

RS-14-031

10 CFR 20.2002

March 18, 2014

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Dresden Nuclear Power Station, Units 2 and 3  
Renewed Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249


Subject: Request to Dispose of Slightly Contaminated Soil In Accordance With  
10 CFR 20.2002

In accordance with 10 CFR 20.2002, "Method for obtaining approval of proposed disposal procedures," Exelon Generation Company, LLC (EGC), requests NRC approval of the attached request to dispose of slightly contaminated soil onsite at Dresden Nuclear Power Station, Units 2 and 3 (DNPS). Specifically, EGC requests permission to spread the current inventory of approximately 6,000 cubic meters (m<sup>3</sup>) of soil as described in Attachment 1, and approval to conduct future disposal operations onsite within the bounds of the radiological dose assessment provided in Attachment 2, not to exceed a total volume of 20,000 m<sup>3</sup>. The Attachment 2 analysis determined that disposing of the soil in the proposed manner will limit the radiological dose received by the maximally exposed individual to less than five millirem per year both during and after NRC-licensed activities.

EGC requests approval of this request by March 18, 2015.

There are no regulatory commitments contained within this letter. Should you have any questions concerning this letter, please contact Mr. Mitchel A. Mathews at (630) 657-2819.

Respectfully,



Patrick R. Simpson  
Manager – Licensing  
Exelon Generation Company, LLC

Attachments:

1. Evaluation of Proposed 10 CFR 20.2002 Disposal Procedure
2. DRE-13-001, "Dresden On-Site Soil Disposal Assessment and Derivation of Single Soil DCGL," Revision 1

**ATTACHMENT 1**  
**Evaluation of Proposed 10 CFR 20.2002 Disposal Procedure**

**Subject: Request to Dispose of Slightly Contaminated Soil In Accordance With  
10 CFR 20.2002**

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**1.0 BACKGROUND**

As of March 2014, Exelon Generation Company, LLC (EGC) has accumulated approximately 6,000 cubic meters (m<sup>3</sup>) of soils containing trace quantities of residual radioactive materials on-site at Dresden Nuclear Power Station (DNPS), Units 2 and 3. The majority of the soils collected were generated from the following DNPS projects:

2011-2012	Condensate storage tank level instrumentation piping replacement
2011	Radwaste tank farm piping replacement
2010	Unit 3 low pressure coolant injection system pipe replacement
2010	Units 2 and 3 condensate transfer/make-up pipe replacement and carbon fiber wrap
2009	Condensate Tank 105A pipe repair
2006	Units 2 and 3 high pressure coolant injection pipe replacement

Initial cost estimates projected more than \$4,000,000 for transportation and disposal of the current inventory of soils excluding on-site labor and management costs.

The soils contain trace quantities of radionuclides (i.e., byproduct material) which analysis has determined is well below the license termination criteria defined in 10 CFR 20.1402, "Radiological criteria for unrestricted use." Therefore, disposal of the soil in the proposed manner is not likely to require remediation upon facility license termination.

Considering the high costs of shipping and disposal as well as the minimal radiological hazard associated with the soils, on-site disposal is highly desirable.

A dose assessment analysis, included as Attachment 2, was performed to determine the feasibility of disposing of this material onsite in accordance with 10 CFR 20.2002, "Method for obtaining approval of proposed disposal procedures." The conceptual models employed for this dose assessment are detailed in the RESRAD Version 6 User's Manual. The specific model employed for this analysis, RESRAD Version 6.5, was developed under the joint sponsorship of the U. S. Department of Energy and the NRC for site-specific dose assessments of residual radioactivity.

As described in Attachment 2, Section 2.1, Derived Concentration Guideline Levels (DCGLs) are radionuclide-specific concentration limits used by licensees during decommissioning activities to achieve the regulatory dose standards that permit the release of the property and allow termination of the operating license by the NRC. The analysis used radionuclide-specific DCGLs to verify that the total dose in millirem per year (mrem/yr) from all radionuclides present in the material proposed for disposal will meet the requirements of 10 CFR 20 Subpart E, "Radiological Criteria for License Termination," by using the sum of fractions (SOF).

As discussed in Attachment 2, Section 3.2, "Critical Groups, Scenarios, Pathways, Identification and Selection," the derived DCGLs from three exposure scenarios were evaluated. The three evaluated scenarios for exposure were "The Industrial Worker (i.e., individual exposed during EGC licensed activities)," "The Recreationist," and "The Resident Farmer."

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### **Evaluation of Proposed 10 CFR 20.2002 Disposal Procedure**

The analysis found that the Resident Farmer scenario results in the most restrictive DCGLs. Therefore, by adopting the Resident Farmer based DCGLs and ensuring the average soil concentrations do not exceed 20% with SOF applied to meet as low as reasonably achievable (ALARA) principles, the other scenario doses may be determined by multiplying the five mrem/yr associated with being 20% of the 25 mrem/yr basic dose limit by a percentage of the Resident Farmer exposure.

For example, consider if the soil averaged 0.5642 pico curies per gram of Cobalt-60 (i.e., 20% of the DCGL):

- The Resident Farmer scenario would result in five mrem/yr.
- The Industrial Worker would result in five mrem/yr x 28.889% = 1.4 mrem/yr.
- The Recreationist would result in five mrem/yr x 2.032% = 0.1 mrem/yr

In summary, soils that average 20% of the Resident Farmer DCGLs will result in a maximum exposure of five mrem/yr and dose to an Industrial Worker or Recreationist of less than five mrem/yr.

## **2.0 DESCRIPTION OF THE WASTE CONTAINING LICENSED MATERIAL**

### **2.1 Physical and Chemical Properties of Material Important to Risk Evaluation**

As described in Attachment 2, Section 3.1, "Source Term," the waste associated with this request is restricted to soils and sewage treatment drying bed wastes. The residual byproduct materials are primarily solid metal oxides, and there are no other environmentally hazardous chemicals or constituents associated with this request.

### **2.2 Proposed Manner of Waste Disposal**

EGC proposes a disposal of the materials described above in the Restricted Area of the DNPS Owner Controlled Area as defined in 10 CFR 20.1003. An overhead photo of the proposed disposal site is shown in Attachment 2, Section 3.1, Figure 1. The proposed disposal site is a 100 meter by 100 meter plot of land which will accommodate the disposal of soil up to two meters high. The materials will be sampled and evaluated to ensure compliance with the proposed procedural requirements. The material, if sample results indicate acceptable, will be transferred to the disposal site, and evenly graded to a depth not to exceed two meters. The materials will then be over-seeded to address EGC Storm Water Management Program concerns (e.g., silt run-off in to the river) and to ensure the material remains on the disposal site. The disposal will be controlled by procedure, and will be posted with signage that will require contacting DNPS Radiation Protection Department personnel prior to disturbing the soil within the proposed disposal site.

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**2.3     Conditions of Waste Disposal**

EGC proposes to limit the disposal to waste containing licensed material that does not exceed the DCGLs with the SOF rule applied as described in Attachment 2, Enclosure 1, "Single Soil DCGL that Results in 25 mrem/yr to an Average Member of the Critical Group."

To demonstrate adherence with NRC and industry ALARA radiological dose principles, the average concentration of the disposed volume of licensed material will be kept to  $\leq 20\%$  of the DCGLs (i.e., with the sum of fractions rule applied).

The waste proposed for disposal will meet the State of Illinois Environment Protection Agency (IL EPA) definition of "uncontaminated soil." Materials suspected of containing environmentally hazardous chemical constituents will be sampled and analyzed to determine if hazardous substances are present. If identified, the hazardous material will be sequestered, contained, and disposed of in accordance with IL EPA requirements and EGC procedures.

**3.0     ANALYSIS AND EVALUATION OF PERTINENT INFORMATION ON NATURE OF THE ENVIRONMENT**

The pertinent information related to the nature of the environment that were utilized in the RESRAD, Version 6.5 analysis are described in Attachment 2, Section 3.4, "Calculations and Input Parameters."

**4.0     NATURE AND LOCATION OF OTHER POTENTIALLY AFFECTED LICENSED AND UNLICENSED FACILITIES**

The materials proposed for disposal will remain within the DNPS Restricted Area. The nearest facility is the General Electric (GE) Boiling Water Reactor (BWR) Spent Fuel Storage facility which is approximately 0.7 miles to the southwest of DNPS. No impact to this facility or any other licensed or unlicensed facility is expected.

**5.0     ANALYSIS AND PROCEDURES TO ENSURE THAT DOSES ARE MAINTAINED ALARA AND WITHIN THE 10 CFR 20 DOSE LIMITS**

DCGLs have been determined for nuclides that are proposed for disposal. The DCGLs were calculated assuming that a hypothetical "Resident Farmer" would receive a maximum of 25 mrem/yr.

The limit of 25 mrem/yr was chosen to ensure that no legacy issues are created related to the guidance found in 10 CFR 20.1402. This will ensure that the DNPS site will meet applicable public dose requirements at the time of license termination. To further demonstrate compliance with NRC and industry ALARA principles, the average of the disposed volume of licensed

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material will be limited to ensure average concentration of radionuclides is  $\leq 20\%$  of the limiting DCGLs using the sum of fractions rule.

This methodology is consistent with the guidance provided in NUREG-1757, Volume 2, "Consolidated Decommissioning Guidance: Characterization, Survey, and Determination of Radiological Criteria," Revision 1.

## **6.0 RECORDKEEPING REQUIREMENTS**

EGC complies with 10 CFR 20.2108 recordkeeping requirements through the use of the Quality Assurance Topical Report (QATR) which describes retention of records required by regulation. These requirements are implemented through Exelon Procedures RM-AA-101, "Records Management Program," and RM-AA-101-1004, "Standard Records Retention Schedule."

EGC records associated with the proposed onsite disposal will be recorded and maintained until the NRC terminates the license requiring the records. Records of the disposal that will be maintained include the following:

1. Radionuclide concentrations detected in the material
2. Total volume of material disposed
3. Total radioactivity in the disposal operation as well as the total radioactivity accumulated on the disposal plot at the time of spreading
4. Drawings and/or photographs showing the plot of land on which the material was applied; and
5. Dose calculations or maximum allowable accumulated activity determinations required to demonstrate that the approved dose values have not been exceeded.

## **7.0 REFERENCES**

The references associated with the analysis are located in Attachment 2, Section 4, "References."

## **ATTACHMENT 2**

### **Dresden Nuclear Power Station Request to Dispose of Slightly Contaminated Soil In Accordance With 10 CFR 20.2002**

DRE-13-001, "Dresden On-Site Soil Disposal Assessment and Derivation of Single Soil  
DCGL," Revision 1

**DRESDEN ON-SITE SOIL DISPOSAL DOSE ASSESSMENT AND**  
**DERIVATION OF SINGLE SOIL DCGLS**

<b>Prepared by: Jeffrey J Cady, MS, CHP, NRRPT</b> (Print & Sign) <i>Signature on file</i>	<b>Date:</b> <b>01/15/2014</b>
<b>Reviewed by: Jack McCarthy, CHP, NRRPT</b> (Print & Sign) <i>Signature per attached e-mail notification</i>	<b>Date:</b> <b>01/15/2014</b>
<b>Approved by: Jeffrey J Cady, MS, CHP, NRRPT</b> (Print & Sign) <i>Signature on file</i>	<b>Date:</b> <b>01/15/2014</b>



## 1. **PURPOSE**

- 1.1. The Dresden Nuclear Power Station is evaluating an on-site disposal option of soils containing residual levels of plant licensed material. This technical paper documents a dose assessment and related assumptions in support of the on-site disposal evaluation and application.
- 1.2. Dresden commits to using radionuclide-specific Derived Concentration Guideline Levels (DCGL) to ensure that the total dose from all radionuclides will meet the requirements of 10 CFR 20 Subpart E by using the sum of fractions (SOF).

## 2. **TERMS AND DEFINITIONS**

- 2.1. **Derived Concentration Guideline Level (DCGL).** Radionuclide-specific concentration limits used by the licensee during decommissioning to achieve the regulatory dose standard that permits the release of the property and termination of the license.

## 3. **DOSE ASSESSMENT**

Note: This outline is based on the NRC's evaluation criteria described in NUREG-1757, Vol.2, Rev. 1 Section 5.2 Unrestricted Release Using Site-Specific Information (Decommissioning Groups 4-5)

### 3.1. **Source Term**

Disposal Volume - The total disposal volume being requested is 20,000 m<sup>3</sup> of soils and sludges. As of January 2013, Dresden has accumulated on-site approximately 6,000 m<sup>3</sup> of soils containing trace quantities of residual radioactive materials. The majority of the collected soils were generated from the following projects:

- 2011-2012 CST Level Instrumentation Piping Replacement
- 2011 RW Tank Farm Piping Replacement
- 2010 U3 LPCI Pipe Replacement
- 2010 U2/3 Condensate Transfer/Make-Up Pipe Replacement & Carbon Fiber Wrap
- 2009 Condensate Tank 105A Pipe Repair
- 2006 2/3 HPCI Pipe Replacement

Documentation indicates that plant licensed material was detected in soil samples taken from each of these projects.

Ten samples were collected from the accumulated soil and were analyzed by Teledyne Brown Engineering for radionuclides associated with the 10 CFR Part 61 program. A summary of the sample results is provided in the table below.

Table 1 – Summary of Sample Results from Current Soil Inventory

Radionuclide	Minimum (pCi/g)	Average (pCi/g)	Standard Deviation (1 $\sigma$ )	Maximum (pCi/g)
K-40 (naturally occurring)	7.92X10 <sup>0</sup>	1.02X10 <sup>0</sup>	1.26 X10 <sup>0</sup>	1.17X10 <sup>+1</sup>
Co-60	7.42X10 <sup>-2</sup>	1.76X10 <sup>-1</sup>	1.40X10 <sup>-1</sup>	4.01X10 <sup>-1</sup>
Cs-137	4.62X10 <sup>-1</sup>	1.03X10 <sup>0</sup>	5.53X10 <sup>-1</sup>	2.33X10 <sup>0</sup>
Ra-226 (naturally occurring)	1.35X10 <sup>0</sup>	1.35X10 <sup>0</sup>	3.53 X10 <sup>-1</sup>	1.35X10 <sup>0</sup>
Th-232 (naturally occurring)	2.12X10 <sup>-1</sup>	3.48X10 <sup>-1</sup>	7.86X10 <sup>-2</sup>	4.81X10 <sup>-1</sup>
U-235 (naturally occurring)	8.17X10 <sup>-2</sup>	8.17X10 <sup>-2</sup>	2.15X10 <sup>-2</sup>	8.17X10 <sup>-2</sup>

Other nuclides analyzed for but determined to be less than MDA include:

Be-7, Cr-51, Mn-54, Co-57, Co-58, Fe-59, Zn-65, Nb-94, Nb-95, Zr-95, Mo-99, Ru-103, Ru-106, Ag-110m, Sn-113, Sb-124, Sb-125, I-131, Cs-134, Ba-140, La-140, Ce-141, Ce-144, Eu-154, Hf-181, Ra-226, Np-237, Am-241, Cm-242, Cm-243/244, Pu-238, Pu-239/240, Pu-241, Pu-242.

The Cs-137 value includes the background contribution from Cesium in the environment as a result of human activities (e.g., atomic bomb testing.) The values listed above are consistent with typical environmental values published in other peer reviewed literature. For comparison, Cs-137 concentration in the top layer of soils in Nebraska have been demonstrated to be from none detectable to 216 Bq/kg (6 pCi/g) (Weesner et al.)

Disposal Location - The assumed source term for this assessment is based on a 100 meter (m) by 100 m by 2 m plot of soil located on the Owner Controlled Area (OCA) on the north side of the property. This allows for a total disposal capacity of 20,000 m<sup>3</sup>. The proposed foot print is shown in the Figure 1.

Figure 1 – Proposed On-site Disposal Area



#### Residual Radioactivity Spatial Variability

- For modeling purposes, the plot of soil will be assumed to have a homogenous concentration of contamination throughout the 20,000 m<sup>3</sup> of soil.

#### Radionuclides of Concern

- Historical samples demonstrate that the two primary nuclides of concern are Co-60 and Cs-137.
- DCGLs are developed in this paper for a variety of nuclides based on some of the typical nuclides included on 10 CFR 61 off-site vendor analysis reports. Note that nuclides whose half-lives are less than 60 days have been omitted.

Chemical Form - Considering the source of soil contamination is primarily from excavated soils associated with the repair of leaking piping, the contamination in the soil is expected to be primarily solid metal oxides and tritiated water from residual moisture content of the soil.

Environmentally Hazardous Constituents – The modeling associated with this dose evaluation does not address other environmentally hazardous constituents. There is no intent to request authorization to dispose of materials containing environmentally hazardous constituents at this time.

### 3.2. Critical Groups, Scenarios, Pathways, Identification and Selection

#### Scenario and Critical Group Identification

Three exposure scenarios are included in this document.

- To model dose upon license termination, a Resident Farmer scenario is appropriate and a conceivable use for the land upon license termination. Unless explicitly stated in section 3.4 of this document, the default parameters associated with RESRAD Version 6 were utilized. Those parameters that were changed are based on site specific data.
- The Industrial Worker use scenario is included to evaluate potential dose to workers over the remaining life of the license.
- Dresden allows employees to bow hunt on this area of the property therefore the Recreational User use scenario was included to evaluate any additional exposure to those employees that utilize the benefit.

Exposure Pathways – The exposure pathways associated with each of the three scenarios evaluated are listed in Table 2.

Table 2 – Summary of Scenarios and Applicable Pathways

Pathway	Resident Farmer	Industrial Worker	Recreationist
Direct radiation from byproduct materials in the soil	Yes	Yes	Yes
Inhalation of re-suspended dust	Yes	Yes	Yes
Inhalation of radon and its decay products	Yes	Yes	Yes
Ingestion of food from crops grown in the soil containing byproduct materials	Yes	No	No
Ingestion of milk from livestock raised in the area containing byproduct materials	Yes	No	No
Ingestion of meat from livestock raised in the area containing byproduct materials	Yes	No	Yes
Ingestion of fish from a nearby pond containing byproduct materials from water percolating through the soil containing byproduct materials	Yes	No	Yes
Ingestion of water from a well or pond containing byproduct materials from water percolating through the soil containing byproduct materials, and	Yes	No	No
Ingestion of soil containing byproduct materials	Yes	Yes	Yes

- 3.3. Conceptual Models - The conceptual models employed for this dose assessment are detailed in the RESRAD Version 6 User's Manual. The RESRAD Version 6.5 was developed under the joint sponsorship of the U.S. Department of Energy and the U.S. Nuclear Regulatory Commission for site-specific dose assessment of residual radioactivity.

### 3.4. Calculations and Input Parameters

Unless otherwise specified in Table 3, default models and conceptual parameters associated with RESRAD Version 6.5 were used. All parameters were evaluated and were found to be a reasonable representation of Dresden's conditions or of a conservative nature.

The site geological data from Dresden's UFSAR is summarized in Figure 2. The Information was used to select various soil parameters. The following generalizations are made to support the dose assessment:

- The contaminated zone is assumed to be 2 m thick and of a sandy-loam soil consistency.
- The mantle is the unsaturated layer and is assumed to be 1.7 m thick and of a sandy-loam soil consistency.
- A single saturated layer, 12 m thick, will represent both the Spoon Formation (sandstone) and the Fort Atkinson Limestone formation which formulates the upper aquifer. The characteristics of sandstone provide more conservative model parameters and will thus be used to model the saturated layer.
- The Scales shale represents an impermeable layer and separates the lower and upper aquifers in this geological region. The dose assessment assumes that all water is taken from the upper aquifer and represents a conservative assumption.

Figure 2 – Summary of Site Geological Data

	0-10 feet (0 - 3.0 m)	Mantle (Glacial Drift)
Spoon Formation	0-45 feet (0 - 13.7 m)	Spoon Formation of Pennsylvania age (Sand Stone)
	Thin Soil	
Marquette Formation	20-45 feet (6.1 - 13.7 m)	Upper Limestone (the Fort Atkinson Limestone)
	70 feet (21.3 m)	Lower Shale Member (the Scales shale)
	~1000 feet (304.9 m)	Limestone Dolomites Sandstones
	Precambrian Crystalline basement	

The following table describes the parameters that were changed from the default value and the reason for the change.

Table 3 – Site-Specific Modeling Parameters and Assumptions.

