-2.
(conversion constant of 1.1 mrem/mrad converts air dose to skin dose.)

\dot{Q}_i = the release rate of radionuclide, i , in gaseous effluents in $\mu\text{Ci}/\text{sec}$

$(\overline{X/Q})$ = $4.8\text{E-}6$ sec/ m^3 . The maximum annual average atmospheric dispersion factor for any sector or distance at or beyond the unrestricted area boundary.

2.2.2 FOR ALL RADIOIODINES, TRITIUM AND FOR ALL RADIOACTIVE MATERIALS IN PARTICULATE FORM WITH HALF LIVES GREATER THAN EIGHT DAYS:

$$\dot{D}_o = \sum_i \left[\sum_k (P_{ik} \bar{W}_k) \dot{Q}_i \right] \quad (2-13)$$

Where:

\dot{D}_o = organ dose rate in unrestricted areas due to radioactive materials released in gaseous effluents, in mrem/yr

2.2.2

FOR ALL RADIOIODINES, TRITIUM AND FOR ALL RADIOACTIVE MATERIALS IN PARTICULATE FORM WITH HALF LIVES GREATER THAN EIGHT DAYS: (Continued)

\dot{Q}_i = the release rate of radionuclide, i , in gaseous effluents in $\mu\text{Ci/sec}$

P_{ik} = the dose parameter for radionuclide, i , for pathway, k , from Table 2-3 for the inhalation pathway in $\text{mrem/yr per } \mu\text{Ci/m}^3$. The dose factors are based on the critical individual organ and the child age group.

\bar{W}_k = the highest calculated annual average dispersion parameter for estimating the dose to an individual at or beyond the unrestricted area boundary for pathway k .

= $4.8\text{E-}6 \text{ sec/m}^3$ for the inhalation pathway. The location is the unrestricted area in the NW sector.

= $4.3\text{E-}8 \text{ m}^{-2}$ for the food and ground plane pathways. The location is the unrestricted area in the E sector.

2.3.1.1 For historical meteorology: (Continued)

$(X/Q) = 4.8E-6 \text{ sec/m}^3$. The maximum annual average atmospheric dispersion factor for any sector or distance at or beyond the unrestricted area boundary.

Q_i = the amount of noble gas radionuclide, i , released in gaseous effluents in μCi .

2.3.1.2 For meteorology concurrent with release:

$$D_{\gamma\theta} = 1.14 \times 10^{-4} \sum_i M_i [\sum_j (\Delta t_j (X/Q)_{j\theta} \dot{Q}_{ij})] \quad (2-16)$$

$$D_{\beta\theta} = 1.14 \times 10^{-4} \sum_i N_i [\sum_j (\Delta t_j (X/Q)_{j\theta} \dot{Q}_{ij})] \quad (2-17)$$

Where:

$D_{\gamma\theta}$ = the total gamma air dose from gaseous effluents in sector θ , in mrad

$D_{\beta\theta}$ = the total beta air dose from gaseous effluents in sector θ , in mrad

M_i = the air dose factor due to gamma emissions for each identified noble gas radionuclide, i , in mrad/yr per $\mu\text{Ci/m}^3$ from Table 2-2.

N_i = the air dose factor due to beta emissions for each identified noble gas radionuclide, i , in mrad/yr per $\mu\text{Ci/m}^3$ from Table 2-2.

TABLE 2-2

DOSE FACTORS FOR NOBLE GASES AND DAUGHTERS**

Radio-Nuclide	Total Body Dose Factor K_i (mrem/yr ⁱ per $\mu\text{Ci}/\text{m}^3$)	Skin Dose Factor L_i (mrem/yr ⁱ per $\mu\text{Ci}/\text{m}^3$)	Gamma Air Dose Factor M_i (mrad/yr ⁱ per $\mu\text{Ci}/\text{m}^3$)	Beta Air Dose Factor N_i (mrad/yr ⁱ per $\mu\text{Ci}/\text{m}^3$)
Kr-85m	1.17E3*	1.46E3	1.23E3	1.97E3
Kr-85	1.61E1	1.34E3	1.72E1	1.95E3
Kr-87	5.92E3	9.73E3	6.17E3	1.03E4
Kr-88	1.47E4	2.37E3	1.52E4	2.93E3
Xe-131m	9.15E1	4.76E2	1.56E2	1.11E3
Xe-133m	2.51E2	9.94E2	3.27E2	1.48E3
Xe-133	2.94E2	3.06E2	3.53E2	1.05E3
Xe-135m	3.12E3	7.11E2	3.36E3	7.39E2
Xe-135	1.81E3	1.86E3	1.92E3	2.46E3
Xe-138	8.83E3	4.13E3	9.21E3	4.75E3
Ar-41	8.84E3	2.69E3	9.30E3	3.28E3

*1.17E3 = 1.17×10^3

**source: USNRC Reg. Guide 1.109, Table B-1

TABLE 2-3

DOSE PARAMETER P_{ik}^* CHILD AGE GROUP
CRITICAL ORGAN

Radionuclide	Inhalation Pathway (mrem/yr per $\mu\text{Ci}/\text{m}^3$)	Radionuclide	Inhalation Pathway (mrem/yr per $\mu\text{Ci}/\text{sec}$)
H - 3	1.1E3	I -131	1.6E7
Cr-51	1.7E4	I -132	1.9E5
Mn-54	1.6E6	I -133	3.8E6
Co-57	5.1E5	I -134	5.1E4
Co-58	1.1E6	I -135	7.9E5
Co-60	7.1E6	Cs-134	1.0E6
Sr-89	2.2E6	Cs-136	1.7E5
Sr-90	1.0E8	Cs-137	9.1E5
Zr-95	2.2E6	Ba-140	1.7E6
Nb-95	6.1E5	Ce-141	5.4E5
Te-129m	1.8E6	Ce-144	1.2E7

*Source: USNRC NUREG-0133, Section 5.2.1.1

TABLE 2-4

CONTROLLING LOCATION FACTORS

Radionuclide	$\sum_k R_{ik} W_k$ mrem/yr per $\mu\text{Ci/sec}$
H -3	6.38E-4
Cr-51	1.68E-2
Mn-54	3.88E0
Co-57	2.64E0
Co-58	3.57E0
Co-60	5.89E1
Sr-89	4.90E1
Sr-90	1.96E3
Zr-95	1.72E1
Nb-95	2.97E1
Te-129m	2.18E1
Cs-134	3.64E1
Cs-136	4.81E-1
Cs-137	3.36E1
Ba-140	3.92E-1
Ce-141	7.42E-1
Ce-144	1.82E1
I -131	6.72E1
I -133	1.87E0
I -135	3.91E-1
UN-ID	1.96E3

Footnote: These values to be used in manual calculations are the maximum $\sum_k R_{ik} W_k$ for all locations based on the most restrictive age group.

TABLE 2-5

DOSE PARAMETER R_i FOR SECTOR P

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Pathway = Surf Beach $X/Q = 1.8E-6 \text{ sec/m}^3$			Distance = 0.4 miles $D/Q = 8.2E-9 \text{ m}^{-2}$					
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	1.2E1	0.0E0	5.1E1	0.0E0	1.6E1	0.0E0
Cr-51	0.0E0	0.0E0	1.1E1	2.2E4	1.2E2	1.1E5	4.1E1	1.9E4
Mn-54	0.0E0	0.0E0	4.5E2	6.6E6	2.7E3	3.2E7	9.5E2	5.7E6
Co-57	0.0E0	0.0E0	1.4E2	1.6E6	1.3E3	7.9E6	3.9E2	1.4E6
Co-58	0.0E0	0.0E0	3.6E2	1.8E6	3.8E3	8.7E6	1.3E3	1.6E6
Co-60	0.0E0	0.0E0	1.0E3	1.0E8	1.0E4	4.9E8	3.5E3	8.8E7
Sr-89	0.0E0	0.0E0	6.2E3	1.0E2	1.8E4	4.9E2	3.7E3	8.9E1
Sr-90	0.0E0	0.0E0	1.1E6	0.0E0	4.4E6	0.0E0	1.2E6	0.0E0
Zr-95	0.0E0	0.0E0	6.3E2	1.2E6	6.0E3	5.8E6	1.8E3	1.0E6
Nb-95	0.0E0	0.0E0	3.8E2	6.6E5	3.9E3	3.1E6	1.3E3	5.6E5
Te-129m	0.0E0	0.0E0	5.2E2	9.4E4	2.1E3	4.5E5	4.5E2	8.1E4
Cs-134	0.0E0	0.0E0	1.1E4	3.3E7	4.5E4	1.6E8	1.0E4	2.8E7
Cs-136	0.0E0	0.0E0	1.8E3	7.2E5	7.8E3	3.4E6	1.8E3	6.2E5
Cs-137	0.0E0	0.0E0	8.6E3	4.9E7	3.4E4	2.4E8	7.6E3	4.2E7
Ba-140	0.0E0	0.0E0	7.7E2	9.9E4	9.2E3	4.7E5	2.7E3	8.4E4
Ce-141	0.0E0	0.0E0	5.9E2	6.6E4	5.1E3	3.1E5	1.5E3	5.6E4
Ce-144	0.0E0	0.0E0	4.0E3	3.3E5	3.5E4	1.6E6	1.0E4	2.9E5
I -131	0.0E0	0.0E0	1.7E5	8.3E4	5.9E5	3.9E5	1.5E5	7.1E4
I -133	0.0E0	0.0E0	4.0E4	1.2E4	1.2E5	5.6E4	2.6E4	1.0E4
I -135	0.0E0	0.0E0	8.2E3	1.2E4	2.5E4	5.8E4	5.5E3	1.0E4
UN-ID	0.0E0	0.0E0	1.1E6	0.0E0	4.4E6	0.0E0	1.2E6	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$ Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-5

