

memorandum

Environmental Management Los Alamos
Field Office (EM-LA)
Los Alamos, New Mexico 87544

DATE: October 30, 2019

EMLA-2020-1063-02-001

REPLY TO

ATTN OF: (Brian Harcek) / (505)257-7917

SUBJECT: Status of Residual Radioactive Material in Bayo Canyon (former Technical Area 10)

TO: EM-LA Records

REFERENCE: DOE Order 458.1 Admin Change 3, *Radiation Protection of the Public and the Environment*

1. The Department of Energy, Office of Environmental Management Los Alamos Field Office (EM-LA) performed an assessment of the results of various remediation actions and surveys, and calculated the potential dose due to residual radioactive materials in Bayo Canyon (Fig.1). The results were evaluated against Construction and Recreational user scenarios. Based on the review of survey records, historical analyses of data related to the potential dose due to residual radioactive material, and analyses of recent data, the result of this assessment indicates that Bayo Canyon may be released for recreational use consistent with the requirements of DOE Order 458.1. The maximum predicted Total Effective Dose (TED) for a recreational user and a construction worker are both less than the 25 mrem limit for a member of the public as specified in DOE Order 458.1 Admin Chg. 3, Radiation Protection of the Public and the Environment. The review of previous survey records, the results of this assessment, and the predicted TED, indicate that the residual radioactive materials have been reduced to levels that are As Low As Reasonably Achievable (ALARA).
2. Historical Information:
 - 2.1. Bayo Canyon (former Technical Area (TA) 10) was used from 1943 to 1961 for explosives experiments in the nuclear weapon development program. Radioactivity was released to the environment as a part of these experiments. The test assemblies included components manufactured from natural and depleted uranium and used a radioactive source, typically lanthanum-140 (140La) which was prepared at the on-site radiochemical laboratory. The separation process was not able to remove all of the strontium-90 (90Sr) from the 140La. The explosions, separation process, and regular maintenance of the firing sites resulted in subsurface contamination.
 - 2.2. The decommissioning of the site began in 1960 and was completed in 1963. The buildings were either demolished or burned with subsequent disposal on-site or in other disposal areas of the Laboratory. Recovered blast debris was removed out to a radius of approximately 760 meters.

- 2.3. Following completion of the decontamination and decommissioning activities including walkover radiological surveys and soil sampling, the property, approximately 350 acres, was turned over to Los Alamos County via Quit Claim Deed in 1967. The proposed use of the property was recreational with thought given to residential development at a later date. With that understanding the Atomic Energy Commission (AEC), predecessor to the DOE, recommended that deed restrictions limiting excavation be placed on a small portion of the property due the remaining subsurface 90Sr. The deed restrictions were not recorded.
- 2.4. Walkover and aerial radiological surveys and soil sampling were completed in subsequent years. The majority of these surveys indicated little to no surface contamination. The Formerly Utilized Sites Remedial Action Program (FUSRAP) performed a survey in 1976 to determine the need for further corrective action. The survey indicated that additional subsurface sampling was required in a few select areas. Additional sampling was completed in 1980, subsurface contamination was detected around the liquid waste disposal complex and some radioactive debris was located on the surface.
- 2.5. As part of the Comprehensive Environmental Assessment and Response Program field survey that identified small pieces of shrapnel and metal cable around the firing sites, six survey monuments and associated guard posts were placed in the Central Area that roughly encompassed TA-10-01, the Tank Farm, and waste disposal pit TA-10-48. The markers contained the radioactive trefoil and the words "buried radioactive material no excavation prior to 2142 AD see county records".
- 2.6. A Voluntary Corrective Action was completed in 1995 at Potential Release Site (PRS) C-10-001 with approximately 36 ft³ of soil removed and properly disposed. All of the confirmation samples were below the cleanup level and no further action was recommended.
- 2.7. Radioactively contaminated shrapnel was detected during geomorphic mapping activities in 1993. A Voluntary Corrective Action was undertaken in September 1995 and ending in January 1995 with three main objectives: Remove all surface shrapnel by hand to reduce public risk, complete a shrapnel density distribution study to facilitate any future removal actions, and obtain sufficient data for a risk assessment. Following the removal of some shrapnel, the risk was estimated to be below the Environmental Protection Agency acceptable risk range of 1 in 10,000 to 1 in 1,000,000 and no further action was recommended.
- 2.8. An Interim Action was conducted in 1996 to address deep-rooted contaminated vegetation in the vicinity of the previously removed liquid waste disposal area, i.e. Central Area. Storm water control measures and a fenced Soil Contamination Area were constructed to limit exposure to the contamination. No further inspections of the area were done after 2001 when it was determined that the area was stable.

- 2.9. A 2007 investigation performed in the Central Area indicated two small areas of surface contamination south of Solid Waste Management Unit 10-002(b) and recommended removal as a good stewardship practice. The area in question was a part of Consolidated Unit 10-001(a)-99. These contaminated soils were removed and subsequent sampling confirmed that the residual radioactive material was less than the screening action level (SAL) for 90Sr of 5.7 pCi/g.
- 2.10. A removal action was completed September 2011 of one small area in Area of Concern 10-009 at the request of Los Alamos County to facilitate the removal of an administrative control, i.e. fencing, allowing access for road improvement and maintenance. Approximately 25 yd³ of material was removed and properly disposed. Confirmatory sampling indicated that residual radioactive material was less than the SAL for 90Sr.

3. Reviewed documents and information

- 3.1. Environmental Analysis of the Bayo Canyon (TA-10) Site, Los Alamos, New Mexico, May 1982 LA-9252-MS
- 3.2. Investigation Report for Bayo Canyon Aggregate Area, Revision 1, May 2008 LA-UR-08-3202
- 3.3. Bayo Canyon Aggregate Areas Strontium-90 Removal Implementation Plan, August 2009 LA-UR-09-5162
- 3.4. Strontium-90 Soil Removal Report for Area of Concern 10-009 at Bayo Canyon Aggregate Area Peer Review Draft, April 2018
- 3.5. Two Small Areas South of SWMU-10-002(b) Sample results (Figure 2 and Table 1)
- 3.6. Long-Term Surveillance and Maintenance Plan for Completed FUSRAP Sites, September 2017 LMS/S14490-2.0
- 3.7. Interim Action Report for TA-10, Bayo Canyon Shrapnel, January 1997 LA-UR-96-2275
- 3.8. Formerly Utilized MED/AEC Sites Remedial Action Program, June 1979 DOE/EV-0005/15
- 3.9. Strontium Concentrations in Chamisa (*Chrysothamus nauseosus*) Shrub Plants Growing in a Former Liquid Waste Disposal Area In Bayo Canyon, November 1995 LA-13050-MS
- 3.10. Work Plan for the North Canyons, September 2001 LA-UR-1316

4. Findings

- 4.1. The property was turned over to the County of Los Alamos via Quit Claim Deed in 1967 with the understanding that the future land use would be recreational with occasional construction activities for installation and maintenance of infrastructure projects.
- 4.2. Three removal actions, three areas in Consolidated Unit 10-001(a)-99 and one in AOC 10-009 were completed with all of them resulting in residual radioactivity concentrations less than the Screening Action Level. The dose to a member of the public at each of these small sites was less than the 25 mrem limit prescribed in DOE Order 458.1 when modeled using Residual Radioactivity (RESRAD) ONSITE 7.2 (Attachments 2 and 3).
- 4.3. RESRAD-ONSITE 7.2 was used to model the predicted public dose from 90Sr brought to the surface by deep rooted vegetation under recreational and construction worker scenarios. The modeled soil concentration for 90Sr was assumed from the 1995 study Strontium Concentrations in Chamisa (*Chrysothamnus nauseosus*) Shrub Plants Growing in a Former Liquid Waste Disposal Area In Bayo Canyon. The highest soil value found was 191.40 pCi/g that was rounded to 200 pCi/m. The dose to a member of the public was less than the 25 mrem limit prescribed in DOE Order 458.1 when modeled using Residual Radioactivity (RESRAD) ONSITE 7.2 (Attachments 4 and 5).
- 4.4. RESRAD-OFFSITE 3.2 was used to model the predicted public dose from 90Sr to a resident farmer located outside Bayo Canyon using an assumed uniform surface concentration of 200 pCi/g across the 1.5 acre Central Area that was allowed to migrate naturally. The dose to a resident farmer was less than the 25 mrem limit prescribed in DOE Order 458.1 when modeled using Residual Radioactivity (RESRAD) ONSITE 7.2 (Attachment 6).
- 4.5. Following the guidance in DOE-STD-1153-2002, A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota, RESRAD-BIOTA 1.8 was used to model the predicted dose to terrestrial biota in Bayo Canyon from 90Sr. During the screening process, the Total Ratio for the Limiting Terrestrial Animal was calculated as 8.89 which is above the guidance level. The second level screening also indicated that the guidance level had been exceeded. The site specific analysis using an area of 1.5 acres and a lower consumption rate showed that the area was below the guidance levels. The lower consumption rate was chosen due to the few plants that have been able to access the subsurface contamination are limited to those in the 1.5 acre Central Area (Attachment #7).
- 4.6. The historical and updated ALARA reviews indicate that the release of the entire Bayo Canyon is compliant with the ALARA principle (Attachment #1).

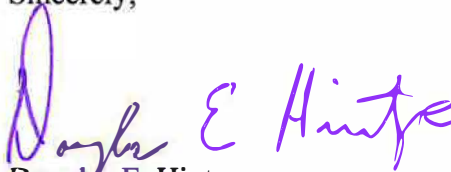
5. Recommendations and Conclusions

- 5.1. Based on the information obtained relative to the potential for dose to a member of the public upon release of Bayo Canyon, the area may be considered ALARA when the use of the land is maintained recreational with monitored light construction and no excavation greater than a depth of 10 feet in the 1.5 acre Central Area denoted by the 6 markers.
- 5.2. Collective and individual doses from residual radioactive material were calculated using historical and more recent data and were less than the limits specified in DOE Order 458.1 Admin. Chg. 3, Radiation Protection of the Public and the Environment January, 2013.

Based on the ALARA analyses and the calculated dose from residual radioactive material, the entire approximately 350 acres of Bayo Canyon/former TA-10 may be released for recreational use upon acceptance of these findings by the DOE as prescribed in DOE Order 458.1 Admin. Chg. 3, Radiation Protection of the Public and the Environment January, 2013. The approximately 1.5 acre area denoted by the 6 markers contains buried residual radioactive material.

If you have any questions regarding this assessment, please contact Brian Harcek at (505) 257-7917, or Brian.Harcek@em.doe.gov. Future inquiries about the site can be directed to DOE Office of Legacy Management at (970) 248-6070 (monitored continuously) or (877) 695-5322 (toll free).

Sincerely,



Douglas E. Hintze
Manager
Environmental Management
Los Alamos Field Office

Attachment:

Bayo Canyon/Formal Technical Area 10 As Low As Reasonably Achievable (ALARA) Review

CC:

DOE LM

David Shaffer

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Harry Burgess

DOE EM-LA

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Bayo Canyon/Former Technical Area 10 As Low As Reasonably Achievable (ALARA) Review

When Bayo Canyon was turned over to Los Alamos County in 1967, there was no discernible surface contamination. The use of the property was proposed as recreational. Given the passage of time, it was proposed that a residential development would be an appropriate use of the land. Further investigations of the area determined that there was significant subsurface contamination in the Central Area. Subsequent studies to determine the extent of the subsurface contamination indicated the contamination was located within an approximately 1.5 acre area surrounding the former liquid waste treatment facilities. These studies also detected surface contamination. The surface contamination was determined to be from the transport and bioaccumulation of ^{90}Sr by deep rooted vegetation.

Previous dose estimates did not take this transport mechanism into account when they were used to facilitate the release of the property. Subsequent dose estimates using the most recent data indicate that estimated doses for recreational and construction uses have increased slightly but are still less than the 25 mrem year dose limit for a member of the public as specified in DOE Order 458.1 Admin. Chg. 3.

The previous ALARA analyses need only be updated to account for a change in the disposal option and inflation. Additional voluntary removal actions were completed as a good stewardship measure. These actions resulted in the areas being in the range of background and would not significantly affect the results of the previously performed analyses.

The estimated cost to complete the remediation of the contaminated area was \$461,000 in 1981. The estimate assumes that the contaminated material would be disposed in Area 54. This assumption is no longer valid and the contaminated soils would have to be sent to an out-of-state licensed facility at an additional cost (in 2019 dollars) of \$334,543 for a total of \$1.6 million.

The estimated dose in both scenarios is less than 1 mrem in a year and decreases each year due to radioactive decay since there are no additions to the source term. Therefore, further remedial actions or waste disposal expenses to reduce the already minimal radiation doses at this site are not reasonably justified. The residual radioactive material is determined to be ALARA when Bayo Canyon is used for recreational purposes.