Input Screen	Parameter	Default Value	Actual Value	Reason
B-1	Dose conversion factors for inhalation, mrem/pCi	Note that there may be differences between the “Base Case” and the “Current Value” for DCFs; that include daughter products that are also radioactive, RESRAD sums the DCFs of the parent and some of the daughter products as described in the RESRAD User’s Manual.		
D-1	Dose conversion factors for ingestion, mrem/pCi	Note that there may be differences between the “Base Case” and the “Current Value” for DCFs; that include daughter products that are also radioactive, RESRAD sums the DCFs of the parent and some of the daughter products as described in the RESRAD User’s Manual.		
R012	Initial principle radionuclide (one entry per each radionuclide)	100	1	The purpose of this analysis is to establish single soil DCGLs which is independent of the values entered here. One pCi/g was selected as it is much closer to realistic environmental concentrations that may be encountered in this case.
R013	Density of contaminated zone (g/cm <sup>3</sup> )	1.5	1.44	Based on Sandy loam in Table 2.1 the RESRAD Data Collection Manual
R013	Contaminated zone b parameter	5.3	4.38	Based on Sandy loam in Table E.2 of the RESRAD User’s Manual
R014	Saturated zone total porosity	0.4	0.34	Based on Sandstone (medium) in Table E.8 of the RESRAD User’s Manual
R014	Saturated zone effective porosity	0.2	0.27	Based on Sandstone (medium) in Table E.8 of the RESRAD User’s Manual



Input Screen	Parameter	Default Value	Actual Value	Reason
R014	Saturated zone b parameter	5.3	4.05	Based on Sand in Table E.2 of the RESRAD User's Manual
R015	Unsaturated zone thickness (m).	4	1.7	Site specific data.
R015	Unsaturated zone soil density (g/cm <sup>3</sup> )	1.5	1.44	Based on Sandy loam in Table 2.1 the RESRAD Data Collection Manual
R015	Unsaturated zone b parameter	5.3	4.38	Based on Sandy loam in Table E.2 of the RESRAD User's Manual
R017	Inhalation rate (m <sup>3</sup> /yr)	8,400	8,400 11,400 14,000	Resident Farmer default Industrial Worker default Recreationist default
R017	Exposure duration (yr)	30	30 25 30	Resident Farmer default Industrial Worker default Recreationist default
R017	Fraction of time spent indoors	0.50	0.50 0.17 -	Resident Farmer default Industrial Worker default Recreationist default
R017	Fraction of time spent outdoors (on site)	0.25	0.25 0.06 0.006	Resident Farmer default Industrial Worker default Recreationist default

### 3.5. DCGL Values

The results of the analyses are included in:

- Enclosure 4, RESRAD Version 6.5 Report for “Dresden 10CFR20.2002 Pad DCGL Evaluation – Resident Farmer Scenario”, January 10, 2014.
- Enclosure 5, RESRAD Version 6.5 Report for “Dresden 10CFR20.2002 Pad DCGL Evaluation – Industrial Worker Scenario”, January 10, 2014.
- Enclosure 6, RESRAD Version 6.5 Report for “Dresden 10CFR20.2002 Pad DCGL Evaluation – Recreationist Scenario”, January 10, 2014.

The most restrictive single soil DCGLs are referenced from report page 47 of Enclosure 4, page 45 of Enclosure 5, and page 47 of Enclosure 6 and are reproduced for each nuclide in Enclosure 2. Based on the comparison, the Resident Farmer Scenario DCGLs were chosen as the appropriate DCGLs for permit application and are reproduced in Enclosure 1 for clarity. Refer to Section 3.7 of this document for appropriate use of the DCGLs.

### 3.6. Uncertainty Analysis

The guidance provided in NUREG-1757, Vol. 2, Rev. 1 states that a qualitative assessment of uncertainty analysis may be sufficient for relatively simple modeling scenarios. The model and assumptions included in this dose assessment and derivation were based on the most conservative critical use group (i.e., the Resident Farmer) and assumed conservative soil parameters that to derive at DCGL that will most likely overestimate the dose to the average member of the critical group might receive.

### 3.7. Compliance with Regulatory Criteria

*10CFR20.1402 Radiological criteria for unrestricted use* states that a site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background results in a TEDE to an average member of the critical group does not exceed 25 mrem per year.

For soils containing multiple radionuclides, a SOFs technique may be applied using the measured concentrations and the single soil DCGLs listed in Enclosure 1. Where the SOFs result in a value of  $\leq 1$ , compliance is appropriately demonstrated and doses are not expected to exceed 25 mrem per year.

10CFR20.1402 Radiological criteria for unrestricted use also states that residual radioactivity must be reduced to levels that are as low as reasonably achievable (ALARA). NUREG-1757, Vol. 2, Rev. 1 provides additional guidance and states that an acceptable approach to demonstrate ALARA is to establish a pre-determined acceptable dose limit or concentration guidelines. To demonstrate ALARA, an administrative limit may be imposed when applying the SOFs rule to the average soil concentrations such that the sum is  $\leq 0.2$ . This would ensure that the estimated dose to an average member of the critical group does not exceed 5 mrem per year.

#### 4. **REFERENCES**

- 4.1. 10CFR20 Subpart E – Radiological Criteria for License Termination
- 4.2. 10CFR61 Subpart E – Radiological Criteria for License Termination
- 4.3. ANL/EAD-4, “User’s Manual for RESRAD Version 6.” Argonne National Laboratory, Argonne, IL. July 2001.
- 4.4. C. Yu, C. Loureiro, J.-J. Cheng, L.G. Jones, Y.Y. Wang, Y.P. Chia,\* and E. Faillace, “Data Collection Handbook to Support Modeling Impacts of Radioactive Material in Soil.” Argonne National Laboratory, Argonne, IL. April 1993.
- 4.5. Dresden Power Station Updated Final Safety Analysis Report (UFSAR) Revision 9, Dresden Nuclear Power Station, Unit 2 and 3 Facility Operating License Nos. (Renewed) DPR-19 (Unit 2) and DPR-25 (Unit 3) NRC Docket Nos. STN 50-237 (Unit 2) and 50-249 (Unit 3), June 2011
- 4.6. NUREG–1575, Rev. 1, “Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).” EPA 402–R–97–016, Rev. 1, DOE/EH–0624, Rev. 1. U.S. Department of Defense, U.S. Department of Energy, U.S. Environmental Protection Agency, and NRC: Washington, DC. August 2000. Corrected pages for MARSSIM, Revision 1 (August 2000) with the June 2001 updates, are available at the EPA Web site: <http://www.epa.gov/radiation/marssim>.
- 4.7. NUREG-1757, Vol. 2, Rev. 1, “Consolidated Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria.” NRC: Washington, DC. September 2006.
- 4.8. Weesner AP, Fairchild RW. Concentration of <sup>137</sup>Cs in Soil Across Nebraska. Health Phys 94(6):574-580, June 2008

5.     **ENCLOSURES**

- 5.1.     Enclosure 1, "Single Soil DCGL that Results in 25 mrem/yr to an Average Member of the Critical Group."
- 5.2.     Enclosure 2, "Comparison and Conclusion of DCGLs for Three Exposure Scenarios."
- 5.3.     Enclosure 3, "Demonstration of Application of the DCGLs and SOF to Demonstrate Compliance with Dose Criteria."
- 5.4.     Enclosure 4, RESRAD Version 6.5 Report for "Dresden 10CFR20.2002 Pad DCGL Evaluation – Resident Farmer Scenario", January 10, 2014.
- 5.5.     Enclosure 5, RESRAD Version 6.5 Report for "Dresden 10CFR20.2002 Pad DCGL Evaluation – Industrial Worker Scenario", January 10, 2014.
- 5.6.     Enclosure 6, RESRAD Version 6.5 Report for "Dresden 10CFR20.2002 Pad DCGL Evaluation – Recreationist Scenario", January 10, 2014.

**ENCLOSURE 1**

**Single Soil DCGL that Results in 25 mrem/yr to an  
Average Member of the Critical Group.**

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<b>Nuclide</b>	<b>Single Soil DCGL (pCi/g)</b>	<b>Most Sensitive Pathway</b>	<b>Peak Dose Time Frame (years)</b>
Ag-110m	5.11E+00	Ground	0
Am-241	2.01E+00	Water	300
C-14	1.89E+01	Plant	0
Ce-144	2.01E+02	Ground	0
Cm-242	3.01E+03	Plant	0
Cm-243	3.95E+01	Ground	0
Co-57	1.28E+02	Ground	0
Co-58	2.72E+01	Ground	0
Co-60	2.82E+00	Ground	0
Cs-134	5.01E+00	Ground	0
Cs-137	1.10E+01	Ground	0
Eu-154	5.99E+00	Ground	0
Fe-55	9.72E+04	Meat	0
H-3	1.46E+03	Water	1
I-129	2.24E-01	Water	3
Mn-54	1.23E+01	Ground	0
Nb-94	5.98E+00	Water	3
Ni-59	1.49E+04	Plant	0
Ni-63	5.45E+03	Plant	0
Np-237	2.85E+00	Plant	0
Pu-238	6.32E+01	Plant	0
Pu-239	5.69E+01	Plant	0
Pu-241	6.08E+01	Water	300
Pu-242	5.99E+01	Plant	0
Ru-106	8.02E+00	Water	1
Sb-124	1.89E+01	Ground	0
Sb-125	2.25E+01	Water	1
Sn-113	8.56E+01	Ground	0
Sr-90	5.02E+00	Plant	0
Tc-99	2.77E+01	Water	3
Zn-65	1.04E+01	Ground	0
Zr-95	2.07E+01	Ground	0

**ENCLOSURE 2****Comparison and Conclusion of DCGLs for Three Exposure Scenarios.****Page 1 of 2**

The chart on page 2 of this enclosure compares the derived DCGLs from the three scenarios and compares the Industrial Worker and Recreationist values to those of the Resident Farmer Scenario.

As can be seen from the chart, the Resident Farmer scenario results in the most restrictive DCGLs. By adopting the Resident Farmer based DCGLs and ensuring the average soil concentrations do not exceed 20% (SOF applied) to meet ALARA requirements, the other scenario doses may be determined by multiplying the 5 mrem (associated with being 20% of the 25 mrem/yr basic dose limit) by the percentage listed on the chart.

For example, consider if the soil averaged 0.5642 pCi/g Co-60 (20% of the DCGL):

- The Resident Farmer scenario would result in 5 mrem.
- The Industrial worker would result in  $5 \text{ mrem} * 28.889\% = 1.4 \text{ mrem}$ .
- The Recreationist would result in  $5 \text{ mrem} * 2.032\% = 0.1 \text{ mrem}$

In summary, soils that average 20% of the Resident Farmer DCGLs will result in a maximum of 5 mrem/yr and dose to an Industrial Worker or Recreationist will be less than 5 mrem/yr.

**ENCLOSURE 2**

**Comparison and Conclusion of DCGLs for Three Exposure Scenarios.**  
**Page 2 of 2**

	Resident Farmer (RF)	Industrial Worker	% of RF	Recreationist	% of RF
Ag-110m	5.108E+00	1.881E+01	27.156%	4.579E+02	1.116%
Am-241	2.007E+00	5.115E+02	0.392%	1.995E+02	1.006%
C-14	1.889E+01	4.145E+05	0.005%	4.015E+01	47.049%
Ce-144	2.009E+02	6.867E+02	29.256%	2.041E+04	0.984%
Cm-242	3.010E+03	3.075E+04	9.789%	3.949E+05	0.762%
Cm-243	3.948E+01	1.977E+02	19.970%	4.853E+03	0.814%
Co-57	1.280E+02	4.487E+02	28.527%	5.278E+03	2.425%
Co-58	2.715E+01	9.210E+01	29.479%	1.962E+03	1.384%
Co-60	2.821E+00	9.765E+00	28.889%	1.388E+02	2.032%
Cs-134	5.013E+00	1.854E+01	27.039%	1.065E+02	4.707%
Cs-137	1.103E+01	4.421E+01	24.949%	1.476E+02	7.473%
Eu-154	5.990E+00	2.009E+01	29.816%	5.938E+02	1.009%
Fe-55	9.720E+04	5.492E+06	1.770%	1.304E+05	74.540%
H-3	1.457E+03	2.216E+05	0.657%	1.379E+04	10.566%
I-129	2.238E-01	7.032E+03	0.003%	4.105E+00	5.452%
Mn-54	1.225E+01	4.211E+01	29.090%	1.218E+03	1.006%
Nb-94	5.980E+00	2.242E+01	26.673%	4.017E+02	1.489%
Ni-59	1.491E+04	1.367E+07	0.109%	1.937E+05	7.697%
Ni-63	5.448E+03	5.019E+06	0.109%	7.076E+04	7.699%
Np-237	2.850E+00	1.056E+02	2.699%	9.317E+01	3.059%
Pu-238	6.317E+01	6.863E+02	9.204%	3.592E+03	1.759%
Pu-239	5.691E+01	6.194E+02	9.188%	3.237E+03	1.758%
Pu-241	6.075E+01	2.047E+04	0.297%	6.036E+03	1.006%
Pu-242	5.994E+01	6.514E+02	9.202%	3.408E+03	1.759%
Ru-106	8.017E+00	2.219E+02	3.613%	4.027E+02	1.991%
Sb-124	1.890E+01	6.419E+01	29.444%	1.885E+03	1.003%
Sb-125	2.253E+01	9.849E+01	22.875%	9.919E+02	2.271%
Sn-113	8.562E+01	3.190E+02	26.840%	2.658E+03	3.221%
Sr-90	5.022E+00	4.652E+03	0.108%	3.149E+01	15.948%
Tc-99	2.771E+01	1.072E+06	0.003%	1.437E+04	0.193%
Zn-65	1.042E+01	8.790E+01	11.854%	2.410E+01	43.237%
Zr-95	2.072E+01	6.951E+01	29.809%	2.073E+03	1.000%

### ENCLOSURE 3

#### Demonstration of Application of the DCGLs and SOF to Dresden's Current Soil Inventory to Demonstrate Compliance with Dose Criteria.

##### Page 1 of 1

The following demonstrates how the derived single soil DCGLs and the SOF may be used to demonstrate compliance with the 10CFR20 Subpart E – Radiological Criteria for License Termination dose criteria.

#### Assumptions:

1. Table 1 of this document summarizes sample results from a preliminary sampling campaign that was intended to identify the primary nuclides of concern. Although additional surveys are required to verify there are no elevated pockets of soil within the volume, the average concentration will be utilized in this example to demonstrate the concept.
2. The single soil DCGLs listed in Enclosure 1 are utilized.
3. Screening surveys are conducted to verify there are no localized volumes of soil containing radionuclides in concentrations significantly above the average.
4. If the SOF is  $\leq 0.2$  the soil meets the 10CFR20 Subpart E dose and ALARA criteria.

#### Acceptance Criteria:

Conceptually:

$$\sum \left( \frac{\text{Individual Measured Nuclide Concentration}}{\text{Individual Nuclide DCGL}} \right) \leq 0.2$$

As applicable to this example

$$\left( \frac{\text{Co-60 Soil Concentration}}{\text{Co-60 DCGL}} \right) + \left( \frac{\text{Cs-137 Soil Concentration}}{\text{Cs-137 DCGL}} \right) = \text{SOF}$$

$$\left( \frac{1.76 \times 10^{-1} \text{ pCi/g}}{2.82 \text{ pCi/g}} \right) + \left( \frac{1.03 \times 10^0 \text{ pCi/g}}{11 \text{ pCi/g}} \right) = 0.156$$

$$0.156 \leq 0.2$$

Since the SOF for the average nuclide concentrations is less than the acceptance criteria, the soil would be considered acceptable for on-site disposal.



**ENCLOSURE 4**

**RESRAD Version 6.5 Report for  
“Dresden 10CFR20.2002 Pad DCGL Evaluation – Resident Farmer Scenario”  
(56 pages total)**

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File      : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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## Dose Conversion Factor (and Related) Parameter Summary

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ac-225 (Source: FGR 12)	6.371E-02	6.371E-02	DCF1( 1)
A-1	Ac-227 (Source: FGR 12)	4.951E-04	4.951E-04	DCF1( 2)
A-1	Ag-110 (Source: FGR 12)	2.242E-01	2.242E-01	DCF1( 3)
A-1	Ag-110m (Source: FGR 12)	1.717E+01	1.717E+01	DCF1( 4)
A-1	Am-241 (Source: FGR 12)	4.372E-02	4.372E-02	DCF1( 5)
A-1	Am-243 (Source: FGR 12)	1.420E-01	1.420E-01	DCF1( 6)
A-1	At-217 (Source: FGR 12)	1.773E-03	1.773E-03	DCF1( 7)
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1( 8)
A-1	Ba-137m (Source: FGR 12)	3.606E+00	3.606E+00	DCF1( 9)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1( 10)
A-1	Bi-211 (Source: FGR 12)	2.559E-01	2.559E-01	DCF1( 11)
A-1	Bi-213 (Source: FGR 12)	7.660E-01	7.660E-01	DCF1( 12)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1( 13)
A-1	C-14 (Source: FGR 12)	1.345E-05	1.345E-05	DCF1( 14)
A-1	Ce-144 (Source: FGR 12)	7.174E-02	7.174E-02	DCF1( 15)
A-1	Cm-242 (Source: FGR 12)	1.709E-04	1.709E-04	DCF1( 16)
A-1	Cm-243 (Source: FGR 12)	5.829E-01	5.829E-01	DCF1( 17)
A-1	Co-57 (Source: FGR 12)	5.007E-01	5.007E-01	DCF1( 18)
A-1	Co-58 (Source: FGR 12)	5.960E+00	5.960E+00	DCF1( 19)
A-1	Co-60 (Source: FGR 12)	1.622E+01	1.622E+01	DCF1( 20)
A-1	Cs-134 (Source: FGR 12)	9.472E+00	9.472E+00	DCF1( 21)
A-1	Cs-137 (Source: FGR 12)	7.510E-04	7.510E-04	DCF1( 22)
A-1	Eu-154 (Source: FGR 12)	7.678E+00	7.678E+00	DCF1( 23)
A-1	Fe-55 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 24)
A-1	Fr-221 (Source: FGR 12)	1.536E-01	1.536E-01	DCF1( 25)
A-1	Fr-223 (Source: FGR 12)	1.980E-01	1.980E-01	DCF1( 26)
A-1	H-3 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 27)
A-1	I-129 (Source: FGR 12)	1.295E-02	1.295E-02	DCF1( 28)
A-1	In-113m (Source: FGR 12)	1.435E+00	1.435E+00	DCF1( 29)
A-1	Mn-54 (Source: FGR 12)	5.156E+00	5.156E+00	DCF1( 30)
A-1	Nb-94 (Source: FGR 12)	9.677E+00	9.677E+00	DCF1( 31)
A-1	Nb-95 (Source: FGR 12)	4.689E+00	4.689E+00	DCF1( 32)
A-1	Nb-95m (Source: FGR 12)	3.195E-01	3.195E-01	DCF1( 33)
A-1	Ni-59 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 34)
A-1	Ni-63 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 35)
A-1	Np-237 (Source: FGR 12)	7.790E-02	7.790E-02	DCF1( 36)
A-1	Np-239 (Source: FGR 12)	7.529E-01	7.529E-01	DCF1( 37)
A-1	Pa-231 (Source: FGR 12)	1.906E-01	1.906E-01	DCF1( 38)
A-1	Pa-233 (Source: FGR 12)	1.020E+00	1.020E+00	DCF1( 39)
A-1	Pa-234 (Source: FGR 12)	1.155E+01	1.155E+01	DCF1( 40)
A-1	Pa-234m (Source: FGR 12)	8.967E-02	8.967E-02	DCF1( 41)
A-1	Pb-209 (Source: FGR 12)	7.734E-04	7.734E-04	DCF1( 42)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1( 43)
A-1	Pb-211 (Source: FGR 12)	3.064E-01	3.064E-01	DCF1( 44)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1( 45)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1( 46)
A-1	Po-211 (Source: FGR 12)	4.764E-02	4.764E-02	DCF1( 47)
A-1	Po-213 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 48)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1( 49)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
A-1	Po-215 (Source: FGR 12)	1.016E-03	1.016E-03	DCF1( 50)
A-1	Po-218 (Source: FGR 12)	5.642E-05	5.642E-05	DCF1( 51)
A-1	Pr-144 (Source: FGR 12)	2.522E-01	2.522E-01	DCF1( 52)
A-1	Pr-144m (Source: FGR 12)	1.437E-02	1.437E-02	DCF1( 53)
A-1	Pu-238 (Source: FGR 12)	1.513E-04	1.513E-04	DCF1( 54)
A-1	Pu-239 (Source: FGR 12)	2.952E-04	2.952E-04	DCF1( 55)
A-1	Pu-241 (Source: FGR 12)	5.904E-06	5.904E-06	DCF1( 56)
A-1	Pu-242 (Source: FGR 12)	1.280E-04	1.280E-04	DCF1( 57)
A-1	Ra-223 (Source: FGR 12)	6.034E-01	6.034E-01	DCF1( 58)
A-1	Ra-225 (Source: FGR 12)	1.102E-02	1.102E-02	DCF1( 59)
A-1	Ra-226 (Source: FGR 12)	3.176E-02	3.176E-02	DCF1( 60)
A-1	Rh-106 (Source: FGR 12)	1.291E+00	1.291E+00	DCF1( 61)
A-1	Rn-219 (Source: FGR 12)	3.083E-01	3.083E-01	DCF1( 62)
A-1	Rn-222 (Source: FGR 12)	2.354E-03	2.354E-03	DCF1( 63)
A-1	Ru-106 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 64)
A-1	Sb-124 (Source: FGR 12)	1.169E+01	1.169E+01	DCF1( 65)
A-1	Sb-125 (Source: FGR 12)	2.447E+00	2.447E+00	DCF1( 66)
A-1	Sn-113 (Source: FGR 12)	2.970E-02	2.970E-02	DCF1( 67)
A-1	Sr-90 (Source: FGR 12)	7.043E-04	7.043E-04	DCF1( 68)
A-1	Tc-99 (Source: FGR 12)	1.255E-04	1.255E-04	DCF1( 69)
A-1	Te-125m (Source: FGR 12)	1.515E-02	1.515E-02	DCF1( 70)
A-1	Th-227 (Source: FGR 12)	5.212E-01	5.212E-01	DCF1( 71)
A-1	Th-229 (Source: FGR 12)	3.213E-01	3.213E-01	DCF1( 72)
A-1	Th-230 (Source: FGR 12)	1.209E-03	1.209E-03	DCF1( 73)
A-1	Th-231 (Source: FGR 12)	3.643E-02	3.643E-02	DCF1( 74)
A-1	Th-234 (Source: FGR 12)	2.410E-02	2.410E-02	DCF1( 75)
A-1	Tl-207 (Source: FGR 12)	1.980E-02	1.980E-02	DCF1( 76)
A-1	Tl-209 (Source: FGR 12)	1.293E+01	1.293E+01	DCF1( 77)
A-1	Tl-210 (Source: no data)	0.000E+00	-2.000E+00	DCF1( 78)
A-1	U-233 (Source: FGR 12)	1.397E-03	1.397E-03	DCF1( 79)
A-1	U-234 (Source: FGR 12)	4.017E-04	4.017E-04	DCF1( 80)
A-1	U-235 (Source: FGR 12)	7.211E-01	7.211E-01	DCF1( 81)
A-1	U-237 (Source: FGR 12)	5.306E-01	5.306E-01	DCF1( 82)
A-1	U-238 (Source: FGR 12)	1.031E-04	1.031E-04	DCF1( 83)
A-1	Y-90 (Source: FGR 12)	2.391E-02	2.391E-02	DCF1( 84)
A-1	Zn-65 (Source: FGR 12)	3.699E+00	3.699E+00	DCF1( 85)
A-1	Zr-95 (Source: FGR 12)	4.521E+00	4.521E+00	DCF1( 86)
B-1 Dose conversion factors for inhalation, mrem/pCi:				
B-1	Ac-227+D	6.724E+00	6.700E+00	DCF2( 1)
B-1	Ag-110m+D	8.030E-05	8.030E-05	DCF2( 2)
B-1	Am-241	4.440E-01	4.440E-01	DCF2( 3)
B-1	Am-243+D	4.400E-01	4.400E-01	DCF2( 4)
B-1	C-14 (p) (Class: ORGANIC)	2.090E-06	2.090E-06	DCF2( 5)
B-1	C-14 (g) (Class: CO2)	2.350E-08	2.350E-08	C14GInhDCF
B-1	Ce-144+D	3.740E-04	3.740E-04	DCF2( 6)
B-1	Cm-242	1.730E-02	1.730E-02	DCF2( 7)
B-1	Cm-243	3.070E-01	3.070E-01	DCF2( 10)
B-1	Co-57	9.070E-06	9.070E-06	DCF2( 12)
B-1	Co-58	1.090E-05	1.090E-05	DCF2( 13)