DOSE PARAMETER R_i FOR SECTOR P

Page 2 of 4

Pathway = Enlisted Beach $X/Q = 3.8E-7 \text{ sec/m}^3$		Distance = 1.2 miles $D/Q = 1.4E-9 \text{ m}^{-2}$						
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	2.6E1	0.0E0	4.5E1	0.0E0	5.1E1	0.0E0	5.6E1	0.0E0
Cr-51	1.4E1	1.9E5	4.3E1	1.9E5	1.2E2	1.9E5	1.3E2	1.9E5
Mn-54	1.0E3	5.5E7	1.7E3	5.5E7	2.7E3	5.5E7	3.1E3	5.5E7
Co-57	1.9E2	1.4E7	5.3E2	1.4E7	1.3E3	1.4E7	1.3E3	1.4E7
Co-58	4.5E2	1.5E7	1.4E3	1.5E7	3.8E3	1.5E7	4.3E3	1.5E7
Co-60	1.3E3	8.6E8	3.8E3	8.6E8	1.0E4	8.6E8	1.1E4	8.6E8
Sr-89	1.6E4	8.6E2	2.4E4	8.6E2	1.8E4	8.6E2	1.2E4	8.6E2
Sr-90	1.6E6	0.0E0	4.0E6	0.0E0	4.4E6	0.0E0	4.0E6	0.0E0
Zr-95	8.7E2	1.0E7	2.4E3	1.0E7	6.0E3	1.0E7	6.0E3	1.0E7
Nb-95	5.1E2	5.5E6	1.5E3	5.5E6	3.9E3	5.5E6	4.2E3	5.5E6
Te-129m	1.3E3	7.9E5	2.0E3	7.9E5	2.1E3	7.9E5	1.5E3	7.9E5
Cs-134	2.8E4	2.7E8	4.1E4	2.7E8	4.5E4	2.7E8	3.4E4	2.7E8
Cs-136	5.4E3	6.0E6	6.8E3	6.0E6	7.8E3	6.0E6	5.9E3	6.0E6
Cs-137	2.4E4	4.1E8	3.3E4	4.1E8	3.4E4	4.1E8	2.5E4	4.1E8
Ba-140	2.2E3	8.2E5	3.0E3	8.2E5	9.2E3	8.2E5	8.7E3	8.2E5
Ce-141	8.6E2	5.5E5	2.3E3	5.5E5	5.1E3	5.5E5	4.8E3	5.5E5
Ce-144	5.9E3	2.8E6	1.6E4	2.8E6	3.5E4	2.8E6	3.3E4	2.8E6
I -131	5.9E5	6.9E5	6.5E5	6.9E5	5.9E5	6.9E5	4.8E5	6.9E5
I -133	1.4E5	9.8E4	1.5E5	9.8E4	1.2E5	9.8E4	8.6E4	9.8E4
I -135	2.8E4	1.0E5	3.2E4	1.0E5	2.5E4	1.0E5	1.8E4	1.0E5
UN-ID	1.6E6	0.0E0	4.0E6	0.0E0	4.4E6	0.0E0	4.0E6	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-5

DOSE PARAMETER R_1 FOR SECTOR P

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Pathway = Enlisted Beach Campground Check-In $X/Q = 3.0E-7 \text{ sec/m}^3$								
Distance = 1.5 miles $D/Q = 1.1E-9 \text{ m}^{-2}$								
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.9E2	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.6E2	1.1E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.8E4	3.2E8
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.2E3	7.8E7
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.4E4	8.7E7
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.5E4	4.9E9
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.9E4	4.9E3
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.3E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.4E4	5.7E7
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.4E4	3.1E7
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.3E3	4.5E6
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.9E5	1.6E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.3E4	3.4E7
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.4E5	2.3E8
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	5.0E4	4.7E6
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.7E4	3.1E6
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.9E5	1.6E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.7E6	3.9E6
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.9E5	5.6E5
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	5.8E5
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.3E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-5

DOSE PARAMETER R_i FOR SECTOR P

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Pathway = Former Nixon Estate (no garden) Distance = 2.8 miles
 $X/Q = 1.1E-7 \text{ sec/m}^3$ $D/Q = 3.4E-10 \text{ m}^{-2}$

Radio-Nuclide	Infant		Child		Teen		Adult	
	Inhalation Pathway	Food & Ground Pathway	Inhalation Pathway	Food & Ground Pathway	Inhalation Pathway	Food & Ground Pathway	Inhalation Pathway	Food & Ground Pathway
H -3	6.5E2	0.0E0	1.1E3	0.0E0	1.3E3	0.0E0	1.3E3	0.0E0
Cr-51	3.6E2	3.7E6	1.1E3	3.7E6	3.0E3	3.7E6	3.3E3	3.7E6
Mn-54	2.5E4	1.1E9	4.3E4	1.1E9	6.7E4	1.1E9	7.7E4	1.1E9
Co-57	4.9E3	2.7E8	1.3E4	2.7E8	3.1E4	2.7E8	3.1E4	2.7E8
Co-58	1.1E4	3.0E8	3.4E4	3.0E8	9.5E4	3.0E8	1.1E5	3.0E8
Co-60	3.2E4	1.7E10	9.6E4	1.7E10	2.6E5	1.7E10	2.8E5	1.7E10
Sr-89	4.0E5	1.7E4	6.0E5	1.7E4	4.3E5	1.7E4	3.0E5	1.7E4
Sr-90	4.1E7	0.0E0	1.0E8	0.0E0	1.1E8	0.0E0	9.9E7	0.0E0
Zr-95	2.2E4	2.0E8	6.1E4	2.0E8	1.5E5	2.0E8	1.5E5	2.0E8
Nb-95	1.3E4	1.1E8	3.7E4	1.1E8	9.7E4	1.1E8	1.0E5	1.1E8
Te-129m	3.2E4	1.6E7	5.0E4	1.6E7	5.2E4	1.6E7	3.7E4	1.6E7
Cs-134	7.0E5	5.5E9	1.0E6	5.5E9	1.1E6	5.5E9	8.5E5	5.5E9
Cs-136	1.3E5	1.2E8	1.7E5	1.2E8	1.9E5	1.2E8	1.5E5	1.2E8
Cs-137	6.1E5	8.2E9	8.3E5	8.2E9	8.5E5	8.2E9	6.2E5	8.2E9
Ba-140	5.6E4	1.6E7	7.4E4	1.6E7	2.3E5	1.6E7	2.2E5	1.6E7
Ce-141	2.2E4	1.1E7	5.7E4	1.1E7	1.3E5	1.1E7	1.2E5	1.1E7
Ce-144	1.5E5	5.6E7	3.9E5	5.6E7	8.6E5	5.6E7	8.2E5	5.6E7
I -131	1.5E7	1.4E7	1.6E7	1.4E7	1.5E7	1.4E7	1.2E7	1.4E7
I -133	3.6E6	2.0E6	3.8E6	2.0E6	2.9E6	2.0E6	2.2E6	2.0E6
I -135	7.0E5	2.0E6	7.9E5	2.0E6	6.2E5	2.0E6	4.5E5	2.0E6
UN-ID	4.1E7	0.0E0	1.0E8	0.0E0	1.1E8	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$ Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-6

DOSE PARAMETER R_i FOR SECTOR Q

Page 1 of 5

Pathway = State Park Office Trailer X/Q = 2.2E-6 sec/m ³		Distance = 0.6 miles D/Q = 1.2E-8 m ⁻²						
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.9E2	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.6E2	1.1E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.8E4	3.2E8
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.2E3	7.8E7
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.4E4	8.7E7
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.5E4	4.9E9
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.9E4	4.9E3
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.3E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.4E4	5.7E7
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.4E4	3.1E7
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.3E3	4.5E6
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.9E5	1.6E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.3E4	3.4E7
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.4E5	2.3E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	5.0E4	4.7E6
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.7E4	3.1E6
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.9E5	1.6E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.7E6	3.9E6
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.9E5	5.6E5
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	5.8E5
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.3E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$ Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-6

DOSE PARAMETER R_i FOR SECTOR Q

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Pathway = Enlisted Beach Recreation Building
 $X/Q = 8.2E-7 \text{ sec/m}^3$