Figure 1: Bayo Canyon/Former TA-10 Site

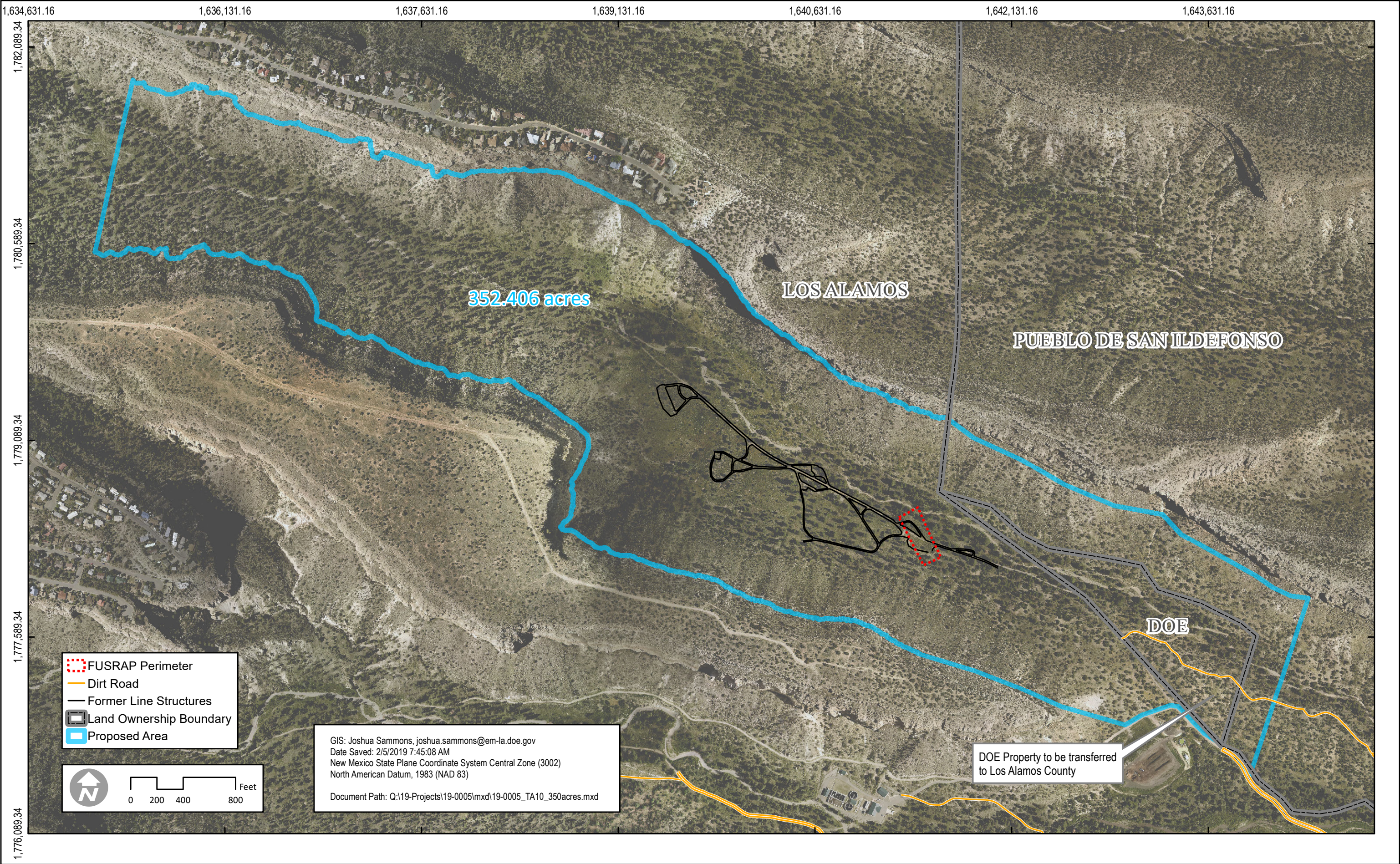


Figure 2 SWMU-10-002(b) Sample Locations

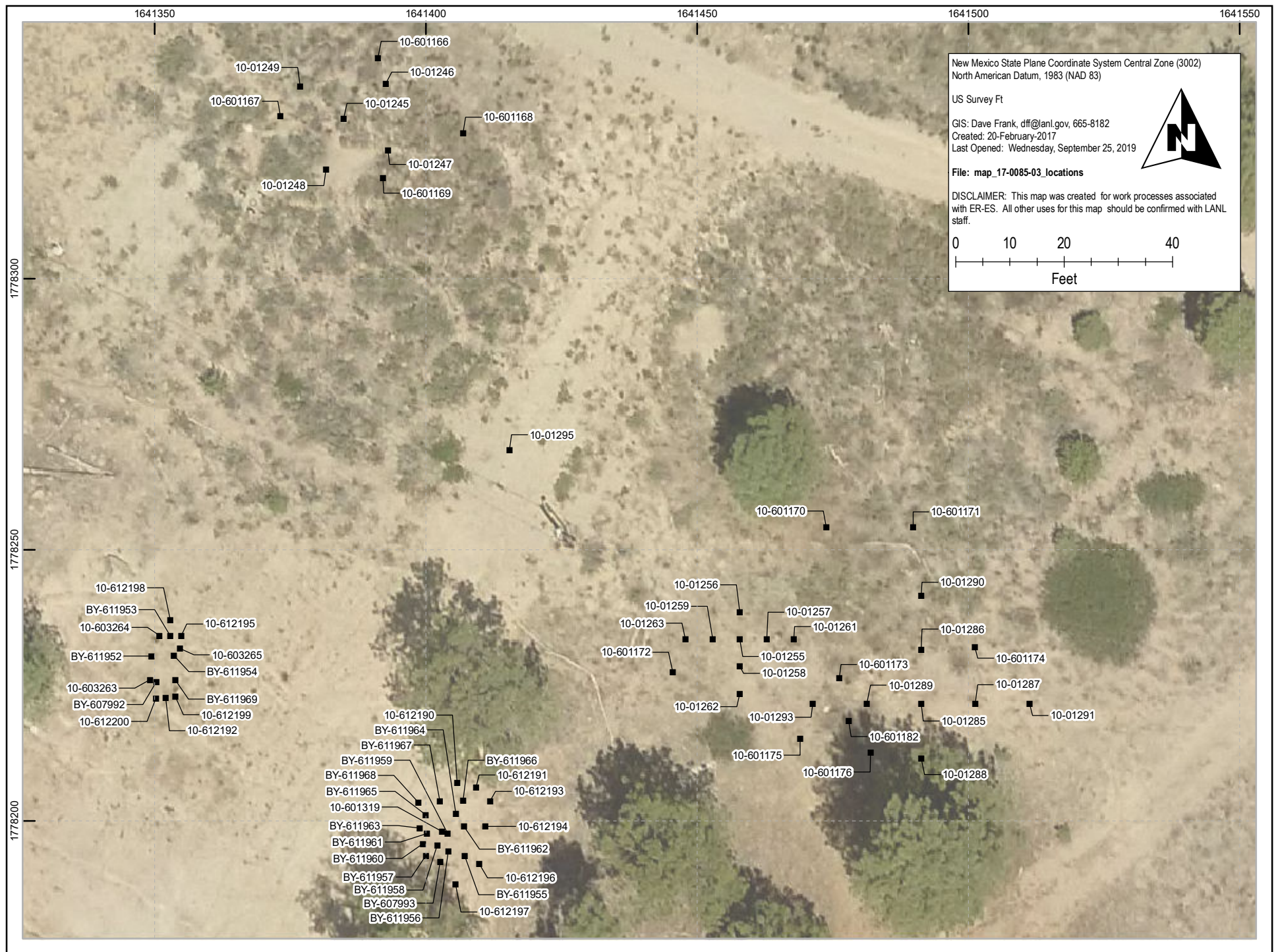


Table 1 SWMU-10-002(b) Small Areas Results Post Excavation

Field Sample ID	Location ID	Start Depth	End Depth	Depth Units	Parameter Code	Report Result	Report Units	Validation Qualifier	Report Min Detectable Activity	Report Uncertainty	Analysis Date	Date Sampled
RE10-11-5506	10-01257	0	1	ft	Sr-90	1.88	pCi/g	NQ	0.289999999999999	0.25	03/29/2011	03/17/2011
RE10-11-5507	10-01257	3.5	4.5	ft	Sr-90	-0.0243	pCi/g	U	0.299999999999999	0.081	03/29/2011	03/17/2011
RE10-11-5508	10-01257	9	10	ft	Sr-90	0.094	pCi/g	U	0.37	0.11	03/29/2011	03/17/2011
RE10-10-16611	10-612190	2	2.5	ft	Sr-90	1.1	pCi/g	NQ	0.5	0.19	05/19/2010	04/30/2010
RE10-10-16613	10-612191	1.5	2	ft	Sr-90	0.95	pCi/g	NQ	0.530000000000000	0.19	05/19/2010	04/30/2010
RE10-10-16615	10-612192	2	2.5	ft	Sr-90	0.1	pCi/g	U	0.540000000000000	0.16	05/19/2010	04/30/2010
RE10-10-16617	10-612193	0.5	1	ft	Sr-90	1.02	pCi/g	NQ	0.550000000000000	0.2	05/19/2010	04/30/2010
RE10-10-16619	10-612194	1	1.5	ft	Sr-90	0.42	pCi/g	U	0.44	0.14	05/19/2010	04/30/2010
RE10-10-16621	10-612195	2	2.5	ft	Sr-90	-0.16	pCi/g	U	0.510000000000000	0.14	05/19/2010	04/30/2010
RE10-10-16623	10-612196	2	2.5	ft	Sr-90	0.007	pCi/g	U	0.450000000000000	0.13	05/19/2010	04/30/2010
RE10-10-16625	10-612197	2	2.5	ft	Sr-90	0.54	pCi/g	NQ	0.44	0.15	05/19/2010	04/30/2010
RE10-10-16661	10-612198	2	2.5	ft	Sr-90	-0.118	pCi/g	U	0.349999999999999	0.093	05/18/2010	04/30/2010
RE10-10-16663	10-612199	2	2.5	ft	Sr-90	-0.094	pCi/g	U	0.37	0.0996	05/18/2010	04/30/2010
RE10-10-16665	10-612200	2	2.5	ft	Sr-90	0.006	pCi/g	U	0.359999999999999	0.1	05/18/2010	04/30/2010
RE10-10-16599	BY-607992	2	2.5	ft	Sr-90	-0.07	pCi/g	U	0.489999999999999	0.14	05/19/2010	04/30/2010
RE10-10-16609	BY-607993	2	2.5	ft	Sr-90	0.11	pCi/g	U	0.44	0.13	05/19/2010	04/30/2010
RE10-10-16597	BY-611953	2	2.5	ft	Sr-90	0.59	pCi/g	NQ	0.479999999999999	0.16	05/19/2010	04/30/2010
RE10-10-16607	BY-611955	2	2.5	ft	Sr-90	-0.05	pCi/g	U	0.469999999999999	0.13	05/19/2010	04/30/2010
RE10-10-16605	BY-611962	2	2.5	ft	Sr-90	0.005	pCi/g	U	0.44	0.12	05/19/2010	04/30/2010
RE10-10-16603	BY-611964	2	2.5	ft	Sr-90	0.12	pCi/g	U	0.5	0.15	05/19/2010	04/30/2010
RE10-10-16601	BY-611966	2	2.5	ft	Sr-90	0.21	pCi/g	U	0.429999999999999	0.13	05/19/2010	04/30/2010
RE10-10-16667	BY-611969	2	2.5	ft	Sr-90	0.1	pCi/g	U	0.349999999999999	0.1	05/18/2010	04/30/2010
CABY-09-12386	BY-611952	0.5	1	ft	Sr-90	2.78	pCi/g	NQ	0.38	0.37	09/24/2009	09/03/2009
CABY-09-12388	BY-611954	0.5	1	ft	Sr-90	2.51	pCi/g	NQ	0.31	0.33	09/24/2009	09/03/2009
CABY-09-12392	BY-611956	3	3.5	ft	Sr-90	3.99	pCi/g	NQ	0.349999999999999	0.5	09/24/2009	09/03/2009
CABY-09-12393	BY-611957	2	2.5	ft	Sr-90	0.237	pCi/g	U	0.368999999999999	0.092	09/24/2009	09/03/2009
CABY-09-12394	BY-611958	3	3.5	ft	Sr-90	0.59	pCi/g	NQ	0.340000000000000	0.12	09/24/2009	09/03/2009
CABY-09-12395	BY-611959	0.5	1	ft	Sr-90	1.88	pCi/g	NQ	0.320000000000000	0.26	09/24/2009	09/03/2009
CABY-09-12396	BY-611960	1.5	2	ft	Sr-90	0.81	pCi/g	NQ	0.349999999999999	0.14	09/24/2009	09/03/2009
CABY-09-12397	BY-611961	2.5	3	ft	Sr-90	0.241	pCi/g	U	0.355999999999999	0.09	09/24/2009	09/03/2009
CABY-09-12399	BY-611963	1	1.5	ft	Sr-90	2.59	pCi/g	NQ	0.349999999999999	0.34	09/24/2009	09/03/2009
CABY-09-12401	BY-611965	0.7	1.2	ft	Sr-90	1.16	pCi/g	NQ	0.349999999999999	0.18	09/24/2009	09/03/2009
CABY-09-12403	BY-611967	0.5	1	ft	Sr-90	5.02	pCi/g	NQ	0.340000000000000	0.62	09/24/2009	09/03/2009
CABY-09-12404	BY-611968	0.5	1	ft	Sr-90	1.67	pCi/g	NQ	0.359999999999999	0.24	09/24/2009	09/03/2009

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

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Time = 0.000E+00	9
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Time = 1.000E+01	12
Time = 3.000E+01	13
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Attachment #2

Dose Conversion Factor (and Related) Parameter Summary

Dose Library: DOE STD-1196-2011 (Reference Person)

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Sr-90 (Source: DCFPAK3.02)	6.463E-04	6.463E-04	DCF1(1)
A-1	Y-90 (Source: DCFPAK3.02)	4.016E-02	4.016E-02	DCF1(2)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Sr-90+D	6.133E-04	6.068E-04	DCF2(1)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Sr-90+D	1.469E-04	1.332E-04	DCF3(1)
D-34	Food transfer factors:			
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(1,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF(1,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF(1,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC(1,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(1,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETFG table in Ground Pathway of Detailed Report.

*Base Case means Default.Lib w/o Associate Nuclide contributions.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.670E+01	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-02	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	1.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T(2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T(3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T(4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T(5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T(6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T(7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T(8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Sr-90	5.020E+00	0.000E+00	---	S1(1)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(1)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	2.000E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.000E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	1.000E-03	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02	---	UW

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	4.000E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(1,1)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.355E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R017	Inhalation rate (m**3/yr)	1.140E+04	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	2.500E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.700E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	6.000E-02	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)

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Attachment #2

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	1.600E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	9.200E+01	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	5.000E-01	5.000E-01	---	FR9
R018	Contamination fraction of plant food	-1	-1	0.835E-02	FPLANT
R018	Contamination fraction of meat	-1	-1	0.835E-03	FMEAT
R018	Contamination fraction of milk	-1	-1	0.835E-03	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV (1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV (2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV (3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY (1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY (2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY (3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET (1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET (2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET (3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSNI
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSNI
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T (1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T (2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T (3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T (4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T (5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T (6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T (7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T (8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T (9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA (1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA (2)
TITL	Number of graphical time points	32	---	---	NPTS

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	16.70 square meters	Sr-90	5.020E+00
Thickness:	0.02 meters		
Cover Depth:	0.00 meters		

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	8.194E-03	3.657E-03	7.189E-04	2.113E-06	0.000E+00	0.000E+00	3.273E-07	0.000E+00
M(t):	3.277E-04	1.463E-04	2.875E-05	8.451E-08	0.000E+00	0.000E+00	1.309E-08	0.000E+00

Maximum TDOSE(t): 8.194E-03 mrem/yr at t = 0.000E+00 years

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	4.338E-03	0.5294	2.634E-06	0.0003	0.000E+00	0.0000	3.728E-03	0.4550	9.151E-05	0.0112	2.685E-05	0.0033	7.031E-06	0.0009
Total	4.338E-03	0.5294	2.634E-06	0.0003	0.000E+00	0.0000	3.728E-03	0.4550	9.151E-05	0.0112	2.685E-05	0.0033	7.031E-06	0.0009

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.194E-03	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.194E-03	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	1.966E-03	0.5376	1.148E-06	0.0003	0.000E+00	0.0000	1.634E-03	0.4468	4.092E-05	0.0112	1.191E-05	0.0033	3.064E-06	0.0008
Total	1.966E-03	0.5376	1.148E-06	0.0003	0.000E+00	0.0000	1.634E-03	0.4468	4.092E-05	0.0112	1.191E-05	0.0033	3.064E-06	0.0008

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.657E-03	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.657E-03	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	4.031E-04	0.5608	2.142E-07	0.0003	0.000E+00	0.0000	3.051E-04	0.4244	7.652E-06	0.0106	2.225E-06	0.0031	5.718E-07	0.0008
Total	4.031E-04	0.5608	2.142E-07	0.0003	0.000E+00	0.0000	3.051E-04	0.4244	7.652E-06	0.0106	2.225E-06	0.0031	5.718E-07	0.0008

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.189E-04	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.189E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	1.498E-06	0.7091	4.148E-10	0.0002	0.000E+00	0.0000	5.936E-07	0.2810	1.514E-08	0.0072	4.370E-09	0.0021	1.107E-09	0.0005
Total	1.498E-06	0.7091	4.148E-10	0.0002	0.000E+00	0.0000	5.936E-07	0.2810	1.514E-08	0.0072	4.370E-09	0.0021	1.107E-09	0.0005

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.113E-06	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.113E-06	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	3.266E-07	0.9979	1.657E-10	0.0005	0.000E+00	0.0000	4.500E-10	0.0014	4.700E-11	0.0001	2.564E-11	0.0001	3.273E-07	1.0000
Total	3.266E-07	0.9979	1.657E-10	0.0005	0.000E+00	0.0000	4.500E-10	0.0014	4.700E-11	0.0001	2.564E-11	0.0001	3.273E-07	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
			0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90+D	Sr-90+D	1.000E+00	1.632E-03	7.286E-04	1.432E-04	4.208E-07	0.000E+00	0.000E+00	6.519E-08	0.000E+00

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide									
(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90		1.532E+04	3.431E+04	1.746E+05	5.940E+07	*1.366E+14	*1.366E+14	3.835E+08	*1.366E+14

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 0.000E+00 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Sr-90	5.020E+00	0.000E+00	1.632E-03	1.532E+04	1.632E-03	1.532E+04

Summary : Bayo Canyon 10-001 a 99 Post Excavation

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Attachment #2

Individual Nuclide Dose Summed Over All Pathways

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t =	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02
Sr-90	Sr-90	1.000E+00	8.194E-03	3.657E-03	7.189E-04	2.113E-06	0.000E+00	0.000E+00	3.273E-07	0.000E+00

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g								
			t = 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03	
Sr-90	Sr-90	1.000E+00	5.020E+00	2.349E+00	5.141E-01	2.523E-03	6.373E-10	5.163E-33	0.000E+00	0.000E+00	

THF(i) is the thread fraction of the parent nuclide.

RESRAD.EXE execution time = 0.85 seconds

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

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Total Dose Components	
Time = 0.000E+00	9
Time = 1.000E+00	10
Time = 3.000E+00	11
Time = 1.000E+01	12
Time = 3.000E+01	13
Time = 1.000E+02	14
Time = 3.000E+02	15
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Summary : Bayo Canyon 10-009 Post Excavation

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Dose Conversion Factor (and Related) Parameter Summary

Dose Library: DOE STD-1196-2011 (Reference Person)

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Sr-90 (Source: DCFPAK3.02)	6.463E-04	6.463E-04	DCF1(1)
A-1	Y-90 (Source: DCFPAK3.02)	4.016E-02	4.016E-02	DCF1(2)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Sr-90+D	6.133E-04	6.068E-04	DCF2(1)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Sr-90+D	1.469E-04	1.332E-04	DCF3(1)
D-34	Food transfer factors:			
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(1,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF(1,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF(1,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC(1,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(1,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETFG table in Ground Pathway of Detailed Report.

*Base Case means Default.Lib w/o Associate Nuclide contributions.

Summary : Bayo Canyon 10-009 Post Excavation

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Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.670E+01	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-02	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	1.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T(2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T(3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T(4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T(5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T(6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T(7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T(8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Sr-90	5.700E+00	0.000E+00	---	S1(1)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(1)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	2.000E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.000E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	1.000E-03	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02	---	UW

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Attachment #3

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	4.000E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(1,1)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.355E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R017	Inhalation rate (m**3/yr)	1.140E+04	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	2.500E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.700E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	6.000E-02	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)

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Attachment #3

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	1.600E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	9.200E+01	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	5.000E-01	5.000E-01	---	FR9
R018	Contamination fraction of plant food	-1	-1	0.835E-02	FPLANT
R018	Contamination fraction of meat	-1	-1	0.835E-03	FMEAT
R018	Contamination fraction of milk	-1	-1	0.835E-03	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV (1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV (2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV (3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY (1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY (2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY (3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET (1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET (2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET (3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSNI
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSNI
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T (1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T (2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T (3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T (4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T (5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T (6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T (7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T (8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T (9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA (1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA (2)
TITL	Number of graphical time points	32	---	---	NPTS

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	16.70 square meters	Sr-90	5.700E+00
Thickness:	0.02 meters		
Cover Depth:	0.00 meters		

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	9.304E-03	4.153E-03	8.162E-04	2.399E-06	0.000E+00	0.000E+00	3.716E-07	0.000E+00
M(t):	3.721E-04	1.661E-04	3.265E-05	9.595E-08	0.000E+00	0.000E+00	1.486E-08	0.000E+00

Maximum TDOSE(t): 9.304E-03 mrem/yr at t = 0.000E+00 years

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	4.925E-03	0.5294	2.991E-06	0.0003	0.000E+00	0.0000	4.233E-03	0.4550	1.039E-04	0.0112	3.049E-05	0.0033	7.984E-06	0.0009
Total	4.925E-03	0.5294	2.991E-06	0.0003	0.000E+00	0.0000	4.233E-03	0.4550	1.039E-04	0.0112	3.049E-05	0.0033	7.984E-06	0.0009

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.304E-03	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.304E-03	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

File : C:\RESRAD_FAMILY\ONSITE\7.2\USERFILES\BAYO CANYON 200 RES.RAD

Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	2.233E-03	0.5376	1.303E-06	0.0003	0.000E+00	0.0000	1.855E-03	0.4468	4.646E-05	0.0112	1.352E-05	0.0033	3.479E-06	0.0008
Total	2.233E-03	0.5376	1.303E-06	0.0003	0.000E+00	0.0000	1.855E-03	0.4468	4.646E-05	0.0112	1.352E-05	0.0033	3.479E-06	0.0008

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.153E-03	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.153E-03	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	4.577E-04	0.5608	2.432E-07	0.0003	0.000E+00	0.0000	3.464E-04	0.4244	8.689E-06	0.0106	2.527E-06	0.0031	6.492E-07	0.0008
Total	4.577E-04	0.5608	2.432E-07	0.0003	0.000E+00	0.0000	3.464E-04	0.4244	8.689E-06	0.0106	2.527E-06	0.0031	6.492E-07	0.0008

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.162E-04	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.162E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	1.701E-06	0.7091	4.710E-10	0.0002	0.000E+00	0.0000	6.740E-07	0.2810	1.719E-08	0.0072	4.962E-09	0.0021	1.257E-09	0.0005
Total	1.701E-06	0.7091	4.710E-10	0.0002	0.000E+00	0.0000	6.740E-07	0.2810	1.719E-08	0.0072	4.962E-09	0.0021	1.257E-09	0.0005

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.399E-06	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.399E-06	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	3.708E-07	0.9979	1.881E-10	0.0005	0.000E+00	0.0000	5.110E-10	0.0014	5.336E-11	0.0001	2.911E-11	0.0001	3.716E-07	1.0000
Total	3.708E-07	0.9979	1.881E-10	0.0005	0.000E+00	0.0000	5.110E-10	0.0014	5.336E-11	0.0001	2.911E-11	0.0001	3.716E-07	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon 10-009 Post Excavation

File : C:\RESRAD_FAMILY\ONSITE\7.2\USERFILES\BAYO CANYON 200 RES.RAD

Attachment #3

Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
			0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90+D	Sr-90+D	1.000E+00	1.632E-03	7.286E-04	1.432E-04	4.208E-07	0.000E+00	0.000E+00	6.519E-08	0.000E+00

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide									
(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90		1.532E+04	3.431E+04	1.746E+05	5.940E+07	*1.366E+14	*1.366E+14	3.835E+08	*1.366E+14

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 0.000E+00 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Sr-90	5.700E+00	0.000E+00	1.632E-03	1.532E+04	1.632E-03	1.532E+04

Summary : Bayo Canyon 10-009 Post Excavation

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Attachment #3

Individual Nuclide Dose Summed Over All Pathways

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t =	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02
Sr-90	Sr-90	1.000E+00	9.304E-03	4.153E-03	8.162E-04	2.399E-06	0.000E+00	0.000E+00	3.716E-07	0.000E+00

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g								
			t = 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03	
Sr-90	Sr-90	1.000E+00	5.700E+00	2.667E+00	5.838E-01	2.865E-03	7.237E-10	5.863E-33	0.000E+00	0.000E+00	

THF(i) is the thread fraction of the parent nuclide.