Dose Library: FGR 12 & FGR 11

	Current	Base	Parameter
Menu	Value#	Case*	Name
AAA			
B-1 Co-60	2.190E-04	2.190E-04	DCF2( 14)
B-1 Cs-134	4.620E-05	4.620E-05	DCF2( 15)
B-1 Cs-137+D	3.190E-05	3.190E-05	DCF2( 16)
B-1 Eu-154	2.860E-04	2.860E-04	DCF2( 17)
B-1 Fe-55	2.690E-06	2.690E-06	DCF2( 18)
B-1 H-3	6.400E-08	6.400E-08	DCF2( 19)
B-1 I-129	1.740E-04	1.740E-04	DCF2( 20)
B-1 Mn-54	6.700E-06	6.700E-06	DCF2( 21)
B-1 Nb-94	4.140E-04	4.140E-04	DCF2( 22)
B-1 Nb-95	5.810E-06	5.810E-06	DCF2( 23)
B-1 Ni-59	2.700E-06	2.700E-06	DCF2( 24)
B-1 Ni-63	6.290E-06	6.290E-06	DCF2( 25)
B-1 Np-237+D	5.400E-01	5.400E-01	DCF2( 26)
B-1 Pa-231	1.280E+00	1.280E+00	DCF2( 27)
B-1 Pb-210+D	1.380E-02	1.360E-02	DCF2( 28)
B-1 Po-210	9.400E-03	9.400E-03	DCF2( 29)
B-1 Pu-238	3.920E-01	3.920E-01	DCF2( 30)
B-1 Pu-239	4.290E-01	4.290E-01	DCF2( 32)
B-1 Pu-241	8.250E-03	8.250E-03	DCF2( 33)
B-1 Pu-241+D	8.254E-03	8.250E-03	DCF2( 34)
B-1 Pu-242	4.110E-01	4.110E-01	DCF2( 35)
B-1 Ra-226+D	8.594E-03	8.580E-03	DCF2( 38)
B-1 Ru-106+D	4.770E-04	4.770E-04	DCF2( 39)
B-1 Sb-124	2.520E-05	2.520E-05	DCF2( 40)
B-1 Sb-125	1.220E-05	1.220E-05	DCF2( 41)
B-1 Sn-113+D	1.074E-05	1.070E-05	DCF2( 43)
B-1 Sr-90+D	1.308E-03	1.300E-03	DCF2( 44)
B-1 Tc-99	8.320E-06	8.320E-06	DCF2( 45)
B-1 Te-125m	7.290E-06	7.290E-06	DCF2( 46)
B-1 Th-229+D	2.169E+00	2.150E+00	DCF2( 47)
B-1 Th-230	3.260E-01	3.260E-01	DCF2( 48)
B-1 U-233	1.350E-01	1.350E-01	DCF2( 49)
B-1 U-234	1.320E-01	1.320E-01	DCF2( 50)
B-1 U-235+D	1.230E-01	1.230E-01	DCF2( 51)
B-1 U-238	1.180E-01	1.180E-01	DCF2( 52)
B-1 U-238+D	1.180E-01	1.180E-01	DCF2( 53)
B-1 Zn-65	2.040E-05	2.040E-05	DCF2( 54)
B-1 Zr-95+D	2.362E-05	2.360E-05	DCF2( 55)
D-1 Dose conversion factors for ingestion, mrem/pCi:			
D-1 Ac-227+D	1.480E-02	1.410E-02	DCF3( 1)
D-1 Ag-110m+D	1.080E-05	1.080E-05	DCF3( 2)
D-1 Am-241	3.640E-03	3.640E-03	DCF3( 3)
D-1 Am-243+D	3.623E-03	3.620E-03	DCF3( 4)
D-1 C-14	2.090E-06	2.090E-06	DCF3( 5)
D-1 Ce-144+D	2.112E-05	2.100E-05	DCF3( 6)
D-1 Cm-242	1.150E-04	1.150E-04	DCF3( 7)
D-1 Cm-243	2.510E-03	2.510E-03	DCF3( 10)
D-1 Co-57	1.180E-06	1.180E-06	DCF3( 12)
D-1 Co-58	3.580E-06	3.580E-06	DCF3( 13)

Dose Library: FGR 12 & FGR 11

[illegible]

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 3,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 3,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 3,3)
D-34				
D-34	Am-243+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 4,1)
D-34	Am-243+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 4,2)
D-34	Am-243+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 4,3)
D-34				
D-34	C-14 , plant/soil concentration ratio, dimensionless	5.500E+00	5.500E+00	RTF( 5,1)
D-34	C-14 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.100E-02	3.100E-02	RTF( 5,2)
D-34	C-14 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.200E-02	1.200E-02	RTF( 5,3)
D-34				
D-34	Ce-144+D , plant/soil concentration ratio, dimensionless	2.000E-03	2.000E-03	RTF( 6,1)
D-34	Ce-144+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 6,2)
D-34	Ce-144+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-05	5.000E-05	RTF( 6,3)
D-34				
D-34	Cm-242 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 7,1)
D-34	Cm-242 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 7,2)
D-34	Cm-242 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 7,3)
D-34				
D-34	Cm-243 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 10,1)
D-34	Cm-243 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 10,2)
D-34	Cm-243 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 10,3)
D-34				
D-34	Co-57 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 12,1)
D-34	Co-57 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 12,2)
D-34	Co-57 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 12,3)
D-34				
D-34	Co-58 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 13,1)
D-34	Co-58 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 13,2)
D-34	Co-58 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 13,3)
D-34				
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 14,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 14,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 14,3)
D-34				
D-34	Cs-134 , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 15,1)
D-34	Cs-134 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 15,2)
D-34	Cs-134 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 15,3)
D-34				
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 16,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 16,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 16,3)
D-34				
D-34	Eu-154 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 17,1)
D-34	Eu-154 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 17,2)
D-34	Eu-154 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-05	5.000E-05	RTF( 17,3)
D-34				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Fe-55 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 18,1)
D-34	Fe-55 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 18,2)
D-34	Fe-55 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 18,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF( 19,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF( 19,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 19,3)
D-34				
D-34	I-129 , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 20,1)
D-34	I-129 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 20,2)
D-34	I-129 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 20,3)
D-34				
D-34	Mn-54 , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF( 21,1)
D-34	Mn-54 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-04	5.000E-04	RTF( 21,2)
D-34	Mn-54 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 21,3)
D-34				
D-34	Nb-94 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 22,1)
D-34	Nb-94 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-07	3.000E-07	RTF( 22,2)
D-34	Nb-94 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 22,3)
D-34				
D-34	Nb-95 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 23,1)
D-34	Nb-95 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-07	3.000E-07	RTF( 23,2)
D-34	Nb-95 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 23,3)
D-34				
D-34	Ni-59 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF( 24,1)
D-34	Ni-59 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 24,2)
D-34	Ni-59 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-02	2.000E-02	RTF( 24,3)
D-34				
D-34	Ni-63 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF( 25,1)
D-34	Ni-63 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 25,2)
D-34	Ni-63 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-02	2.000E-02	RTF( 25,3)
D-34				
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 26,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 26,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 26,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 27,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 27,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 27,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 28,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 28,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 28,3)
D-34				
D-34	Po-210 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 29,1)
D-34	Po-210 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 29,2)
D-34	Po-210 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.400E-04	3.400E-04	RTF( 29,3)
D-34				



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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 30,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 30,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 30,3)
D-34				
D-34	Pu-239 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 32,1)
D-34	Pu-239 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 32,2)
D-34	Pu-239 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 32,3)
D-34				
D-34	Pu-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 33,1)
D-34	Pu-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 33,2)
D-34	Pu-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 33,3)
D-34				
D-34	Pu-241+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 34,1)
D-34	Pu-241+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 34,2)
D-34	Pu-241+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 34,3)
D-34				
D-34	Pu-242 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 35,1)
D-34	Pu-242 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 35,2)
D-34	Pu-242 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 35,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 38,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 38,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 38,3)
D-34				
D-34	Ru-106+D , plant/soil concentration ratio, dimensionless	3.000E-02	3.000E-02	RTF( 39,1)
D-34	Ru-106+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 39,2)
D-34	Ru-106+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.300E-06	3.300E-06	RTF( 39,3)
D-34				
D-34	Sb-124 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 40,1)
D-34	Sb-124 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 40,2)
D-34	Sb-124 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-04	1.000E-04	RTF( 40,3)
D-34				
D-34	Sb-125 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 41,1)
D-34	Sb-125 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 41,2)
D-34	Sb-125 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-04	1.000E-04	RTF( 41,3)
D-34				
D-34	Sn-113+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 43,1)
D-34	Sn-113+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-02	1.000E-02	RTF( 43,2)
D-34	Sn-113+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 43,3)
D-34				
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF( 44,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF( 44,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 44,3)
D-34				
D-34	Tc-99 , plant/soil concentration ratio, dimensionless	5.000E+00	5.000E+00	RTF( 45,1)
D-34	Tc-99 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 45,2)
D-34	Tc-99 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 45,3)
D-34				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Te-125m , plant/soil concentration ratio, dimensionless	6.000E-01	6.000E-01	RTF( 46,1)
D-34	Te-125m , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 46,2)
D-34	Te-125m , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-04	5.000E-04	RTF( 46,3)
D-34				
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 47,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 47,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 47,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 48,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 48,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 48,3)
D-34				
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 49,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 49,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 49,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 50,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 50,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 50,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 51,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 51,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 51,3)
D-34				
D-34	U-238 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 52,1)
D-34	U-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 52,2)
D-34	U-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 52,3)
D-34				
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 53,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 53,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 53,3)
D-34				
D-34	Zn-65 , plant/soil concentration ratio, dimensionless	4.000E-01	4.000E-01	RTF( 54,1)
D-34	Zn-65 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-01	1.000E-01	RTF( 54,2)
D-34	Zn-65 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 54,3)
D-34				
D-34	Zr-95+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 55,1)
D-34	Zr-95+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-06	1.000E-06	RTF( 55,2)
D-34	Zr-95+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-07	6.000E-07	RTF( 55,3)
D-5				
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5				
D-5	Ag-110m+D , fish	5.000E+00	5.000E+00	BIOFAC( 2,1)
D-5	Ag-110m+D , crustacea and mollusks	7.700E+02	7.700E+02	BIOFAC( 2,2)
D-5				
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 3,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 3,2)
D-5				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-5	Am-243+D , fish	3.000E+01	3.000E+01	BIOFAC ( 4,1)
D-5	Am-243+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 4,2)
D-5				
D-5	C-14 , fish	5.000E+04	5.000E+04	BIOFAC ( 5,1)
D-5	C-14 , crustacea and mollusks	9.100E+03	9.100E+03	BIOFAC ( 5,2)
D-5				
D-5	Ce-144+D , fish	3.000E+01	3.000E+01	BIOFAC ( 6,1)
D-5	Ce-144+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 6,2)
D-5				
D-5	Cm-242 , fish	3.000E+01	3.000E+01	BIOFAC ( 7,1)
D-5	Cm-242 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 7,2)
D-5				
D-5	Cm-243 , fish	3.000E+01	3.000E+01	BIOFAC ( 10,1)
D-5	Cm-243 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 10,2)
D-5				
D-5	Co-57 , fish	3.000E+02	3.000E+02	BIOFAC ( 12,1)
D-5	Co-57 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 12,2)
D-5				
D-5	Co-58 , fish	3.000E+02	3.000E+02	BIOFAC ( 13,1)
D-5	Co-58 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 13,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC ( 14,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 14,2)
D-5				
D-5	Cs-134 , fish	2.000E+03	2.000E+03	BIOFAC ( 15,1)
D-5	Cs-134 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 15,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC ( 16,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 16,2)
D-5				
D-5	Eu-154 , fish	5.000E+01	5.000E+01	BIOFAC ( 17,1)
D-5	Eu-154 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 17,2)
D-5				
D-5	Fe-55 , fish	2.000E+02	2.000E+02	BIOFAC ( 18,1)
D-5	Fe-55 , crustacea and mollusks	3.200E+03	3.200E+03	BIOFAC ( 18,2)
D-5				
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC ( 19,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC ( 19,2)
D-5				
D-5	I-129 , fish	4.000E+01	4.000E+01	BIOFAC ( 20,1)
D-5	I-129 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC ( 20,2)
D-5				
D-5	Mn-54 , fish	4.000E+02	4.000E+02	BIOFAC ( 21,1)
D-5	Mn-54 , crustacea and mollusks	9.000E+04	9.000E+04	BIOFAC ( 21,2)
D-5				
D-5	Nb-94 , fish	3.000E+02	3.000E+02	BIOFAC ( 22,1)
D-5	Nb-94 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 22,2)
D-5				
D-5	Nb-95 , fish	3.000E+02	3.000E+02	BIOFAC ( 23,1)
D-5	Nb-95 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 23,2)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-5	Ni-59 , fish	1.000E+02	1.000E+02	BIOFAC( 24,1)
D-5	Ni-59 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 24,2)
D-5				
D-5	Ni-63 , fish	1.000E+02	1.000E+02	BIOFAC( 25,1)
D-5	Ni-63 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 25,2)
D-5				
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 26,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 26,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 27,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 27,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 28,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 28,2)
D-5				
D-5	Po-210 , fish	1.000E+02	1.000E+02	BIOFAC( 29,1)
D-5	Po-210 , crustacea and mollusks	2.000E+04	2.000E+04	BIOFAC( 29,2)
D-5				
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 30,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 30,2)
D-5				
D-5	Pu-239 , fish	3.000E+01	3.000E+01	BIOFAC( 32,1)
D-5	Pu-239 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 32,2)
D-5				
D-5	Pu-241 , fish	3.000E+01	3.000E+01	BIOFAC( 33,1)
D-5	Pu-241 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 33,2)
D-5				
D-5	Pu-241+D , fish	3.000E+01	3.000E+01	BIOFAC( 34,1)
D-5	Pu-241+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 34,2)
D-5				
D-5	Pu-242 , fish	3.000E+01	3.000E+01	BIOFAC( 35,1)
D-5	Pu-242 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 35,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC( 38,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 38,2)
D-5				
D-5	Ru-106+D , fish	1.000E+01	1.000E+01	BIOFAC( 39,1)
D-5	Ru-106+D , crustacea and mollusks	3.000E+02	3.000E+02	BIOFAC( 39,2)
D-5				
D-5	Sb-124 , fish	1.000E+02	1.000E+02	BIOFAC( 40,1)
D-5	Sb-124 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 40,2)
D-5				
D-5	Sb-125 , fish	1.000E+02	1.000E+02	BIOFAC( 41,1)
D-5	Sb-125 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 41,2)
D-5				
D-5	Sn-113+D , fish	3.000E+03	3.000E+03	BIOFAC( 43,1)
D-5	Sn-113+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 43,2)
D-5				
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC( 44,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 44,2)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Tc-99 , fish	2.000E+01	2.000E+01	BIOFAC ( 45,1)
D-5	Tc-99 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC ( 45,2)
D-5				
D-5	Te-125m , fish	4.000E+02	4.000E+02	BIOFAC ( 46,1)
D-5	Te-125m , crustacea and mollusks	7.500E+01	7.500E+01	BIOFAC ( 46,2)
D-5				
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC ( 47,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC ( 47,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC ( 48,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC ( 48,2)
D-5				
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC ( 49,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 49,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC ( 50,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 50,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC ( 51,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 51,2)
D-5				
D-5	U-238 , fish	1.000E+01	1.000E+01	BIOFAC ( 52,1)
D-5	U-238 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 52,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC ( 53,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 53,2)
D-5				
D-5	Zn-65 , fish	1.000E+03	1.000E+03	BIOFAC ( 54,1)
D-5	Zn-65 , crustacea and mollusks	1.000E+04	1.000E+04	BIOFAC ( 54,2)
D-5				
D-5	Zr-95+D , fish	3.000E+02	3.000E+02	BIOFAC ( 55,1)
D-5	Zr-95+D , crustacea and mollusks	6.700E+00	6.700E+00	BIOFAC ( 55,2)