Distance = 1.2 miles
 $D/Q = 4.0E-9 \text{ m}^{-2}$

Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.6E2	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.5E2	1.3E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E4	3.9E8
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.0E3	9.8E7
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.0E4	1.1E8
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.1E4	6.1E9
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.7E4	6.2E3
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.3E4	7.2E7
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.0E4	3.9E7
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E4	5.6E6
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.4E5	1.9E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.2E4	4.3E7
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.8E5	2.9E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.2E4	5.9E6
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.4E4	3.9E6
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.3E5	2.0E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.4E6	4.9E6
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.1E5	7.0E5
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.3E5	7.2E5
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(m^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-6

DOSE PARAMETER R_i FOR SECTOR Q

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Pathway = Sheep (Meat) and Shepherd X/Q = 6.2E-7 sec/m ³					Distance = 1.5 miles D/Q = 2.9E-9 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-6

DOSE PARAMETER R_i FOR SECTOR Q

Page 4 of 5

Pathway = San Onofre Heights X/Q = 4.9E-7 sec/m ³					Distance = 1.7 miles D/Q = 2.2E-9 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	6.5E2	0.0E0	1.1E3	0.0E0	1.3E3	0.0E0	1.3E3	0.0E0
Cr-51	3.6E2	3.7E6	1.1E3	3.7E6	3.0E3	3.7E6	3.3E3	3.7E6
Mn-54	2.5E4	1.1E9	4.3E4	1.1E9	6.7E4	1.1E9	7.7E4	1.1E9
Co-57	4.9E3	2.7E8	1.3E4	2.7E8	3.1E4	2.7E8	3.1E4	2.7E8
Co-58	1.1E4	3.0E8	3.4E4	3.0E8	9.5E4	3.0E8	1.1E5	3.0E8
Co-60	3.2E4	1.7E10	9.6E4	1.7E10	2.6E5	1.7E10	2.8E5	1.7E10
Sr-89	4.0E5	1.7E4	6.0E5	1.7E4	4.3E5	1.7E4	3.0E5	1.7E4
Sr-90	4.1E7	0.0E0	1.0E8	0.0E0	1.1E8	0.0E0	9.9E7	0.0E0
Zr-95	2.2E4	2.0E8	6.1E4	2.0E8	1.5E5	2.0E8	1.5E5	2.0E8
Nb-95	1.3E4	1.1E8	3.7E4	1.1E8	9.7E4	1.1E8	1.0E5	1.1E8
Te-129m	3.2E4	1.6E7	5.0E4	1.6E7	5.2E4	1.6E7	3.7E4	1.6E7
Cs-134	7.0E5	5.5E9	1.0E6	5.5E9	1.1E6	5.5E9	8.5E5	5.5E9
Cs-136	1.3E5	1.2E8	1.7E5	1.2E8	1.9E5	1.2E8	1.5E5	1.2E8
Cs-137	6.1E5	8.2E9	8.3E5	8.2E9	8.5E5	8.2E9	6.2E5	8.2E9
Ba-140	5.6E4	1.6E7	7.4E4	1.6E7	2.3E5	1.6E7	2.2E5	1.6E7
Ce-141	2.2E4	1.1E7	5.7E4	1.1E7	1.3E5	1.1E7	1.2E5	1.1E7
Ce-144	1.5E5	5.6E7	3.9E5	5.6E7	8.6E5	5.6E7	8.2E5	5.6E7
I -131	1.5E7	1.4E7	1.6E7	1.4E7	1.5E7	1.4E7	1.2E7	1.4E7
I -133	3.6E6	2.0E6	3.8E6	2.0E6	2.9E6	2.0E6	2.2E6	2.0E6
I -135	7.0E5	2.0E6	7.9E5	2.0E6	6.2E5	2.0E6	4.5E5	2.0E6
UN-ID	4.1E7	0.0E0	1.0E8	0.0E0	1.1E8	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-6

DOSE PARAMETER R_i FOR SECTOR Q

Page 5 of 5

Pathway = San Clemente Ranch (No Residents)					Distance = 2.2 miles			
X/Q = 3.4E-7 sec/m ³					D/Q = 1.4E-9 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	4.0E3	0.0E0	2.6E3	0.0E0	2.3E3
Cr-51	0.0E0	0.0E0	0.0E0	6.1E6	0.0E0	1.0E7	0.0E0	1.2E7
Mn-54	0.0E0	0.0E0	0.0E0	6.5E8	0.0E0	9.2E8	0.0E0	9.4E8
Co-57	0.0E0	0.0E0	0.0E0	2.4E8	0.0E0	3.2E8	0.0E0	2.9E8
Co-58	0.0E0	0.0E0	0.0E0	3.7E8	0.0E0	5.9E8	0.0E0	6.1E8
Co-60	0.0E0	0.0E0	0.0E0	2.1E9	0.0E0	3.2E9	0.0E0	3.1E9
Sr-89	0.0E0	0.0E0	0.0E0	3.5E10	0.0E0	1.5E10	0.0E0	9.8E9
Sr-90	0.0E0	0.0E0	0.0E0	1.4E12	0.0E0	8.3E11	0.0E0	6.7E11
Zr-95	0.0E0	0.0E0	0.0E0	8.8E8	0.0E0	1.2E9	0.0E0	1.2E9
Nb-95	0.0E0	0.0E0	0.0E0	2.9E8	0.0E0	4.5E8	0.0E0	4.7E8
Te-129m	0.0E0	0.0E0	0.0E0	2.9E9	0.0E0	1.8E9	0.0E0	1.2E9
Cs-134	0.0E0	0.0E0	0.0E0	2.6E10	0.0E0	1.6E10	0.0E0	1.1E10
Cs-136	0.0E0	0.0E0	0.0E0	2.2E8	0.0E0	1.7E8	0.0E0	1.7E8
Cs-137	0.0E0	0.0E0	0.0E0	2.4E10	0.0E0	1.4E10	0.0E0	9.1E9
Ba-140	0.0E0	0.0E0	0.0E0	2.8E8	0.0E0	2.1E8	0.0E0	2.6E8
Ce-141	0.0E0	0.0E0	0.0E0	4.0E8	0.0E0	5.3E8	0.0E0	5.0E8
Ce-144	0.0E0	0.0E0	0.0E0	1.0E10	0.0E0	1.3E10	0.0E0	1.1E10
I -131	0.0E0	0.0E0	0.0E0	4.8E10	0.0E0	3.1E10	0.0E0	3.8E10
I -133	0.0E0	0.0E0	0.0E0	8.1E8	0.0E0	4.6E8	0.0E0	5.3E8
I -135	0.0E0	0.0E0	0.0E0	9.8E6	0.0E0	5.7E6	0.0E0	6.6E6
UN-ID	0.0E0	0.0E0	0.0E0	1.4E12	0.0E0	8.3E11	0.0E0	6.7E11

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-7

DOSE PARAMETER R_i FOR SECTOR R

Page 1 of 3

Page 1 of 1

Pathway = Sheep (Meat) and Shepherd X/Q = 8.3E-7 sec/m ³					Distance = 0.9 miles D/Q = 5.2E-9 m ⁻²			
	Infant		Child		Teen		Adult	
Radio- Nuclide	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.3E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-7

DOSE PARAMETER R_i FOR SECTOR R

Page 2 of 3

Pathway = San Onofre Mobile Homes X/Q = 4.7E-7 sec/m ³					Distance = 1.3 miles D/Q = 2.8E-9 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	6.5E2	0.0E0	1.1E3	0.0E0	1.3E3	0.0E0	1.3E3	0.0E0
Cr-51	3.6E2	3.7E6	1.1E3	3.7E6	3.0E3	3.7E6	3.3E3	3.7E6
Mn-54	2.5E4	1.1E9	4.3E4	1.1E9	6.7E4	1.1E9	7.7E4	1.1E9
Co-57	4.9E3	2.7E8	1.3E4	2.7E8	3.1E4	2.7E8	3.1E4	2.7E8
Co-58	1.1E4	3.0E8	3.4E4	3.0E8	9.5E4	3.0E8	1.1E5	3.0E8
Co-60	3.2E4	1.7E10	9.6E4	1.7E10	2.6E5	1.7E10	2.8E5	1.7E10
Sr-89	4.0E5	1.7E4	6.0E5	1.7E4	4.3E5	1.7E4	3.0E5	1.7E4
Sr-90	4.1E7	0.0E0	1.0E8	0.0E0	1.1E8	0.0E0	9.9E7	0.0E0
Zr-95	2.2E4	2.0E8	6.1E4	2.0E8	1.5E5	2.0E8	1.5E5	2.0E8
Nb-95	1.3E4	1.1E8	3.7E4	1.1E8	9.7E4	1.1E8	1.0E5	1.1E8
Te-129m	3.2E4	1.6E7	5.0E4	1.6E7	5.2E4	1.6E7	3.7E4	1.6E7
Cs-134	7.0E5	5.5E9	1.0E6	5.5E9	1.1E6	5.5E9	8.5E5	5.5E9
Cs-136	1.3E5	1.2E8	1.7E5	1.2E8	1.9E5	1.2E8	1.5E5	1.2E8
Cs-137	6.1E5	8.2E9	8.3E5	8.2E9	8.5E5	8.2E9	6.2E5	8.2E9
Ba-140	5.6E4	1.6E7	7.4E4	1.6E7	2.3E5	1.6E7	2.2E5	1.6E7
Ce-141	2.2E4	1.1E7	5.7E4	1.1E7	1.3E5	1.1E7	1.2E5	1.1E7
Ce-144	1.5E5	5.6E7	3.9E5	5.6E7	8.6E5	5.6E7	8.2E5	5.6E7
I -131	1.5E7	1.4E7	1.6E7	1.4E7	1.5E7	1.4E7	1.2E7	1.4E7
I -133	3.6E6	2.0E6	3.8E6	2.0E6	2.9E6	2.0E6	2.2E6	2.0E6
I -135	7.0E5	2.0E6	7.9E5	2.0E6	6.2E5	2.0E6	4.5E5	2.0E6
UN-ID	4.1E7	0.0E0	1.0E8	0.0E0	1.1E8	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-7