RESRAD.EXE execution time = 0.92 seconds

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

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Time = 1.000E+00	10
Time = 3.000E+00	11
Time = 1.000E+01	12
Time = 3.000E+01	13
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Dose Conversion Factor (and Related) Parameter Summary

Dose Library: DOE STD-1196-2011 (Reference Person)

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Sr-90 (Source: DCFPAK3.02)	6.463E-04	6.463E-04	DCF1(1)
A-1	Y-90 (Source: DCFPAK3.02)	4.016E-02	4.016E-02	DCF1(2)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Sr-90+D	6.133E-04	6.068E-04	DCF2(1)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Sr-90+D	1.469E-04	1.332E-04	DCF3(1)
D-34	Food transfer factors:			
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(1,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF(1,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF(1,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC(1,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(1,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETFG table in Ground Pathway of Detailed Report.

*Base Case means Default.Lib w/o Associate Nuclide contributions.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	6.070E+03	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-02	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	not used	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T(2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T(3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T(4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T(5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T(6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T(7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T(8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Sr-90	2.000E+02	0.000E+00	---	S1(1)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(1)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	2.000E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.000E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	not used	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	not used	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	not used	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	not used	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	not used	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	not used	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	not used	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	not used	2.000E-02	---	HGWT
R014	Saturated zone b parameter	not used	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	not used	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	not used	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	not used	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW

Summary : Bayo Canyon Industrial 200 FUSRAP

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Number of unsaturated zone strata	not used	1	---	NS
R015	Unsat. zone 1, thickness (m)	not used	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	not used	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	not used	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	not used	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	not used	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	not used	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	not used	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	not used	3.000E+01	---	DCNUCU(1,1)
R016	Saturated zone (cm**3/g)	not used	3.000E+01	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.355E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R017	Inhalation rate (m**3/yr)	1.140E+04	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	2.500E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.700E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	6.000E-02	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)

Summary : Bayo Canyon Industrial 200 FUSRAP

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	not used	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	not used	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	not used	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	not used	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	not used	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)

Summary : Bayo Canyon Industrial 200 FUSRAP

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV (1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV (2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV (3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY (1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY (2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY (3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET (1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET (2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET (3)
R19B	Weathering Removal Constant for Vegetation	not used	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSNI
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSNI
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T (1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T (2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T (3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T (4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T (5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T (6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T (7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T (8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T (9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA (1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA (2)
TITL	Number of graphical time points	32	---	---	NPTS

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	suppressed
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Contaminated Zone Dimensions	Initial Soil Concentrations, pCi/g
Area: 6070.00 square meters	Sr-90 2.000E+02
Thickness: 0.02 meters	
Cover Depth: 0.00 meters	

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	6.022E-01	2.759E-01	5.786E-02	2.346E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
M(t):	2.409E-02	1.104E-02	2.314E-03	9.383E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Maximum TDOSE(t): 6.022E-01 mrem/yr at t = 0.000E+00 years

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	5.852E-01	0.9718	1.958E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.677E-02	0.0279
Total	5.852E-01	0.9718	1.958E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.677E-02	0.0279

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.022E-01	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.022E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	2.685E-01	0.9732	8.532E-05	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.309E-03	0.0265
Total	2.685E-01	0.9732	8.532E-05	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.309E-03	0.0265

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.759E-01	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.759E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	5.648E-02	0.9761	1.592E-05	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.364E-03	0.0236
Total	5.648E-02	0.9761	1.592E-05	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.364E-03	0.0236

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.786E-02	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.786E-02	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	2.319E-04	0.9886	3.084E-08	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.642E-06	0.0113
Total	2.319E-04	0.9886	3.084E-08	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.642E-06	0.0113

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.346E-04	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.346E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
			0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90+D	Sr-90+D	1.000E+00	3.011E-03	1.380E-03	2.893E-04	1.173E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide									
(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90	8.303E+03	1.812E+04	8.642E+04	2.131E+07	*1.366E+14	*1.366E+14	*1.366E+14	*1.366E+14	*1.366E+14

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 0.000E+00 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Sr-90	2.000E+02	0.000E+00	3.011E-03	8.303E+03	3.011E-03	8.303E+03

Summary : Bayo Canyon Industrial 200 FUSRAP

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Attachment #4

Individual Nuclide Dose Summed Over All Pathways

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr								
			t =	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90	Sr-90	1.000E+00	6.022E-01	2.759E-01	5.786E-02	2.346E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g								
			t =	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90	Sr-90	1.000E+00		2.000E+02	9.357E+01	2.048E+01	1.005E-01	2.539E-08	2.057E-31	0.000E+00	0.000E+00

THF(i) is the thread fraction of the parent nuclide.

RESRAD.EXE execution time = 0.89 seconds

Summary : Bayo FUSRAP 200

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Attachment #5

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Summary : Bayo FUSRAP 200

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Dose Conversion Factor (and Related) Parameter Summary

Dose Library: DOE STD-1196-2011 (Reference Person)

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Sr-90 (Source: DCFPAK3.02)	6.463E-04	6.463E-04	DCF1(1)
A-1	Y-90 (Source: DCFPAK3.02)	4.016E-02	4.016E-02	DCF1(2)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Sr-90+D	6.133E-04	6.068E-04	DCF2(1)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Sr-90+D	1.469E-04	1.332E-04	DCF3(1)
D-34	Food transfer factors:			
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF(1,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF(1,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF(1,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC(1,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(1,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETFG table in Ground Pathway of Detailed Report.

*Base Case means Default.Lib w/o Associate Nuclide contributions.

Summary : Bayo FUSRAP 200

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Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	6.070E+03	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-02	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	1.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T(2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T(3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T(4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T(5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T(6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T(7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T(8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Sr-90	2.000E+02	0.000E+00	---	S1(1)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(1)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	2.000E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.000E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	1.000E-03	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02	---	UW

Summary : Bayo FUSRAP 200

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	4.000E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(1,1)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.355E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R017	Inhalation rate (m**3/yr)	1.865E+04	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	0.000E+00	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.280E-02	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)

Summary : Bayo FUSRAP 200

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.500E+02	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	not used	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	not used	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	5.000E-01	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	1.000E+00	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	not used	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)

Summary : Bayo FUSRAP 200

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV (1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV (2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV (3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY (1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY (2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY (3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET (1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET (2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET (3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSNI
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSNI
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T (1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T (2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T (3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T (4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T (5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T (6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T (7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T (8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T (9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA (1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA (2)
TITL	Number of graphical time points	32	---	---	NPTS

Summary : Bayo FUSRAP 200

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	suppressed
4 -- meat ingestion	active
5 -- milk ingestion	suppressed
6 -- aquatic foods	active
7 -- drinking water	suppressed
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Summary : Bayo FUSRAP 200

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	6070.00 square meters	Sr-90	2.000E+02
Thickness:	0.02 meters		
Cover Depth:	0.00 meters		

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	4.457E+00	1.994E+00	3.736E-01	7.542E-04	0.000E+00	0.000E+00	1.702E-04	0.000E+00
M(t):	1.783E-01	7.975E-02	1.494E-02	3.017E-05	0.000E+00	0.000E+00	6.810E-06	0.000E+00

Maximum TDOSE(t): 4.457E+00 mrem/yr at t = 0.000E+00 years

Summary : Bayo FUSRAP 200

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	7.454E-02	0.0167	5.706E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.366E+00	0.9797	0.000E+00	0.0000	1.595E-02	0.0036
Total	7.454E-02	0.0167	5.706E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.366E+00	0.9797	0.000E+00	0.0000	1.595E-02	0.0036

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.457E+00	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.457E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	3.421E-02	0.0172	2.486E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.953E+00	0.9793	0.000E+00	0.0000	6.948E-03	0.0035
Total	3.421E-02	0.0172	2.486E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.953E+00	0.9793	0.000E+00	0.0000	6.948E-03	0.0035

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.994E+00	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.994E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	7.194E-03	0.0193	4.640E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.651E-01	0.9773	0.000E+00	0.0000	1.297E-03	0.0035
Total	7.194E-03	0.0193	4.640E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.651E-01	0.9773	0.000E+00	0.0000	1.297E-03	0.0035

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.736E-01	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.736E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	2.954E-05	0.0392	8.986E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.222E-04	0.9575	0.000E+00	0.0000	2.511E-06	0.0033
Total	2.954E-05	0.0392	8.986E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.222E-04	0.9575	0.000E+00	0.0000	2.511E-06	0.0033

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.542E-04	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.542E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	2.399E-06	0.0141	0.000E+00	0.0000	0.000E+00	0.0000	1.678E-04	0.9859	0.000E+00	0.0000	1.702E-04	1.0000
Total	0.000E+00	0.0000	2.399E-06	0.0141	0.000E+00	0.0000	0.000E+00	0.0000	1.678E-04	0.9859	0.000E+00	0.0000	1.702E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

*Sum of all water independent and dependent pathways.

Summary : Bayo FUSRAP 200

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Attachment #5

Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
			0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90+D	Sr-90+D	1.000E+00	2.228E-02	9.968E-03	1.868E-03	3.771E-06	0.000E+00	0.000E+00	8.512E-07	0.000E+00

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide									
(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90		1.122E+03	2.508E+03	1.338E+04	6.629E+06	*1.366E+14	*1.366E+14	2.937E+07	*1.366E+14

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 0.000E+00 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Sr-90	2.000E+02	0.000E+00	2.228E-02	1.122E+03	2.228E-02	1.122E+03

Summary : Bayo FUSRAP 200

File : C:\RESRAD_FAMILY\ONSITE\7.2\USERFILES\BAYO CANYON 200 RECREATION.RAD

Attachment #5

Individual Nuclide Dose Summed Over All Pathways
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr								
			t =	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Sr-90	Sr-90	1.000E+00	4.457E+00	1.994E+00	3.736E-01	7.542E-04	0.000E+00	0.000E+00	1.702E-04	0.000E+00	

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g								
			t = 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03	
Sr-90	Sr-90	1.000E+00	2.000E+02	9.357E+01	2.048E+01	1.005E-01	2.539E-08	2.057E-31	0.000E+00	0.000E+00	

THF(i) is the thread fraction of the parent nuclide.

RES CALC.EXE execution time = 1.12 seconds

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[illegible]

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Time = 0.000E+00	35
Time = 1.000E+00	36
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Menu	Parameter	Current Value	Default	Parameter Name
DCSF Dose conversion factors for inhalation, mrem/pCi:				
DCSF	Sr-90+D	6.133E-04	6.133E-04	DCF2 (1)
DCSF Dose conversion factors for ingestion, mrem/pCi:				
DCSF	Sr-90+D	1.469E-04	1.469E-04	DCF3 (1)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Dose Conversion Factor (and Related) Parameter Summary (continued)

Current Library: RESRAD Default Transfer factors

Default Library: RESRAD Default Transfer factors

Menu	Parameter	Current Value	Default	Parameter Name
XX				

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary

	User	RESRAD	Parameter
Menu	Input	Default	computed Name
FSTI	Exposure duration	3.000E+01	3.000E+01 --- ED
FSTI	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+01 --- BRDL
CONC	Initial principal radionuclide (pCi/g): Sr-90	2.000E+02	0.000E+00 --- S1(1)
VDEP	Deposition velocity of total particulate Sr-90	1.000E-03	1.000E-03 --- DEPVEL(1)
VDEP	Deposition velocity of respirable particulateSr-90	1.000E-03	1.000E-03 --- DEPVELT(1)
DCLR	Distribution coefficients for Sr-90		
DCLR	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCC(1)
DCLR	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCU(1,1)
DCLR	Saturated zone (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCS(1)
DCLR	Sediment in surface water body (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCSWB(1)
DCLR	Agricultural area 1 (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCOF(1,1)
DCLR	Agricultural area 2 (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCOF(1,2)
DCLR	Agricultural area 3 (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCOF(1,3)
DCLR	Agricultural area 4 (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCOF(1,4)
DCLR	Offsite Dwelling (cm**3/g)	3.000E+01	3.000E+01 --- DCNUCDWE(1)
DCLR	Initial Leach rate (/yr) Sr-90	0.000E+00	0.000E+00 2.355E-01 ALEACH(1)
LYOT	Bearing of X axis (clockwise angle N-->X in degrees)	9.000E+01	9.000E+01 --- DNXBEARING
LYOT	Length of Primary contamination in X Direction	4.740E+01	1.000E+02 --- SOURCEXY(1)
LYOT	Length of Primary contamination in Y Direction	1.281E+02	1.000E+02 --- SOURCEXY(2)
LYOT	Smaller X coordinate of Agricultural Area 1	3.438E+01	3.438E+01 --- AGRIXY(1,1)
LYOT	Larger X coordinate of Agricultural Area 1	6.562E+01	6.562E+01 --- AGRIXY(2,1)
LYOT	Smaller Y coordinate of Agricultural Area 1	2.340E+02	2.340E+02 --- AGRIXY(3,1)
LYOT	Larger Y coordinate of Agricultural Area 1	2.660E+02	2.660E+02 --- AGRIXY(4,1)
LYOT	Smaller X coordinate of Agricultural Area 2	3.438E+01	3.438E+01 --- AGRIXY(1,2)
LYOT	Larger X coordinate of Agricultural Area 2	6.562E+01	6.562E+01 --- AGRIXY(2,2)
LYOT	Smaller Y coordinate of Agricultural Area 2	2.680E+02	2.680E+02 --- AGRIXY(3,2)
LYOT	Larger Y coordinate of Agricultural Area 2	3.000E+02	3.000E+02 --- AGRIXY(4,2)
LYOT	Smaller X coordinate of Agricultural Area 3	0.000E+00	0.000E+00 --- AGRIXY(1,3)
LYOT	Larger X coordinate of Agricultural Area 3	1.000E+02	1.000E+02 --- AGRIXY(2,3)
LYOT	Smaller Y coordinate of Agricultural Area 3	4.500E+02	4.500E+02 --- AGRIXY(3,3)
LYOT	Larger Y coordinate of Agricultural Area 3	5.500E+02	5.500E+02 --- AGRIXY(4,3)
LYOT	Smaller X coordinate of Agricultural Area 4	0.000E+00	0.000E+00 --- AGRIXY(1,4)
LYOT	Larger X coordinate of Agricultural Area 4	1.000E+02	1.000E+02 --- AGRIXY(2,4)
LYOT	Smaller Y coordinate of Agricultural Area 4	3.000E+02	3.000E+02 --- AGRIXY(3,4)
LYOT	Larger Y coordinate of Agricultural Area 4	4.000E+02	4.000E+02 --- AGRIXY(4,4)
LYOT	Smaller X coordinate of Dwelling Area	3.438E+01	3.438E+01 --- DWELLXY(1)
LYOT	Larger X coordinate of Dwelling Area	6.562E+01	6.562E+01 --- DWELLXY(2)
LYOT	Smaller Y coordinate of Dwelling Area	1.340E+02	1.340E+02 --- DWELLXY(3)
LYOT	Larger Y coordinate of Dwelling Area	1.660E+02	1.660E+02 --- DWELLXY(4)
LYOT	Smaller X coordinate of Surface water body	-1.000E+02	-1.000E+02 --- SWXY(1)
LYOT	Larger X coordinate of Surface water body	2.000E+02	2.000E+02 --- SWXY(2)
LYOT	Smaller Y coordinate of Surface water body	5.500E+02	5.500E+02 --- SWXY(3)
LYOT	Larger Y coordinate of Surface water body	8.500E+02	8.500E+02 --- SWXY(4)

Menu	Parameter	User	Default	RESRAD computed	Parameter Name
=====					
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(1)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(3)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(4)
STOR	Livestock feed - pasture or silage	1.000E+00	1.000E+00	---	STOR_T(5)
STOR	Livestock feed - grain	4.500E+01	4.500E+01	---	STOR_T(6)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(7)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(9)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(10)
TIME	Times at which dose/risk are to be reported (yr)	1.000E+00	1.000E+00	---	T(2)
TIME	Times at which dose/risk are to be reported (yr)	3.000E+00	3.000E+00	---	T(3)
TIME	Times at which dose/risk are to be reported (yr)	6.000E+00	6.000E+00	---	T(4)
TIME	Times at which dose/risk are to be reported (yr)	1.200E+01	1.200E+01	---	T(5)
TIME	Times at which dose/risk are to be reported (yr)	3.000E+01	3.000E+01	---	T(6)
TIME	Times at which dose/risk are to be reported (yr)	7.500E+01	7.500E+01	---	T(7)
TIME	Times at which dose/risk are to be reported (yr)	1.750E+02	1.750E+02	---	T(8)
TIME	Times at which dose/risk are to be reported (yr)	4.200E+02	4.200E+02	---	T(9)
TIME	Times at which dose/risk are to be reported (yr)	9.700E+02	9.700E+02	---	T(10)
SITE	Precipitation (m/yr)	1.500E-01	1.000E+00	---	PRECIP
SITE	Average annual wind speed (m/sec)	8.900E-01	8.900E-01	---	WIND
PRCZ	Area of primary contamination (m**2)	6.070E+03	1.000E+04	---	AREA
PRCZ	Length parallel to aquifer flow (m)	1.281E+02	1.000E+02	---	LCZPAQ
PRCZ	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
PRCZ	Mass loading of all particulates for release(g/m**3)	1.000E-04	1.000E-04	---	MLFD
PRCZ	Deposition velocity for release calculatons (m/s)	1.000E-03	1.000E-03	---	DEPVEL_DUSTT
PRCZ	Respirable particulates as a fraction of total	1.000E+00	1.000E+00	---	RESPPFRACPC
PRCZ	Deposition velocity of dust (m)	1.000E-03	1.000E-03	---	DEPVEL_DUST
PRCZ	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
PRCZ	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
PRCZ	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
PRCZ	Rainfall Erosion Index	1.600E+02	1.600E+02	---	RAINEROS
PRCZ	Slope-length-steepness factor of prim. contamination	4.000E-01	4.000E-01	---	SLPLENSTPPC
PRCZ	Cropping-management factor of primary contamination	3.000E-03	3.000E-03	---	CRPMANGPC
PRCZ	Conservation practice factor of prim. contamination	1.000E+00	1.000E+00	---	CONVPACPC
PRCZ	Thickness of contaminated zone (m)	1.500E-02	2.000E+00	---	THICK0
PRCZ	Fraction of primary contamination that is submerged	0.000E+00	0.000E+00	---	SUBMERGEDF
PRCZ	Depth of primary contamination below water table, m	0.000E+00	0.000E+00	---	SUBMERGEDDEPTH
PRCZ	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
PRCZ	Computed erosion rate of contaminated zone (m/yr)	1.147E-05	1.147E-05	---	VCZ
PRCZ	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
PRCZ	Soil erodibility factor of contaminated zone	4.000E-01	4.000E-01	---	ERODIBILITYCZ
PRCZ	Contaminated zone field capacity	3.000E-01	3.000E-01	---	FCCZ