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

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

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## Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	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)
3					
R012	Initial principal radionuclide (pCi/g): Ag-110m	1.000E+00	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Am-241	1.000E+00	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): C-14	1.000E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Ce-144	1.000E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Cm-242	1.000E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Cm-243	1.000E+00	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): Co-57	1.000E+00	0.000E+00	---	S1(12)
R012	Initial principal radionuclide (pCi/g): Co-58	1.000E+00	0.000E+00	---	S1(13)
R012	Initial principal radionuclide (pCi/g): Co-60	1.000E+00	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.000E+00	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): Cs-137	1.000E+00	0.000E+00	---	S1(16)
R012	Initial principal radionuclide (pCi/g): Eu-154	1.000E+00	0.000E+00	---	S1(17)
R012	Initial principal radionuclide (pCi/g): Fe-55	1.000E+00	0.000E+00	---	S1(18)
R012	Initial principal radionuclide (pCi/g): H-3	1.000E+00	0.000E+00	---	S1(19)
R012	Initial principal radionuclide (pCi/g): I-129	1.000E+00	0.000E+00	---	S1(20)
R012	Initial principal radionuclide (pCi/g): Mn-54	1.000E+00	0.000E+00	---	S1(21)
R012	Initial principal radionuclide (pCi/g): Nb-94	1.000E+00	0.000E+00	---	S1(22)
R012	Initial principal radionuclide (pCi/g): Ni-59	1.000E+00	0.000E+00	---	S1(24)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(25)
R012	Initial principal radionuclide (pCi/g): Np-237	1.000E+00	0.000E+00	---	S1(26)
R012	Initial principal radionuclide (pCi/g): Pu-238	1.000E+00	0.000E+00	---	S1(30)
R012	Initial principal radionuclide (pCi/g): Pu-239	1.000E+00	0.000E+00	---	S1(32)
R012	Initial principal radionuclide (pCi/g): Pu-241	1.000E+00	0.000E+00	---	S1(33)
R012	Initial principal radionuclide (pCi/g): Pu-242	1.000E+00	0.000E+00	---	S1(35)
R012	Initial principal radionuclide (pCi/g): Ru-106	1.000E+00	0.000E+00	---	S1(39)
R012	Initial principal radionuclide (pCi/g): Sb-124	1.000E+00	0.000E+00	---	S1(40)
R012	Initial principal radionuclide (pCi/g): Sb-125	1.000E+00	0.000E+00	---	S1(41)
R012	Initial principal radionuclide (pCi/g): Sn-113	1.000E+00	0.000E+00	---	S1(43)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(44)
R012	Initial principal radionuclide (pCi/g): Tc-99	1.000E+00	0.000E+00	---	S1(45)
R012	Initial principal radionuclide (pCi/g): Zn-65	1.000E+00	0.000E+00	---	S1(54)
R012	Initial principal radionuclide (pCi/g): Zr-95	1.000E+00	0.000E+00	---	S1(55)
R012	Concentration in groundwater (pCi/L): Ag-110m	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 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
AA					
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1 ( 5)
R012	Concentration in groundwater (pCi/L): Ce-144	not used	0.000E+00	---	W1 ( 6)
R012	Concentration in groundwater (pCi/L): Cm-242	not used	0.000E+00	---	W1 ( 7)
R012	Concentration in groundwater (pCi/L): Cm-243	not used	0.000E+00	---	W1 (10)
R012	Concentration in groundwater (pCi/L): Co-57	not used	0.000E+00	---	W1 (12)
R012	Concentration in groundwater (pCi/L): Co-58	not used	0.000E+00	---	W1 (13)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1 (14)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1 (15)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1 (16)
R012	Concentration in groundwater (pCi/L): Eu-154	not used	0.000E+00	---	W1 (17)
R012	Concentration in groundwater (pCi/L): Fe-55	not used	0.000E+00	---	W1 (18)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1 (19)
R012	Concentration in groundwater (pCi/L): I-129	not used	0.000E+00	---	W1 (20)
R012	Concentration in groundwater (pCi/L): Mn-54	not used	0.000E+00	---	W1 (21)
R012	Concentration in groundwater (pCi/L): Nb-94	not used	0.000E+00	---	W1 (22)
R012	Concentration in groundwater (pCi/L): Ni-59	not used	0.000E+00	---	W1 (24)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1 (25)
R012	Concentration in groundwater (pCi/L): Np-237	not used	0.000E+00	---	W1 (26)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1 (30)
R012	Concentration in groundwater (pCi/L): Pu-239	not used	0.000E+00	---	W1 (32)
R012	Concentration in groundwater (pCi/L): Pu-241	not used	0.000E+00	---	W1 (33)
R012	Concentration in groundwater (pCi/L): Pu-242	not used	0.000E+00	---	W1 (35)
R012	Concentration in groundwater (pCi/L): Ru-106	not used	0.000E+00	---	W1 (39)
R012	Concentration in groundwater (pCi/L): Sb-124	not used	0.000E+00	---	W1 (40)
R012	Concentration in groundwater (pCi/L): Sb-125	not used	0.000E+00	---	W1 (41)
R012	Concentration in groundwater (pCi/L): Sn-113	not used	0.000E+00	---	W1 (43)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1 (44)
R012	Concentration in groundwater (pCi/L): Tc-99	not used	0.000E+00	---	W1 (45)
R012	Concentration in groundwater (pCi/L): Zn-65	not used	0.000E+00	---	W1 (54)
R012	Concentration in groundwater (pCi/L): Zr-95	not used	0.000E+00	---	W1 (55)
3					
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)	1.440E+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	4.380E+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)	8.000E+00	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	Romberg failures occurred	EPS
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
AA					
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-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	4.050E+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
3 3 3 3 3					
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.700E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.440E+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	4.380E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
3 3 3 3 3					
R016	Distribution coefficients for Ag-110m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
3 3 3 3 3					
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 3)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
3 3 3 3 3					
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 5)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)
3 3 3 3 3					
R016	Distribution coefficients for Ce-144				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)



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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Cm-242				
R016	Contaminated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCC ( 7)
R016	Unsaturated zone 1 (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCU ( 7,1)
R016	Saturated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCS ( 7)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.260E-04	ALEACH ( 7)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK ( 7)
R016	Distribution coefficients for Cm-243				
R016	Contaminated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCC (10)
R016	Unsaturated zone 1 (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCU (10,1)
R016	Saturated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCS (10)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.260E-04	ALEACH (10)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (10)
R016	Distribution coefficients for Co-57				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (12)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (12,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (12)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (12)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (12)
R016	Distribution coefficients for Co-58				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (13)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (13,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (13)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (13)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (13)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (14)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (14,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (14)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (14)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (14)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCC (15)
R016	Unsaturated zone 1 (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCU (15,1)
R016	Saturated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCS (15)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	3.774E-05	ALEACH (15)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (15)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCC (16)
R016	Unsaturated zone 1 (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCU (16,1)
R016	Saturated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCS (16)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	3.774E-05	ALEACH (16)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (16)

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Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Eu-154				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCC (17)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCU (17,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCS (17)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.104E-04	ALEACH (17)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (17)
R016	Distribution coefficients for Fe-55				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (18)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (18,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (18)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (18)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (18)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (19)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (19,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (19)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (19)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (19)
R016	Distribution coefficients for I-129				
R016	Contaminated zone (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCC (20)
R016	Unsaturated zone 1 (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCU (20,1)
R016	Saturated zone (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCS (20)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.506E-01	ALEACH (20)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (20)
R016	Distribution coefficients for Mn-54				
R016	Contaminated zone (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCC (21)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCU (21,1)
R016	Saturated zone (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCS (21)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.671E-04	ALEACH (21)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (21)
R016	Distribution coefficients for Nb-94				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (22)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (22,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (22)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (22)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (22)
R016	Distribution coefficients for Ni-59				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (24)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (24,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (24)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (24)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (24)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (25)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (25,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (25)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (25)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (25)
R016	Distribution coefficients for Np-237				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCC (26)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCU (26,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCS (26)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.739E-04	ALEACH (26)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (26)
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (30)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (30,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (30)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (30)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (30)
R016	Distribution coefficients for Pu-239				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (32)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (32,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (32)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (32)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (32)
R016	Distribution coefficients for Pu-241				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (33)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (33,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (33)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (33)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (33)
R016	Distribution coefficients for Pu-242				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (35)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (35,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (35)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (35)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (35)
R016	Distribution coefficients for Ru-106				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (39)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (39,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (39)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (39)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (39)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Sb-124				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (40)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (40,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (40)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)
R016	Distribution coefficients for Sb-125				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (41)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (41,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (41)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (41)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (41)
R016	Distribution coefficients for Sn-113				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (43)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (43,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (43)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (43)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (43)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC (44)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU (44,1)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS (44)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.746E-03	ALEACH (44)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (44)
R016	Distribution coefficients for Tc-99				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (45)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (45,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (45)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (45)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (45)
R016	Distribution coefficients for Zn-65				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (54)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (54,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (54)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (54)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (54)
R016	Distribution coefficients for Zr-95				
R016	Contaminated zone (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCC (55)
R016	Unsaturated zone 1 (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCU (55,1)
R016	Saturated zone (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCS (55)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.891E-05	ALEACH (55)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (55)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH ( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 1)
R016	Distribution coefficients for daughter Am-243				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 4)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 4,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH ( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 4)
R016	Distribution coefficients for daughter Nb-95				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (23)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (23,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (23)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (23)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (23)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (27)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (27,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (27)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (27)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (27)
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC (28)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU (28,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS (28)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.732E-03	ALEACH (28)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (28)
R016	Distribution coefficients for daughter Po-210				
R016	Contaminated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCC (29)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCU (29,1)
R016	Saturated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCS (29)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.700E-02	ALEACH (29)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (29)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC (38)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU (38,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS (38)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.473E-03	ALEACH (38)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (38)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for daughter Te-125m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (46)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (46,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (46)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (46)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (46)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (47)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (47,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (47)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.894E-06	ALEACH (47)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (47)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (48)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (48,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (48)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.894E-06	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (49)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (49,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (49)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (49)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (49)
R016	Distribution coefficients for daughter U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (50)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (50,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (50)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (50)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (50)
R016	Distribution coefficients for daughter U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (51)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (51,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (51)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (51)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (51)
R016	Distribution coefficients for daughter U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (52)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (52,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (52)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (52)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (52)
R017	Inhalation rate (m**3/yr)	8.400E+03	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

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	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)
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	1.000E+00	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	0.500E+00	FPLANT
R018	Contamination fraction of meat	-1	-1	0.500E+00	FMEAT
R018	Contamination fraction of milk	-1	-1	0.500E+00	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
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	1.000E+00	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
3 3 3 3 3					
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)
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
3 3 3 3 3					
C14	C-12 concentration in water (g/cm**3)	2.000E-05	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	3.000E-02	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	2.000E-02	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	9.800E-01	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	3.000E-01	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	7.000E-07	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	1.000E-10	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
3 3 3 3 3					
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)
3 3 3 3 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
R021	Thickness of building foundation (m)	1.500E-01	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	2.400E+00	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	1.000E-01	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	3.000E-02	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	3.000E-07	3.000E-07	---	DIFFL
R021	in contaminated zone soil	2.000E-06	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	2.000E+00	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	5.000E-01	5.000E-01	---	REXG
R021	Height of the building (room) (m)	2.500E+00	2.500E+00	---	HRM
R021	Building interior area factor	0.000E+00	0.000E+00	code computed (time dependent)	FAI
R021	Building depth below ground surface (m)	-1.000E+00	-1.000E+00	code computed (time dependent)	DMFL
R021	Emanating power of Rn-222 gas	2.500E-01	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
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	active
Find peak pathway doses	active

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
AAAAAAAAAAAAAAAAAAAAAAAAAAAA		AAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Area:	10000.00 square meters	Ag-110m	1.000E+00
Thickness:	2.00 meters	Am-241	1.000E+00
Cover Depth:	0.00 meters	C-14	1.000E+00
		Ce-144	1.000E+00
		Cm-242	1.000E+00
		Cm-243	1.000E+00
		Co-57	1.000E+00
		Co-58	1.000E+00
		Co-60	1.000E+00
		Cs-134	1.000E+00
		Cs-137	1.000E+00
		Eu-154	1.000E+00
		Fe-55	1.000E+00
		H-3	1.000E+00
		I-129	1.000E+00
		Mn-54	1.000E+00
		Nb-94	1.000E+00
		Ni-59	1.000E+00
		Ni-63	1.000E+00
		Np-237	1.000E+00
		Pu-238	1.000E+00
		Pu-239	1.000E+00
		Pu-241	1.000E+00
		Pu-242	1.000E+00
		Ru-106	1.000E+00
		Sb-124	1.000E+00
		Sb-125	1.000E+00
		Sn-113	1.000E+00
		Sr-90	1.000E+00
		Tc-99	1.000E+00
		Zn-65	1.000E+00
		Zr-95	1.000E+00

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)

AA

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):	6.029E+01	9.430E+01	1.498E+02	7.111E+01	1.418E+01	1.675E+01	2.091E+01	5.346E+00
M(t):	2.412E+00	3.772E+00	5.993E+00	2.844E+00	5.671E-01	6.701E-01	8.362E-01	2.138E-01

Maximum TDOSE(t): 1.673E+02 mrem/yr at t = 5.49 ñ 0.01 years

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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 = 5.489E+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.
Nuclide	XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX	
Ag-110m	2.049E-04	0.0000	1.089E-10	0.0000	0.000E+00	0.0000	3.073E-06	0.0000	2.659E-07	0.0000	2.534E-06	0.0000	6.263E-09	0.0000
Am-241	2.395E-02	0.0001	2.673E-02	0.0002	0.000E+00	0.0000	2.984E-01	0.0018	3.068E-03	0.0000	1.750E-04	0.0000	9.375E-02	0.0006
C-14	2.632E-16	0.0000	1.861E-14	0.0000	0.000E+00	0.0000	1.111E-10	0.0000	4.595E-11	0.0000	1.575E-11	0.0000	1.902E-15	0.0000
Ce-144	9.156E-04	0.0000	1.193E-07	0.0000	0.000E+00	0.0000	1.833E-05	0.0000	4.219E-08	0.0000	1.477E-07	0.0000	2.881E-06	0.0000
Cm-242	4.471E-07	0.0000	1.222E-04	0.0000	7.867E-14	0.0000	1.358E-03	0.0000	2.789E-05	0.0000	3.987E-07	0.0000	4.267E-04	0.0000
Cm-243	2.877E-01	0.0017	1.698E-02	0.0001	0.000E+00	0.0000	1.889E-01	0.0011	7.773E-04	0.0000	1.108E-04	0.0000	5.937E-02	0.0004
Co-57	1.104E-03	0.0000	2.229E-09	0.0000	0.000E+00	0.0000	3.155E-05	0.0000	1.696E-05	0.0000	2.043E-06	0.0000	1.241E-07	0.0000
Co-58	2.717E-09	0.0000	5.663E-16	0.0000	0.000E+00	0.0000	2.026E-11	0.0000	1.088E-11	0.0000	1.310E-12	0.0000	7.956E-14	0.0000
Co-60	4.165E+00	0.0249	6.374E-06	0.0000	0.000E+00	0.0000	8.515E-02	0.0005	4.579E-02	0.0003	5.516E-03	0.0000	3.349E-04	0.0000
Cs-134	7.136E-01	0.0043	3.966E-07	0.0000	0.000E+00	0.0000	3.422E-02	0.0002	2.993E-02	0.0002	9.772E-03	0.0001	2.692E-04	0.0000
Cs-137	1.668E+00	0.0100	1.777E-06	0.0000	0.000E+00	0.0000	1.515E-01	0.0009	1.325E-01	0.0008	4.326E-02	0.0003	1.192E-03	0.0000
Eu-154	2.704E+00	0.0162	1.141E-05	0.0000	0.000E+00	0.0000	1.295E-03	0.0000	2.514E-04	0.0000	8.731E-06	0.0000	1.629E-04	0.0000
Fe-55	0.000E+00	0.0000	3.706E-08	0.0000	0.000E+00	0.0000	1.138E-05	0.0000	4.679E-05	0.0000	1.001E-06	0.0000	3.577E-06	0.0000
H-3	0.000E+00	0.0000	2.784E-08	0.0000	0.000E+00	0.0000	1.095E-06	0.0000	1.953E-07	0.0000	1.593E-07	0.0000	8.764E-11	0.0000
I-129	2.889E-04	0.0000	4.169E-07	0.0000	0.000E+00	0.0000	1.835E-02	0.0001	4.600E-03	0.0000	7.998E-03	0.0000	2.829E-04	0.0000
Mn-54	2.320E-02	0.0001	3.424E-09	0.0000	0.000E+00	0.0000	5.775E-04	0.0000	7.284E-06	0.0000	5.191E-06	0.0000	6.056E-07	0.0000
Nb-94	4.470E-02	0.0003	2.175E-07	0.0000	0.000E+00	0.0000	5.249E-05	0.0000	7.245E-10	0.0000	5.987E-09	0.0000	1.605E-06	0.0000
Ni-59	0.000E+00	0.0000	1.726E-07	0.0000	0.000E+00	0.0000	9.125E-04	0.0000	1.289E-04	0.0000	6.273E-04	0.0000	5.742E-06	0.0000
Ni-63	0.000E+00	0.0000	3.851E-07	0.0000	0.000E+00	0.0000	2.401E-03	0.0000	3.391E-04	0.0000	1.651E-03	0.0000	1.511E-05	0.0000
Np-237	6.217E-01	0.0037	3.442E-02	0.0002	0.000E+00	0.0000	7.701E+00	0.0460	2.594E-01	0.0016	1.629E-03	0.0000	1.212E-01	0.0007
Pu-238	8.560E-05	0.0000	2.391E-02	0.0001	2.087E-11	0.0000	2.657E-01	0.0016	5.461E-03	0.0000	7.800E-05	0.0000	8.351E-02	0.0005
Pu-239	1.688E-04	0.0000	2.743E-02	0.0002	0.000E+00	0.0000	3.081E-01	0.0018	6.333E-03	0.0000	9.036E-05	0.0000	9.684E-02	0.0006
Pu-241	2.138E-04	0.0000	6.251E-04	0.0000	0.000E+00	0.0000	7.026E-03	0.0000	1.183E-04	0.0000	2.811E-06	0.0000	2.208E-03	0.0000
Pu-242	7.541E-05	0.0000	2.629E-02	0.0002	4.929E-21	0.0000	2.925E-01	0.0017	6.012E-03	0.0000	8.578E-05	0.0000	9.193E-02	0.0005
Ru-106	1.036E-04	0.0000	4.351E-09	0.0000	0.000E+00	0.0000	1.049E-05	0.0000	7.081E-07	0.0000	1.380E-09	0.0000	1.069E-07	0.0000
Sb-124	1.473E-12	0.0000	3.607E-19	0.0000	0.000E+00	0.0000	2.028E-15	0.0000	9.313E-17	0.0000	1.154E-17	0.0000	6.184E-17	0.0000
Sb-125	2.578E-03	0.0000	1.671E-09	0.0000	0.000E+00	0.0000	8.202E-05	0.0000	8.763E-06	0.0000	8.856E-07	0.0000	1.893E-07	0.0000
Sn-113	1.794E-08	0.0000	1.484E-14	0.0000	0.000E+00	0.0000	1.541E-11	0.0000	1.558E-11	0.0000	2.068E-12	0.0000	1.883E-12	0.0000
Sr-90	1.162E-02	0.0001	7.016E-05	0.0000	0.000E+00	0.0000	3.342E+00	0.0200	6.750E-01	0.0040	2.004E-01	0.0012	3.505E-03	0.0000
Tc-99	5.917E-07	0.0000	4.372E-09	0.0000	0.000E+00	0.0000	5.367E-03	0.0000	1.484E-05	0.0000	1.681E-04	0.0000	3.282E-07	0.0000
Zn-65	3.824E-05	0.0000	2.391E-11	0.0000	0.000E+00	0.0000	9.447E-06	0.0000	2.652E-05	0.0000	3.015E-06	0.0000	7.218E-09	0.0000
Zr-95	6.601E-10	0.0000	1.986E-16	0.0000	0.000E+00	0.0000	3.597E-13	0.0000	1.097E-17	0.0000	3.934E-17	0.0000	2.091E-14	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.027E+01	0.0614	1.566E-01	0.0009	2.095E-11	0.0000	1.271E+01	0.0759	1.170E+00	0.0070	2.716E-01	0.0016	5.550E-01	0.0033