DOSE PARAMETER R_i FOR SECTOR R

Page 3 of 3

Pathway = San Clemente Ranch (No Residents) $X/Q = 2.0E-7 \text{ sec/m}^3$					Distance = 2.3 miles $D/Q = 1.0E-9 \text{ m}^{-2}$			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	4.0E3	0.0E0	2.6E3	0.0E0	2.3E3
Cr-51	0.0E0	0.0E0	0.0E0	6.1E6	0.0E0	1.0E7	0.0E0	1.2E7
Mn-54	0.0E0	0.0E0	0.0E0	6.5E8	0.0E0	9.2E8	0.0E0	9.4E8
Co-57	0.0E0	0.0E0	0.0E0	2.4E8	0.0E0	3.2E8	0.0E0	2.9E8
Co-58	0.0E0	0.0E0	0.0E0	3.7E8	0.0E0	5.9E8	0.0E0	6.1E8
Co-60	0.0E0	0.0E0	0.0E0	2.1E9	0.0E0	3.2E9	0.0E0	3.1E9
Sr-89	0.0E0	0.0E0	0.0E0	3.5E10	0.0E0	1.5E10	0.0E0	9.8E9
Sr-90	0.0E0	0.0E0	0.0E0	1.4E12	0.0E0	8.3E11	0.0E0	6.7E11
Zr-95	0.0E0	0.0E0	0.0E0	8.8E8	0.0E0	1.2E9	0.0E0	1.2E9
Nb-95	0.0E0	0.0E0	0.0E0	2.9E8	0.0E0	4.5E8	0.0E0	4.7E8
Te-129m	0.0E0	0.0E0	0.0E0	2.9E9	0.0E0	1.8E9	0.0E0	1.2E9
Cs-134	0.0E0	0.0E0	0.0E0	2.6E10	0.0E0	1.6E10	0.0E0	1.1E10
Cs-136	0.0E0	0.0E0	0.0E0	2.2E8	0.0E0	1.7E8	0.0E0	1.7E8
Cs-137	0.0E0	0.0E0	0.0E0	2.4E10	0.0E0	1.4E10	0.0E0	9.1E9
Ba-140	0.0E0	0.0E0	0.0E0	2.8E8	0.0E0	2.1E8	0.0E0	2.6E8
Ce-141	0.0E0	0.0E0	0.0E0	4.0E8	0.0E0	5.3E8	0.0E0	5.0E8
Ce-144	0.0E0	0.0E0	0.0E0	1.0E10	0.0E0	1.3E10	0.0E0	1.1E10
I -131	0.0E0	0.0E0	0.0E0	4.8E10	0.0E0	3.1E10	0.0E0	3.8E10
I -133	0.0E0	0.0E0	0.0E0	8.1E8	0.0E0	4.6E8	0.0E0	5.3E8
I -135	0.0E0	0.0E0	0.0E0	9.8E6	0.0E0	5.7E6	0.0E0	6.6E6
UN-ID	0.0E0	0.0E0	0.0E0	1.4E12	0.0E0	8.3E11	0.0E0	6.7E11

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-8

DOSE PARAMETER R_1 FOR SECTOR A

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Pathway = Sheep (Meat) and Shepherd $X/Q = 6.0E-6 \text{ sec/m}^3$		Distance = 0.2 miles $D/Q = 5.0E-8 \text{ m}^{-2}$						
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-8

DOSE PARAMETER R_i FOR SECTOR A

Page 2 of 2

Pathway = Camp San Mateo X/Q = 7.1E-8 sec/m ³			Distance = 3.6 miles D/Q = 4.1E-10 m ⁻²					
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.3E3	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.3E3	3.7E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.7E4	1.1E9
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.1E4	2.7E8
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.1E5	3.0E8
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E5	1.7E10
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.0E5	1.7E4
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	2.0E8
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	1.1E8
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.7E4	1.6E7
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.5E5	5.5E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	1.2E8
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.2E5	8.2E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E5	1.6E7
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E5	1.1E7
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.2E5	5.6E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E7	1.4E7
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E6	2.0E6
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.5E5	2.0E6
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

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TABLE 2-9

DOSE PARAMETER R_i FOR SECTOR B

Page 1 of 1

Pathway = Sheep (Meat) and Shepherd $X/Q = 6.1E-6 \text{ sec/m}^3$					Distance = 0.2 miles $D/Q = 5.3E-8 \text{ m}^{-2}$			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-10

DOSE PARAMETER R_i FOR SECTOR C

Page 1 of 2

Pathway = Sheep (Meat) and Shepherd $X/Q = 6.5E-6 \text{ sec/m}^3$		Distance = 0.2 miles $D/Q = 6.1E-8 \text{ m}^{-2}$						
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-10

DOSE PARAMETER R_i FOR SECTOR C

Page 2 of 2

Pathway = Camp San Onofre $X/Q = 1.0E-7 \text{ sec/m}^3$			Distance = 2.6 miles $D/Q = 9.8E-10 \text{ m}^{-2}$					
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.3E3	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.3E3	3.7E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.7E4	1.1E9
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.1E4	2.7E8
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.1E5	3.0E8
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E5	1.7E10
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.0E5	1.7E4
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	2.0E8
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	1.1E8
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.7E4	1.6E7
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.5E5	5.5E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	1.2E8
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.2E5	8.2E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E5	1.6E7
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E5	1.1E7
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.2E5	5.6E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E7	1.4E7
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E6	2.0E6
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.5E5	2.0E6
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-11

DOSE PARAMETER R_i FOR SECTOR D

Page 1 of 2

Pathway = Sheep (Meat) and Shepherd X/Q = 6.3E-6 sec/m ³					Distance = 0.2 miles D/Q = 6.6E-8 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-11

DOSE PARAMETER R_i FOR SECTOR D

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Pathway = Camp San Onofre $X/Q = 7.4E-8 \text{ sec/m}^3$		Distance = 2.8 miles $D/Q = 7.8E-10 \text{ m}^{-2}$						
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.3E3	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.3E3	3.7E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.7E4	1.1E9
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.1E4	2.7E8
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.1E5	3.0E8
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E5	1.7E10
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.0E5	1.7E4
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	2.0E8
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	1.1E8
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.7E4	1.6E7
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.5E5	5.5E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	1.2E8
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.2E5	8.2E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E5	1.6E7
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E5	1.1E7
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.2E5	5.6E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E7	1.4E7
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E6	2.0E6
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.5E5	2.0E6
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-12

DOSE PARAMETER R_1 FOR SECTOR E

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Pathway = Sheep (Meat) and Shepherd $X/Q = 4.5E-6 \text{ sec/m}^3$					Distance = 0.3 miles $D/Q = 5.9E-8 \text{ m}^{-2}$			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-12

DOSE PARAMETER R_1 FOR SECTOR E

Page 2 of 2

Page 2 of 3

Pathway = Camp Horno X/Q = 6.6E-8 sec/m ³					Distance = 4.0 miles D/Q = 6.4E-10 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.3E3	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.3E3	3.7E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.7E4	1.1E9
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.1E4	2.7E8
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.1E5	3.0E8
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E5	1.7E10
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.0E5	1.7E4
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	2.0E8
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	1.1E8
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.7E4	1.6E7
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.5E5	5.5E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	1.2E8
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	6.2E5	8.2E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E5	1.6E7
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E5	1.1E7
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	8.2E5	5.6E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.2E7	1.4E7
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.2E6	2.0E6
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.5E5	2.0E6
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.9E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-13

DOSE PARAMETER R_i FOR SECTOR F

Page 1 of 2

Pathway = Sheep (Meat) and Shepherd X/Q = 1.8E-6 sec/m ³					Distance = 0.5 miles D/Q = 1.7E-8 m ⁻²			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-13