Attachment #6

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
PRCZ	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
PRCZ	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
PRCZ	Contaminated zone effective porosity	4.000E-01	4.000E-01	---	EPCZ
PRCZ	longitudinal dispersivity of prime contamination (m)	5.000E-02	5.000E-02	---	ALPHALCZ
PRCZ	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
PRCZ	Total porosity of the cover material	not used	4.000E-01	---	TPCV
PRCZ	Computed erosion rate of cover material (m/yr)	1.147E-05	1.147E-05	---	VCV
PRCZ	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
PRCZ	Soil erodibility factor of cover	4.000E-01	4.000E-01	---	ERODIBILITYCV
PRCZ	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
AGRI	Areal extent of Agricultural Area 1 (m**2)	1.000E+03	1.000E+03	---	AREAO(1)
AGRI	Fraction of Agri. Area 1 directly over the c.z.	0.000E+00	0.000E+00	---	FAREA_PLANT(1)
AGRI	Evapotranspiration coefficient in Agri. Area 1	5.000E-01	5.000E-01	---	EVAPTRN(1)
AGRI	Runoff coefficient in Agricultural Area 1	2.000E-01	2.000E-01	---	RUNOF(1)
AGRI	Mixing depth/plow layer of Agricultural Area 1	1.500E-01	1.500E-01	---	DPHMMIXG(1)
AGRI	Water filled porosity of soil in Agri. Area 1	3.000E-01	3.000E-01	---	TMOF(1)
AGRI	Computed erosion rate of soil in Agri. Area 1	1.147E-05	1.147E-05	---	EROSN(1)
AGRI	Dry Bulk Density of soil in Agricultural Area 1	1.500E+00	1.500E+00	---	RHOB(1)
AGRI	Soil erodibility factor of Agricultural Area 1	4.000E-01	4.000E-01	---	ERODIBILITY(1)
AGRI	Slope-length-steepness factor, Agricultural Area 1	4.000E-01	4.000E-01	---	SLPLENSTP(1)
AGRI	Cropping-management factor of Agricultural Area 1	3.000E-03	3.000E-03	---	CRPMANG(1)
AGRI	Conservation practice factor of Agricultural Area 1	1.000E+00	1.000E+00	---	CONVPAC(1)
AGRI	Total porosity of soil in Agricultural Area 1	not used	4.000E-01	---	TPOF(1)
AGRI	Areal extent of Agricultural Area 2 (m**2)	1.000E+03	1.000E+03	---	AREAO(2)
AGRI	Fraction of Agri. Area 2 directly over the c.z.	0.000E+00	0.000E+00	---	FAREA_PLANT(2)
AGRI	Evapotranspiration coefficient in Agri. Area 2	5.000E-01	5.000E-01	---	EVAPTRN(2)
AGRI	Runoff coefficient in Agricultural Area 2	2.000E-01	2.000E-01	---	RUNOF(2)
AGRI	Mixing depth/plow layer of Agricultural Area 2	1.500E-01	1.500E-01	---	DPHMMIXG(2)
AGRI	Water filled porosity of soil in Agri. Area 2	3.000E-01	3.000E-01	---	TMOF(2)
AGRI	Computed erosion rate of soil in Agri. Area 2	1.147E-05	1.147E-05	---	EROSN(2)
AGRI	Dry Bulk Density of soil in Agricultural Area 2	1.500E+00	1.500E+00	---	RHOB(2)
AGRI	Soil erodibility factor of Agricultural Area 2	4.000E-01	4.000E-01	---	ERODIBILITY(2)
AGRI	Slope-length-steepness factor, Agricultural Area 2	4.000E-01	4.000E-01	---	SLPLENSTP(2)
AGRI	Cropping-management factor of Agricultural Area 2	3.000E-03	3.000E-03	---	CRPMANG(2)
AGRI	Conservation practice factor of Agricultural Area 2	1.000E+00	1.000E+00	---	CONVPAC(2)
AGRI	Total porosity of soil in Agricultural Area 2	not used	4.000E-01	---	TPOF(2)
AGRI	Areal extent of Agricultural Area 3 (m**2)	1.000E+04	1.000E+04	---	AREAO(3)
AGRI	Fraction of Agri. Area 3 directly over the c.z.	0.000E+00	0.000E+00	---	FAREA_PLANT(3)
AGRI	Evapotranspiration coefficient in Agri. Area 3	5.000E-01	5.000E-01	---	EVAPTRN(3)
AGRI	Runoff coefficient in Agricultural Area 3	2.000E-01	2.000E-01	---	RUNOF(3)
AGRI	Mixing depth/plow layer of Agricultural Area 3	1.500E-01	1.500E-01	---	DPHMMIXG(3)
AGRI	Water filled porosity of soil in Agri. Area 3	3.000E-01	3.000E-01	---	TMOF(3)
AGRI	Computed erosion rate of soil in Agri. Area 3	1.147E-05	1.147E-05	---	EROSN(3)
AGRI	Dry Bulk Density of soil in Agricultural Area 3	1.500E+00	1.500E+00	---	RHOB(3)
AGRI	Soil erodibility factor of Agricultural Area 3	4.000E-01	4.000E-01	---	ERODIBILITY(3)
AGRI	Slope-length-steepness factor, Agricultural Area 3	4.000E-01	4.000E-01	---	SLPLENSTP(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AGRI	Cropping-management factor of Agricultural Area 3	3.000E-03	3.000E-03	---	CRPMANG (3)
AGRI	Conservation practice factor of Agricultural Area 3	1.000E+00	1.000E+00	---	CONVPRAC (3)
AGRI	Total porosity of soil in Agricultural Area 3	not used	4.000E-01	---	TPOF (3)
AGRI	Areal extent of Agricultural Area 4 (m**2)	1.000E+04	1.000E+04	---	AREAO (4)
AGRI	Fraction of Agri. Area 4 directly over the c.z.	0.000E+00	0.000E+00	---	FAREA_PLANT (4)
AGRI	Evapotranspiration coefficient in Agri. Area 4	5.000E-01	5.000E-01	---	EVAPTRN (4)
AGRI	Runoff coefficient in Agricultural Area 4	2.000E-01	2.000E-01	---	RUNOF (4)
AGRI	Mixing depth/plow layer of Agricultural Area 4	1.500E-01	1.500E-01	---	DPTHMIXG (4)
AGRI	Water filled porosity of soil in Agri. Area 4	3.000E-01	3.000E-01	---	TMOF (4)
AGRI	Computed erosion rate of soil in Agri. Area 4	1.147E-05	1.147E-05	---	EROSN (4)
AGRI	Dry Bulk Density of soil in Agricultural Area 4	1.500E+00	1.500E+00	---	RHOB (4)
AGRI	Soil erodibility factor of Agricultural Area 4	4.000E-01	4.000E-01	---	ERODIBILITY (4)
AGRI	Slope-length-steepness factor, Agricultural Area 4	4.000E-01	4.000E-01	---	SLPLENSTP (4)
AGRI	Cropping-management factor of Agricultural Area 4	3.000E-03	3.000E-03	---	CRPMANG (4)
AGRI	Conservation practice factor of Agricultural Area 4	1.000E+00	1.000E+00	---	CONVPRAC (4)
AGRI	Total porosity of soil in Agricultural Area 4	not used	4.000E-01	---	TPOF (4)
DWEL	Areal extent of Offsite dwelling site (m**2)	1.000E+03	1.000E+03	---	AREAODWELL
DWEL	Evapotranspiration coefficient in dwelling (Off)site	5.000E-01	5.000E-01	---	EVAPTRNDWELL
DWEL	Runoff coefficient in Offsite dwelling site	2.000E-01	2.000E-01	---	RUNOFDWELL
DWEL	Mixing depth of Offsite dwelling site	1.500E-01	1.500E-01	---	DPTHMIXGDWELL
DWEL	Water filled porosity of soil in Offsite Dwelling	3.000E-01	3.000E-01	---	TMOFDWELL
DWEL	Computed erosion rate of soil in Offsite Dwelling	0.000E+00	0.000E+00	---	EROSNDWELL
DWEL	Dry Bulk Density of soil in Offsite dwelling site	1.500E+00	1.500E+00	---	RHOBDWELL
DWEL	Soil erodibility factor of soil in Dwelling site	0.000E+00	0.000E+00	---	ERODIBILITYDWELL
DWEL	Slope-length-steepness factor of Dwelling site	4.000E-01	4.000E-01	---	SLPLENSTPDWELL
DWEL	Cropping-management factor of Dwelling site	3.000E-03	3.000E-03	---	CRPMANGDWELL
DWEL	Conservation practice factor of Offsite Dwelling site	1.000E+00	1.000E+00	---	CONVPRACDWELL
DWEL	Total porosity of soil in Offsite Dwelling	not used	4.000E-01	---	TPOFDWELL
AIRT	Dispersion Coefficients; 1 = Pasquill-Gifford	1	1	---	IDISPMOD
AIRT	Population zone; 1 = Rural	1	1	---	IZONE
AIRT	Release height, (m)	1.000E+00	1.000E+00	---	AIRRELHT
AIRT	Heat flux for buoyant plume (cal/s),	0.000E+00	0.000E+00	---	HEATFLX
AIRT	Anemometer height, (m)	1.000E+01	1.000E+01	---	ANH
AIRT	Absolute temperature (Kelvin)	2.850E+02	2.850E+02	---	TABK
AIRT	AM atmospheric mixing height (m)	4.000E+02	4.000E+02	---	AMIX
AIRT	PM atmospheric mixing height (m)	1.600E+03	1.600E+03	---	PMIX
AIRT	Elevation of Agricultural Area 1 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV (1)
AIRT	Elevation of Agricultural Area 2 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV (2)
AIRT	Elevation of Agricultural Area 3 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV (3)
AIRT	Elevation of Agricultural Area 4 above primary cont.	0.000E+00	0.000E+00	---	AGRIELEV (4)
AIRT	Elevation of Dwelling Site relative to primary cont.	0.000E+00	0.000E+00	---	DWELLELEV
AIRT	Elevation of Surf.Wtr body relative to primary cont.	0.000E+00	0.000E+00	---	SWELEV

	User	RESRAD	Parameter
Menu	Input	Default	computed Name
=====			
AIRT	Joint frequency Meteorological data:		
AIRT	Upper limit for windspeed class 1 (m/s)	8.900E-01	--- WINDSPEED(1)
AIRT	Upper limit for windspeed class 2 (m/s)	2.460E+00	--- WINDSPEED(2)
AIRT	Upper limit for windspeed class 3 (m/s)	4.470E+00	--- WINDSPEED(3)
AIRT	Upper limit for windspeed class 4 (m/s)	6.930E+00	--- WINDSPEED(4)
AIRT	Upper limit for windspeed class 5 (m/s)	9.610E+00	--- WINDSPEED(5)
AIRT	Upper limit for windspeed class 6 (m/s)	1.252E+01	--- WINDSPEED(6)
AIRT	Joint Frequency in N Sector		
AIRT	for wind speed class 1 and stability class A	0.000E+00	--- DFREQ(1,1,1)
AIRT	for wind speed class 1 and stability class B	0.000E+00	--- DFREQ(1,2,1)
AIRT	for wind speed class 1 and stability class C	0.000E+00	--- DFREQ(1,3,1)
AIRT	for wind speed class 1 and stability class D	1.000E-01	--- DFREQ(1,4,1)
AIRT	for wind speed class 1 and stability class E	2.000E-01	--- DFREQ(1,5,1)
AIRT	for wind speed class 1 and stability class F	7.000E-01	--- DFREQ(1,6,1)
AIRT	Joint Frequency in N Sector		
AIRT	for wind speed class 2 and stability class A	0.000E+00	--- DFREQ(2,1,1)
AIRT	for wind speed class 2 and stability class B	0.000E+00	--- DFREQ(2,2,1)
AIRT	for wind speed class 2 and stability class C	0.000E+00	--- DFREQ(2,3,1)
AIRT	for wind speed class 2 and stability class D	0.000E+00	--- DFREQ(2,4,1)
AIRT	for wind speed class 2 and stability class E	0.000E+00	--- DFREQ(2,5,1)
AIRT	for wind speed class 2 and stability class F	0.000E+00	--- DFREQ(2,6,1)
AIRT	Joint Frequency in N Sector		
AIRT	for wind speed class 3 and stability class A	0.000E+00	--- DFREQ(3,1,1)
AIRT	for wind speed class 3 and stability class B	0.000E+00	--- DFREQ(3,2,1)
AIRT	for wind speed class 3 and stability class C	0.000E+00	--- DFREQ(3,3,1)
AIRT	for wind speed class 3 and stability class D	0.000E+00	--- DFREQ(3,4,1)
AIRT	for wind speed class 3 and stability class E	0.000E+00	--- DFREQ(3,5,1)
AIRT	for wind speed class 3 and stability class F	0.000E+00	--- DFREQ(3,6,1)
AIRT	Joint Frequency in N Sector		
AIRT	for wind speed class 4 and stability class A	0.000E+00	--- DFREQ(4,1,1)
AIRT	for wind speed class 4 and stability class B	0.000E+00	--- DFREQ(4,2,1)
AIRT	for wind speed class 4 and stability class C	0.000E+00	--- DFREQ(4,3,1)
AIRT	for wind speed class 4 and stability class D	0.000E+00	--- DFREQ(4,4,1)
AIRT	for wind speed class 4 and stability class E	0.000E+00	--- DFREQ(4,5,1)
AIRT	for wind speed class 4 and stability class F	0.000E+00	--- DFREQ(4,6,1)
AIRT	Joint Frequency in N Sector		
AIRT	for wind speed class 5 and stability class A	0.000E+00	--- DFREQ(5,1,1)
AIRT	for wind speed class 5 and stability class B	0.000E+00	--- DFREQ(5,2,1)
AIRT	for wind speed class 5 and stability class C	0.000E+00	--- DFREQ(5,3,1)
AIRT	for wind speed class 5 and stability class D	0.000E+00	--- DFREQ(5,4,1)
AIRT	for wind speed class 5 and stability class E	0.000E+00	--- DFREQ(5,5,1)
AIRT	for wind speed class 5 and stability class F	0.000E+00	--- DFREQ(5,6,1)

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
=====					
AIRT	Joint Frequency in N Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,1)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,1)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,1)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,1)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,1)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,1)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,2)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,2)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,2)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,2)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,2)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,2)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,2)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,2)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,2)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,2)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,2)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,2)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,2)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,2)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,2)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,2)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,2)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,2)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,2)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,2)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,2)
AIRT	Joint Frequency in NNE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,2)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,2)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,2)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,2)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,2)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,2)

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

	User	RESRAD	Parameter
Menu	Input	Default	computed Name
AIRT	Joint Frequency in NNE Sector		
AIRT	for wind speed class 6 and stability class A	0.000E+00	DFREQ(6,1,2)
AIRT	for wind speed class 6 and stability class B	0.000E+00	DFREQ(6,2,2)
AIRT	for wind speed class 6 and stability class C	0.000E+00	DFREQ(6,3,2)
AIRT	for wind speed class 6 and stability class D	0.000E+00	DFREQ(6,4,2)
AIRT	for wind speed class 6 and stability class E	0.000E+00	DFREQ(6,5,2)
AIRT	for wind speed class 6 and stability class F	0.000E+00	DFREQ(6,6,2)
AIRT	Joint Frequency in NE Sector		
AIRT	for wind speed class 1 and stability class A	0.000E+00	DFREQ(1,1,3)
AIRT	for wind speed class 1 and stability class B	0.000E+00	DFREQ(1,2,3)
AIRT	for wind speed class 1 and stability class C	0.000E+00	DFREQ(1,3,3)
AIRT	for wind speed class 1 and stability class D	0.000E+00	DFREQ(1,4,3)
AIRT	for wind speed class 1 and stability class E	0.000E+00	DFREQ(1,5,3)
AIRT	for wind speed class 1 and stability class F	0.000E+00	DFREQ(1,6,3)
AIRT	Joint Frequency in NE Sector		
AIRT	for wind speed class 2 and stability class A	0.000E+00	DFREQ(2,1,3)
AIRT	for wind speed class 2 and stability class B	0.000E+00	DFREQ(2,2,3)
AIRT	for wind speed class 2 and stability class C	0.000E+00	DFREQ(2,3,3)
AIRT	for wind speed class 2 and stability class D	0.000E+00	DFREQ(2,4,3)
AIRT	for wind speed class 2 and stability class E	0.000E+00	DFREQ(2,5,3)
AIRT	for wind speed class 2 and stability class F	0.000E+00	DFREQ(2,6,3)
AIRT	Joint Frequency in NE Sector		
AIRT	for wind speed class 3 and stability class A	0.000E+00	DFREQ(3,1,3)
AIRT	for wind speed class 3 and stability class B	0.000E+00	DFREQ(3,2,3)
AIRT	for wind speed class 3 and stability class C	0.000E+00	DFREQ(3,3,3)
AIRT	for wind speed class 3 and stability class D	0.000E+00	DFREQ(3,4,3)
AIRT	for wind speed class 3 and stability class E	0.000E+00	DFREQ(3,5,3)
AIRT	for wind speed class 3 and stability class F	0.000E+00	DFREQ(3,6,3)
AIRT	Joint Frequency in NE Sector		
AIRT	for wind speed class 4 and stability class A	0.000E+00	DFREQ(4,1,3)
AIRT	for wind speed class 4 and stability class B	0.000E+00	DFREQ(4,2,3)
AIRT	for wind speed class 4 and stability class C	0.000E+00	DFREQ(4,3,3)
AIRT	for wind speed class 4 and stability class D	0.000E+00	DFREQ(4,4,3)
AIRT	for wind speed class 4 and stability class E	0.000E+00	DFREQ(4,5,3)
AIRT	for wind speed class 4 and stability class F	0.000E+00	DFREQ(4,6,3)
AIRT	Joint Frequency in NE Sector		
AIRT	for wind speed class 5 and stability class A	0.000E+00	DFREQ(5,1,3)
AIRT	for wind speed class 5 and stability class B	0.000E+00	DFREQ(5,2,3)
AIRT	for wind speed class 5 and stability class C	0.000E+00	DFREQ(5,3,3)
AIRT	for wind speed class 5 and stability class D	0.000E+00	DFREQ(5,4,3)
AIRT	for wind speed class 5 and stability class E	0.000E+00	DFREQ(5,5,3)
AIRT	for wind speed class 5 and stability class F	0.000E+00	DFREQ(5,6,3)