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
As mrem/yr and Fraction of Total Dose At t = 5.489E+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.
Nuclide	XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX	
Ag-110m	1.292E-02	0.0001	9.163E-05	0.0000	0.000E+00	0.0000	1.038E-03	0.0000	4.309E-04	0.0000	7.680E-03	0.0000	2.237E-02	0.0001
Am-241	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	4.461E-01	0.0027
C-14	1.479E-01	0.0009	4.115E-01	0.0025	0.000E+00	0.0000	5.898E-02	0.0004	1.282E-02	0.0001	2.101E-02	0.0001	6.522E-01	0.0039
Ce-144	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	9.371E-04	0.0000
Cm-242	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	1.935E-03	0.0000
Cm-243	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	5.538E-01	0.0033
Co-57	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	1.155E-03	0.0000
Co-58	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	2.750E-09	0.0000
Co-60	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	4.302E+00	0.0257
Cs-134	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	7.878E-01	0.0047
Cs-137	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	1.997E+00	0.0119
Eu-154	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	2.705E+00	0.0162
Fe-55	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	6.279E-05	0.0000
H-3	1.012E-02	0.0001	6.317E-07	0.0000	0.000E+00	0.0000	9.572E-04	0.0000	2.554E-04	0.0000	6.905E-04	0.0000	1.202E-02	0.0001
I-129	9.812E+01	0.5865	2.120E-01	0.0013	0.000E+00	0.0000	7.573E+00	0.0453	7.320E+00	0.0438	2.295E+01	0.1372	1.362E+02	0.8142
Mn-54	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	2.379E-02	0.0001
Nb-94	3.413E+00	0.0204	5.757E-02	0.0003	0.000E+00	0.0000	2.658E-01	0.0016	1.150E-05	0.0000	1.628E-04	0.0000	3.781E+00	0.0226
Ni-59	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	1.675E-03	0.0000
Ni-63	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	4.407E-03	0.0000
Np-237	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	8.740E+00	0.0522
Pu-238	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	3.788E-01	0.0023
Pu-239	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	4.390E-01	0.0026
Pu-241	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	1.019E-02	0.0001
Pu-242	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	4.169E-01	0.0025
Ru-106	2.228E-01	0.0013	7.113E-04	0.0000	0.000E+00	0.0000	1.740E-02	0.0001	4.961E-03	0.0000	1.748E-05	0.0000	2.460E-01	0.0015
Sb-124	1.173E-10	0.0000	6.338E-13	0.0000	0.000E+00	0.0000	9.070E-12	0.0000	1.266E-12	0.0000	2.759E-13	0.0000	1.301E-10	0.0000
Sb-125	3.996E-01	0.0024	3.631E-03	0.0000	0.000E+00	0.0000	3.203E-02	0.0002	9.663E-03	0.0001	1.861E-03	0.0000	4.495E-01	0.0027
Sn-113	3.751E-06	0.0000	6.312E-07	0.0000	0.000E+00	0.0000	2.901E-07	0.0000	4.104E-07	0.0000	8.863E-08	0.0000	5.189E-06	0.0000
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	4.233E+00	0.0253
Tc-99	6.980E-01	0.0042	7.746E-04	0.0000	0.000E+00	0.0000	1.203E-01	0.0007	8.644E-04	0.0000	1.759E-02	0.0001	8.431E-01	0.0050
Zn-65	1.488E-02	0.0001	2.111E-03	0.0000	0.000E+00	0.0000	1.265E-03	0.0000	1.662E-02	0.0001	3.548E-03	0.0000	3.850E-02	0.0002
Zr-95	1.006E-11	0.0000	1.602E-13	0.0000	0.000E+00	0.0000	7.099E-13	0.0000	2.069E-17	0.0000	4.082E-16	0.0000	6.714E-10	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.030E+02	0.6159	6.884E-01	0.0041	0.000E+00	0.0000	8.071E+00	0.0482	7.366E+00	0.0440	2.301E+01	0.1375	1.673E+02	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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.
Ag-110m	4.456E+00	0.0739	2.367E-06	0.0000	0.000E+00	0.0000	6.628E-02	0.0011	5.571E-03	0.0001	5.369E-02	0.0009	1.362E-04	0.0000
Am-241	2.533E-02	0.0004	2.827E-02	0.0005	0.000E+00	0.0000	3.155E-01	0.0052	3.243E-03	0.0001	1.850E-04	0.0000	9.914E-02	0.0016
C-14	1.888E-06	0.0000	1.335E-04	0.0000	0.000E+00	0.0000	7.428E-01	0.0123	2.496E-01	0.0041	9.165E-02	0.0015	1.365E-05	0.0000
Ce-144	1.216E-01	0.0020	1.585E-05	0.0000	0.000E+00	0.0000	2.434E-03	0.0000	5.604E-06	0.0000	1.962E-05	0.0000	3.827E-04	0.0000
Cm-242	5.167E-05	0.0000	6.242E-04	0.0000	3.065E-17	0.0000	5.778E-03	0.0001	3.440E-05	0.0000	3.185E-06	0.0000	1.815E-03	0.0000
Cm-243	3.290E-01	0.0055	1.941E-02	0.0003	0.000E+00	0.0000	2.160E-01	0.0036	8.879E-04	0.0000	1.267E-04	0.0000	6.788E-02	0.0011
Co-57	1.867E-01	0.0031	3.771E-07	0.0000	0.000E+00	0.0000	5.337E-03	0.0001	2.869E-03	0.0000	3.456E-04	0.0000	2.099E-05	0.0000
Co-58	9.099E-01	0.0151	1.896E-07	0.0000	0.000E+00	0.0000	6.779E-03	0.0001	3.643E-03	0.0001	4.387E-04	0.0000	2.664E-05	0.0000
Co-60	8.581E+00	0.1423	1.313E-05	0.0000	0.000E+00	0.0000	1.754E-01	0.0029	9.433E-02	0.0016	1.136E-02	0.0002	6.900E-04	0.0000
Cs-134	4.518E+00	0.0749	2.511E-06	0.0000	0.000E+00	0.0000	2.166E-01	0.0036	1.894E-01	0.0031	6.186E-02	0.0010	1.704E-03	0.0000
Cs-137	1.894E+00	0.0314	2.018E-06	0.0000	0.000E+00	0.0000	1.720E-01	0.0029	1.504E-01	0.0025	4.911E-02	0.0008	1.353E-03	0.0000
Eu-154	4.171E+00	0.0692	1.760E-05	0.0000	0.000E+00	0.0000	1.998E-03	0.0000	3.878E-04	0.0000	1.347E-05	0.0000	2.514E-04	0.0000
Fe-55	0.000E+00	0.0000	1.518E-07	0.0000	0.000E+00	0.0000	4.663E-05	0.0000	1.917E-04	0.0000	4.102E-06	0.0000	1.465E-05	0.0000
H-3	0.000E+00	0.0000	2.705E-04	0.0000	0.000E+00	0.0000	1.048E-02	0.0002	1.769E-03	0.0000	1.471E-03	0.0000	8.515E-07	0.0000
I-129	5.933E-03	0.0001	8.563E-06	0.0000	0.000E+00	0.0000	3.755E-01	0.0062	9.316E-02	0.0015	1.628E-01	0.0027	5.810E-03	0.0001
Mn-54	1.990E+00	0.0330	2.937E-07	0.0000	0.000E+00	0.0000	4.953E-02	0.0008	6.247E-04	0.0000	4.452E-04	0.0000	5.195E-05	0.0000
Nb-94	3.737E+00	0.0620	1.819E-05	0.0000	0.000E+00	0.0000	4.364E-03	0.0001	5.939E-08	0.0000	4.952E-07	0.0000	1.342E-04	0.0000
Ni-59	0.000E+00	0.0000	1.728E-07	0.0000	0.000E+00	0.0000	9.134E-04	0.0000	1.290E-04	0.0000	6.279E-04	0.0000	5.748E-06	0.0000
Ni-63	0.000E+00	0.0000	4.010E-07	0.0000	0.000E+00	0.0000	2.501E-03	0.0000	3.532E-04	0.0000	1.719E-03	0.0000	1.574E-05	0.0000
Np-237	6.240E-01	0.0103	3.455E-02	0.0006	0.000E+00	0.0000	7.730E+00	0.1282	2.603E-01	0.0043	1.635E-03	0.0000	1.216E-01	0.0020
Pu-238	8.944E-05	0.0000	2.499E-02	0.0004	2.458E-14	0.0000	2.776E-01	0.0046	5.706E-03	0.0001	8.142E-05	0.0000	8.725E-02	0.0014
Pu-239	1.689E-04	0.0000	2.745E-02	0.0005	0.000E+00	0.0000	3.083E-01	0.0051	6.337E-03	0.0001	9.041E-05	0.0000	9.690E-02	0.0016
Pu-241	3.059E-05	0.0000	5.378E-04	0.0000	0.000E+00	0.0000	6.066E-03	0.0001	1.223E-04	0.0000	1.852E-06	0.0000	1.906E-03	0.0000
Pu-242	7.544E-05	0.0000	2.630E-02	0.0004	7.636E-25	0.0000	2.927E-01	0.0049	6.015E-03	0.0001	8.582E-05	0.0000	9.198E-02	0.0015
Ru-106	3.772E-01	0.0063	1.585E-05	0.0000	0.000E+00	0.0000	3.794E-02	0.0006	2.502E-03	0.0000	4.929E-06	0.0000	3.894E-04	0.0000
Sb-124	1.305E+00	0.0217	3.196E-07	0.0000	0.000E+00	0.0000	1.768E-03	0.0000	7.828E-05	0.0000	9.936E-06	0.0000	5.480E-05	0.0000
Sb-125	8.508E-01	0.0141	5.300E-07	0.0000	0.000E+00	0.0000	1.870E-02	0.0003	1.702E-03	0.0000	1.848E-04	0.0000	5.783E-05	0.0000
Sn-113	2.627E-01	0.0044	2.174E-07	0.0000	0.000E+00	0.0000	2.233E-04	0.0000	2.224E-04	0.0000	3.001E-05	0.0000	2.757E-05	0.0000
Sr-90	1.367E-02	0.0002	8.251E-05	0.0000	0.000E+00	0.0000	3.930E+00	0.0652	7.937E-01	0.0132	2.356E-01	0.0039	4.122E-03	0.0001
Tc-99	4.947E-05	0.0000	3.655E-07	0.0000	0.000E+00	0.0000	4.461E-01	0.0074	1.207E-03	0.0000	1.378E-02	0.0002	2.744E-05	0.0000
Zn-65	9.532E-01	0.0158	5.959E-07	0.0000	0.000E+00	0.0000	2.336E-01	0.0039	6.364E-01	0.0106	7.315E-02	0.0012	1.799E-04	0.0000
Zr-95	1.206E+00	0.0200	4.560E-07	0.0000	0.000E+00	0.0000	5.147E-04	0.0000	2.303E-08	0.0000	5.827E-08	0.0000	4.108E-05	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	3.652E+01	0.6057	1.627E-01	0.0027	2.461E-14	0.0000	1.565E+01	0.2596	2.511E+00	0.0416	7.606E-01	0.0126	5.840E-01	0.0097

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	1.998E-01	0.0033	1.309E-03	0.0000	0.000E+00	0.0000	1.402E-02	0.0002	3.156E-03	0.0001	9.505E-02	0.0016	4.895E+00	0.0812
Am-241	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	4.717E-01	0.0078
C-14	5.850E-02	0.0010	1.509E-01	0.0025	0.000E+00	0.0000	1.956E-02	0.0003	2.708E-03	0.0000	7.640E-03	0.0001	1.324E+00	0.0220
Ce-144	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	1.245E-01	0.0021
Cm-242	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	8.306E-03	0.0001
Cm-243	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	6.333E-01	0.0105
Co-57	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	1.953E-01	0.0032
Co-58	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	9.207E-01	0.0153
Co-60	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	8.862E+00	0.1470
Cs-134	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	4.987E+00	0.0827
Cs-137	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	2.267E+00	0.0376
Eu-154	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	4.174E+00	0.0692
Fe-55	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	2.572E-04	0.0000
H-3	2.339E-03	0.0000	1.355E-07	0.0000	0.000E+00	0.0000	1.886E-04	0.0000	3.913E-05	0.0000	1.513E-04	0.0000	1.671E-02	0.0003
I-129	1.406E+00	0.0233	2.621E-03	0.0000	0.000E+00	0.0000	8.395E-02	0.0014	2.024E-02	0.0003	2.242E-01	0.0037	2.380E+00	0.0395
Mn-54	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	2.041E+00	0.0338
Nb-94	3.066E-01	0.0051	4.809E-03	0.0001	0.000E+00	0.0000	2.107E-02	0.0003	5.068E-07	0.0000	1.181E-05	0.0000	4.074E+00	0.0676
Ni-59	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	1.676E-03	0.0000
Ni-63	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	4.589E-03	0.0001
Np-237	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	8.772E+00	0.1455
Pu-238	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	3.957E-01	0.0066
Pu-239	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	4.393E-01	0.0073
Pu-241	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	8.665E-03	0.0001
Pu-242	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	4.171E-01	0.0069
Ru-106	6.634E-01	0.0110	1.962E-03	0.0000	0.000E+00	0.0000	4.547E-02	0.0008	7.085E-03	0.0001	4.181E-05	0.0000	1.136E+00	0.0188
Sb-124	1.443E-02	0.0002	6.999E-05	0.0000	0.000E+00	0.0000	9.366E-04	0.0000	6.284E-05	0.0000	2.613E-05	0.0000	1.323E+00	0.0219
Sb-125	1.277E-01	0.0021	1.065E-03	0.0000	0.000E+00	0.0000	9.003E-03	0.0001	1.480E-03	0.0000	4.728E-04	0.0000	1.011E+00	0.0168
Sn-113	2.236E-02	0.0004	3.447E-03	0.0001	0.000E+00	0.0000	1.494E-03	0.0000	1.103E-03	0.0000	4.180E-04	0.0000	2.920E-01	0.0048
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	4.978E+00	0.0826
Tc-99	6.270E-02	0.0010	6.469E-05	0.0000	0.000E+00	0.0000	9.374E-03	0.0002	3.728E-05	0.0000	1.252E-03	0.0000	5.346E-01	0.0089
Zn-65	2.609E-01	0.0043	3.420E-02	0.0006	0.000E+00	0.0000	1.935E-02	0.0003	1.378E-01	0.0023	4.973E-02	0.0008	2.399E+00	0.0398
Zr-95	4.097E-04	0.0000	5.842E-06	0.0000	0.000E+00	0.0000	2.426E-05	0.0000	3.457E-10	0.0000	1.342E-08	0.0000	1.207E+00	0.0200
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	3.125E+00	0.0518	2.005E-01	0.0033	0.000E+00	0.0000	2.244E-01	0.0037	1.737E-01	0.0029	3.790E-01	0.0063	6.029E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	7.223E-01	0.0077	3.837E-07	0.0000	0.000E+00	0.0000	1.083E-02	0.0001	9.371E-04	0.0000	8.933E-03	0.0001	2.207E-05	0.0000
Am-241	2.507E-02	0.0003	2.798E-02	0.0003	0.000E+00	0.0000	3.124E-01	0.0033	3.211E-03	0.0000	1.832E-04	0.0000	9.813E-02	0.0010
C-14	3.046E-08	0.0000	2.154E-06	0.0000	0.000E+00	0.0000	1.285E-02	0.0001	5.303E-03	0.0001	1.819E-03	0.0000	2.202E-07	0.0000
Ce-144	4.991E-02	0.0005	6.503E-06	0.0000	0.000E+00	0.0000	9.989E-04	0.0000	2.300E-06	0.0000	8.052E-06	0.0000	1.570E-04	0.0000
Cm-242	1.127E-05	0.0000	2.314E-04	0.0000	7.703E-16	0.0000	2.327E-03	0.0000	2.996E-05	0.0000	9.971E-07	0.0000	7.312E-04	0.0000
Cm-243	3.210E-01	0.0034	1.894E-02	0.0002	0.000E+00	0.0000	2.108E-01	0.0022	8.666E-04	0.0000	1.236E-04	0.0000	6.624E-02	0.0007
Co-57	7.332E-02	0.0008	1.481E-07	0.0000	0.000E+00	0.0000	2.096E-03	0.0000	1.127E-03	0.0000	1.357E-04	0.0000	8.242E-06	0.0000
Co-58	2.546E-02	0.0003	5.306E-09	0.0000	0.000E+00	0.0000	1.898E-04	0.0000	1.020E-04	0.0000	1.228E-05	0.0000	7.455E-07	0.0000
Co-60	7.522E+00	0.0798	1.151E-05	0.0000	0.000E+00	0.0000	1.538E-01	0.0016	8.269E-02	0.0009	9.961E-03	0.0001	6.048E-04	0.0000
Cs-134	3.228E+00	0.0342	1.794E-06	0.0000	0.000E+00	0.0000	1.548E-01	0.0016	1.354E-01	0.0014	4.420E-02	0.0005	1.218E-03	0.0000
Cs-137	1.851E+00	0.0196	1.972E-06	0.0000	0.000E+00	0.0000	1.681E-01	0.0018	1.470E-01	0.0016	4.799E-02	0.0005	1.322E-03	0.0000
Eu-154	3.854E+00	0.0409	1.626E-05	0.0000	0.000E+00	0.0000	1.846E-03	0.0000	3.583E-04	0.0000	1.245E-05	0.0000	2.323E-04	0.0000
Fe-55	0.000E+00	0.0000	1.174E-07	0.0000	0.000E+00	0.0000	3.606E-05	0.0000	1.482E-04	0.0000	3.173E-06	0.0000	1.133E-05	0.0000
H-3	0.000E+00	0.0000	5.087E-05	0.0000	0.000E+00	0.0000	2.002E-03	0.0000	3.566E-04	0.0000	2.909E-04	0.0000	1.602E-07	0.0000
I-129	3.421E-03	0.0000	4.937E-06	0.0000	0.000E+00	0.0000	2.173E-01	0.0023	5.448E-02	0.0006	9.472E-02	0.0010	3.350E-03	0.0000
Mn-54	8.844E-01	0.0094	1.305E-07	0.0000	0.000E+00	0.0000	2.201E-02	0.0002	2.777E-04	0.0000	1.979E-04	0.0000	2.309E-05	0.0000
Nb-94	1.669E+00	0.0177	8.120E-06	0.0000	0.000E+00	0.0000	1.959E-03	0.0000	2.705E-08	0.0000	2.235E-07	0.0000	5.990E-05	0.0000
Ni-59	0.000E+00	0.0000	1.727E-07	0.0000	0.000E+00	0.0000	9.133E-04	0.0000	1.290E-04	0.0000	6.278E-04	0.0000	5.747E-06	0.0000
Ni-63	0.000E+00	0.0000	3.981E-07	0.0000	0.000E+00	0.0000	2.482E-03	0.0000	3.506E-04	0.0000	1.706E-03	0.0000	1.562E-05	0.0000
Np-237	6.236E-01	0.0066	3.452E-02	0.0004	0.000E+00	0.0000	7.725E+00	0.0819	2.602E-01	0.0028	1.634E-03	0.0000	1.215E-01	0.0013
Pu-238	8.873E-05	0.0000	2.479E-02	0.0003	3.676E-13	0.0000	2.754E-01	0.0029	5.661E-03	0.0001	8.078E-05	0.0000	8.656E-02	0.0009
Pu-239	1.689E-04	0.0000	2.745E-02	0.0003	0.000E+00	0.0000	3.083E-01	0.0033	6.336E-03	0.0001	9.040E-05	0.0000	9.689E-02	0.0010
Pu-241	6.860E-05	0.0000	5.565E-04	0.0000	0.000E+00	0.0000	6.272E-03	0.0001	1.217E-04	0.0000	2.053E-06	0.0000	1.971E-03	0.0000
Pu-242	7.544E-05	0.0000	2.630E-02	0.0003	2.363E-23	0.0000	2.926E-01	0.0031	6.014E-03	0.0001	8.581E-05	0.0000	9.197E-02	0.0010
Ru-106	8.467E-02	0.0009	3.557E-06	0.0000	0.000E+00	0.0000	8.579E-03	0.0001	5.789E-04	0.0000	1.128E-06	0.0000	8.741E-05	0.0000
Sb-124	8.692E-03	0.0001	2.128E-09	0.0000	0.000E+00	0.0000	1.197E-05	0.0000	5.496E-07	0.0000	6.811E-08	0.0000	3.649E-07	0.0000
Sb-125	2.959E-01	0.0031	1.917E-07	0.0000	0.000E+00	0.0000	9.361E-03	0.0001	9.956E-04	0.0000	1.008E-04	0.0000	2.170E-05	0.0000
Sn-113	1.300E-02	0.0001	1.076E-08	0.0000	0.000E+00	0.0000	1.117E-05	0.0000	1.129E-05	0.0000	1.499E-06	0.0000	1.365E-06	0.0000
Sr-90	1.327E-02	0.0001	8.011E-05	0.0000	0.000E+00	0.0000	3.816E+00	0.0405	7.707E-01	0.0082	2.288E-01	0.0024	4.002E-03	0.0000
Tc-99	2.209E-05	0.0000	1.632E-07	0.0000	0.000E+00	0.0000	2.003E-01	0.0021	5.540E-04	0.0000	6.276E-03	0.0001	1.225E-05	0.0000
Zn-65	1.507E-01	0.0016	9.423E-08	0.0000	0.000E+00	0.0000	3.724E-02	0.0004	1.045E-01	0.0011	1.188E-02	0.0001	2.845E-05	0.0000
Zr-95	3.403E-02	0.0004	1.027E-08	0.0000	0.000E+00	0.0000	1.848E-05	0.0000	5.664E-10	0.0000	2.020E-09	0.0000	1.079E-06	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	2.145E+01	0.2275	1.610E-01	0.0017	3.684E-13	0.0000	1.396E+01	0.1480	1.588E+00	0.0168	4.599E-01	0.0049	5.752E-01	0.0061

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	6.683E-01	0.0071	4.653E-03	0.0000	0.000E+00	0.0000	5.201E-02	0.0006	1.887E-02	0.0002	3.753E-01	0.0040	1.862E+00	0.0197
Am-241	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	4.669E-01	0.0050
C-14	2.146E-01	0.0023	5.837E-01	0.0062	0.000E+00	0.0000	8.126E-02	0.0009	1.566E-02	0.0002	2.966E-02	0.0003	9.448E-01	0.0100
Ce-144	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	5.108E-02	0.0005
Cm-242	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	3.332E-03	0.0000
Cm-243	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	6.180E-01	0.0066
Co-57	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	7.669E-02	0.0008
Co-58	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	2.577E-02	0.0003
Co-60	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	7.769E+00	0.0824
Cs-134	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	3.563E+00	0.0378
Cs-137	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	2.215E+00	0.0235
Eu-154	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	3.857E+00	0.0409
Fe-55	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	1.989E-04	0.0000
H-3	1.224E-02	0.0001	7.499E-07	0.0000	0.000E+00	0.0000	1.112E-03	0.0000	2.787E-04	0.0000	8.231E-04	0.0000	1.716E-02	0.0002
I-129	3.338E+01	0.3540	7.076E-02	0.0008	0.000E+00	0.0000	2.494E+00	0.0264	2.067E+00	0.0219	7.349E+00	0.0779	4.573E+01	0.4850
Mn-54	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	9.069E-01	0.0096
Nb-94	2.058E+00	0.0218	3.409E-02	0.0004	0.000E+00	0.0000	1.554E-01	0.0016	5.891E-06	0.0000	9.281E-05	0.0000	3.918E+00	0.0415
Ni-59	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	1.676E-03	0.0000
Ni-63	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	4.555E-03	0.0000
Np-237	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	8.766E+00	0.0930
Pu-238	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	3.926E-01	0.0042
Pu-239	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	4.392E-01	0.0047
Pu-241	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	8.992E-03	0.0001
Pu-242	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	4.171E-01	0.0044
Ru-106	2.755E+00	0.0292	8.636E-03	0.0001	0.000E+00	0.0000	2.086E-01	0.0022	5.202E-02	0.0006	2.043E-04	0.0000	3.118E+00	0.0331
Sb-124	8.075E-03	0.0001	4.270E-05	0.0000	0.000E+00	0.0000	6.030E-04	0.0000	7.182E-05	0.0000	1.782E-05	0.0000	1.752E-02	0.0002
Sb-125	7.227E-01	0.0077	6.441E-03	0.0001	0.000E+00	0.0000	5.614E-02	0.0006	1.481E-02	0.0002	3.176E-03	0.0000	1.110E+00	0.0118
Sn-113	3.605E-02	0.0004	5.950E-03	0.0001	0.000E+00	0.0000	2.700E-03	0.0000	3.313E-03	0.0000	8.033E-04	0.0000	6.184E-02	0.0007
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	4.833E+00	0.0513
Tc-99	4.208E-01	0.0045	4.586E-04	0.0000	0.000E+00	0.0000	7.003E-02	0.0007	4.409E-04	0.0000	9.977E-03	0.0001	7.089E-01	0.0075
Zn-65	8.588E-01	0.0091	1.196E-01	0.0013	0.000E+00	0.0000	7.074E-02	0.0008	8.119E-01	0.0086	1.934E-01	0.0021	2.359E+00	0.0250
Zr-95	3.612E-04	0.0000	5.638E-06	0.0000	0.000E+00	0.0000	2.468E-05	0.0000	6.185E-10	0.0000	1.395E-08	0.0000	3.444E-02	0.0004
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	4.113E+01	0.4362	8.343E-01	0.0088	0.000E+00	0.0000	3.193E+00	0.0339	2.984E+00	0.0316	7.963E+00	0.0844	9.430E+01	1.0000

\*Sum of all water independent and dependent pathways.