DOSE PARAMETER R_i FOR SECTOR F

Page 2 of 2

Pathway = San Onofre State Park Guard Shack $X/Q = 8.1E-7 \text{ sec/m}^3$					Distance = 0.8 miles $D/Q = 7.1E-9 \text{ m}^{-2}$			
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.3E2	0.0E0
Cr-51	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.1E3	1.6E6
Mn-54	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.6E4	4.7E8
Co-57	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.1E4	1.2E8
Co-58	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.6E4	1.3E8
Co-60	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	9.7E4	7.4E9
Sr-89	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.0E5	7.4E3
Sr-90	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.4E7	0.0E0
Zr-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	5.1E4	8.6E7
Nb-95	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.6E4	4.7E7
Te-129m	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.3E4	6.7E6
Cs-134	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.9E5	2.3E9
Cs-136	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	5.0E4	5.1E7
Cs-137	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.1E5	3.5E9
Ba-140	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.5E4	7.0E6
Ce-141	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.1E4	4.7E6
Ce-144	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	2.8E5	2.4E7
I -131	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	4.1E6	5.9E6
I -133	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	7.4E5	8.4E5
I -135	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	1.5E5	8.6E5
UN-ID	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	0.0E0	3.4E7	0.0E0

$$\text{Inhalation Pathway, units} = \frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$$

$$\text{Food \& Ground Pathway, units} = \frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$$

TABLE 2-14

DOSE PARAMETER R_i FOR SECTOR G

Page 1 of 2

Pathway = San Onofre State Park Beach Campground					Distance = 0.8 miles			
$X/Q = 7.7E-7 \text{ sec/m}^3$					$D/Q = 3.9E-9 \text{ m}^{-2}$			
Radio-Nuclide	Infant		Child		Teen		Adult	
	Inhalation Pathway	Food & Ground Pathway	Inhalation Pathway	Food & Ground Pathway	Inhalation Pathway	Food & Ground Pathway	Inhalation Pathway	Food & Ground Pathway
H -3	8.0E1	0.0E0	1.4E2	0.0E0	1.6E2	0.0E0	1.6E2	0.0E0
Cr-51	4.4E1	5.7E5	1.3E2	5.7E5	3.7E2	5.7E5	4.1E2	5.7E5
Mn-54	3.1E3	1.7E8	5.3E3	1.7E8	8.2E3	1.7E8	9.5E3	1.7E8
Co-57	6.0E2	4.2E7	1.6E3	4.2E7	3.9E3	4.2E7	3.9E3	4.2E7
Co-58	1.4E3	4.7E7	4.2E3	4.7E7	1.2E4	4.7E7	1.3E4	4.7E7
Co-60	3.9E3	2.6E9	1.2E4	2.6E9	3.2E4	2.6E9	3.5E4	2.6E9
Sr-89	4.9E4	2.7E3	7.4E4	2.7E3	5.3E4	2.7E3	3.7E4	2.7E3
Sr-90	5.0E6	0.0E0	1.2E7	0.0E0	1.3E7	0.0E0	1.2E7	0.0E0
Zr-95	2.7E3	3.1E7	1.8E4	3.1E7	1.8E4	3.1E7	1.8E4	3.1E7
Nb-95	1.6E3	1.7E7	4.6E3	1.7E7	1.2E4	1.7E7	1.3E4	1.7E7
Te-129m	3.9E3	2.4E6	6.2E3	2.4E6	6.4E3	2.4E6	4.5E3	2.4E6
Cs-134	8.6E4	8.4E8	1.2E5	8.4E8	1.4E5	8.4E8	1.0E5	8.4E8
Cs-136	1.7E4	1.8E7	2.1E4	1.8E7	2.4E4	1.8E7	1.8E4	1.8E7
Cs-137	7.5E4	1.3E9	1.0E5	1.3E9	1.0E5	1.3E9	7.6E4	1.3E9
Ba-140	6.9E3	2.5E6	9.1E3	2.5E6	2.8E4	2.5E6	2.7E4	2.5E6
Ce-141	2.7E3	1.7E6	7.0E3	1.7E6	1.6E4	1.7E6	1.5E4	1.7E6
Ce-144	1.8E4	8.6E6	4.8E4	8.6E6	1.1E5	8.6E6	1.0E5	8.6E6
I -131	1.8E6	2.1E6	2.0E6	2.1E6	1.8E6	2.1E6	1.5E6	2.1E6
I -133	4.4E5	3.0E5	4.7E5	3.0E5	3.6E5	3.0E5	2.6E5	3.0E5
I -135	8.6E4	3.1E5	9.7E4	3.1E5	7.6E4	3.1E5	5.5E4	3.1E5
UN-ID	5.0E6	0.0E0	1.2E7	0.0E0	1.3E7	0.0E0	1.2E7	0.0E0

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-14

DOSE PARAMETER R_i FOR SECTOR G

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Pathway = Sheep (Meat) and Shepherd X/Q = 1.2E-7 sec/m ³				Distance = 2.7 miles D/Q = 4.8E-10 m ⁻²				
Radio- Nuclide	Infant		Child		Teen		Adult	
	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway	Inhala- tion Pathway	Food & Ground Pathway
H -3	0.0E0	0.0E0	0.0E0	2.3E2	0.0E0	1.9E2	7.0E0	3.2E2
Cr-51	0.0E0	0.0E0	0.0E0	1.7E4	0.0E0	3.4E4	1.8E1	9.0E4
Mn-54	0.0E0	0.0E0	0.0E0	2.3E6	0.0E0	4.0E6	4.3E2	1.6E7
Co-57	0.0E0	0.0E0	0.0E0	1.3E7	0.0E0	2.3E7	1.7E2	4.0E7
Co-58	0.0E0	0.0E0	0.0E0	1.4E7	0.0E0	2.7E7	5.9E2	5.4E7
Co-60	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.6E8	1.6E3	6.0E8
Sr-89	0.0E0	0.0E0	0.0E0	4.8E7	0.0E0	2.5E7	1.7E3	3.0E7
Sr-90	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9
Zr-95	0.0E0	0.0E0	0.0E0	8.1E7	0.0E0	1.5E8	8.3E2	2.6E8
Nb-95	0.0E0	0.0E0	0.0E0	1.3E8	0.0E0	2.5E8	5.7E2	4.5E8
Te-129m	0.0E0	0.0E0	0.0E0	3.3E8	0.0E0	2.5E8	2.0E2	3.0E8
Cs-134	0.0E0	0.0E0	0.0E0	4.7E8	0.0E0	3.9E8	4.7E3	5.3E8
Cs-136	0.0E0	0.0E0	0.0E0	1.4E5	0.0E0	1.2E5	8.1E2	9.7E5
Cs-137	0.0E0	0.0E0	0.0E0	4.6E8	0.0E0	3.5E8	3.4E3	4.9E8
Ba-140	0.0E0	0.0E0	0.0E0	1.2E5	0.0E0	1.0E5	1.2E3	2.8E5
Ce-141	0.0E0	0.0E0	0.0E0	7.0E5	0.0E0	1.1E6	6.6E2	1.9E6
Ce-144	0.0E0	0.0E0	0.0E0	5.1E7	0.0E0	8.3E7	4.5E3	1.3E8
I -131	0.0E0	0.0E0	0.0E0	1.6E6	0.0E0	1.1E6	6.6E4	1.6E6
I -133	0.0E0	0.0E0	0.0E0	1.9E-2	0.0E0	1.1E-2	1.2E4	1.3E4
I -135	0.0E0	0.0E0	0.0E0	1.4E-18	0.0E0	7.8E-19	2.5E3	1.4E4
UN-ID	0.0E0	0.0E0	0.0E0	4.0E9	0.0E0	3.1E9	5.5E5	4.8E9

Inhalation Pathway, units = $\frac{\text{mrem/yr}}{\mu\text{Ci/m}^3}$

Food & Ground Pathway, units = $\frac{(\text{m}^2)(\text{mrem/yr})}{\mu\text{Ci/sec}}$

TABLE 2-15

PARAMETERS USED IN "PARTS" CALCULATION OF R

Page 1 of 7

No.	IAGE	ORG	Land Use	Com- pass	Sec- tor	Distance (miles)	GF	ZIN	FV	FP	FG	FPG	FB	FBI	Comments
1.	1	2	San Onofre Surf Beach	WNW	P	0.4	0	0	0	0	0	0	0	0	0 hrs/yr
	2	2	San Onofre Surf Beach	WNW	P	0.4	0.0048	0.0104	0	0	0	0	0	0	ZIN=91 hrs/yr, GF=42 hrs/yr
3	2	2	San Onofre Surf Beach	WNW	P	0.4	0.0229	0.0403	0	0	0	0	0	0	ZIN=353 hrs/yr, GF=201 hrs/yr
4	2	2	San Onofre Surf Beach	WNW	P	0.4	0.0041	0.0123	0	0	0	0	0	0	ZIN=108 hrs/yr, GF=36 hrs/yr
2.	1	2	Enlisted Beach	WNW	P	1.2	0.0403	0.0403	0	0	0	0	0	0	353 hrs/yr
	2	2	Enlisted Beach	WNW	P	1.2	0.0403	0.0403	0	0	0	0	0	0	353 hrs/yr
3	2	2	Enlisted Beach	WNW	P	1.2	0.0403	0.0403	0	0	0	0	0	0	353 hrs/yr
4	2	2	Enlisted Beach	WNW	P	1.2	0.0403	0.0403	0	0	0	0	0	0	353 hrs/yr
3.	1	2	Enlisted Beach Campground Check-in	WNW	P	1.5	0	0	0	0	0	0	0	0	40 hrs/week = 2000 hrs/yr
	2	2	Enlisted Beach Campground Check-in	WNW	P	1.5	0	0	0	0	0	0	0	0	
3	2	2	Enlisted Beach Campground Check-in	WNW	P	1.5	0	0	0	0	0	0	0	0	
4	2	2	Enlisted Beach Campground Check-in	WNW	P	1.5	0.2283	0.2283	0	0	0	0	0	0	