[illegible]

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
=====					
AIRT	Joint Frequency in ENE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,4)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,4)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,4)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,4)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,4)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,4)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,5)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,5)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,5)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,5)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,5)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,5)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,5)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,5)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,5)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,5)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,5)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,5)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,5)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,5)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,5)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,5)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,5)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,5)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,5)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,5)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,5)
AIRT	Joint Frequency in E Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,5)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,5)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,5)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,5)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,5)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,5)

	User	RESRAD	Parameter
Menu	Input	Default	computed Name
AIRT	Joint Frequency in E Sector		
AIRT	for wind speed class 6 and stability class A	0.000E+00	DFREQ(6,1,5)
AIRT	for wind speed class 6 and stability class B	0.000E+00	DFREQ(6,2,5)
AIRT	for wind speed class 6 and stability class C	0.000E+00	DFREQ(6,3,5)
AIRT	for wind speed class 6 and stability class D	0.000E+00	DFREQ(6,4,5)
AIRT	for wind speed class 6 and stability class E	0.000E+00	DFREQ(6,5,5)
AIRT	for wind speed class 6 and stability class F	0.000E+00	DFREQ(6,6,5)
AIRT	Joint Frequency in ESE Sector		
AIRT	for wind speed class 1 and stability class A	0.000E+00	DFREQ(1,1,6)
AIRT	for wind speed class 1 and stability class B	0.000E+00	DFREQ(1,2,6)
AIRT	for wind speed class 1 and stability class C	0.000E+00	DFREQ(1,3,6)
AIRT	for wind speed class 1 and stability class D	0.000E+00	DFREQ(1,4,6)
AIRT	for wind speed class 1 and stability class E	0.000E+00	DFREQ(1,5,6)
AIRT	for wind speed class 1 and stability class F	0.000E+00	DFREQ(1,6,6)
AIRT	Joint Frequency in ESE Sector		
AIRT	for wind speed class 2 and stability class A	0.000E+00	DFREQ(2,1,6)
AIRT	for wind speed class 2 and stability class B	0.000E+00	DFREQ(2,2,6)
AIRT	for wind speed class 2 and stability class C	0.000E+00	DFREQ(2,3,6)
AIRT	for wind speed class 2 and stability class D	0.000E+00	DFREQ(2,4,6)
AIRT	for wind speed class 2 and stability class E	0.000E+00	DFREQ(2,5,6)
AIRT	for wind speed class 2 and stability class F	0.000E+00	DFREQ(2,6,6)
AIRT	Joint Frequency in ESE Sector		
AIRT	for wind speed class 3 and stability class A	0.000E+00	DFREQ(3,1,6)
AIRT	for wind speed class 3 and stability class B	0.000E+00	DFREQ(3,2,6)
AIRT	for wind speed class 3 and stability class C	0.000E+00	DFREQ(3,3,6)
AIRT	for wind speed class 3 and stability class D	0.000E+00	DFREQ(3,4,6)
AIRT	for wind speed class 3 and stability class E	0.000E+00	DFREQ(3,5,6)
AIRT	for wind speed class 3 and stability class F	0.000E+00	DFREQ(3,6,6)
AIRT	Joint Frequency in ESE Sector		
AIRT	for wind speed class 4 and stability class A	0.000E+00	DFREQ(4,1,6)
AIRT	for wind speed class 4 and stability class B	0.000E+00	DFREQ(4,2,6)
AIRT	for wind speed class 4 and stability class C	0.000E+00	DFREQ(4,3,6)
AIRT	for wind speed class 4 and stability class D	0.000E+00	DFREQ(4,4,6)
AIRT	for wind speed class 4 and stability class E	0.000E+00	DFREQ(4,5,6)
AIRT	for wind speed class 4 and stability class F	0.000E+00	DFREQ(4,6,6)
AIRT	Joint Frequency in ESE Sector		
AIRT	for wind speed class 5 and stability class A	0.000E+00	DFREQ(5,1,6)
AIRT	for wind speed class 5 and stability class B	0.000E+00	DFREQ(5,2,6)
AIRT	for wind speed class 5 and stability class C	0.000E+00	DFREQ(5,3,6)
AIRT	for wind speed class 5 and stability class D	0.000E+00	DFREQ(5,4,6)
AIRT	for wind speed class 5 and stability class E	0.000E+00	DFREQ(5,5,6)
AIRT	for wind speed class 5 and stability class F	0.000E+00	DFREQ(5,6,6)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

	User	RESRAD	Parameter		
Menu	Input	Default	computed	Name	
XX					
AIRT	Joint Frequency in ESE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,6)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,6)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,6)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,6)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,6)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,6)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,7)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,7)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,7)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,7)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,7)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,7)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,7)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,7)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,7)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,7)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,7)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,7)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,7)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,7)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,7)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,7)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,7)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,7)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,7)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,7)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,7)
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,7)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,7)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,7)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,7)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,7)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,7)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

		User	RESRAD	Parameter	
Menu	Parameter	Input	Default	computed	Name
AA					
AIRT	Joint Frequency in SE Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,7)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,7)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,7)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,7)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,7)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,7)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,8)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,8)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,8)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,8)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,8)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,8)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,8)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,8)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,8)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,8)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,8)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,8)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,8)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,8)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,8)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,8)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,8)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,8)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,8)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,8)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,8)
AIRT	Joint Frequency in SSE Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,8)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,8)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,8)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,8)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,8)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,8)

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

	User	RESRAD	Parameter
Menu	Input	Default	computed Name
AAA			
AIRT	Joint Frequency in SSE Sector		
AIRT	for wind speed class 6 and stability class A	0.000E+00	DFREQ(6,1,8)
AIRT	for wind speed class 6 and stability class B	0.000E+00	DFREQ(6,2,8)
AIRT	for wind speed class 6 and stability class C	0.000E+00	DFREQ(6,3,8)
AIRT	for wind speed class 6 and stability class D	0.000E+00	DFREQ(6,4,8)
AIRT	for wind speed class 6 and stability class E	0.000E+00	DFREQ(6,5,8)
AIRT	for wind speed class 6 and stability class F	0.000E+00	DFREQ(6,6,8)
AIRT	Joint Frequency in S Sector		
AIRT	for wind speed class 1 and stability class A	0.000E+00	DFREQ(1,1,9)
AIRT	for wind speed class 1 and stability class B	0.000E+00	DFREQ(1,2,9)
AIRT	for wind speed class 1 and stability class C	0.000E+00	DFREQ(1,3,9)
AIRT	for wind speed class 1 and stability class D	1.000E-01	DFREQ(1,4,9)
AIRT	for wind speed class 1 and stability class E	2.000E-01	DFREQ(1,5,9)
AIRT	for wind speed class 1 and stability class F	7.000E-01	DFREQ(1,6,9)
AIRT	Joint Frequency in S Sector		
AIRT	for wind speed class 2 and stability class A	0.000E+00	DFREQ(2,1,9)
AIRT	for wind speed class 2 and stability class B	0.000E+00	DFREQ(2,2,9)
AIRT	for wind speed class 2 and stability class C	0.000E+00	DFREQ(2,3,9)
AIRT	for wind speed class 2 and stability class D	0.000E+00	DFREQ(2,4,9)
AIRT	for wind speed class 2 and stability class E	0.000E+00	DFREQ(2,5,9)
AIRT	for wind speed class 2 and stability class F	0.000E+00	DFREQ(2,6,9)
AIRT	Joint Frequency in S Sector		
AIRT	for wind speed class 3 and stability class A	0.000E+00	DFREQ(3,1,9)
AIRT	for wind speed class 3 and stability class B	0.000E+00	DFREQ(3,2,9)
AIRT	for wind speed class 3 and stability class C	0.000E+00	DFREQ(3,3,9)
AIRT	for wind speed class 3 and stability class D	0.000E+00	DFREQ(3,4,9)
AIRT	for wind speed class 3 and stability class E	0.000E+00	DFREQ(3,5,9)
AIRT	for wind speed class 3 and stability class F	0.000E+00	DFREQ(3,6,9)
AIRT	Joint Frequency in S Sector		
AIRT	for wind speed class 4 and stability class A	0.000E+00	DFREQ(4,1,9)
AIRT	for wind speed class 4 and stability class B	0.000E+00	DFREQ(4,2,9)
AIRT	for wind speed class 4 and stability class C	0.000E+00	DFREQ(4,3,9)
AIRT	for wind speed class 4 and stability class D	0.000E+00	DFREQ(4,4,9)
AIRT	for wind speed class 4 and stability class E	0.000E+00	DFREQ(4,5,9)
AIRT	for wind speed class 4 and stability class F	0.000E+00	DFREQ(4,6,9)
AIRT	Joint Frequency in S Sector		
AIRT	for wind speed class 5 and stability class A	0.000E+00	DFREQ(5,1,9)
AIRT	for wind speed class 5 and stability class B	0.000E+00	DFREQ(5,2,9)
AIRT	for wind speed class 5 and stability class C	0.000E+00	DFREQ(5,3,9)
AIRT	for wind speed class 5 and stability class D	0.000E+00	DFREQ(5,4,9)
AIRT	for wind speed class 5 and stability class E	0.000E+00	DFREQ(5,5,9)
AIRT	for wind speed class 5 and stability class F	0.000E+00	DFREQ(5,6,9)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	RESRAD Default	RESRAD computed	Parameter Name
Airt					
Joint Frequency in S Sector					
	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,9)
	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,9)
	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,9)
	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,9)
	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,9)
	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,9)
Airt					
Joint Frequency in SSW Sector					
	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,10)
	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,10)
	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,10)
	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,10)
	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,10)
	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,10)
Airt					
Joint Frequency in SSW Sector					
	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,10)
	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,10)
	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,10)
	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,10)
	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,10)
	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,10)
Airt					
Joint Frequency in SSW Sector					
	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,10)
	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,10)
	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,10)
	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,10)
	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,10)
	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,10)
Airt					
Joint Frequency in SSW Sector					
	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,10)
	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,10)
	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,10)
	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,10)
	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,10)
	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,10)
Airt					
Joint Frequency in SSW Sector					
	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,10)
	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,10)
	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,10)
	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,10)
	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,10)
	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,10)

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

	User	RESRAD	Parameter
Menu Parameter	Input	Default	computed Name
AIRT Joint Frequency in SSW Sector			
for wind speed class 6 and stability class A	0.000E+00	0.000E+00	--- DFREQ(6,1,10)
for wind speed class 6 and stability class B	0.000E+00	0.000E+00	--- DFREQ(6,2,10)
for wind speed class 6 and stability class C	0.000E+00	0.000E+00	--- DFREQ(6,3,10)
for wind speed class 6 and stability class D	0.000E+00	0.000E+00	--- DFREQ(6,4,10)
for wind speed class 6 and stability class E	0.000E+00	0.000E+00	--- DFREQ(6,5,10)
for wind speed class 6 and stability class F	0.000E+00	0.000E+00	--- DFREQ(6,6,10)
AIRT Joint Frequency in SW Sector			
for wind speed class 1 and stability class A	0.000E+00	0.000E+00	--- DFREQ(1,1,11)
for wind speed class 1 and stability class B	0.000E+00	0.000E+00	--- DFREQ(1,2,11)
for wind speed class 1 and stability class C	0.000E+00	0.000E+00	--- DFREQ(1,3,11)
for wind speed class 1 and stability class D	0.000E+00	1.000E-01	--- DFREQ(1,4,11)
for wind speed class 1 and stability class E	0.000E+00	2.000E-01	--- DFREQ(1,5,11)
for wind speed class 1 and stability class F	0.000E+00	7.000E-01	--- DFREQ(1,6,11)
AIRT Joint Frequency in SW Sector			
for wind speed class 2 and stability class A	0.000E+00	0.000E+00	--- DFREQ(2,1,11)
for wind speed class 2 and stability class B	0.000E+00	0.000E+00	--- DFREQ(2,2,11)
for wind speed class 2 and stability class C	0.000E+00	0.000E+00	--- DFREQ(2,3,11)
for wind speed class 2 and stability class D	0.000E+00	0.000E+00	--- DFREQ(2,4,11)
for wind speed class 2 and stability class E	0.000E+00	0.000E+00	--- DFREQ(2,5,11)
for wind speed class 2 and stability class F	0.000E+00	0.000E+00	--- DFREQ(2,6,11)
AIRT Joint Frequency in SW Sector			
for wind speed class 3 and stability class A	0.000E+00	0.000E+00	--- DFREQ(3,1,11)
for wind speed class 3 and stability class B	0.000E+00	0.000E+00	--- DFREQ(3,2,11)
for wind speed class 3 and stability class C	0.000E+00	0.000E+00	--- DFREQ(3,3,11)
for wind speed class 3 and stability class D	0.000E+00	0.000E+00	--- DFREQ(3,4,11)
for wind speed class 3 and stability class E	0.000E+00	0.000E+00	--- DFREQ(3,5,11)
for wind speed class 3 and stability class F	0.000E+00	0.000E+00	--- DFREQ(3,6,11)
AIRT Joint Frequency in SW Sector			
for wind speed class 4 and stability class A	0.000E+00	0.000E+00	--- DFREQ(4,1,11)
for wind speed class 4 and stability class B	0.000E+00	0.000E+00	--- DFREQ(4,2,11)
for wind speed class 4 and stability class C	0.000E+00	0.000E+00	--- DFREQ(4,3,11)
for wind speed class 4 and stability class D	0.000E+00	0.000E+00	--- DFREQ(4,4,11)
for wind speed class 4 and stability class E	0.000E+00	0.000E+00	--- DFREQ(4,5,11)
for wind speed class 4 and stability class F	0.000E+00	0.000E+00	--- DFREQ(4,6,11)
AIRT Joint Frequency in SW Sector			
for wind speed class 5 and stability class A	0.000E+00	0.000E+00	--- DFREQ(5,1,11)
for wind speed class 5 and stability class B	0.000E+00	0.000E+00	--- DFREQ(5,2,11)
for wind speed class 5 and stability class C	0.000E+00	0.000E+00	--- DFREQ(5,3,11)
for wind speed class 5 and stability class D	0.000E+00	0.000E+00	--- DFREQ(5,4,11)
for wind speed class 5 and stability class E	0.000E+00	0.000E+00	--- DFREQ(5,5,11)
for wind speed class 5 and stability class F	0.000E+00	0.000E+00	--- DFREQ(5,6,11)

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
=====					
AIRT	Joint Frequency in SW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,11)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,11)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,11)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,11)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,11)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,11)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,12)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,12)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,12)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,12)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,12)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,12)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,12)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,12)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,12)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,12)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,12)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,12)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,12)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,12)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,12)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,12)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,12)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,12)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,12)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,12)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,12)
AIRT	Joint Frequency in WSW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,12)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,12)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,12)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,12)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,12)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,12)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

	User	RESRAD	Parameter
Menu	Input	Default	computed Name
AIRT Joint Frequency in WSW Sector			
for wind speed class 6 and stability class A	0.000E+00	0.000E+00	DFREQ(6,1,12)
for wind speed class 6 and stability class B	0.000E+00	0.000E+00	DFREQ(6,2,12)
for wind speed class 6 and stability class C	0.000E+00	0.000E+00	DFREQ(6,3,12)
for wind speed class 6 and stability class D	0.000E+00	0.000E+00	DFREQ(6,4,12)
for wind speed class 6 and stability class E	0.000E+00	0.000E+00	DFREQ(6,5,12)
for wind speed class 6 and stability class F	0.000E+00	0.000E+00	DFREQ(6,6,12)
AIRT Joint Frequency in W Sector			
for wind speed class 1 and stability class A	0.000E+00	0.000E+00	DFREQ(1,1,13)
for wind speed class 1 and stability class B	0.000E+00	0.000E+00	DFREQ(1,2,13)
for wind speed class 1 and stability class C	0.000E+00	0.000E+00	DFREQ(1,3,13)
for wind speed class 1 and stability class D	0.000E+00	1.000E-01	DFREQ(1,4,13)
for wind speed class 1 and stability class E	0.000E+00	2.000E-01	DFREQ(1,5,13)
for wind speed class 1 and stability class F	0.000E+00	7.000E-01	DFREQ(1,6,13)
AIRT Joint Frequency in W Sector			
for wind speed class 2 and stability class A	0.000E+00	0.000E+00	DFREQ(2,1,13)
for wind speed class 2 and stability class B	0.000E+00	0.000E+00	DFREQ(2,2,13)
for wind speed class 2 and stability class C	0.000E+00	0.000E+00	DFREQ(2,3,13)
for wind speed class 2 and stability class D	0.000E+00	0.000E+00	DFREQ(2,4,13)
for wind speed class 2 and stability class E	0.000E+00	0.000E+00	DFREQ(2,5,13)
for wind speed class 2 and stability class F	0.000E+00	0.000E+00	DFREQ(2,6,13)
AIRT Joint Frequency in W Sector			
for wind speed class 3 and stability class A	0.000E+00	0.000E+00	DFREQ(3,1,13)
for wind speed class 3 and stability class B	0.000E+00	0.000E+00	DFREQ(3,2,13)
for wind speed class 3 and stability class C	0.000E+00	0.000E+00	DFREQ(3,3,13)
for wind speed class 3 and stability class D	0.000E+00	0.000E+00	DFREQ(3,4,13)
for wind speed class 3 and stability class E	0.000E+00	0.000E+00	DFREQ(3,5,13)
for wind speed class 3 and stability class F	0.000E+00	0.000E+00	DFREQ(3,6,13)
AIRT Joint Frequency in W Sector			
for wind speed class 4 and stability class A	0.000E+00	0.000E+00	DFREQ(4,1,13)
for wind speed class 4 and stability class B	0.000E+00	0.000E+00	DFREQ(4,2,13)
for wind speed class 4 and stability class C	0.000E+00	0.000E+00	DFREQ(4,3,13)
for wind speed class 4 and stability class D	0.000E+00	0.000E+00	DFREQ(4,4,13)
for wind speed class 4 and stability class E	0.000E+00	0.000E+00	DFREQ(4,5,13)
for wind speed class 4 and stability class F	0.000E+00	0.000E+00	DFREQ(4,6,13)
AIRT Joint Frequency in W Sector			
for wind speed class 5 and stability class A	0.000E+00	0.000E+00	DFREQ(5,1,13)
for wind speed class 5 and stability class B	0.000E+00	0.000E+00	DFREQ(5,2,13)
for wind speed class 5 and stability class C	0.000E+00	0.000E+00	DFREQ(5,3,13)
for wind speed class 5 and stability class D	0.000E+00	0.000E+00	DFREQ(5,4,13)
for wind speed class 5 and stability class E	0.000E+00	0.000E+00	DFREQ(5,5,13)
for wind speed class 5 and stability class F	0.000E+00	0.000E+00	DFREQ(5,6,13)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	RESRAD Default	RESRAD computed	Parameter Name
Airt					
Joint Frequency in W Sector					
	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,13)
	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,13)
	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,13)
	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,13)
	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,13)
	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,13)
Airt					
Joint Frequency in WNW Sector					
	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,14)
	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,14)
	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,14)
	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,14)
	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,14)
	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,14)
Airt					
Joint Frequency in WNW Sector					
	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,14)
	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,14)
	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,14)
	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,14)
	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,14)
	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,14)
Airt					
Joint Frequency in WNW Sector					
	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,14)
	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,14)
	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,14)
	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,14)
	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,14)
	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,14)
Airt					
Joint Frequency in WNW Sector					
	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,14)
	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,14)
	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,14)
	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,14)
	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,14)
	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,14)
Airt					
Joint Frequency in WNW Sector					
	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,14)
	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,14)
	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,14)
	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,14)
	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,14)
	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,14)