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	1.899E-02	0.0001	1.008E-08	0.0000	0.000E+00	0.0000	2.847E-04	0.0000	2.463E-05	0.0000	2.348E-04	0.0000	5.801E-07	0.0000
Am-241	2.456E-02	0.0002	2.742E-02	0.0002	0.000E+00	0.0000	3.061E-01	0.0020	3.146E-03	0.0000	1.795E-04	0.0000	9.615E-02	0.0006
C-14	7.850E-12	0.0000	5.551E-10	0.0000	0.000E+00	0.0000	3.312E-06	0.0000	1.368E-06	0.0000	4.692E-07	0.0000	5.673E-11	0.0000
Ce-144	8.405E-03	0.0001	1.095E-06	0.0000	0.000E+00	0.0000	1.682E-04	0.0000	3.873E-07	0.0000	1.356E-06	0.0000	2.645E-05	0.0000
Cm-242	9.279E-07	0.0000	1.292E-04	0.0000	1.340E-14	0.0000	1.425E-03	0.0000	2.849E-05	0.0000	4.321E-07	0.0000	4.478E-04	0.0000
Cm-243	3.057E-01	0.0020	1.804E-02	0.0001	0.000E+00	0.0000	2.007E-01	0.0013	8.256E-04	0.0000	1.177E-04	0.0000	6.309E-02	0.0004
Co-57	1.131E-02	0.0001	2.284E-08	0.0000	0.000E+00	0.0000	3.232E-04	0.0000	1.738E-04	0.0000	2.093E-05	0.0000	1.271E-06	0.0000
Co-58	1.994E-05	0.0000	4.156E-12	0.0000	0.000E+00	0.0000	1.487E-07	0.0000	7.987E-08	0.0000	9.617E-09	0.0000	5.839E-10	0.0000
Co-60	5.780E+00	0.0386	8.846E-06	0.0000	0.000E+00	0.0000	1.182E-01	0.0008	6.354E-02	0.0004	7.655E-03	0.0001	4.648E-04	0.0000
Cs-134	1.648E+00	0.0110	9.158E-07	0.0000	0.000E+00	0.0000	7.902E-02	0.0005	6.910E-02	0.0005	2.256E-02	0.0002	6.216E-04	0.0000
Cs-137	1.767E+00	0.0118	1.883E-06	0.0000	0.000E+00	0.0000	1.605E-01	0.0011	1.403E-01	0.0009	4.582E-02	0.0003	1.262E-03	0.0000
Eu-154	3.291E+00	0.0220	1.389E-05	0.0000	0.000E+00	0.0000	1.577E-03	0.0000	3.060E-04	0.0000	1.063E-05	0.0000	1.983E-04	0.0000
Fe-55	0.000E+00	0.0000	7.024E-08	0.0000	0.000E+00	0.0000	2.157E-05	0.0000	8.868E-05	0.0000	1.898E-06	0.0000	6.780E-06	0.0000
H-3	0.000E+00	0.0000	1.795E-06	0.0000	0.000E+00	0.0000	7.064E-05	0.0000	1.259E-05	0.0000	1.027E-05	0.0000	5.652E-09	0.0000
I-129	1.137E-03	0.0000	1.641E-06	0.0000	0.000E+00	0.0000	7.224E-02	0.0005	1.811E-02	0.0001	3.149E-02	0.0002	1.114E-03	0.0000
Mn-54	1.747E-01	0.0012	2.578E-08	0.0000	0.000E+00	0.0000	4.347E-03	0.0000	5.483E-05	0.0000	3.908E-05	0.0000	4.559E-06	0.0000
Nb-94	3.326E-01	0.0022	1.619E-06	0.0000	0.000E+00	0.0000	3.906E-04	0.0000	5.392E-09	0.0000	4.455E-08	0.0000	1.194E-05	0.0000
Ni-59	0.000E+00	0.0000	1.727E-07	0.0000	0.000E+00	0.0000	9.129E-04	0.0000	1.289E-04	0.0000	6.276E-04	0.0000	5.745E-06	0.0000
Ni-63	0.000E+00	0.0000	3.922E-07	0.0000	0.000E+00	0.0000	2.446E-03	0.0000	3.454E-04	0.0000	1.681E-03	0.0000	1.539E-05	0.0000
Np-237	6.227E-01	0.0042	3.448E-02	0.0002	0.000E+00	0.0000	7.714E+00	0.0515	2.598E-01	0.0017	1.632E-03	0.0000	1.214E-01	0.0008
Pu-238	8.732E-05	0.0000	2.439E-02	0.0002	4.259E-12	0.0000	2.711E-01	0.0018	5.571E-03	0.0000	7.953E-05	0.0000	8.519E-02	0.0006
Pu-239	1.689E-04	0.0000	2.744E-02	0.0002	0.000E+00	0.0000	3.082E-01	0.0021	6.335E-03	0.0000	9.038E-05	0.0000	9.687E-02	0.0006
Pu-241	1.382E-04	0.0000	5.900E-04	0.0000	0.000E+00	0.0000	6.641E-03	0.0000	1.202E-04	0.0000	2.418E-06	0.0000	2.087E-03	0.0000
Pu-242	7.542E-05	0.0000	2.629E-02	0.0002	5.931E-22	0.0000	2.926E-01	0.0020	6.013E-03	0.0000	8.580E-05	0.0000	9.195E-02	0.0006
Ru-106	4.267E-03	0.0000	1.793E-07	0.0000	0.000E+00	0.0000	4.323E-04	0.0000	2.918E-05	0.0000	5.686E-08	0.0000	4.405E-06	0.0000
Sb-124	3.854E-07	0.0000	9.437E-14	0.0000	0.000E+00	0.0000	5.307E-10	0.0000	2.437E-11	0.0000	3.020E-12	0.0000	1.618E-11	0.0000
Sb-125	3.576E-02	0.0002	2.318E-08	0.0000	0.000E+00	0.0000	1.138E-03	0.0000	1.216E-04	0.0000	1.229E-05	0.0000	2.626E-06	0.0000
Sn-113	3.185E-05	0.0000	2.635E-11	0.0000	0.000E+00	0.0000	2.737E-08	0.0000	2.767E-08	0.0000	3.672E-09	0.0000	3.343E-09	0.0000
Sr-90	1.251E-02	0.0001	7.551E-05	0.0000	0.000E+00	0.0000	3.597E+00	0.0240	7.265E-01	0.0048	2.157E-01	0.0014	3.772E-03	0.0000
Tc-99	4.403E-06	0.0000	3.253E-08	0.0000	0.000E+00	0.0000	3.994E-02	0.0003	1.104E-04	0.0000	1.251E-03	0.0000	2.442E-06	0.0000
Zn-65	3.769E-03	0.0000	2.356E-09	0.0000	0.000E+00	0.0000	9.311E-04	0.0000	2.614E-03	0.0000	2.971E-04	0.0000	7.115E-07	0.0000
Zr-95	1.251E-05	0.0000	3.763E-12	0.0000	0.000E+00	0.0000	6.816E-09	0.0000	2.079E-13	0.0000	7.455E-13	0.0000	3.961E-10	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.404E+01	0.0937	1.589E-01	0.0011	4.273E-12	0.0000	1.318E+01	0.0880	1.303E+00	0.0087	3.296E-01	0.0022	5.647E-01	0.0038

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	1.591E-01	0.0011	1.121E-03	0.0000	0.000E+00	0.0000	1.264E-02	0.0001	5.054E-03	0.0000	9.288E-02	0.0006	2.903E-01	0.0019
Am-241	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	4.575E-01	0.0031
C-14	2.222E-01	0.0015	6.060E-01	0.0040	0.000E+00	0.0000	8.465E-02	0.0006	1.664E-02	0.0001	3.082E-02	0.0002	9.603E-01	0.0064
Ce-144	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	8.602E-03	0.0001
Cm-242	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	2.032E-03	0.0000
Cm-243	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	5.885E-01	0.0039
Co-57	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	1.183E-02	0.0001
Co-58	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	2.018E-05	0.0000
Co-60	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	5.970E+00	0.0398
Cs-134	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	1.819E+00	0.0121
Cs-137	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	2.115E+00	0.0141
Eu-154	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	3.293E+00	0.0220
Fe-55	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	1.190E-04	0.0000
H-3	1.416E-02	0.0001	8.741E-07	0.0000	0.000E+00	0.0000	1.308E-03	0.0000	3.378E-04	0.0000	9.580E-04	0.0000	1.686E-02	0.0001
I-129	8.059E+01	0.5379	1.738E-01	0.0012	0.000E+00	0.0000	6.198E+00	0.0414	5.898E+00	0.0394	1.873E+01	0.1250	1.117E+02	0.7456
Mn-54	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	1.791E-01	0.0012
Nb-94	3.518E+00	0.0235	5.890E-02	0.0004	0.000E+00	0.0000	2.705E-01	0.0018	1.116E-05	0.0000	1.641E-04	0.0000	4.181E+00	0.0279
Ni-59	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	1.675E-03	0.0000
Ni-63	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	4.488E-03	0.0000
Np-237	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	8.754E+00	0.0584
Pu-238	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	3.864E-01	0.0026
Pu-239	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	4.391E-01	0.0029
Pu-241	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	9.578E-03	0.0001
Pu-242	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	4.170E-01	0.0028
Ru-106	1.235E+00	0.0082	3.918E-03	0.0000	0.000E+00	0.0000	9.541E-02	0.0006	2.611E-02	0.0002	9.509E-05	0.0000	1.365E+00	0.0091
Sb-124	3.777E-06	0.0000	2.034E-08	0.0000	0.000E+00	0.0000	2.904E-07	0.0000	3.977E-08	0.0000	8.803E-09	0.0000	4.522E-06	0.0000
Sb-125	7.596E-01	0.0051	6.852E-03	0.0000	0.000E+00	0.0000	6.014E-02	0.0004	1.734E-02	0.0001	3.463E-03	0.0000	8.845E-01	0.0059
Sn-113	8.519E-04	0.0000	1.427E-04	0.0000	0.000E+00	0.0000	6.536E-05	0.0000	8.985E-05	0.0000	1.986E-05	0.0000	1.202E-03	0.0000
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	4.556E+00	0.0304
Tc-99	7.195E-01	0.0048	7.924E-04	0.0000	0.000E+00	0.0000	1.222E-01	0.0008	8.373E-04	0.0000	1.769E-02	0.0001	9.023E-01	0.0060
Zn-65	1.947E-01	0.0013	2.745E-02	0.0002	0.000E+00	0.0000	1.638E-02	0.0001	2.073E-01	0.0014	4.561E-02	0.0003	4.991E-01	0.0033
Zr-95	1.909E-07	0.0000	3.039E-09	0.0000	0.000E+00	0.0000	1.347E-08	0.0000	3.925E-13	0.0000	7.744E-12	0.0000	1.272E-05	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	8.741E+01	0.5834	8.789E-01	0.0059	0.000E+00	0.0000	6.861E+00	0.0458	6.171E+00	0.0412	1.892E+01	0.1263	1.498E+02	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	5.588E-08	0.0000	2.968E-14	0.0000	0.000E+00	0.0000	8.380E-10	0.0000	7.250E-11	0.0000	6.910E-10	0.0000	1.708E-12	0.0000
Am-241	2.287E-02	0.0003	2.553E-02	0.0004	0.000E+00	0.0000	2.850E-01	0.0040	2.930E-03	0.0000	1.671E-04	0.0000	8.953E-02	0.0013
C-14	1.941E-24	0.0000	1.373E-22	0.0000	0.000E+00	0.0000	8.198E-19	0.0000	3.398E-19	0.0000	1.164E-19	0.0000	1.403E-23	0.0000
Ce-144	1.647E-05	0.0000	2.146E-09	0.0000	0.000E+00	0.0000	3.297E-07	0.0000	7.592E-10	0.0000	2.658E-09	0.0000	5.184E-08	0.0000
Cm-242	4.216E-07	0.0000	1.178E-04	0.0000	4.696E-13	0.0000	1.309E-03	0.0000	2.690E-05	0.0000	3.844E-07	0.0000	4.113E-04	0.0000
Cm-243	2.576E-01	0.0036	1.521E-02	0.0002	0.000E+00	0.0000	1.692E-01	0.0024	6.969E-04	0.0000	9.922E-05	0.0000	5.318E-02	0.0007
Co-57	1.628E-05	0.0000	3.288E-11	0.0000	0.000E+00	0.0000	4.653E-07	0.0000	2.502E-07	0.0000	3.014E-08	0.0000	1.830E-09	0.0000
Co-58	2.682E-16	0.0000	5.588E-23	0.0000	0.000E+00	0.0000	1.999E-18	0.0000	1.074E-18	0.0000	1.293E-19	0.0000	7.851E-21	0.0000
Co-60	2.300E+00	0.0323	3.519E-06	0.0000	0.000E+00	0.0000	4.701E-02	0.0007	2.528E-02	0.0004	3.045E-03	0.0000	1.849E-04	0.0000
Cs-134	1.566E-01	0.0022	8.705E-08	0.0000	0.000E+00	0.0000	7.511E-03	0.0001	6.568E-03	0.0001	2.145E-03	0.0000	5.908E-05	0.0000
Cs-137	1.503E+00	0.0211	1.601E-06	0.0000	0.000E+00	0.0000	1.365E-01	0.0019	1.193E-01	0.0017	3.897E-02	0.0005	1.073E-03	0.0000
Eu-154	1.893E+00	0.0266	7.989E-06	0.0000	0.000E+00	0.0000	9.071E-04	0.0000	1.760E-04	0.0000	6.115E-06	0.0000	1.141E-04	0.0000
Fe-55	0.000E+00	0.0000	1.163E-08	0.0000	0.000E+00	0.0000	3.572E-06	0.0000	1.468E-05	0.0000	3.143E-07	0.0000	1.123E-06	0.0000
H-3	0.000E+00	0.0000	1.445E-11	0.0000	0.000E+00	0.0000	5.685E-10	0.0000	1.014E-10	0.0000	8.268E-11	0.0000	4.548E-14	0.0000
I-129	2.410E-04	0.0000	3.478E-08	0.0000	0.000E+00	0.0000	1.531E-03	0.0000	3.838E-04	0.0000	6.673E-04	0.0000	2.360E-05	0.0000
Mn-54	5.979E-04	0.0000	8.826E-11	0.0000	0.000E+00	0.0000	1.488E-05	0.0000	1.877E-07	0.0000	1.338E-07	0.0000	1.561E-08	0.0000
Nb-94	1.176E-03	0.0000	5.725E-09	0.0000	0.000E+00	0.0000	1.382E-06	0.0000	1.907E-11	0.0000	1.576E-10	0.0000	4.223E-08	0.0000
Ni-59	0.000E+00	0.0000	1.725E-07	0.0000	0.000E+00	0.0000	9.118E-04	0.0000	1.288E-04	0.0000	6.268E-04	0.0000	5.738E-06	0.0000
Ni-63	0.000E+00	0.0000	3.725E-07	0.0000	0.000E+00	0.0000	2.323E-03	0.0000	3.280E-04	0.0000	1.597E-03	0.0000	1.462E-05	0.0000
Np-237	6.198E-01	0.0087	3.431E-02	0.0005	0.000E+00	0.0000	7.678E+00	0.1080	2.586E-01	0.0036	1.624E-03	0.0000	1.208E-01	0.0017
Pu-238	8.258E-05	0.0000	2.307E-02	0.0003	1.102E-10	0.0000	2.563E-01	0.0036	5.268E-03	0.0001	7.530E-05	0.0000	8.055E-02	0.0011
Pu-239	1.687E-04	0.0000	2.742E-02	0.0004	0.000E+00	0.0000	3.080E-01	0.0043	6.330E-03	0.0001	9.031E-05	0.0000	9.679E-02	0.0014
Pu-241	3.240E-04	0.0000	6.726E-04	0.0000	0.000E+00	0.0000	7.547E-03	0.0001	1.146E-04	0.0000	3.372E-06	0.0000	2.371E-03	0.0000
Pu-242	7.538E-05	0.0000	2.628E-02	0.0004	4.572E-20	0.0000	2.924E-01	0.0041	6.010E-03	0.0001	8.574E-05	0.0000	9.189E-02	0.0013
Ru-106	1.226E-07	0.0000	5.151E-12	0.0000	0.000E+00	0.0000	1.242E-08	0.0000	8.384E-10	0.0000	1.634E-12	0.0000	1.266E-10	0.0000
Sb-124	2.237E-22	0.0000	5.477E-29	0.0000	0.000E+00	0.0000	3.080E-25	0.0000	1.414E-26	0.0000	1.753E-27	0.0000	9.390E-27	0.0000
Sb-125	2.195E-05	0.0000	1.423E-11	0.0000	0.000E+00	0.0000	6.983E-07	0.0000	7.461E-08	0.0000	7.540E-09	0.0000	1.612E-09	0.0000
Sn-113	2.317E-14	0.0000	1.917E-20	0.0000	0.000E+00	0.0000	1.991E-17	0.0000	2.013E-17	0.0000	2.672E-18	0.0000	2.432E-18	0.0000
Sr-90	1.017E-02	0.0001	6.140E-05	0.0000	0.000E+00	0.0000	2.925E+00	0.0411	5.907E-01	0.0083	1.754E-01	0.0025	3.067E-03	0.0000
Tc-99	1.558E-08	0.0000	1.151E-10	0.0000	0.000E+00	0.0000	1.413E-04	0.0000	3.907E-07	0.0000	4.426E-06	0.0000	8.639E-09	0.0000
Zn-65	9.317E-09	0.0000	5.825E-15	0.0000	0.000E+00	0.0000	2.302E-09	0.0000	6.461E-09	0.0000	7.345E-10	0.0000	1.759E-12	0.0000
Zr-95	1.168E-17	0.0000	3.512E-24	0.0000	0.000E+00	0.0000	6.363E-21	0.0000	1.941E-25	0.0000	6.960E-25	0.0000	3.698E-22	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	6.765E+00	0.0951	1.527E-01	0.0021	1.106E-10	0.0000	1.212E+01	0.1704	1.023E+00	0.0144	2.246E-01	0.0032	5.401E-01	0.0076