TABLE 2-15

PARAMETERS USED IN "PARIS" CALCULATION OF R

Page 2 of 7

No.	LAGE	IORG	Land Use	Com- pass	Sec- tor	Distance (miles)	GF	ZIN	FV	FP	FG	FPF	FGT	FPG	FB	FBF	Comments
4.	1	2	Former Nixon Estate (no garden)	WNW	P	2.8	0.8	1	0	0	0	0	0	0	0	0	GF = 1-0.3 x 0.7 = 0.8 Shielding factor = 0.7 fraction of time in the building = 0.3
	2	2	former Nixon Estate (no garden)	WNW	P	2.8	0.8	1	0	0	0	0	0	0	0	0	
3	2		Former Nixon Estate (no garden)	WNW	P	2.8	0.8	1	0	0	0	0	0	0	0	0	
4	2		Former Nixon Estate (no garden)	WNW	P	2.8	0.8	1	0	0	0	0	0	0	0	0	
5.	1	2	State Park Office Trailer	NW	Q	0.6	0	0	0	0	0	0	0	0	0	0	
	2	2	State Park Office Trailer	NW	Q	0.6	0	0	0	0	0	0	0	0	0	0	
3	2		State Park Office Trailer	NW	Q	0.6	0	0	0	0	0	0	0	0	0	0	
4	2		State Park Office Trailer	NW	Q	0.6	0.2283	0.2283	0	0	0	0	0	0	0	0	40 hrs/week = 2000 hrs/yr
6.	1	2	Enlisted Beach Recreation Bldg.	NW	Q	1.2	0	0	0	0	0	0	0	0	0	0	
	2	2	Enlisted Beach Recreation Bldg.	NW	Q	1.2	0	0	0	0	0	0	0	0	0	0	
3	2		Enlisted Beach Recreation Bldg.	NW	Q	1.2	0	0	0	0	0	0	0	0	0	0	
4	2		Enlisted Beach Recreation Bldg.	NW	Q	1.2	0.2854	0.2854	0	0	0	0	0	0	0	0	50 hrs/week = 2,500 hrs/yr.

TABLE 2-15

PARAMETERS USED IN "PARTS" CALCULATION OF R

Page 3 of 7

No.	AGE	ORG	Land Use	Com- pass	Sec- tor	Distance (miles)	GF	ZIN	FV	FP	FG	FPG	FB	FBF	Comments
7.	1	2	Meat (Sheep)	NW	Q	1.5	0	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	NW	Q	1.5	0	0	0	0	0	0	0.0192	0.0078	
3	2	2	Meat (Sheep)	NW	Q	1.5	0	0	0	0	0	0	0.0192	0.0078	
	4	2	Meat (Sheep) (Shepherd)	NW	Q	1.5	0.0055	0.0055	0	0	0	0	0.0192	0.0078	FB=1 week/yr GF and ZIN = 2 days/yr.
8.	1	2	San Onofre Heights	NW	Q	1.7	0.8	1	0	0	0	0	0	0	
	2	2	San Onofre Heights	NW	Q	1.7	0.8	1	0	0	0	0	0	0	
3	2	2	San Onofre Heights	NW	Q	1.7	0.8	1	0	0	0	0	0	0	
	4	2	San Onofre Heights	NW	Q	1.7	0.8	1	0	0	0	0	0	0	
9.	1	2	San Clemente Ranch (no resident)	NW	Q	2.2	0	0	1	0	0.76	0	0	0	
	2	2	San Clemente Ranch (no resident)	NW	Q	2.2	0	0	1	0	0.76	0	0	0	
3	2	2	San Clemente Ranch (no resident)	NW	Q	2.2	0	0	1	0	0.76	0	0	0	
	4	2	San Clemente Ranch (no resident)	NW	Q	2.2	0	0	1	0	0.76	0	0	0	
10.	1	2	Meat (Sheep)	NNW	R	0.9	0	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	NNW	R	0.9	0	0	0	0	0	0	0.0192	0.0078	
3	2	2	Meat (Sheep)	NNW	R	0.9	0	0	0	0	0	0	0.0192	0.0078	
	4	2	Meat (Sheep) (Shepherd)	NNW	R	0.9	0.0055	0.0055	0	0	0	0	0.0192	0.0078	FB=1 week/yr GF and ZIN = 2 days/yr.

TABLE 2-15
PARAMETERS USED IN "PARTS" CALCULATION OF R

NO.	AGE	ORG	Land Use	Com- pass	Sec- tor	Distance (miles)	GF	ZIN	FV	FP	FG	FPG	FPG	FB	FBF	Comments
11.	1	2	San Onofre Mobile Homes	NNW	R	1.3	0.8	1	0	0	0	0	0	0	0	
	2	2	San Onofre Mobile Homes	NNW	R	1.3	0.8	1	0	0	0	0	0	0	0	
	3	2	San Onofre Mobile Homes	NNW	R	1.3	0.8	1	0	0	0	0	0	0	0	
	4	2	San Onofre Mobile Homes	NNW	R	1.3	0.8	1	0	0	0	0	0	0	0	
12.	1	2	San Clemente Ranch (No resident)	NNW	R	2.3	0	0	1	0	0.76	0	0	0	0	
	2	2	San Clemente Ranch (No resident)	NNW	R	2.3	0	0	1	0	0.76	0	0	0	0	
	3	2	San Clemente Ranch (No resident)	NNW	R	2.3	0	0	1	0	0.76	0	0	0	0	
	4	2	San Clemente Ranch (No resident)	NNW	R	2.3	0	0	1	0	0.76	0	0	0	0	
13.	1	2	Meat (Sheep)	N	A	0.3	0	0	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	N	A	0.3	0	0	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	N	A	0.3	0	0	0	0	0	0	0	0.0192	0.0078	
	4	2	Meat (Sheep) (Shepherd)	N	A	0.3	0.0055	0.0055	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr. GF and ZIN = 2 days/yr.
14.	1	2	Camp San Mateo	N	A	3.6	0	0	0	0	0	0	0	0	0	
	2	2	Camp San Mateo	N	A	3.6	0	0	0	0	0	0	0	0	0	
	3	2	Camp San Mateo	N	A	3.6	0	0	0	0	0	0	0	0	0	
	4	2	Camp San Mateo	N	A	3.6	0.8	1	0	0	0	0	0	0	0	

TABLE 2-15

PARAMETERS USED IN "PARTS" CALCULATION OF R_i

Page 5 of 7

No.	IAGE	ORG	Land Use	Com- pass for	Sec- Distance (miles)	GF	ZIN	FV	FP	FG	FPG	FB	FBF	Comments
15.	1	2	Meat (Sheep)	NNE	B	0.2	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	NNE	B	0.2	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	NNE	B	0.2	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr.
	4	2	Meat (Sheep) (Shepherd)	NNE	B	0.2	0.0055	0	0	0	0	0.0192	0.0078	GF and ZIN = 2 days/yr.
16.	1	2	Meat (Sheep)	NE	C	0.2	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	NE	C	0.2	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	NE	C	0.2	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr.
	4	2	Meat (Sheep) (Shepherd)	NE	C	0.2	0.0055	0	0	0	0	0.0192	0.0078	GF and ZIN = 2 days/yr.
17.	1	2	Camp San Onofre	NE	C	2.6	0	0	0	0	0	0	0	
	2	2	Camp San Onofre	NE	C	2.6	0	0	0	0	0	0	0	
	3	2	Camp San Onofre	NE	C	2.6	0	0	0	0	0	0	0	
	4	2	Camp San Onofre	NE	C	2.6	0.8	1	0	0	0	0	0	
18.	1	2	Meat (Sheep)	ENE	D	0.2	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	ENE	D	0.2	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	ENE	D	0.2	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr.
	4	2	Meat (Sheep) (Shepherd)	ENE	D	0.2	0.0055	0	0	0	0	0.0192	0.0078	GF and ZIN = 2 days/yr.