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

		User	RESRAD	Parameter	
Menu	Parameter	Input	Default	computed	Name
AAA					
AIRT	Joint Frequency in WNW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,14)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,14)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,14)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,14)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,14)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,14)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,15)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,15)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,15)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,15)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,15)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,15)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,15)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,15)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,15)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,15)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,15)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,15)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,15)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,15)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,15)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,15)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,15)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,15)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,15)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,15)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,15)
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,15)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,15)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,15)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,15)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,15)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,15)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

		User	RESRAD	Parameter	
Menu	Parameter	Input	Default	computed	Name
AA					
AIRT	Joint Frequency in NW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,15)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,15)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,15)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,15)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,15)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,15)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 1 and stability class A	0.000E+00	0.000E+00	---	DFREQ(1,1,16)
AIRT	for wind speed class 1 and stability class B	0.000E+00	0.000E+00	---	DFREQ(1,2,16)
AIRT	for wind speed class 1 and stability class C	0.000E+00	0.000E+00	---	DFREQ(1,3,16)
AIRT	for wind speed class 1 and stability class D	0.000E+00	1.000E-01	---	DFREQ(1,4,16)
AIRT	for wind speed class 1 and stability class E	0.000E+00	2.000E-01	---	DFREQ(1,5,16)
AIRT	for wind speed class 1 and stability class F	0.000E+00	7.000E-01	---	DFREQ(1,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 2 and stability class A	0.000E+00	0.000E+00	---	DFREQ(2,1,16)
AIRT	for wind speed class 2 and stability class B	0.000E+00	0.000E+00	---	DFREQ(2,2,16)
AIRT	for wind speed class 2 and stability class C	0.000E+00	0.000E+00	---	DFREQ(2,3,16)
AIRT	for wind speed class 2 and stability class D	0.000E+00	0.000E+00	---	DFREQ(2,4,16)
AIRT	for wind speed class 2 and stability class E	0.000E+00	0.000E+00	---	DFREQ(2,5,16)
AIRT	for wind speed class 2 and stability class F	0.000E+00	0.000E+00	---	DFREQ(2,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 3 and stability class A	0.000E+00	0.000E+00	---	DFREQ(3,1,16)
AIRT	for wind speed class 3 and stability class B	0.000E+00	0.000E+00	---	DFREQ(3,2,16)
AIRT	for wind speed class 3 and stability class C	0.000E+00	0.000E+00	---	DFREQ(3,3,16)
AIRT	for wind speed class 3 and stability class D	0.000E+00	0.000E+00	---	DFREQ(3,4,16)
AIRT	for wind speed class 3 and stability class E	0.000E+00	0.000E+00	---	DFREQ(3,5,16)
AIRT	for wind speed class 3 and stability class F	0.000E+00	0.000E+00	---	DFREQ(3,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 4 and stability class A	0.000E+00	0.000E+00	---	DFREQ(4,1,16)
AIRT	for wind speed class 4 and stability class B	0.000E+00	0.000E+00	---	DFREQ(4,2,16)
AIRT	for wind speed class 4 and stability class C	0.000E+00	0.000E+00	---	DFREQ(4,3,16)
AIRT	for wind speed class 4 and stability class D	0.000E+00	0.000E+00	---	DFREQ(4,4,16)
AIRT	for wind speed class 4 and stability class E	0.000E+00	0.000E+00	---	DFREQ(4,5,16)
AIRT	for wind speed class 4 and stability class F	0.000E+00	0.000E+00	---	DFREQ(4,6,16)
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 5 and stability class A	0.000E+00	0.000E+00	---	DFREQ(5,1,16)
AIRT	for wind speed class 5 and stability class B	0.000E+00	0.000E+00	---	DFREQ(5,2,16)
AIRT	for wind speed class 5 and stability class C	0.000E+00	0.000E+00	---	DFREQ(5,3,16)
AIRT	for wind speed class 5 and stability class D	0.000E+00	0.000E+00	---	DFREQ(5,4,16)
AIRT	for wind speed class 5 and stability class E	0.000E+00	0.000E+00	---	DFREQ(5,5,16)
AIRT	for wind speed class 5 and stability class F	0.000E+00	0.000E+00	---	DFREQ(5,6,16)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
AA					
AIRT	Joint Frequency in NNW Sector				
AIRT	for wind speed class 6 and stability class A	0.000E+00	0.000E+00	---	DFREQ(6,1,16)
AIRT	for wind speed class 6 and stability class B	0.000E+00	0.000E+00	---	DFREQ(6,2,16)
AIRT	for wind speed class 6 and stability class C	0.000E+00	0.000E+00	---	DFREQ(6,3,16)
AIRT	for wind speed class 6 and stability class D	0.000E+00	0.000E+00	---	DFREQ(6,4,16)
AIRT	for wind speed class 6 and stability class E	0.000E+00	0.000E+00	---	DFREQ(6,5,16)
AIRT	for wind speed class 6 and stability class F	0.000E+00	0.000E+00	---	DFREQ(6,6,16)
AIRT	Spacing of points used for areal integration, (m)	1.000E+01	1.000E+01	---	ATGRID
GWTR	fractional accuracy desired - convergence criteria	1.000E-03	1.000E-03	---	EPS
GWTR	Distance from d/g edge of contamination to Well, (m)	8.597E+01	1.000E+02	---	OFFFLPAQW
GWTR	Contamination to Well c/c distance normal to flow, m	0.000E+00	0.000E+00	---	OFFFLNAQW
GWTR	Distance from d/g edge of cz to surface water, (m)	4.219E+02	4.500E+02	---	OFFFLPAQS
GWTR	Contamination to near edge of swb,c/c normal to flow	-1.763E+02	-1.500E+02	---	OFFFLNAQSN
GWTR	Contamination to far edge of swb, c/c normal to flow	1.237E+02	1.500E+02	---	OFFFLNAQSF
GWTR	Number of main sub zones in primary contamination	1	1	---	NPCZ
GWTR	Number of minor sub zones in last main PC sub zone	1	1	---	NPCZF
GWTR	Number of main sub zones in submerged prim. contami.	1	1	---	NSPCZ
GWTR	Number of minor sub zones in last main SPC sub zone	1	1	---	NSPCZF
GWTR	Number of main sub zones in each unsaturated stratum	1	1	---	NPSS
GWTR	Number of minor sub zones in last main UZ sub zone	1	1	---	NPSSF
GWTR	Number of main sub zones in saturated stratum	1	1	---	NAQS
GWTR	Number of minor sub zones in last main SZ sub zone	1	1	---	NAQSF
GWTR	Distribution coefficient and longitudinal dispersion	1	1	---	
	1 = Nuclide specific distrubution coefficients in all subzones. Longitudinal dispersion in all but the subzone of transformation.				
GWTR	Retardation factor flag for groundwater transport	0	0	---	
	0 = (total porosity + distribution coefficient*dry bulk density) / total porosity				
USZN	Number of unsaturated zone strata	1	1	---	NS
USZN	Unsat. zone 1, thickness (m)	4.000E+00	4.000E+00	---	H(1)
USZN	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
USZN	Unsat. zone 1, total porosity	4.000E-01	4.000E-01	---	TPUZ(1)
USZN	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
USZN	Unsat. zone 1, field capacity	3.000E-01	3.000E-01	---	FCUZ(1)
USZN	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
USZN	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
USZN	Unsat. zone 1, longitudinal dispersivity (m)	1.000E-01	1.000E-01	---	ALPHALU(1)
SZNE	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
SZNE	Depth of aquifer contributing to surface water body	1.000E+01	1.000E+01	---	DPTHAQSW
SZNE	Thickness of saturated zone (m)	1.000E+02	1.000E+02	---	DPTHAQ
SZNE	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
SZNE	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
SZNE	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ
SZNE	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
SZNE	Saturated zone hydraulic gradient to well	2.000E-02	2.000E-02	---	HGW
SZNE	Satur. zone hydraulic gradient to surface water body	2.000E-02	2.000E-02	---	HGSW

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

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File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

		User	RESRAD	Parameter	
Menu	Parameter	Input	Default	computed	Name
AA					
SZNE	longitudinal dispersivity to well (m)	3.000E+00	3.000E+00	---	ALPHALLOW
SZNE	longitudinal dispersivity to SWB (m)	1.000E+01	1.000E+01	---	ALPHALOSW
SZNE	lateral (horizontal) dispersivity to well (m)	4.000E-01	4.000E-01	---	ALPHATW
SZNE	lateral (horizontal) dispersivity to SWB (m)	1.000E+00	1.000E+00	---	ALPHATSW
SZNE	lateral (vertical) dispersivity to well (m)	2.000E-02	2.000E-02	---	ALPHAHVW
SZNE	lateral (vertical) dispersivity to SWB (m)	6.000E-02	6.000E-02	---	ALPHAHVSW
SZNE	Irrigation rate over aquifer to well (m/yr)	not used	0.000E+00	---	RIAQW
SZNE	Irrigation rate over aquifer to SWB (m/yr)	not used	0.000E+00	---	RIAQSW
SZNE	Evapotranspiration coefficient over aquifer to well	not used	1.000E+00	---	EVAPTRAQW
SZNE	Evapotranspiration coefficient over aquifer to SWB	not used	1.000E+00	---	EVAPTRAQSW
SZNE	Runoff coefficient over aquifer to well	not used	1.000E+00	---	RUNOFFAQW
SZNE	Runoff coefficient over aquifer to SWB	not used	1.000E+00	---	RUNOFFAQSW
SZNE	Concentration of mobile colloids in the aquifer	0.000E+00	0.000E+00	---	CCOL
SZNE	Water - Soil Distribution coefficient of colloids	0.000E+00	0.000E+00	---	K1Col
SZNE	Water - Mobile Colloids Distribution coefficient	0.000E+00	0.000E+00	---	K3Col
WTRU	Drinking water intake (L/yr)	5.100E+02	5.100E+02	---	DWI
WTRU	Fraction of drinking water from surface water	0.000E+00	0.000E+00	---	FSWD
WTRU	Fraction of drinking water from well water	1.000E+00	1.000E+00	---	FWWD
WTRU	Fraction of household water from surface water	0.000E+00	0.000E+00	---	FSWHH
WTRU	Fraction of household water from well water	1.000E+00	1.000E+00	---	FWWHH
WTRU	Livestock water intake for meat 1 (L/day)	5.000E+01	5.000E+01	---	LWI (1)
WTRU	Fraction of livestock water 1 from surface water	0.000E+00	0.000E+00	---	FSWLVL (1)
WTRU	Fraction of livestock water 1 from well water	1.000E+00	1.000E+00	---	FWWLVL (1)
WTRU	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI (2)
WTRU	Fraction of dairy cow water from surface water	0.000E+00	0.000E+00	---	FSWLVL (2)
WTRU	Fraction of dairy cow water from well water	1.000E+00	1.000E+00	---	FWWLVL (2)
WTRU	Irrigation rate in Agricultural Area 1 (m/yr)	2.000E-01	2.000E-01	---	RIRRIG (1)
WTRU	Fraction of irrigation water 1 from surface water	0.000E+00	0.000E+00	---	FSWIR (1)
WTRU	Fraction of irrigation water 1 from well water	1.000E+00	1.000E+00	---	FWWIR (1)
WTRU	Irrigation rate in Agricultural Area 2 (m/yr)	2.000E-01	2.000E-01	---	RIRRIG (2)
WTRU	Fraction of irrigation water 2 from surface water	0.000E+00	0.000E+00	---	FSWIR (2)
WTRU	Fraction of irrigation water 2 from well water	1.000E+00	1.000E+00	---	FWWIR (2)
WTRU	Irrigation rate in Agricultural Area 3 (m/yr)	2.000E-01	2.000E-01	---	RIRRIG (3)
WTRU	Fraction of irrigation water 3 from surface water	0.000E+00	0.000E+00	---	FSWIR (3)
WTRU	Fraction of irrigation water 3 from well water	1.000E+00	1.000E+00	---	FWWIR (3)
WTRU	Irrigation rate in Agricultural Area 4 (m/yr)	2.000E-01	2.000E-01	---	RIRRIG (4)
WTRU	Fraction of irrigation water 4 from surface water	0.000E+00	0.000E+00	---	FSWIR (4)
WTRU	Fraction of irrigation water 4 from well water	1.000E+00	1.000E+00	---	FWWIR (4)
WTRU	Irrigation rate in Offsite dwelling site (m/yr)	2.000E-01	2.000E-01	---	RIRRIGDWELL
WTRU	Fraction of irrigation water from surface water	0.000E+00	0.000E+00	---	FSWIRDWELL
WTRU	Fraction of irrigation water from well water	1.000E+00	1.000E+00	---	FWWIRDWELL
WTRU	Well pumping rate (m**3/yr)	5.100E+03	5.100E+03	---	UW
SWBY	Sediment delivery ratio	1.000E+00	1.000E+00	---	SDR
SWBY	Volume of surface water body	1.500E+05	1.500E+05	---	VLAKE
SWBY	Mean residence time of water in surface water body	1.000E+00	1.000E+00	---	TLAKE

Attachment #6

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
SWBY	Surface area of water in surface water body	9.000E+04	9.000E+04	---	ALAKE
INGE	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DFI (1)
INGE	Fraction of Fish from affected area	5.000E-01	5.000E-01	---	FFISH (1)
INGE	Other Aquatic food consumption (kg/yr)	9.000E-01	9.000E-01	---	DFI (2)
INGE	Fraction of Aquatic food from affected area	5.000E-01	5.000E-01	---	FFISH (2)
INGE	Non-Leafy vegetables consumption (kg/yr)	1.600E+02	1.600E+02	---	DVI (1)
INGE	Fraction of vegetable 1 from affected area	5.000E-01	5.000E-01	---	FVEG (1)
INGE	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01	---	DVI (2)
INGE	Fraction of vegetable 2 from affected area	5.000E-01	5.000E-01	---	FVEG (2)
INGE	Meat 1 consumption (kg/yr)	6.300E+01	6.300E+01	---	DMI (1)
INGE	Fraction of meat 1 from affected area	1.000E+00	1.000E+00	---	FMEMI (1)
INGE	Milk consumption (L/yr)	9.200E+01	9.200E+01	---	DMI (2)
INGE	Fraction of milk from affected area	1.000E+00	1.000E+00	---	FMEMI (2)
INGE	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
VEGE	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YIELD (1)
VEGE	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	GROWTIME (1)
VEGE	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	FOLI_F (1)
VEGE	Weathering Removal Constant for Non-Leafy	2.000E+01	2.000E+01	---	RWEATHER (1)
VEGE	Foliar Interception Fraction for dust Non-Leafy	2.500E-01	2.500E-01	---	FINTCEPT (1,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Non-Leafy	2.500E-01	2.500E-01	---	FINTCEPT (1,2)
VEGE	Depth of roots for Non-Leafy (m)	1.200E+00	1.200E+00	---	DROOT (1)
VEGE	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YIELD (2)
VEGE	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	GROWTIME (2)
VEGE	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	FOLI_F (2)
VEGE	Weathering Removal Constant for Leafy	2.000E+01	2.000E+01	---	RWEATHER (2)
VEGE	Foliar Interception Fraction for dust Leafy	2.500E-01	2.500E-01	---	FINTCEPT (2,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Leafy	2.500E-01	2.500E-01	---	FINTCEPT (2,2)
VEGE	Depth of roots for Leafy (m)	9.000E-01	9.000E-01	---	DROOT (2)
VEGE	Wet weight crop yield for Pasture (kg/m**2)	1.100E+00	1.100E+00	---	YIELD (3)
VEGE	Growing Season for Pasture (years)	8.000E-02	8.000E-02	---	GROWTIME (3)
VEGE	Translocation Factor for Pasture	1.000E+00	1.000E+00	---	FOLI_F (3)
VEGE	Weathering Removal Constant for Pasture	2.000E+01	2.000E+01	---	RWEATHER (3)
VEGE	Foliar Interception Fraction for dust Pasture	2.500E-01	2.500E-01	---	FINTCEPT (3,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Pasture	2.500E-01	2.500E-01	---	FINTCEPT (3,2)
VEGE	Depth of roots for Pasture (m)	9.000E-01	9.000E-01	---	DROOT (3)
VEGE	Wet weight crop yield for Grain (kg/m**2)	7.000E-01	7.000E-01	---	YIELD (4)
VEGE	Growing Season for Grain (years)	1.700E-01	1.700E-01	---	GROWTIME (4)
VEGE	Translocation Factor for Grain	1.000E-01	1.000E-01	---	FOLI_F (4)
VEGE	Weathering Removal Constant for Grain	2.000E+01	2.000E+01	---	RWEATHER (4)
VEGE	Foliar Interception Fraction for dust Grain	2.500E-01	2.500E-01	---	FINTCEPT (4,1)
VEGE	Foliar Intercept-n Fract-n for irrigation Grain	2.500E-01	2.500E-01	---	FINTCEPT (4,2)
VEGE	Depth of roots for Grain (m)	1.200E+00	1.200E+00	---	DROOT (4)