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	3.996E-06	0.0000	2.859E-08	0.0000	0.000E+00	0.0000	3.257E-07	0.0000	1.445E-07	0.0000	2.444E-06	0.0000	6.996E-06	0.0000
Am-241	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	4.260E-01	0.0060
C-14	2.677E-09	0.0000	7.830E-09	0.0000	0.000E+00	0.0000	1.192E-09	0.0000	3.462E-10	0.0000	4.083E-10	0.0000	1.245E-08	0.0000
Ce-144	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	1.686E-05	0.0000
Cm-242	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	1.865E-03	0.0000
Cm-243	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	4.960E-01	0.0070
Co-57	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	1.703E-05	0.0000
Co-58	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	2.714E-16	0.0000
Co-60	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	2.375E+00	0.0334
Cs-134	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	1.729E-01	0.0024
Cs-137	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	1.799E+00	0.0253
Eu-154	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	1.895E+00	0.0266
Fe-55	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	1.971E-05	0.0000
H-3	6.726E-06	0.0000	4.268E-10	0.0000	0.000E+00	0.0000	6.577E-07	0.0000	1.855E-07	0.0000	4.655E-07	0.0000	8.036E-06	0.0000
I-129	3.575E+01	0.5027	7.799E-02	0.0011	0.000E+00	0.0000	2.805E+00	0.0394	2.901E+00	0.0408	8.617E+00	0.1212	5.015E+01	0.7053
Mn-54	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	6.132E-04	0.0000
Nb-94	9.882E-02	0.0014	1.679E-03	0.0000	0.000E+00	0.0000	7.789E-03	0.0001	3.565E-07	0.0000	4.828E-06	0.0000	1.095E-01	0.0015
Ni-59	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	1.673E-03	0.0000
Ni-63	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	4.262E-03	0.0001
Np-237	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	8.713E+00	0.1225
Pu-238	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	3.654E-01	0.0051
Pu-239	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	4.388E-01	0.0062
Pu-241	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	1.103E-02	0.0002
Pu-242	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	4.167E-01	0.0059
Ru-106	2.962E-04	0.0000	9.536E-07	0.0000	0.000E+00	0.0000	2.346E-05	0.0000	7.125E-06	0.0000	2.388E-08	0.0000	3.279E-04	0.0000
Sb-124	2.200E-20	0.0000	1.204E-22	0.0000	0.000E+00	0.0000	1.736E-21	0.0000	2.642E-22	0.0000	5.375E-23	0.0000	2.439E-20	0.0000
Sb-125	3.771E-03	0.0001	3.452E-05	0.0000	0.000E+00	0.0000	3.061E-04	0.0000	9.793E-05	0.0000	1.800E-05	0.0000	4.250E-03	0.0001
Sn-113	5.692E-12	0.0000	9.681E-13	0.0000	0.000E+00	0.0000	4.480E-13	0.0000	6.841E-13	0.0000	1.390E-13	0.0000	7.955E-12	0.0000
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	3.704E+00	0.0521
Tc-99	2.021E-02	0.0003	2.259E-05	0.0000	0.000E+00	0.0000	3.531E-03	0.0000	2.683E-05	0.0000	5.223E-04	0.0000	2.446E-02	0.0003
Zn-65	4.116E-06	0.0000	5.891E-07	0.0000	0.000E+00	0.0000	3.553E-07	0.0000	4.989E-06	0.0000	1.010E-06	0.0000	1.108E-05	0.0000
Zr-95	1.770E-19	0.0000	2.820E-21	0.0000	0.000E+00	0.0000	1.249E-20	0.0000	3.642E-25	0.0000	7.185E-24	0.0000	1.188E-17	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	3.587E+01	0.5045	7.973E-02	0.0011	0.000E+00	0.0000	2.816E+00	0.0396	2.901E+00	0.0408	8.618E+00	0.1212	7.111E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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.
Ag-110m	8.790E-24	0.0000	4.668E-30	0.0000	0.000E+00	0.0000	1.318E-25	0.0000	1.140E-26	0.0000	1.087E-25	0.0000	2.686E-28	0.0000
Am-241	1.866E-02	0.0013	2.082E-02	0.0015	0.000E+00	0.0000	2.325E-01	0.0164	2.391E-03	0.0002	1.363E-04	0.0000	7.302E-02	0.0052
C-14	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
Ce-144	3.023E-13	0.0000	3.939E-17	0.0000	0.000E+00	0.0000	6.050E-15	0.0000	1.393E-17	0.0000	4.877E-17	0.0000	9.512E-16	0.0000
Cm-242	3.594E-07	0.0000	1.004E-04	0.0000	1.200E-11	0.0000	1.116E-03	0.0001	2.293E-05	0.0000	3.289E-07	0.0000	3.506E-04	0.0000
Cm-243	1.580E-01	0.0111	9.338E-03	0.0007	0.000E+00	0.0000	1.039E-01	0.0073	4.303E-04	0.0000	6.089E-05	0.0000	3.266E-02	0.0023
Co-57	1.238E-13	0.0000	2.500E-19	0.0000	0.000E+00	0.0000	3.538E-15	0.0000	1.902E-15	0.0000	2.292E-16	0.0000	1.392E-17	0.0000
Co-58	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
Co-60	1.652E-01	0.0116	2.528E-07	0.0000	0.000E+00	0.0000	3.377E-03	0.0002	1.816E-03	0.0001	2.187E-04	0.0000	1.328E-05	0.0000
Cs-134	1.883E-04	0.0000	1.046E-10	0.0000	0.000E+00	0.0000	9.028E-06	0.0000	7.894E-06	0.0000	2.578E-06	0.0000	7.101E-08	0.0000
Cs-137	9.460E-01	0.0667	1.008E-06	0.0000	0.000E+00	0.0000	8.591E-02	0.0061	7.512E-02	0.0053	2.453E-02	0.0017	6.758E-04	0.0000
Eu-154	3.902E-01	0.0275	1.646E-06	0.0000	0.000E+00	0.0000	1.869E-04	0.0000	3.628E-05	0.0000	1.260E-06	0.0000	2.351E-05	0.0000
Fe-55	0.000E+00	0.0000	6.828E-11	0.0000	0.000E+00	0.0000	2.097E-08	0.0000	8.620E-08	0.0000	1.845E-09	0.0000	6.590E-09	0.0000
H-3	0.000E+00	0.0000	3.218E-26	0.0000	0.000E+00	0.0000	1.267E-24	0.0000	2.265E-25	0.0000	1.846E-25	0.0000	1.013E-28	0.0000
I-129	3.977E-10	0.0000	5.740E-13	0.0000	0.000E+00	0.0000	2.526E-08	0.0000	6.333E-09	0.0000	1.101E-08	0.0000	3.895E-10	0.0000
Mn-54	5.398E-11	0.0000	7.968E-18	0.0000	0.000E+00	0.0000	1.344E-12	0.0000	1.695E-14	0.0000	1.208E-14	0.0000	1.409E-15	0.0000
Nb-94	1.166E-10	0.0000	5.673E-16	0.0000	0.000E+00	0.0000	1.369E-13	0.0000	1.890E-18	0.0000	1.561E-17	0.0000	4.185E-15	0.0000
Ni-59	0.000E+00	0.0000	1.718E-07	0.0000	0.000E+00	0.0000	9.084E-04	0.0001	1.283E-04	0.0000	6.245E-04	0.0000	5.717E-06	0.0000
Ni-63	0.000E+00	0.0000	3.213E-07	0.0000	0.000E+00	0.0000	2.003E-03	0.0001	2.829E-04	0.0000	1.377E-03	0.0001	1.261E-05	0.0000
Np-237	6.115E-01	0.0431	3.386E-02	0.0024	0.000E+00	0.0000	7.575E+00	0.5343	2.551E-01	0.0180	1.603E-03	0.0001	1.192E-01	0.0084
Pu-238	7.040E-05	0.0000	1.966E-02	0.0014	2.509E-09	0.0000	2.185E-01	0.0154	4.490E-03	0.0003	6.443E-05	0.0000	6.866E-02	0.0048
Pu-239	1.683E-04	0.0000	2.736E-02	0.0019	0.000E+00	0.0000	3.073E-01	0.0217	6.315E-03	0.0004	9.010E-05	0.0000	9.657E-02	0.0068
Pu-241	5.426E-04	0.0000	7.241E-04	0.0001	0.000E+00	0.0000	8.098E-03	0.0006	9.740E-05	0.0000	4.347E-06	0.0000	2.544E-03	0.0002
Pu-242	7.524E-05	0.0000	2.623E-02	0.0019	3.116E-18	0.0000	2.919E-01	0.0206	5.999E-03	0.0004	8.559E-05	0.0000	9.173E-02	0.0065
Ru-106	1.296E-20	0.0000	5.444E-25	0.0000	0.000E+00	0.0000	1.313E-21	0.0000	8.859E-23	0.0000	1.727E-25	0.0000	1.338E-23	0.0000
Sb-124	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
Sb-125	1.460E-14	0.0000	9.461E-21	0.0000	0.000E+00	0.0000	4.644E-16	0.0000	4.961E-17	0.0000	5.014E-18	0.0000	1.072E-18	0.0000
Sn-113	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
Sr-90	5.634E-03	0.0004	3.400E-05	0.0000	0.000E+00	0.0000	1.620E+00	0.1142	3.271E-01	0.0231	9.711E-02	0.0068	1.699E-03	0.0001
Tc-99	1.544E-15	0.0000	1.141E-17	0.0000	0.000E+00	0.0000	1.401E-11	0.0000	3.873E-14	0.0000	4.388E-13	0.0000	8.566E-16	0.0000
Zn-65	8.903E-25	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.199E-25	0.0000	6.174E-25	0.0000	7.019E-26	0.0000	1.681E-28	0.0000
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	2.296E+00	0.1620	1.381E-01	0.0097	2.521E-09	0.0000	1.045E+01	0.7371	6.794E-01	0.0479	1.259E-01	0.0089	4.871E-01	0.0344

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 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.
Ag-110m	6.256E-22	0.0000	4.477E-24	0.0000	0.000E+00	0.0000	5.100E-23	0.0000	2.263E-23	0.0000	3.827E-22	0.0000	1.095E-21	0.0000
Am-241	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	3.475E-01	0.0245
C-14	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
Ce-144	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	3.094E-13	0.0000
Cm-242	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	1.590E-03	0.0001
Cm-243	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	3.044E-01	0.0215
Co-57	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	1.295E-13	0.0000
Co-58	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
Co-60	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	1.706E-01	0.0120
Cs-134	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	2.078E-04	0.0000
Cs-137	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	1.132E+00	0.0799
Eu-154	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	3.904E-01	0.0275
Fe-55	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	1.157E-07	0.0000
H-3	1.649E-20	0.0000	1.046E-24	0.0000	0.000E+00	0.0000	1.613E-21	0.0000	4.552E-22	0.0000	1.141E-21	0.0000	1.970E-20	0.0000
I-129	5.877E-04	0.0000	1.282E-06	0.0000	0.000E+00	0.0000	4.611E-05	0.0000	4.768E-05	0.0000	1.417E-04	0.0000	8.245E-04	0.0001
Mn-54	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	5.535E-11	0.0000
Nb-94	9.746E-09	0.0000	1.656E-10	0.0000	0.000E+00	0.0000	7.682E-10	0.0000	3.516E-14	0.0000	4.761E-13	0.0000	1.080E-08	0.0000
Ni-59	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	1.667E-03	0.0001
Ni-63	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	3.676E-03	0.0003
Np-237	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	8.596E+00	0.6063
Pu-238	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	3.114E-01	0.0220
Pu-239	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	4.378E-01	0.0309
Pu-241	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	1.201E-02	0.0008
Pu-242	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	4.160E-01	0.0293
Ru-106	3.115E-17	0.0000	1.003E-19	0.0000	0.000E+00	0.0000	2.468E-18	0.0000	7.495E-19	0.0000	2.512E-21	0.0000	3.449E-17	0.0000
Sb-124	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
Sb-125	2.496E-12	0.0000	2.285E-14	0.0000	0.000E+00	0.0000	2.026E-13	0.0000	6.482E-14	0.0000	1.192E-14	0.0000	2.813E-12	0.0000
Sn-113	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
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	2.051E+00	0.1447
Tc-99	1.995E-09	0.0000	2.230E-12	0.0000	0.000E+00	0.0000	3.485E-10	0.0000	2.648E-12	0.0000	5.155E-11	0.0000	2.414E-09	0.0000
Zn-65	3.914E-22	0.0000	5.602E-23	0.0000	0.000E+00	0.0000	3.379E-23	0.0000	4.744E-22	0.0000	9.605E-23	0.0000	1.054E-21	0.0000
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	5.877E-04	0.0000	1.282E-06	0.0000	0.000E+00	0.0000	4.611E-05	0.0000	4.768E-05	0.0000	1.417E-04	0.0000	1.418E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	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
Am-241	9.152E-03	0.0005	1.020E-02	0.0006	0.000E+00	0.0000	1.140E-01	0.0068	1.176E-03	0.0001	6.681E-05	0.0000	3.578E-02	0.0021
C-14	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
Ce-144	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
Cm-242	2.057E-07	0.0000	5.741E-05	0.0000	3.504E-10	0.0000	6.378E-04	0.0000	1.311E-05	0.0000	1.911E-07	0.0000	2.004E-04	0.0000
Cm-243	2.854E-02	0.0017	1.713E-03	0.0001	0.000E+00	0.0000	1.907E-02	0.0011	8.379E-05	0.0000	1.109E-05	0.0000	5.992E-03	0.0004
Co-57	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
Co-58	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
Co-60	1.640E-05	0.0000	2.510E-11	0.0000	0.000E+00	0.0000	3.353E-07	0.0000	1.803E-07	0.0000	2.172E-08	0.0000	1.319E-09	0.0000
Cs-134	1.133E-14	0.0000	6.299E-21	0.0000	0.000E+00	0.0000	5.435E-16	0.0000	4.752E-16	0.0000	1.552E-16	0.0000	4.275E-18	0.0000
Cs-137	1.872E-01	0.0112	1.995E-07	0.0000	0.000E+00	0.0000	1.700E-02	0.0010	1.487E-02	0.0009	4.854E-03	0.0003	1.337E-04	0.0000
Eu-154	1.550E-03	0.0001	6.539E-09	0.0000	0.000E+00	0.0000	7.425E-07	0.0000	1.441E-07	0.0000	5.005E-09	0.0000	9.341E-08	0.0000
Fe-55	0.000E+00	0.0000	1.058E-18	0.0000	0.000E+00	0.0000	3.250E-16	0.0000	1.336E-15	0.0000	2.859E-17	0.0000	1.021E-16	0.0000
H-3	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
I-129	7.259E-27	0.0000	1.048E-29	0.0000	0.000E+00	0.0000	4.610E-25	0.0000	1.156E-25	0.0000	2.010E-25	0.0000	7.108E-27	0.0000
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	1.696E-07	0.0000	0.000E+00	0.0000	8.969E-04	0.0001	1.267E-04	0.0000	6.165E-04	0.0000	5.644E-06	0.0000
Ni-63	0.000E+00	0.0000	1.915E-07	0.0000	0.000E+00	0.0000	1.194E-03	0.0001	1.686E-04	0.0000	8.207E-04	0.0000	7.513E-06	0.0000
Np-237	5.833E-01	0.0348	3.230E-02	0.0019	0.000E+00	0.0000	7.226E+00	0.4313	2.434E-01	0.0145	1.530E-03	0.0001	1.137E-01	0.0068
Pu-238	4.029E-05	0.0000	1.124E-02	0.0007	7.017E-08	0.0000	1.249E-01	0.0075	2.568E-03	0.0002	3.743E-05	0.0000	3.926E-02	0.0023
Pu-239	1.670E-04	0.0000	2.714E-02	0.0016	0.000E+00	0.0000	3.048E-01	0.0182	6.264E-03	0.0004	8.938E-05	0.0000	9.579E-02	0.0057
Pu-241	3.774E-04	0.0000	4.250E-04	0.0000	0.000E+00	0.0000	4.748E-03	0.0003	4.939E-05	0.0000	2.769E-06	0.0000	1.491E-03	0.0001
Pu-242	7.478E-05	0.0000	2.607E-02	0.0016	3.195E-16	0.0000	2.901E-01	0.0173	5.962E-03	0.0004	8.506E-05	0.0000	9.116E-02	0.0054
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	7.120E-04	0.0000	4.297E-06	0.0000	0.000E+00	0.0000	2.047E-01	0.0122	4.134E-02	0.0025	1.227E-02	0.0007	2.147E-04	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	8.112E-01	0.0484	1.091E-01	0.0065	7.052E-08	0.0000	8.308E+00	0.4959	3.160E-01	0.0189	2.039E-02	0.0012	3.837E-01	0.0229

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	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
Am-241	6.118E+00	0.3652	6.368E-02	0.0038	0.000E+00	0.0000	4.702E-01	0.0281	3.267E-03	0.0002	2.864E-04	0.0000	6.826E+00	0.4074
C-14	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
Ce-144	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
Cm-242	3.268E-24	0.0000	5.721E-25	0.0000	0.000E+00	0.0000	2.359E-25	0.0000	1.272E-25	0.0000	2.342E-26	0.0000	9.092E-04	0.0001
Cm-243	2.786E-05	0.0000	2.899E-07	0.0000	0.000E+00	0.0000	2.141E-06	0.0000	1.485E-08	0.0000	1.303E-09	0.0000	5.544E-02	0.0033
Co-57	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
Co-58	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
Co-60	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	1.694E-05	0.0000
Cs-134	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	1.251E-14	0.0000
Cs-137	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	2.241E-01	0.0134
Eu-154	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	1.551E-03	0.0001
Fe-55	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	1.793E-15	0.0000
H-3	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
I-129	1.058E-20	0.0000	2.308E-23	0.0000	0.000E+00	0.0000	8.300E-22	0.0000	8.583E-22	0.0000	2.550E-21	0.0000	1.484E-20	0.0000
Mn-54	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
Nb-94	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
Ni-59	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	1.646E-03	0.0001
Ni-63	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	2.191E-03	0.0001
Np-237	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	8.200E+00	0.4895
Pu-238	8.029E-22	0.0000	1.405E-22	0.0000	0.000E+00	0.0000	5.796E-23	0.0000	3.126E-23	0.0000	5.755E-24	0.0000	1.781E-01	0.0106
Pu-239	4.165E-11	0.0000	3.998E-13	0.0000	0.000E+00	0.0000	3.194E-12	0.0000	8.773E-15	0.0000	1.941E-14	0.0000	4.342E-01	0.0259
Pu-241	1.301E-01	0.0078	1.353E-03	0.0001	0.000E+00	0.0000	9.992E-03	0.0006	6.934E-05	0.0000	6.085E-06	0.0000	1.486E-01	0.0089
Pu-242	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	4.134E-01	0.0247
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	5.957E-03	0.0004	2.416E-05	0.0000	0.000E+00	0.0000	4.931E-04	0.0000	5.099E-04	0.0000	2.794E-04	0.0000	2.665E-01	0.0159
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	6.254E+00	0.3733	6.506E-02	0.0039	0.000E+00	0.0000	4.807E-01	0.0287	3.846E-03	0.0002	5.719E-04	0.0000	1.675E+01	1.0000

\*Sum of all water independent and dependent pathways.



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	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
Am-241	1.207E-03	0.0001	1.330E-03	0.0001	0.000E+00	0.0000	1.503E-02	0.0007	1.593E-04	0.0000	8.740E-06	0.0000	4.663E-03	0.0002
C-14	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
Ce-144	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
Cm-242	4.237E-08	0.0000	1.163E-05	0.0000	4.901E-09	0.0000	1.292E-04	0.0000	2.655E-06	0.0000	4.205E-08	0.0000	4.058E-05	0.0000
Cm-243	2.155E-04	0.0000	4.400E-05	0.0000	0.000E+00	0.0000	4.928E-04	0.0000	7.807E-06	0.0000	1.860E-07	0.0000	1.549E-04	0.0000
Co-57	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
Co-58	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
Co-60	5.994E-17	0.0000	9.173E-23	0.0000	0.000E+00	0.0000	1.225E-18	0.0000	6.589E-19	0.0000	7.938E-20	0.0000	4.820E-21	0.0000
Cs-134	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
Cs-137	1.829E-03	0.0001	1.949E-09	0.0000	0.000E+00	0.0000	1.661E-04	0.0000	1.452E-04	0.0000	4.742E-05	0.0000	1.306E-06	0.0000
Eu-154	2.140E-10	0.0000	9.030E-16	0.0000	0.000E+00	0.0000	1.025E-13	0.0000	1.990E-14	0.0000	6.911E-16	0.0000	1.290E-14	0.0000
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	1.636E-07	0.0000	0.000E+00	0.0000	8.647E-04	0.0000	1.221E-04	0.0000	5.944E-04	0.0000	5.441E-06	0.0000
Ni-63	0.000E+00	0.0000	4.364E-08	0.0000	0.000E+00	0.0000	2.721E-04	0.0000	3.843E-05	0.0000	1.870E-04	0.0000	1.712E-06	0.0000
Np-237	5.097E-01	0.0244	2.823E-02	0.0014	0.000E+00	0.0000	6.315E+00	0.3021	2.127E-01	0.0102	1.339E-03	0.0001	9.934E-02	0.0048
Pu-238	8.299E-06	0.0000	2.277E-03	0.0001	9.692E-07	0.0000	2.530E-02	0.0012	5.200E-04	0.0000	8.239E-06	0.0000	7.948E-03	0.0004
Pu-239	1.632E-04	0.0000	2.652E-02	0.0013	0.000E+00	0.0000	2.978E-01	0.0142	6.121E-03	0.0003	8.733E-05	0.0000	9.360E-02	0.0045
Pu-241	5.074E-05	0.0000	5.606E-05	0.0000	0.000E+00	0.0000	6.322E-04	0.0000	6.656E-06	0.0000	3.682E-07	0.0000	1.966E-04	0.0000
Pu-242	7.347E-05	0.0000	2.561E-02	0.0012	1.739E-14	0.0000	2.850E-01	0.0136	5.857E-03	0.0003	8.357E-05	0.0000	8.956E-02	0.0043
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	1.931E-06	0.0000	1.166E-08	0.0000	0.000E+00	0.0000	5.554E-04	0.0000	1.122E-04	0.0000	3.330E-05	0.0000	5.824E-07	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	5.133E-01	0.0246	8.407E-02	0.0040	9.741E-07	0.0000	6.941E+00	0.3320	2.258E-01	0.0108	2.390E-03	0.0001	2.955E-01	0.0141