TABLE 2-15

PARAMETERS USED IN "PARTS" CALCULATION OF R

Page 6 of 7

No.	IAGE	IORG	Land Use	Com- pass	Sec- tor	Distance (miles)	GF	ZIN	FV	FP	FG	FPG	FBI	FB	FBF	Comments
19.	1	2	Camp San Onofre	ENE	D	2.8	0	0	0	0	0	0	0	0	0	
	2	2	Camp San Onofre	ENE	D	2.8	0	0	0	0	0	0	0	0	0	
	3	2	Camp San Onofre	ENE	D	2.8	0	0	0	0	0	0	0	0	0	
	4	2	Camp San Onofre	ENE	D	2.8	0.8	1	0	0	0	0	0	0	0	
20.	1	2	Meat (Sheep)	E	E	0.3	0	0	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	E	E	0.3	0	0	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	E	E	0.3	0	0	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr. GF and ZIN =
	4	2	Meat (Sheep) (Shepherd)	E	E	0.3	0.0055	0.0055	0	0	0	0	0	0.0192	0.0078	2 days/yr.
21.	1	2	Camp Horno	E	E	4.0	0	0	0	0	0	0	0	0	0	
	2	2	Camp Horno	E	E	4.0	0	0	0	0	0	0	0	0	0	
	3	2	Camp Horno	E	E	4.0	0	0	0	0	0	0	0	0	0	
	4	2	Camp Horno	E	E	4.0	0.8	1	0	0	0	0	0	0	0	
22.	1	2	Meat (Sheep)	ESE	F	0.5	0	0	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	ESE	F	0.5	0	0	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	ESE	F	0.5	0	0	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr. GF and ZIN =
	4	2	Meat (Sheep) (Shepherd)	ESE	F	0.5	0.0055	0.0055	0	0	0	0	0	0.0192	0.0078	2 days/yr.

TABLE 2-15

PARAMETERS USED IN "PARTS" CALCULATION OF R

Page 7 of 7

No.	IAGE	IORG	Land Use	Com- pass	Sec- tor	Distance (miles)	GF	ZIN	FV	FP	FG	FPI	FGI	FPG	FB	FBF	Comments
23.	1	2	San Onofre State Park Guard Shack	ESE		0.8	0	0	0	0	0	0	0	0	0	0	
	2	2	San Onofre State Park Guard Shack	ESE	F	0.8	0	0	0	0	0	0	0	0	0	0	
	3	2	San Onofre State Park Guard Shack	ESE	F	0.8	0	0	0	0	0	0	0	0	0	0	
	4	2	San Onofre State Park Guard Shack	ESE	F	0.8	0.3425	0.3425	0	0	0	0	0	0	0	0	60 hrs/week= 3,000 hrs/yr.
24.	1	2	San Onofre State Beach Campground	SE	G	0.8	0.1233	0.1233	0	0	0	0	0	0	0	0	45 days/yr= 1,080 hrs/yr.
	2	2	San Onofre State Beach Campground	SE	G	0.8	0.1233	0.1233	0	0	0	0	0	0	0	0	45 days/yr= 1,080 hrs/yr.
	3	2	San Onofre State Beach Campground	SE	G	0.8	0.1233	0.1233	0	0	0	0	0	0	0	0	45 days/yr= 1,080 hrs/yr.
	4	2	San Onofre State Beach Campground	SE	G	0.8	0.1233	0.1233	0	0	0	0	0	0	0	0	45 days/yr= 1,080 hrs/yr.
25.	1	2	Meat (Sheep)	SE	G	2.7	0	0	0	0	0	0	0	0	0.0192	0.0078	
	2	2	Meat (Sheep)	SE	G	2.7	0	0	0	0	0	0	0	0	0.0192	0.0078	
	3	2	Meat (Sheep)	SE	G	2.7	0	0	0	0	0	0	0	0	0.0192	0.0078	FB=1 week/yr.
	4	2	Meat (Sheep) (Shepherd)	SE	G	2.7	0.0055	0.0055	0	0	0	0	0	0	0.0192	0.0078	CF and ZIN = 2 days/yr.

Other Values Used in "PARTS" Code

H = 8.0 YC = 2.0
 YL = 2.0 QC = 50
 YV = 2.0 QG = 6
 YP = 0.7

NOTE: All parameters defined in NUREG-0133, page D-2.

3.0 PROJECTED DOSES

3.1 Liquid Dose Projection (3.11.1.3)

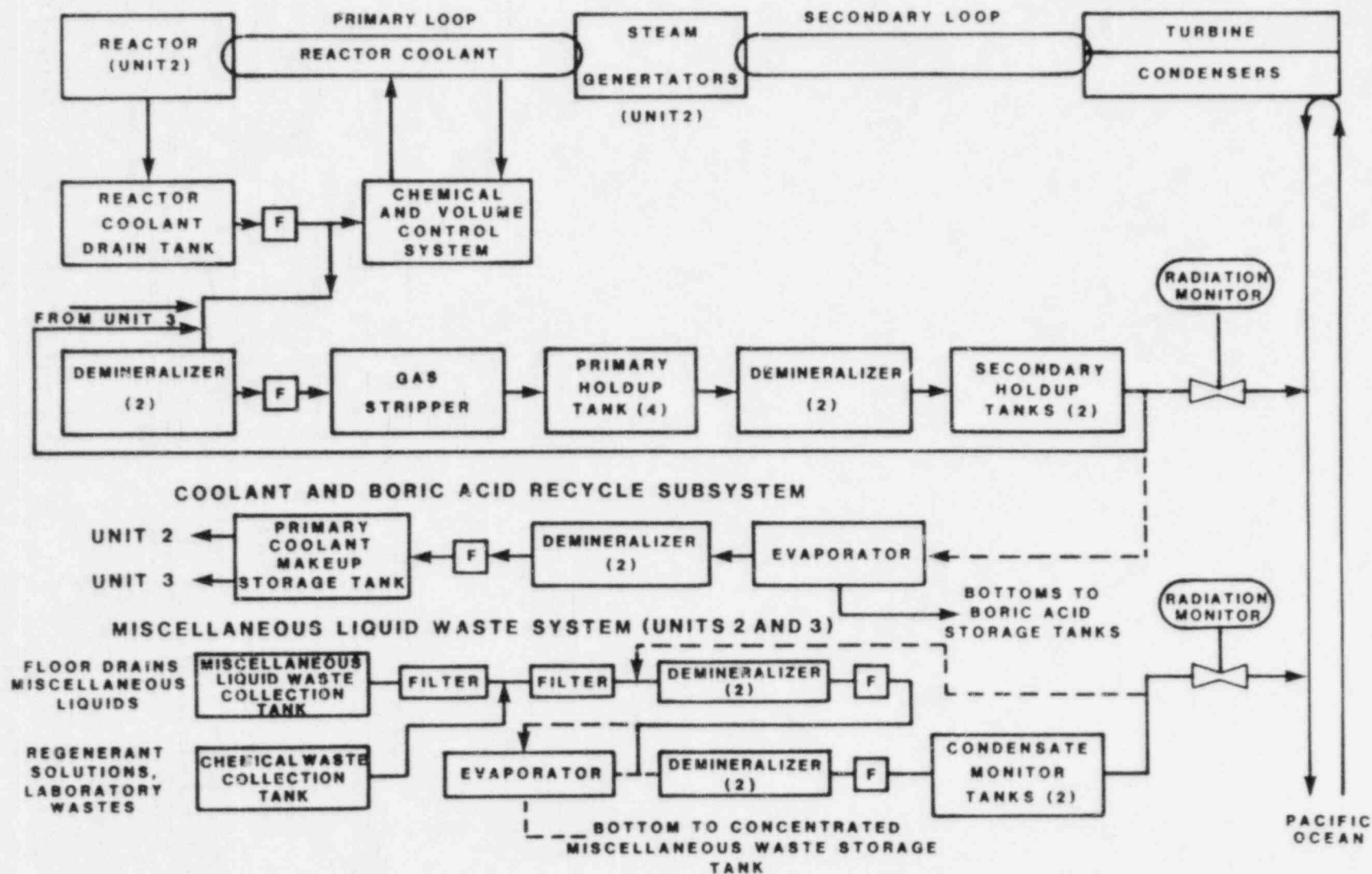
The methodology used for projecting a liquid dose over 31 days for Specification 3.11.1.3 is as follows:

1. Determine the monthly total body and organ doses resulting from releases during the previous twelve months.
2. Projected dose = Previous 12 months dose divided by 12 for the total body and each organ.