Parent Dose Report

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Attachment #6

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
LINT	Feed 1 intake by livestock 1 (kg/day)	1.400E+01	1.400E+01	---	LFI(1,1)
LINT	Soil intake with feed 1 by livestock 1 (kg/day)	1.000E-01	1.000E-01	---	LSI(1,1)
LINT	Feed 1 intake by dairy cow (kg/day)	4.400E+01	4.400E+01	---	LFI(2,1)
LINT	Soil intake with feed 1 by dairy cow (kg/day)	4.000E-01	4.000E-01	---	LSI(2,1)
LINT	Feed 2 intake by livestock 1 (kg/day)	5.400E+01	5.400E+01	---	LFI(1,2)
LINT	Soil intake with feed 2 by livestock 1 (kg/day)	4.000E-01	4.000E-01	---	LSI(1,2)
LINT	Feed 2 intake by dairy cow (kg/day)	1.100E+01	1.100E+01	---	LFI(2,2)
LINT	Soil intake with feed 2 by dairy cow (kg/day)	1.000E-01	1.000E-01	---	LSI(2,2)
INHE	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
INHE	Mass loading of all particulates from Primary contam	1.000E-04	1.000E-04	---	MLFD
INHE	Respirable particulates as a fraction of total	1.000E+00	1.000E+00	---	RESPFRACPC
INHE	Offsite mass loading same as onsite mass loading?	0.000E+00		---	SAMEMLRF
INHE	Total mass loading at agricultural area 1 (g/m**3)	1.000E-04	1.000E-04	---	MLTOTOF(1)
INHE	Respirable fraction at agricultural area 1	1.000E+00	1.000E+00	---	RESPFRACOF(1)
INHE	Total mass loading at agricultural area 2 (g/m**3)	1.000E-04	1.000E-04	---	MLTOTOF(2)
INHE	Respirable fraction at agricultural area 2	1.000E+00	1.000E+00	---	RESPFRACOF(2)
INHE	Total mass loading at agricultural area 3 (g/m**3)	1.000E-04	1.000E-04	---	MLTOTOF(3)
INHE	Respirable fraction at agricultural area 3	1.000E+00	1.000E+00	---	RESPFRACOF(3)
INHE	Total mass loading at agricultural area 4 (g/m**3)	1.000E-04	1.000E-04	---	MLTOTOF(4)
INHE	Respirable fraction at agricultural area 4	1.000E+00	1.000E+00	---	RESPFRACOF(4)
INHE	Total mass loading at offsite dwelling(g/m**3)	1.000E-04	1.000E-04	---	MLTODWELL
INHE	Respirable fraction at offsite dwelling(g/m**3)	1.000E+00	1.000E+00	---	RESPFRACDWELL
INHE	Indoor dust filtration factor, inhalation	4.000E-01	4.000E-01	---	SHF3
INHE	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
INHE	Shape factor flag, external gamma	-1.000E+00	1.000E+00	noncircular	FS
SEXT	Onsite shape factor array (used if non-circular):				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 1:	5.833E+00	6.000E+00	---	RAD_SHAPE(1)
SEXT	Outer annular radius (m), ring 2:	1.167E+01	1.200E+01	---	RAD_SHAPE(2)
SEXT	Outer annular radius (m), ring 3:	1.750E+01	1.800E+01	---	RAD_SHAPE(3)
SEXT	Outer annular radius (m), ring 4:	2.333E+01	2.400E+01	---	RAD_SHAPE(4)
SEXT	Outer annular radius (m), ring 5:	2.917E+01	3.000E+01	---	RAD_SHAPE(5)
SEXT	Outer annular radius (m), ring 6:	3.500E+01	3.600E+01	---	RAD_SHAPE(6)
SEXT	Outer annular radius (m), ring 7:	4.083E+01	4.200E+01	---	RAD_SHAPE(7)
SEXT	Outer annular radius (m), ring 8:	4.667E+01	4.800E+01	---	RAD_SHAPE(8)
SEXT	Outer annular radius (m), ring 9:	5.250E+01	5.400E+01	---	RAD_SHAPE(9)
SEXT	Outer annular radius (m), ring 10:	5.833E+01	6.000E+01	---	RAD_SHAPE(10)
SEXT	Outer annular radius (m), ring 11:	6.417E+01	6.600E+01	---	RAD_SHAPE(11)
SEXT	Outer annular radius (m), ring 12:	7.000E+01	7.200E+01	---	RAD_SHAPE(12)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	RESRAD Default	RESRAD computed	Parameter Name
SEXT Fractions of annular areas within AREA:					
SEXT	Ring 1	1.000E+00	1.000E+00	---	FRACA (1)
SEXT	Ring 2	1.000E+00	1.000E+00	---	FRACA (2)
SEXT	Ring 3	1.000E+00	1.000E+00	---	FRACA (3)
SEXT	Ring 4	9.800E-01	1.000E+00	---	FRACA (4)
SEXT	Ring 5	7.300E-01	1.000E+00	---	FRACA (5)
SEXT	Ring 6	5.300E-01	1.000E+00	---	FRACA (6)
SEXT	Ring 7	4.200E-01	1.000E+00	---	FRACA (7)
SEXT	Ring 8	3.600E-01	1.000E+00	---	FRACA (8)
SEXT	Ring 9	3.200E-01	7.700E-01	---	FRACA (9)
SEXT	Ring 10	2.800E-01	3.700E-01	---	FRACA (10)
SEXT	Ring 11	2.500E-01	1.700E-01	---	FRACA (11)
SEXT	Ring 12	6.200E-02	3.100E-02	---	FRACA (12)
SEXT Shape factor array from offsite dwelling:					
SEXT Radii of shape factor array (used if non-circular):					
SEXT	Outer annular radius (m), ring 13:	1.325E+01	1.325E+01	---	RAD_SHAPE (13)
SEXT	Outer annular radius (m), ring 14:	2.650E+01	2.650E+01	---	RAD_SHAPE (14)
SEXT	Outer annular radius (m), ring 15:	3.975E+01	3.975E+01	---	RAD_SHAPE (15)
SEXT	Outer annular radius (m), ring 16:	5.300E+01	5.300E+01	---	RAD_SHAPE (16)
SEXT	Outer annular radius (m), ring 17:	6.625E+01	6.625E+01	---	RAD_SHAPE (17)
SEXT	Outer annular radius (m), ring 18:	7.950E+01	7.950E+01	---	RAD_SHAPE (18)
SEXT	Outer annular radius (m), ring 19:	9.275E+01	9.275E+01	---	RAD_SHAPE (19)
SEXT	Outer annular radius (m), ring 20:	1.060E+02	1.060E+02	---	RAD_SHAPE (20)
SEXT	Outer annular radius (m), ring 21:	1.192E+02	1.192E+02	---	RAD_SHAPE (21)
SEXT	Outer annular radius (m), ring 22:	1.325E+02	1.325E+02	---	RAD_SHAPE (22)
SEXT	Outer annular radius (m), ring 23:	1.458E+02	1.458E+02	---	RAD_SHAPE (23)
SEXT	Outer annular radius (m), ring 24:	1.590E+02	1.590E+02	---	RAD_SHAPE (24)
SEXT Fractions of annular areas within AREA:					
SEXT	Ring 13	0.000E+00	0.000E+00	---	FRACA (13)
SEXT	Ring 14	2.000E-02	0.000E+00	---	FRACA (14)
SEXT	Ring 15	1.000E-01	0.000E+00	---	FRACA (15)
SEXT	Ring 16	1.600E-01	2.400E-02	---	FRACA (16)
SEXT	Ring 17	1.500E-01	1.900E-01	---	FRACA (17)
SEXT	Ring 18	1.100E-01	2.400E-01	---	FRACA (18)
SEXT	Ring 19	9.400E-02	2.000E-01	---	FRACA (19)
SEXT	Ring 20	8.000E-02	1.700E-01	---	FRACA (20)
SEXT	Ring 21	7.000E-02	1.500E-01	---	FRACA (21)
SEXT	Ring 22	6.200E-02	1.300E-01	---	FRACA (22)
SEXT	Ring 23	5.500E-02	1.200E-01	---	FRACA (23)
SEXT	Ring 24	2.500E-02	5.200E-02	---	FRACA (24)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	RESRAD Default	RESRAD computed	Parameter Name
SEXT Shape factor array from offsite area 1:					
SEXT Radii of shape factor array (used if non-circular):					
SEXT	Outer annular radius (m), ring 25:	1.220E+02	1.220E+02	---	RAD_SHAPE (25)
SEXT	Outer annular radius (m), ring 26:	1.318E+02	1.318E+02	---	RAD_SHAPE (26)
SEXT	Outer annular radius (m), ring 27:	1.449E+02	1.449E+02	---	RAD_SHAPE (27)
SEXT	Outer annular radius (m), ring 28:	1.581E+02	1.581E+02	---	RAD_SHAPE (28)
SEXT	Outer annular radius (m), ring 29:	1.712E+02	1.712E+02	---	RAD_SHAPE (29)
SEXT	Outer annular radius (m), ring 30:	1.843E+02	1.843E+02	---	RAD_SHAPE (30)
SEXT	Outer annular radius (m), ring 31:	1.975E+02	1.975E+02	---	RAD_SHAPE (31)
SEXT	Outer annular radius (m), ring 32:	2.106E+02	2.106E+02	---	RAD_SHAPE (32)
SEXT	Outer annular radius (m), ring 33:	2.237E+02	2.237E+02	---	RAD_SHAPE (33)
SEXT	Outer annular radius (m), ring 34:	2.369E+02	2.369E+02	---	RAD_SHAPE (34)
SEXT	Outer annular radius (m), ring 35:	2.500E+02	2.500E+02	---	RAD_SHAPE (35)
SEXT	Outer annular radius (m), ring 36:	2.550E+02	2.550E+02	---	RAD_SHAPE (36)
SEXT Fractions of annular areas within AREA:					
SEXT	Ring 25	0.000E+00	0.000E+00	---	FRACA (25)
SEXT	Ring 26	3.053E-02	3.053E-02	---	FRACA (26)
SEXT	Ring 27	5.587E-02	5.587E-02	---	FRACA (27)
SEXT	Ring 28	5.081E-02	5.081E-02	---	FRACA (28)
SEXT	Ring 29	4.660E-02	4.660E-02	---	FRACA (29)
SEXT	Ring 30	4.305E-02	4.305E-02	---	FRACA (30)
SEXT	Ring 31	4.001E-02	4.001E-02	---	FRACA (31)
SEXT	Ring 32	3.738E-02	3.738E-02	---	FRACA (32)
SEXT	Ring 33	3.507E-02	3.507E-02	---	FRACA (33)
SEXT	Ring 34	3.303E-02	3.303E-02	---	FRACA (34)
SEXT	Ring 35	3.122E-02	3.122E-02	---	FRACA (35)
SEXT	Ring 36	1.505E-02	1.505E-02	---	FRACA (36)
SEXT Shape factor array from offsite area 2:					
SEXT Radii of shape factor array (used if non-circular):					
SEXT	Outer annular radius (m), ring 37:	1.560E+02	1.560E+02	---	RAD_SHAPE (37)
SEXT	Outer annular radius (m), ring 38:	1.638E+02	1.638E+02	---	RAD_SHAPE (38)
SEXT	Outer annular radius (m), ring 39:	1.771E+02	1.771E+02	---	RAD_SHAPE (39)
SEXT	Outer annular radius (m), ring 40:	1.905E+02	1.905E+02	---	RAD_SHAPE (40)
SEXT	Outer annular radius (m), ring 41:	2.038E+02	2.038E+02	---	RAD_SHAPE (41)
SEXT	Outer annular radius (m), ring 42:	2.172E+02	2.172E+02	---	RAD_SHAPE (42)
SEXT	Outer annular radius (m), ring 43:	2.306E+02	2.306E+02	---	RAD_SHAPE (43)
SEXT	Outer annular radius (m), ring 44:	2.439E+02	2.439E+02	---	RAD_SHAPE (44)
SEXT	Outer annular radius (m), ring 45:	2.573E+02	2.573E+02	---	RAD_SHAPE (45)
SEXT	Outer annular radius (m), ring 46:	2.707E+02	2.707E+02	---	RAD_SHAPE (46)
SEXT	Outer annular radius (m), ring 47:	2.840E+02	2.840E+02	---	RAD_SHAPE (47)
SEXT	Outer annular radius (m), ring 48:	2.884E+02	2.884E+02	---	RAD_SHAPE (48)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
SEXT Fractions of annular areas within AREA:					
SEXT	Ring 37	0.000E+00	0.000E+00	---	FRACA (37)
SEXT	Ring 38	2.400E-02	2.400E-02	---	FRACA (38)
SEXT	Ring 39	4.496E-02	4.496E-02	---	FRACA (39)
SEXT	Ring 40	4.160E-02	4.160E-02	---	FRACA (40)
SEXT	Ring 41	3.871E-02	3.871E-02	---	FRACA (41)
SEXT	Ring 42	3.620E-02	3.620E-02	---	FRACA (42)
SEXT	Ring 43	3.400E-02	3.400E-02	---	FRACA (43)
SEXT	Ring 44	3.205E-02	3.205E-02	---	FRACA (44)
SEXT	Ring 45	3.032E-02	3.032E-02	---	FRACA (45)
SEXT	Ring 46	2.876E-02	2.876E-02	---	FRACA (46)
SEXT	Ring 47	2.736E-02	2.736E-02	---	FRACA (47)
SEXT	Ring 48	1.325E-02	1.325E-02	---	FRACA (48)
SEXT Shape factor array from offsite area 3:					
SEXT Radii of shape factor array (used if non-circular):					
SEXT	Outer annular radius (m), ring 49:	3.719E+02	3.719E+02	---	RAD_SHAPE (49)
SEXT	Outer annular radius (m), ring 50:	3.753E+02	3.753E+02	---	RAD_SHAPE (50)
SEXT	Outer annular radius (m), ring 51:	3.891E+02	3.891E+02	---	RAD_SHAPE (51)
SEXT	Outer annular radius (m), ring 52:	4.030E+02	4.030E+02	---	RAD_SHAPE (52)
SEXT	Outer annular radius (m), ring 53:	4.169E+02	4.169E+02	---	RAD_SHAPE (53)
SEXT	Outer annular radius (m), ring 54:	4.307E+02	4.307E+02	---	RAD_SHAPE (54)
SEXT	Outer annular radius (m), ring 55:	4.446E+02	4.446E+02	---	RAD_SHAPE (55)
SEXT	Outer annular radius (m), ring 56:	4.584E+02	4.584E+02	---	RAD_SHAPE (56)
SEXT	Outer annular radius (m), ring 57:	4.723E+02	4.723E+02	---	RAD_SHAPE (57)
SEXT	Outer annular radius (m), ring 58:	4.861E+02	4.861E+02	---	RAD_SHAPE (58)
SEXT	Outer annular radius (m), ring 59:	5.000E+02	5.000E+02	---	RAD_SHAPE (59)
SEXT	Outer annular radius (m), ring 60:	5.025E+02	5.025E+02	---	RAD_SHAPE (60)
SEXT Fractions of annular areas within AREA:					
SEXT	Ring 49	0.000E+00	0.000E+00	---	FRACA (49)
SEXT	Ring 50	1.013E-02	1.013E-02	---	FRACA (50)
SEXT	Ring 51	1.980E-02	1.980E-02	---	FRACA (51)
SEXT	Ring 52	1.910E-02	1.910E-02	---	FRACA (52)
SEXT	Ring 53	1.845E-02	1.845E-02	---	FRACA (53)
SEXT	Ring 54	1.785E-02	1.785E-02	---	FRACA (54)
SEXT	Ring 55	1.728E-02	1.728E-02	---	FRACA (55)
SEXT	Ring 56	1.674E-02	1.674E-02	---	FRACA (56)
SEXT	Ring 57	1.624E-02	1.624E-02	---	FRACA (57)
SEXT	Ring 58	1.577E-02	1.577E-02	---	FRACA (58)
SEXT	Ring 59	1.533E-02	1.533E-02	---	FRACA (59)
SEXT	Ring 60	7.538E-03	7.538E-03	---	FRACA (60)

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	RESRAD Default	RESRAD computed	Parameter Name
=====					
SEXT	Shape factor array from offsite area 4:				
SEXT	Radii of shape factor array (used if non-circular):				
SEXT	Outer annular radius (m), ring 61:	2.220E+02	2.220E+02	---	RAD_SHAPE (61)
SEXT	Outer annular radius (m), ring 62:	2.275E+02	2.275E+02	---	RAD_SHAPE (62)
SEXT	Outer annular radius (m), ring 63:	2.411E+02	2.411E+02	---	RAD_SHAPE (63)
SEXT	Outer annular radius (m), ring 64:	2.547E+02	2.547E+02	---	RAD_SHAPE (64)
SEXT	Outer annular radius (m), ring 65:	2.683E+02	2.683E+02	---	RAD_SHAPE (65)
SEXT	Outer annular radius (m), ring 66:	2.820E+02	2.820E+02	---	RAD_SHAPE (66)
SEXT	Outer annular radius (m), ring 67:	2.956E+02	2.956E+02	---	RAD_SHAPE (67)
SEXT	Outer annular radius (m), ring 68:	3.092E+02	3.092E+02	---	RAD_SHAPE (68)
SEXT	Outer annular radius (m), ring 69:	3.228E+02	3.228E+02	---	RAD_SHAPE (69)
SEXT	Outer annular radius (m), ring 70:	3.364E+02	3.364E+02	---	RAD_SHAPE (70)
SEXT	Outer annular radius (m), ring 71:	3.500E+02	3.500E+02	---	RAD_SHAPE (71)
SEXT	Outer annular radius (m), ring 72:	3.536E+02	3.536E+02	---	RAD_SHAPE (72)
SEXT	Fractions of annular areas within AREA:				
SEXT	Ring 61	0.000E+00	0.000E+00	---	FRACA (61)
SEXT	Ring 62	1.693E-02	1.693E-02	---	FRACA (62)
SEXT	Ring 63	3.246E-02	3.246E-02	---	FRACA (63)
SEXT	Ring 64	3.065E-02	3.065E-02	---	FRACA (64)
SEXT	Ring 65	2.903E-02	2.903E-02	---	FRACA (65)
SEXT	Ring 66	2.758E-02	2.758E-02	---	FRACA (66)
SEXT	Ring 67	2.627E-02	2.627E-02	---	FRACA (67)
SEXT	Ring 68	2.507E-02	2.507E-02	---	FRACA (68)
SEXT	Ring 69	2.398E-02	2.398E-02	---	FRACA (69)
SEXT	Ring 70	2.298E-02	2.298E-02	---	FRACA (70)
SEXT	Ring 71	2.206E-02	2.206E-02	---	FRACA (71)
SEXT	Ring 72	1.076E-02	1.076E-02	---	FRACA (72)
=====					
OCCU	Fraction of time spent indoors on contaminated site	0.000E+00	0.000E+00	---	FIND
OCCU	Fraction of time spent outdoors on contaminated site	0.000E+00	0.000E+00	---	FOTD
OCCU	Fraction of time spent indoors in Offsite Dwelling	5.000E-01	5.000E-01	---	FINDDWELL
OCCU	Fraction of time spent outdoors in Offsite Dwelling	1.000E-01	1.000E-01	---	FOTDDWELL
OCCU	Fraction of time spent outdoors in agri. area 1	1.000E-01	1.000E-01	---	OCCUPANCY (1)
OCCU	Fraction of time spent outdoors in agri. area 2	1.000E-01	1.000E-01	---	OCCUPANCY (2)
OCCU	Fraction of time spent outdoors in agri. area 3	1.000E-01	1.000E-01	---	OCCUPANCY (3)
OCCU	Fraction of time spent outdoors in agri. area 4	1.000E-01	1.000E-01	---	OCCUPANCY (4)
=====					
RADN	Diffusion coefficient for radon gas (m/sec):				
RADN	in cover material	not used	2.000E-06	---	DIFCV
RADN	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
RADN	in fruit, grain and non-leafy vegetable field	not used	2.000E-06	---	DIFOS (1)
RADN	in leafy vegetable field	not used	2.000E-06	---	DIFOS (2)
RADN	in pasture	not used	2.000E-06	---	DIFOS (3)
RADN	in livestock grain field	not used	2.000E-06	---	DIFOS (4)
RADN	in offsite dwelling site	not used	2.000E-06	---	DIFOS (5)
RADN	in foundation material	not used	3.000E-07	---	DIFFL
RADN	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1