3.2 Gaseous Dose Projection (3.11.2.4)

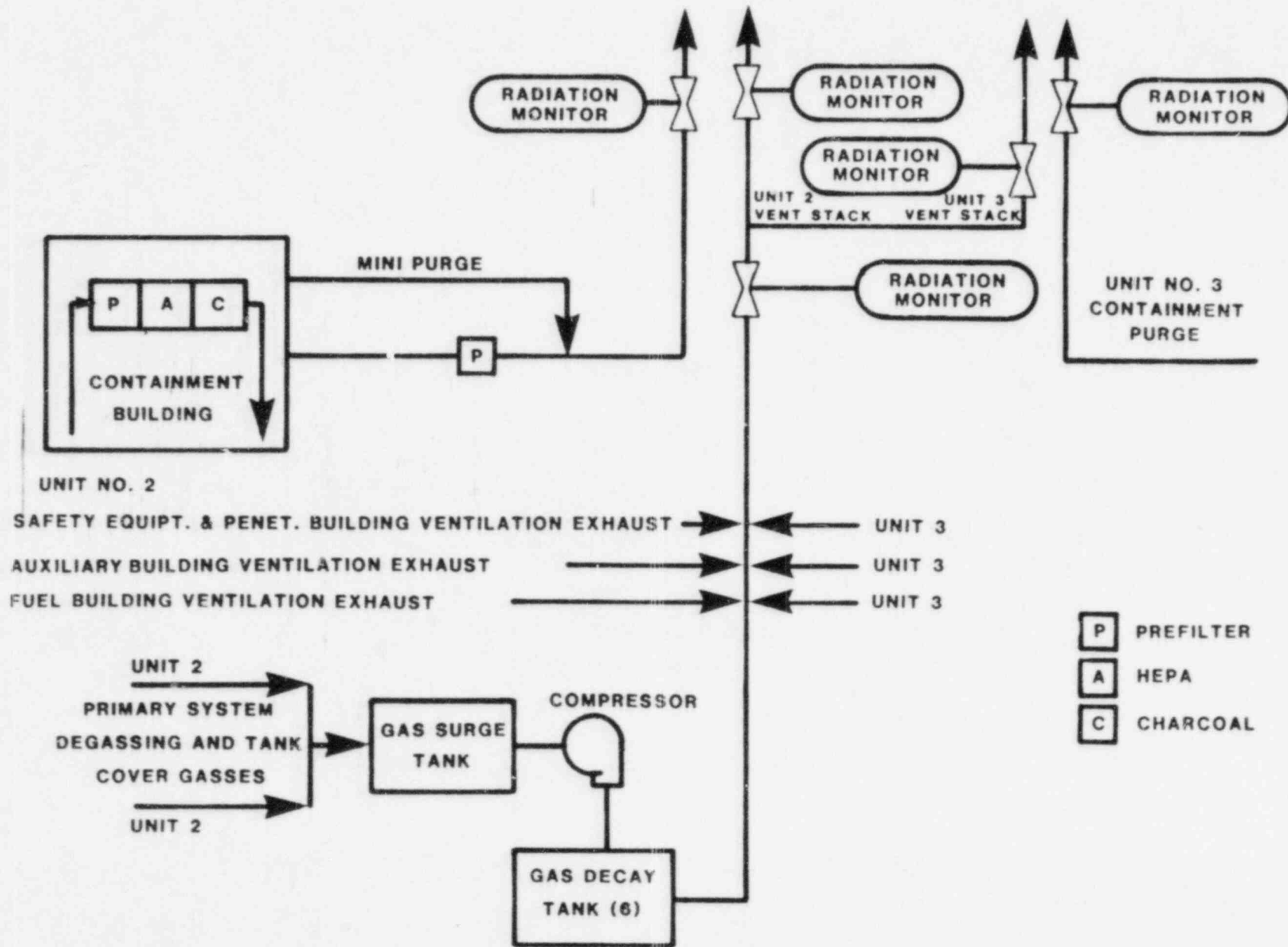
The methodology used for projecting a gaseous dose over 31 days for specification 3.11.2.4 is as follows:

1. Determine the monthly gamma beta and organ dose resulting from releases during the previous twelve months.
2. Projected dose = Previous 12 months dose divided by 12 for the gamma, beta and organ doses.



FIGUR 4-1 SONGS 2 & 3 RADIOACTIVE LIQUID WASTE TREATMENT SYSTEMS

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FIGURE 4-2 SONGS 2 & 3 RADIOACTIVE GASEOUS WASTE TREATMENT SYSTEMS

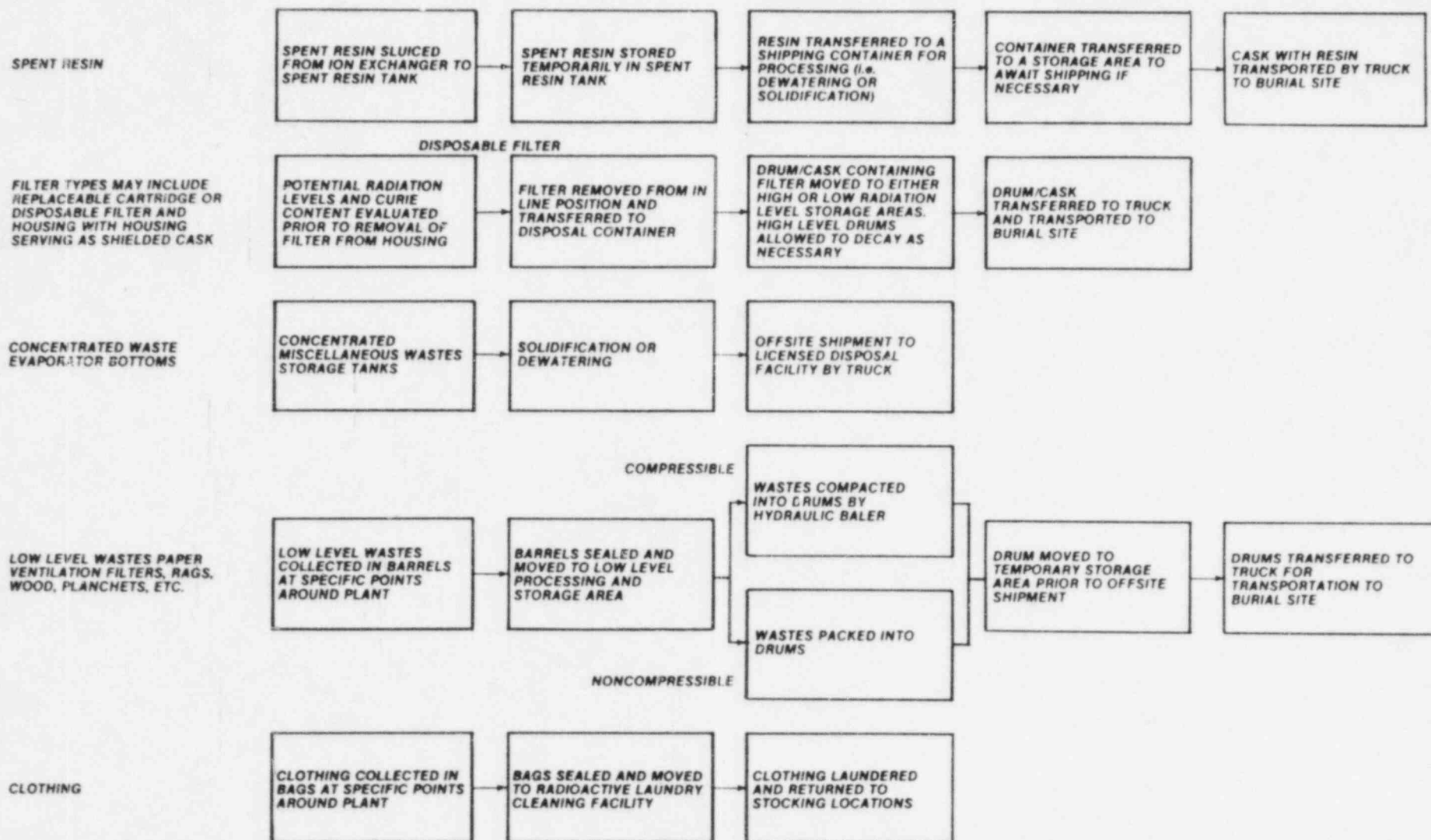


FIGURE 4-3 SOLID WASTE HANDLING

TABLE 5-3

SECTOR AND DIRECTION DESIGNATION FOR RADIOLOGICAL
ENVIRONMENTAL MONITORING SAMPLE LOCATION MAP

DEGREES TRUE NORTH FROM SONGS 2 AND 3 MID-POINT			NOMENCLATURE	
<u>Sector Limit</u>	<u>Center Line</u>	<u>Sector Limit</u>	<u>22.5° Sector*</u>	<u>Direction</u>
348.75	0 & 360	11.25	A	N
11.25	22.5	33.75	B	NNE
33.75	45	56.25	C	NE
56.25	67.5	78.75	D	ENE
78.75	90	101.25	E	E
101.25	112	123.75	F	ESE
123.75	135	146.25	G	SE
146.25	157	168.75	H	SSE
168.75	180	191.25	J	S
191.25	202.5	213.75	K	SSW
213.75	225	236.25	L	SW
236.25	247.5	258.75	M	WSW
258.75	270	281.25	N	W
281.25	292.5	303.75	P	WNW
303.75	315	326.25	Q	NW
326.25	337.5	348.75	R	NNW

* Distance (miles) and Direction (sector) are measured relative to Units 2 and 3 midpoint. Direction is determined from degrees true north.

3104c