Menu	Parameter	User Input	Default	RESRAD computed	Parameter Name
=====					
RADN	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
RADN	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
RADN	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
RADN	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
RADN	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
RADN	Height of the building (room) (m)	not used	2.500E+00	---	HRM
RADN	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
RADN	Building interior area factor	not used	0.000E+00	---	FAI
RADN	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA (1)
RADN	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA (2)
=====					
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	Vertical dimension of mixing for vegetation (m)	not used	1.000E+00	---	HMIXV
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	C14EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	C12EVSN
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
=====					
C12	C-12 concentration in the atmosphere (g/m**3)	not used	1.800E-01	---	C12AIR
C12	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C12	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C12	C-12 concentration in meat 1 (g/g)	not used	2.400E-01	---	C12MEAT_MILK (1)
C12	C-12 concentration in milk (g/g)	not used	7.000E-02	---	C12MEAT_MILK (2)
C12	C-12 concentration in vegetable 1 (g/g)	not used	4.000E-01	---	C12PLANT (1)
C12	C-12 concentration in vegetable 2 (g/g)	not used	9.000E-02	---	C12PLANT (2)
C12	C-12 concentration in livestock feed 1 (g/g)	not used	9.000E-02	---	C12PLANT (3)
C12	C-12 concentration in livestock feed 2 (g/g)	not used	4.000E-01	---	C12PLANT (4)
=====					
H3	Humidity in air (g/cm**3)	not used	8.000E+00	---	HUMID
H3	Mass fraction of water in meat 1 (g/g)	not used	6.000E-01	---	H2OMEAT_MILK (1)
H3	Mass fraction of water in milk (g/g)	not used	8.800E-01	---	H2OMEAT_MILK (2)
H3	Mass fraction of water in vegetable 1 (g/g)	not used	8.000E-01	---	H2OPLANT (1)
H3	Mass fraction of water in vegetable 2 (g/g)	not used	8.000E-01	---	H2OPLANT (2)
H3	Mass fraction of water in livestock feed 1 (g/g)	not used	8.000E-01	---	H2OPLANT (3)
H3	Mass fraction of water in livestock feed 2 (g/g)	not used	8.000E-01	---	H2OPLANT (4)
=====					

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Summary of Pathway Selections

Pathway	³	User Selection
AA		
1 -- external gamma	³	active
2 -- inhalation (w/o radon)	³	active
3 -- plant ingestion	³	active
4 -- meat ingestion	³	active
5 -- milk ingestion	³	active
6 -- aquatic foods	³	active
7 -- drinking water	³	active
8 -- soil ingestion	³	active
9 -- radon	³	suppressed
ii		

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Contaminated Zone Dimensions	Initial Soil Concentrations, pCi/g
AAAAAAAAAAAAAAAAAAAAAAAAAAAA	AAAAAAAAAAAAAAAAAAAAAAAAAAAA
Area: 6070.04 square meters	Sr-90 2.000E+02
Thickness: 0.02 meters	
Cover Depth: 0.00 meters	

Total Dose TDOSE(t), mrem/yr										
Basic Radiation Dose Limit = 2.500E+01 mrem/yr										
Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)										
AAAAAAAAAAAAAAAAAAAAAAAAAAAA										
t (years):	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
TDOSE(t):	3.337E-02	2.593E-02	1.554E-02	7.181E-03	1.547E-03	3.086E-05	1.941E-06	1.646E-08	1.384E-13	3.547E-13
M(t):	1.335E-03	1.037E-03	6.215E-04	2.873E-04	6.189E-05	1.234E-06	7.763E-08	6.584E-10	5.537E-15	1.419E-14

Maximum TDOSE(t): 3.337E-02 mrem/yr at t = 0 years

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 0 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	0.00E+00	0	1.33E-04	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	1.33E-04	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 0 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	3.31E-02	99	8.10E-05	0	0.00E+00	0	2.28E-05	0	4.89E-06	0	2.37E-06	0	9.93E-09	0	3.34E-02	100
Total	3.31E-02	99	8.10E-05	0	0.00E+00	0	2.28E-05	0	4.89E-06	0	2.37E-06	0	9.93E-09	0	3.34E-02	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 1 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA	
Nuclide	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
AAAAAAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA
Sr-90	0.00E+00	0	2.50E-04	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	0.00E+00	0	2.50E-04	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 1 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA	
Nuclide	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
AAAAAAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA
Sr-90	2.56E-02	99	6.25E-05	0	0.00E+00	0	2.77E-05	0	5.66E-06	0	2.23E-06	0	2.63E-08	0	2.59E-02	100
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	2.56E-02	99	6.25E-05	0	0.00E+00	0	2.77E-05	0	5.66E-06	0	2.23E-06	0	2.63E-08	0	2.59E-02	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 3 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	0.00E+00	0	2.09E-04	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	2.09E-04	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 3 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	1.53E-02	98	3.72E-05	0	0.00E+00	0	3.31E-05	0	6.57E-06	0	2.01E-06	0	4.63E-08	0	1.55E-02	100
Total	1.53E-02	98	3.72E-05	0	0.00E+00	0	3.31E-05	0	6.57E-06	0	2.01E-06	0	4.63E-08	0	1.55E-02	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 6 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	0.00E+00	0	1.03E-04	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	1.03E-04	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 6 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	7.02E-03	98	1.71E-05	0	0.00E+00	0	3.49E-05	0	6.79E-06	0	1.72E-06	0	5.74E-08	0	7.18E-03	100
Total	7.02E-03	98	1.71E-05	0	0.00E+00	0	3.49E-05	0	6.79E-06	0	1.72E-06	0	5.74E-08	0	7.18E-03	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 12 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	0.00E+00	0	2.19E-05	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	2.19E-05	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 12 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	1.48E-03	96	3.61E-06	0	0.00E+00	0	3.00E-05	2	5.77E-06	0	1.28E-06	0	5.37E-08	0	1.55E-03	100
Total	1.48E-03	96	3.61E-06	0	0.00E+00	0	3.00E-05	2	5.77E-06	0	1.28E-06	0	5.37E-08	0	1.55E-03	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 30 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA	
Nuclide	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
AAAAAAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA
Sr-90	0.00E+00	0	2.05E-07	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	0.00E+00	0	2.05E-07	1	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 30 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA	
Nuclide	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
AAAAAAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA	AAAAAAAA	AAA
Sr-90	1.42E-05	46	3.51E-08	0	0.00E+00	0	1.33E-05	43	2.55E-06	8	5.40E-07	2	2.45E-08	0	3.09E-05	100
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	1.42E-05	46	3.51E-08	0	0.00E+00	0	1.33E-05	43	2.55E-06	8	5.40E-07	2	2.45E-08	0	3.09E-05	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 75 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	0.00E+00	0	1.73E-12	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
Total	0.00E+00	0	1.73E-12	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 75 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	1.99E-08	1	1.66E-10	0	0.00E+00	0	1.56E-06	80	2.99E-07	15	6.31E-08	3	2.87E-09	0	1.94E-06	100
Total	1.99E-08	1	1.66E-10	0	0.00E+00	0	1.56E-06	80	2.99E-07	15	6.31E-08	3	2.87E-09	0	1.94E-06	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 175 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA	
Nuclide	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
AAAAAAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA
Sr-90	0.00E+00	0	9.17E-24	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	0.00E+00	0	9.17E-24	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
in mrem/yr and as a Percentage of Total Dose at t = 175 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA		AAAAAAAAAAAA	
Nuclide	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%	Dose	%
AAAAAAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA	AAAAAAA	AAA
Sr-90	1.69E-10	1	1.42E-12	0	0.00E+00	0	1.32E-08	80	2.53E-09	15	5.35E-10	3	2.45E-11	0	1.65E-08	100
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	1.69E-10	1	1.42E-12	0	0.00E+00	0	1.32E-08	80	2.53E-09	15	5.35E-10	3	2.45E-11	0	1.65E-08	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 420 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0	0.00E+00	0

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 420 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	1.44E-15	1	1.21E-17	0	0.00E+00	0	1.11E-13	80	2.13E-14	15	4.50E-15	3	2.09E-16	0	1.38E-13	100
iiiiiiii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii	iiiiiiii	iii
Total	1.44E-15	1	1.21E-17	0	0.00E+00	0	1.11E-13	80	2.13E-14	15	4.50E-15	3	2.09E-16	0	1.38E-13	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 970 years

From releases to ground water and to surface water

	Ground		Fish		Radon		Plant		Meat		Milk		Soil		Water	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	9.37E-16	0	0.00E+00	0	0.00E+00	0	1.31E-13	37	8.04E-14	23	5.00E-14	14	1.35E-16	0	9.25E-14	26
Total	9.37E-16	0	0.00E+00	0	0.00E+00	0	1.31E-13	37	8.04E-14	23	5.00E-14	14	1.35E-16	0	9.25E-14	26

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 in mrem/yr and as a Percentage of Total Dose at t = 970 years

Directly from primary contamination and from release to atmosphere (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil		All Pathways*	
Radio-	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Nuclide	Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %		Dose %	
Sr-90	6.02E-27	0	8.98E-18	0	0.00E+00	0	4.48E-25	0	8.61E-26	0	1.82E-26	0	8.75E-28	0	3.55E-13	100
Total	6.02E-27	0	8.98E-18	0	0.00E+00	0	4.48E-25	0	8.61E-26	0	1.82E-26	0	8.75E-28	0	3.55E-13	100

*Sum of dose from all releases and from primary contamination.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters

Attachment #6

File : BAYO CANYON 200 RESIDENT FARMER.ROF

Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent	Product	Thread	DSR(j,t) (mrem/yr)/(pCi/g)									
(i)	(j)	Fraction	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
Sr-90+D	Sr-90+D	1.000E+00	1.669E-04	1.296E-04	7.769E-05	3.591E-05	7.736E-06	1.543E-07	9.704E-09	8.230E-11	6.921E-16	1.774E-15

The DSR includes contributions from associated (half-life 6 30 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide	(i)	t=	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
Sr-90			1.498E+05	1.928E+05	3.218E+05	6.963E+05	3.231E+06	1.620E+08	2.576E+09	3.038E+11	*1.366E+14	*1.366E+14

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 0 years

Nuclide	Initial	tmin	DSR(i,tmin)	G(i,tmin)	DSR(i,tmax)	G(i,tmax)
(i)	(pCi/g)	(years)		(pCi/g)		(pCi/g)
Sr-90	2.000E+02	0	1.669E-04	1.498E+05	1.669E-04	1.498E+05

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
 File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Thread Fraction Indicated

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr										
(j)	(i)		t=	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00	3.337E-02	2.593E-02	1.554E-02	7.181E-03	1.547E-03	3.086E-05	1.941E-06	1.646E-08	1.384E-13	3.547E-13	
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration
 Parent Nuclide and Thread Fraction Indicated

Nuclide	Parent	THF(i)	S(j,t), pCi/g										
(j)	(i)		t=	0.000E+00	1.000E+00	3.000E+00	6.000E+00	1.200E+01	3.000E+01	7.500E+01	1.750E+02	4.200E+02	9.700E+02
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00	2.000E+02	1.543E+02	9.190E+01	4.221E+01	8.898E+00	8.324E-02	7.047E-07	3.769E-18	5.605E-45	5.605E-45	
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

THF(i) is the thread fraction of the parent nuclide.

Parent Dose Report

Title : RESRAD-OFFSITE Default Parameters
File : BAYO CANYON 200 RESIDENT FARMER.ROF

Attachment #6

Run Time Information

ResOCalc.EXE execution began at 11:42 on 10/03/2019

ResOCalc.EXE execution ended at 11:42 on 10/03/2019

ResOCalc.EXE execution time 1.420 seconds

Terrestrial BCG Report for Level 1

Title: Bayo Canyon 200

(Summed) Total Ratio for Limiting Organism: **8.89E+00**

(Summed) Water Ratio for Limiting Organism: 0.00E+00

(Summed) Soil Ratio for limiting Organism: **8.89E+00**

Terrestrial Animal									
Water					Soil				TOTAL
Nuclide	Concentration (pCi/L)	BCG (pCi/L)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Ratio
Sr-90	0	5.45E+04	0.00E+00	Yes	200	2.25E+01	8.89E+00	Yes	8.89E+00
Summed	-	-	0.00E+00	-	-	-	8.89E+00	-	8.89E+00

Terrestrial Plant									
Water					Soil				TOTAL
Nuclide	Concentration (pCi/L)	BCG (pCi/L)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Ratio
Sr-90	0	3.52E+07	0.00E+00	No	200	3.58E+03	5.59E-02	No	5.59E-02
Summed	-	-	0.00E+00	-	-	-	5.59E-02	-	5.59E-02

Terrestrial BCG Report for Level 2

Title: Bayo Canyon 200

(Summed) Total Ratio for Limiting Organism: **8.88E+00**

(Summed) Water Ratio for Limiting Organism: 0.00E+00

(Summed) Soil Ratio for limiting Organism: **8.88E+00**

Terrestrial Animal									
Water					Soil				TOTAL
Nuclide	Concentration (pCi/L)	BCG (pCi/L)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Ratio
Sr 90	0	5.45E+04	0.00E+00	Yes	200	2.25E+01	8.88E+00	Yes	8.88E+00
Summed	-	-	0.00E+00	-	-	-	8.88E+00	-	8.88E+00

Terrestrial Plant									
Water					Soil				TOTAL
Nuclide	Concentration (pCi/L)	BCG (pCi/L)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Ratio
Sr-90	0	3.52E+07	0.00E+00	No	200	3.58E+03	5.58E-02	No	5.58E-02
Summed	-	-	0.00E+00	-	-	-	5.58E-02	-	5.58E-02

BCG Report for Level 3

Title: Bayo Canyon 200

(Summed) Total Ratio for Limiting Organism: 5.61E-02

(Summed) Water Ratio for Limiting Organism: 0.00E+00

(Summed) Soil Ratio for limiting Organism: 5.61E-02

(Summed) Sediment Ratio for Limiting Organism: 0.00E+00

	Terrestrial Animal												
	Water				Soil				Sediment				TOTAL
Nuclide	Concentration (pCi/L)	BCG (pCi/L)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Ratio
Sr-90	0	1.36E+07	0.00E+00	Yes	200	5.63E+03	3.55E-02	No	0	9.13E+27	0.00E+00	No	3.55E-02
Summed	-	-	0.00E+00	-	-	-	3.55E-02	-	-	-	0.00E+00	-	3.55E-02

	Terrestrial Plant												
	Water				Soil				Sediment				TOTAL
Nuclide	Concentration (pCi/L)	BCG (pCi/L)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Concentration (pCi/g)	BCG (pCi/g)	Ratio	Limiting Organism	Ratio
Sr-90	0	3.46E+07	0.00E+00	No	200	3.57E+03	5.61E-02	Yes	0	3.65E+26	0.00E+00	Yes	5.61E-02
Summed	-	-	0.00E+00	-	-	-	5.61E-02	-	-	-	0.00E+00	-	5.61E-02

Dose Report for Level 3 in rad/d

Title: Bayo Canyon 200

Terrestrial Animal												
Nuclide	External				Internal				Total			
	ext_Wtr	ext_Soil	ext_Sed	ext_Sum	int_Wtr	int_Soil	int_Sed	int_Sum	tot_Wtr	tot_Soil	tot_Sed	tot_Sum
Sr-90	0.00E+00	4.63E-05	0.00E+00	4.63E-05	0.00E+00	3.51E-03	0.00E+00	3.51E-03	0.00E+00	3.55E-03	0.00E+00	3.55E-03
Summed	0.00E+00	4.63E-05	0.00E+00	4.63E-05	0.00E+00	3.51E-03	0.00E+00	3.51E-03	0.00E+00	3.55E-03	0.00E+00	3.55E-03

Terrestrial Plant												
Nuclide	External				Internal				Total			
	ext_Wtr	ext_Soil	ext_Sed	ext_Sum	int_Wtr	int_Soil	int_Sed	int_Sum	tot_Wtr	tot_Soil	tot_Sed	tot_Sum
Sr-90	0.00E+00	1.16E-02	0.00E+00	1.16E-02	0.00E+00	4.45E-02	0.00E+00	4.45E-02	0.00E+00	5.61E-02	0.00E+00	5.61E-02
Summed	0.00E+00	1.16E-02	0.00E+00	1.16E-02	0.00E+00	4.45E-02	0.00E+00	4.45E-02	0.00E+00	5.61E-02	0.00E+00	5.61E-02

> If the Tissue-Concentration option is selected (i.e., a tissue concentration was entered rather than a BIV value or allometric parameters in the organism 'input source' and 'input' tabs), then the internal dose to the organism from the radionuclide is calculated based on this concentration.

- This dose is not attributed to any media, i.e. it is listed in the dose table under the heading 'Int_Sum'.

- The external dose from each medium, calculated based on the user input media concentrations, are listed in the dose table under the headings for each medium (Water, Soil, or Sediment).

- The total external dose, ext_sum, is added into the total internal dose, int_sum (Tissue Concentration) to get the total dose which is reported under the heading 'tot_Sum'.

> If the tissue concentration input option is not used, then the calculated internal and external doses based on media concentrations are reported.