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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+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.
Ag-110m	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
Am-241	1.143E+01	0.5466	1.190E-01	0.0057	0.000E+00	0.0000	8.787E-01	0.0420	6.117E-03	0.0003	5.355E-04	0.0000	1.245E+01	0.5958
C-14	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
Ce-144	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
Cm-242	2.015E-07	0.0000	2.358E-10	0.0000	3.425E-12	0.0000	1.550E-08	0.0000	7.376E-10	0.0000	2.830E-09	0.0000	1.843E-04	0.0000
Cm-243	1.513E-04	0.0000	1.575E-06	0.0000	0.000E+00	0.0000	1.163E-05	0.0000	8.095E-08	0.0000	7.087E-09	0.0000	1.080E-03	0.0001
Co-57	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
Co-58	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
Co-60	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	6.191E-17	0.0000
Cs-134	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
Cs-137	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	2.189E-03	0.0001
Eu-154	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	2.141E-10	0.0000
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	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	1.587E-03	0.0001
Ni-63	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	4.993E-04	0.0000
Np-237	1.095E-04	0.0000	1.160E-07	0.0000	0.000E+00	0.0000	8.422E-06	0.0000	3.980E-07	0.0000	1.539E-06	0.0000	7.166E+00	0.3428
Pu-238	3.992E-05	0.0000	4.676E-08	0.0000	6.851E-10	0.0000	3.070E-06	0.0000	1.461E-07	0.0000	5.608E-07	0.0000	3.610E-02	0.0017
Pu-239	3.953E-08	0.0000	1.877E-10	0.0000	0.000E+00	0.0000	3.039E-09	0.0000	2.822E-10	0.0000	2.717E-10	0.0000	4.243E-01	0.0203
Pu-241	3.774E-01	0.0181	3.930E-03	0.0002	0.000E+00	0.0000	2.902E-02	0.0014	2.020E-04	0.0000	1.768E-05	0.0000	4.115E-01	0.0197
Pu-242	2.974E-09	0.0000	3.222E-12	0.0000	8.408E-15	0.0000	2.287E-10	0.0000	1.083E-11	0.0000	4.178E-11	0.0000	4.062E-01	0.0194
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	3.236E-04	0.0000	1.313E-06	0.0000	0.000E+00	0.0000	2.682E-05	0.0000	2.788E-05	0.0000	1.521E-05	0.0000	1.098E-03	0.0001
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.181E+01	0.5647	1.229E-01	0.0059	6.885E-10	0.0000	9.078E-01	0.0434	6.348E-03	0.0003	5.705E-04	0.0000	2.091E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	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
Am-241	1.177E-05	0.0000	1.659E-06	0.0000	0.000E+00	0.0000	1.459E-04	0.0000	4.636E-06	0.0000	3.541E-08	0.0000	5.824E-06	0.0000
C-14	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
Ce-144	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
Cm-242	3.492E-09	0.0000	4.429E-08	0.0000	2.654E-08	0.0000	4.930E-07	0.0000	1.035E-08	0.0000	7.680E-10	0.0000	1.524E-07	0.0000
Cm-243	1.791E-07	0.0000	2.888E-05	0.0000	0.000E+00	0.0000	3.244E-04	0.0001	6.667E-06	0.0000	9.512E-08	0.0000	1.019E-04	0.0000
Co-57	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
Co-58	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
Co-60	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
Cs-134	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
Cs-137	1.685E-10	0.0000	1.796E-16	0.0000	0.000E+00	0.0000	1.530E-11	0.0000	1.338E-11	0.0000	4.370E-12	0.0000	1.204E-13	0.0000
Eu-154	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
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	1.439E-07	0.0000	0.000E+00	0.0000	7.608E-04	0.0001	1.074E-04	0.0000	5.230E-04	0.0001	4.788E-06	0.0000
Ni-63	0.000E+00	0.0000	2.467E-10	0.0000	0.000E+00	0.0000	1.538E-06	0.0000	2.172E-07	0.0000	1.057E-06	0.0000	9.679E-09	0.0000
Np-237	3.180E-01	0.0595	1.762E-02	0.0033	0.000E+00	0.0000	3.939E+00	0.7368	1.327E-01	0.0248	8.370E-04	0.0002	6.198E-02	0.0116
Pu-238	6.876E-07	0.0000	8.676E-06	0.0000	5.228E-06	0.0000	9.656E-05	0.0000	2.027E-06	0.0000	1.508E-07	0.0000	2.984E-05	0.0000
Pu-239	1.506E-04	0.0000	2.446E-02	0.0046	0.000E+00	0.0000	2.747E-01	0.0514	5.645E-03	0.0011	8.055E-05	0.0000	8.632E-02	0.0161
Pu-241	4.051E-07	0.0000	6.490E-08	0.0000	0.000E+00	0.0000	5.020E-06	0.0000	1.574E-07	0.0000	1.253E-09	0.0000	2.278E-07	0.0000
Pu-242	6.905E-05	0.0000	2.407E-02	0.0045	6.188E-13	0.0000	2.678E-01	0.0501	5.505E-03	0.0010	7.854E-05	0.0000	8.417E-02	0.0157
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	2.008E-15	0.0000	1.212E-17	0.0000	0.000E+00	0.0000	5.775E-13	0.0000	1.166E-13	0.0000	3.462E-14	0.0000	6.055E-16	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	3.183E-01	0.0595	6.618E-02	0.0124	5.254E-06	0.0000	4.483E+00	0.8386	1.439E-01	0.0269	1.520E-03	0.0003	2.326E-01	0.0435

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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.
Ag-110m	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
Am-241	8.687E-02	0.0163	9.037E-04	0.0002	0.000E+00	0.0000	6.682E-03	0.0012	4.846E-05	0.0000	4.089E-06	0.0000	9.468E-02	0.0177
C-14	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
Ce-144	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
Cm-242	9.606E-07	0.0000	5.413E-09	0.0000	5.239E-10	0.0000	7.381E-08	0.0000	4.492E-09	0.0000	1.332E-08	0.0000	1.789E-06	0.0000
Cm-243	5.611E-06	0.0000	5.823E-08	0.0000	0.000E+00	0.0000	4.316E-07	0.0000	3.030E-09	0.0000	2.665E-10	0.0000	4.683E-04	0.0001
Co-57	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
Co-58	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
Co-60	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
Cs-134	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
Cs-137	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	2.017E-10	0.0000
Eu-154	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
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	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	1.396E-03	0.0003
Ni-63	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	2.822E-06	0.0000
Np-237	1.532E-03	0.0003	1.627E-06	0.0000	0.000E+00	0.0000	1.179E-04	0.0000	5.576E-06	0.0000	2.153E-05	0.0000	4.472E+00	0.8365
Pu-238	1.895E-04	0.0000	1.069E-06	0.0000	1.035E-07	0.0000	1.456E-05	0.0000	8.864E-07	0.0000	2.626E-06	0.0000	3.519E-04	0.0001
Pu-239	9.071E-07	0.0000	5.381E-09	0.0000	0.000E+00	0.0000	6.978E-08	0.0000	8.962E-09	0.0000	3.769E-09	0.0000	3.913E-01	0.0732
Pu-241	3.662E-03	0.0007	3.810E-05	0.0000	0.000E+00	0.0000	2.816E-04	0.0001	2.023E-06	0.0000	1.722E-07	0.0000	3.989E-03	0.0007
Pu-242	3.997E-08	0.0000	4.276E-11	0.0000	5.520E-14	0.0000	3.074E-09	0.0000	1.456E-10	0.0000	5.618E-10	0.0000	3.817E-01	0.0714
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	1.095E-11	0.0000	4.444E-14	0.0000	0.000E+00	0.0000	9.077E-13	0.0000	9.445E-13	0.0000	5.150E-13	0.0000	1.409E-11	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	9.227E-02	0.0173	9.445E-04	0.0002	1.041E-07	0.0000	7.097E-03	0.0013	5.697E-05	0.0000	2.844E-05	0.0000	5.346E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Ag-110mD	Ag-110mD	1.000E+00	4.895E+00	1.862E+00	2.903E-01	6.996E-06	1.095E-21	0.000E+00	0.000E+00	0.000E+00
Am-241	Am-241	1.000E+00	4.717E-01	4.669E-01	4.575E-01	4.260E-01	3.474E-01	6.825E+00	1.245E+01	9.433E-02
Am-241	Np-237D	1.000E+00	1.334E-06	4.133E-06	9.667E-06	2.811E-05	7.364E-05	1.775E-04	3.081E-04	3.558E-04
Am-241	U-233	1.000E+00	3.173E-14	1.795E-13	8.360E-13	6.746E-12	5.053E-11	6.247E-10	1.991E-08	2.448E-07
Am-241	Th-229D	1.000E+00	9.129E-18	1.299E-16	1.477E-15	3.787E-14	8.607E-13	2.424E-11	3.541E-10	2.830E-09
Am-241	äDSR(j)		4.717E-01	4.669E-01	4.575E-01	4.260E-01	3.475E-01	6.826E+00	1.245E+01	9.468E-02
C-14	C-14	1.000E+00	1.324E+00	9.448E-01	9.603E-01	1.245E-08	7.006E-45	0.000E+00	0.000E+00	0.000E+00
Ce-144D	Ce-144D	1.000E+00	1.245E-01	5.108E-02	8.602E-03	1.686E-05	3.094E-13	2.589E-40	0.000E+00	0.000E+00
Cm-242	Cm-242	6.800E-08	4.975E-10	1.050E-10	4.683E-12	8.760E-17	2.716E-30	0.000E+00	0.000E+00	0.000E+00
Cm-242	Cm-242	1.840E-09	1.346E-11	2.842E-12	1.267E-13	2.370E-18	7.348E-32	0.000E+00	0.000E+00	0.000E+00
Cm-242	Pu-238	1.840E-09	1.823E-12	3.288E-12	3.612E-12	3.432E-12	2.926E-12	1.673E-12	3.386E-13	1.264E-15
Cm-242	äDSR(j)		1.528E-11	6.130E-12	3.739E-12	3.432E-12	2.926E-12	1.673E-12	3.386E-13	1.264E-15
Cm-242	Cm-242	1.000E+00	7.316E-03	1.545E-03	6.886E-05	1.288E-09	3.994E-23	0.000E+00	0.000E+00	0.000E+00
Cm-242	Pu-238	1.000E+00	9.907E-04	1.787E-03	1.963E-03	1.865E-03	1.590E-03	9.091E-04	1.840E-04	6.868E-07
Cm-242	U-234	1.000E+00	2.072E-10	1.094E-09	3.407E-09	1.137E-08	3.081E-08	6.961E-08	2.918E-07	1.024E-06
Cm-242	Th-230	1.000E+00	5.959E-16	6.599E-15	4.829E-14	5.234E-13	4.416E-12	3.819E-11	1.779E-10	3.822E-10
Cm-242	Ra-226D	1.000E+00	3.662E-17	9.262E-16	1.617E-14	5.678E-13	1.452E-11	4.242E-10	5.961E-09	3.592E-08
Cm-242	Pb-210D	1.000E+00	2.312E-20	1.031E-18	3.514E-17	3.412E-15	2.278E-13	1.594E-11	3.971E-10	1.030E-08
Cm-242	Po-210	1.000E+00	7.003E-22	4.565E-20	2.199E-18	2.903E-16	2.191E-14	1.605E-12	1.989E-10	3.194E-08
Cm-242	äDSR(j)		8.306E-03	3.332E-03	2.032E-03	1.865E-03	1.590E-03	9.092E-04	1.843E-04	1.789E-06
Cm-243	Cm-243	2.400E-03	1.520E-03	1.483E-03	1.412E-03	1.190E-03	7.299E-04	1.318E-04	9.923E-07	3.670E-14
Cm-243	Am-243D	2.400E-03	1.069E-07	3.160E-07	7.138E-07	1.909E-06	4.016E-06	3.486E-05	1.655E-04	6.079E-06
Cm-243	Pu-239	2.400E-03	4.711E-13	3.268E-12	1.691E-11	1.402E-10	9.573E-10	5.493E-09	1.785E-08	3.861E-08
Cm-243	U-235D	2.400E-03	1.343E-22	2.009E-21	2.309E-20	5.759E-19	1.181E-17	2.486E-16	4.080E-15	5.749E-14
Cm-243	Pa-231	2.400E-03	1.091E-26	3.676E-25	9.573E-24	7.285E-22	4.464E-20	5.467E-18	2.675E-16	1.729E-14
Cm-243	Ac-227D	2.400E-03	4.414E-29	2.392E-27	1.127E-25	2.190E-23	3.386E-21	8.149E-18	5.895E-16	5.125E-14
Cm-243	äDSR(j)		1.520E-03	1.483E-03	1.413E-03	1.192E-03	7.339E-04	1.667E-04	1.666E-04	6.118E-06
Cm-243	Cm-243	9.976E-01	6.317E-01	6.165E-01	5.871E-01	4.947E-01	3.034E-01	5.480E-02	4.125E-04	1.525E-11
Cm-243	Pu-239	9.976E-01	6.253E-06	1.857E-05	4.232E-05	1.168E-04	2.708E-04	4.683E-04	5.008E-04	4.621E-04
Cm-243	U-235D	9.976E-01	2.383E-15	1.662E-14	8.646E-14	7.265E-13	5.143E-12	3.269E-11	1.139E-10	4.495E-10
Cm-243	Pa-231	9.976E-01	2.497E-19	4.018E-18	4.800E-17	1.232E-15	2.613E-14	5.823E-13	8.359E-12	1.948E-10
Cm-243	Ac-227D	9.976E-01	1.129E-21	3.027E-20	6.781E-19	4.521E-17	2.390E-15	1.307E-13	1.492E-11	5.887E-10
Cm-243	äDSR(j)		6.317E-01	6.165E-01	5.871E-01	4.948E-01	3.037E-01	5.527E-02	9.132E-04	4.621E-04
Co-57	Co-57	1.000E+00	1.953E-01	7.669E-02	1.183E-02	1.703E-05	1.295E-13	4.963E-42	0.000E+00	0.000E+00
Co-58	Co-58	1.000E+00	9.207E-01	2.577E-02	2.018E-05	2.714E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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				
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Co-60	Co-60	1.000E+00	8.862E+00	7.769E+00	5.970E+00	2.375E+00	1.706E-01	1.694E-05	6.191E-17	0.000E+00	
Cs-134	Cs-134	1.000E+00	4.987E+00	3.563E+00	1.819E+00	1.729E-01	2.078E-04	1.251E-14	7.147E-44	0.000E+00	
Cs-137+D	Cs-137+D	1.000E+00	2.267E+00	2.215E+00	2.115E+00	1.799E+00	1.132E+00	2.241E-01	2.189E-03	2.017E-10	
Eu-154	Eu-154	1.000E+00	4.174E+00	3.857E+00	3.293E+00	1.895E+00	3.904E-01	1.551E-03	2.141E-10	2.095E-34	
Fe-55	Fe-55	1.000E+00	2.572E-04	1.989E-04	1.190E-04	1.971E-05	1.157E-07	1.793E-15	8.707E-38	0.000E+00	
H-3	H-3	1.000E+00	1.671E-02	1.716E-02	1.686E-02	8.036E-06	1.970E-20	0.000E+00	0.000E+00	0.000E+00	
I-129	I-129	1.000E+00	2.380E+00	4.573E+01	1.117E+02	5.015E+01	8.245E-04	1.484E-20	0.000E+00	0.000E+00	
Mn-54	Mn-54	1.000E+00	2.041E+00	9.069E-01	1.791E-01	6.132E-04	5.535E-11	1.224E-35	0.000E+00	0.000E+00	
Nb-94	Nb-94	1.000E+00	4.074E+00	3.918E+00	4.181E+00	1.095E-01	1.080E-08	3.251E-33	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	1.676E-03	1.676E-03	1.675E-03	1.673E-03	1.667E-03	1.646E-03	1.587E-03	1.396E-03	
Ni-63	Ni-63	1.000E+00	4.589E-03	4.555E-03	4.488E-03	4.262E-03	3.676E-03	2.191E-03	4.993E-04	2.822E-06	
Np-237+D	Np-237+D	1.000E+00	8.772E+00	8.766E+00	8.754E+00	8.713E+00	8.596E+00	8.200E+00	7.166E+00	4.470E+00	
Np-237+D	U-233	1.000E+00	2.573E-07	6.493E-07	1.406E-06	4.005E-06	1.103E-05	3.138E-05	1.836E-04	1.744E-03	
Np-237+D	Th-229+D	1.000E+00	1.098E-10	7.423E-10	3.868E-09	3.408E-08	2.790E-07	2.749E-06	1.892E-05	9.689E-05	
Np-237+D	äDSR(j)		8.772E+00	8.766E+00	8.754E+00	8.713E+00	8.596E+00	8.200E+00	7.166E+00	4.472E+00	
Pu-238	Pu-238	1.840E-09	7.282E-10	7.224E-10	7.109E-10	6.723E-10	5.730E-10	3.276E-10	6.632E-11	2.475E-13	
Pu-238	Pu-238	1.000E+00	3.957E-01	3.926E-01	3.864E-01	3.654E-01	3.114E-01	1.781E-01	3.604E-02	1.345E-04	
Pu-238	U-234	1.000E+00	1.164E-07	3.541E-07	8.227E-07	2.380E-06	6.176E-06	1.375E-05	5.770E-05	2.019E-04	
Pu-238	Th-230	1.000E+00	3.938E-13	2.627E-12	1.349E-11	1.161E-10	9.046E-10	7.597E-09	3.510E-08	7.525E-08	
Pu-238	Ra-226+D	1.000E+00	2.942E-14	4.424E-13	5.141E-12	1.332E-10	3.035E-09	8.494E-08	1.179E-06	7.077E-06	
Pu-238	Pb-210+D	1.000E+00	2.081E-17	5.513E-16	1.230E-14	8.390E-13	4.844E-11	3.204E-09	7.866E-08	2.034E-06	
Pu-238	Po-210	1.000E+00	6.800E-19	2.597E-17	7.994E-16	7.201E-14	4.664E-12	3.226E-10	3.969E-08	6.312E-06	
Pu-238	äDSR(j)		3.957E-01	3.926E-01	3.864E-01	3.654E-01	3.114E-01	1.781E-01	3.610E-02	3.519E-04	
Pu-239	Pu-239	1.000E+00	4.393E-01	4.392E-01	4.391E-01	4.388E-01	4.378E-01	4.342E-01	4.243E-01	3.913E-01	
Pu-239	U-235+D	1.000E+00	2.510E-10	7.541E-10	1.755E-09	5.204E-09	1.459E-08	4.262E-08	1.130E-07	4.037E-07	
Pu-239	Pa-231	1.000E+00	3.619E-14	2.691E-13	1.456E-12	1.300E-11	1.051E-10	9.727E-10	1.003E-08	1.839E-07	
Pu-239	Ac-227+D	1.000E+00	1.885E-16	2.473E-15	2.612E-14	6.096E-13	1.181E-11	2.685E-10	2.008E-08	5.593E-07	
Pu-239	äDSR(j)		4.393E-01	4.392E-01	4.391E-01	4.388E-01	4.378E-01	4.342E-01	4.243E-01	3.913E-01	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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)								
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03	
Pu-241	Pu-241	1.000E+00	8.284E-03	7.894E-03	7.169E-03	5.115E-03	1.950E-03	6.668E-05	4.320E-09	9.456E-24	
Pu-241	Am-241	1.000E+00	3.731E-04	1.090E-03	2.403E-03	5.913E-03	1.006E-02	1.485E-01	4.115E-01	3.978E-03	
Pu-241	Np-237+D	1.000E+00	6.784E-10	4.936E-09	2.575E-08	2.044E-07	1.216E-06	5.001E-06	9.926E-06	1.163E-05	
Pu-241	U-233	1.000E+00	1.384E-17	1.637E-16	1.596E-15	3.451E-14	6.125E-13	1.234E-11	5.431E-10	7.641E-09	
Pu-241	Th-229+D	1.000E+00	2.991E-21	8.583E-20	2.057E-18	1.460E-16	8.203E-15	4.894E-13	1.013E-11	9.154E-11	
Pu-241	äDSR(j)		8.658E-03	8.985E-03	9.572E-03	1.103E-02	1.201E-02	1.486E-01	4.115E-01	3.989E-03	
Pu-241+D	Pu-241+D	2.450E-05	7.474E-06	7.122E-06	6.468E-06	4.615E-06	1.759E-06	6.016E-08	3.898E-12	8.531E-27	
Pu-241+D	Np-237+D	2.450E-05	3.230E-11	9.839E-11	2.219E-10	5.700E-10	1.098E-09	1.357E-09	1.196E-09	7.460E-10	
Pu-241+D	U-233	2.450E-05	7.692E-19	4.304E-18	1.956E-17	1.452E-16	8.822E-16	4.242E-15	2.523E-14	2.749E-13	
Pu-241+D	Th-229+D	2.450E-05	2.219E-22	3.131E-21	3.498E-20	8.429E-19	1.632E-17	3.094E-16	2.777E-15	1.560E-14	
Pu-241+D	äDSR(j)		7.474E-06	7.122E-06	6.468E-06	4.615E-06	1.760E-06	6.152E-08	1.200E-09	7.463E-10	
Pu-242	Pu-242	5.500E-06	2.294E-06	2.294E-06	2.294E-06	2.292E-06	2.288E-06	2.274E-06	2.234E-06	2.100E-06	
Pu-242	Pu-242	5.400E-05	2.252E-05	2.252E-05	2.252E-05	2.250E-05	2.246E-05	2.233E-05	2.193E-05	2.061E-05	
Pu-242	U-238	5.400E-05	3.098E-16	9.460E-16	2.215E-15	6.586E-15	1.849E-14	5.408E-14	2.846E-13	2.407E-12	
Pu-242	äDSR(j)		2.252E-05	2.252E-05	2.252E-05	2.250E-05	2.246E-05	2.233E-05	2.193E-05	2.061E-05	
Pu-242	Pu-242	9.999E-01	4.171E-01	4.171E-01	4.170E-01	4.167E-01	4.160E-01	4.134E-01	4.061E-01	3.817E-01	
Pu-242	U-238+D	9.999E-01	1.266E-11	3.828E-11	8.930E-11	2.651E-10	7.438E-10	2.175E-09	7.992E-09	5.044E-08	
Pu-242	U-234	9.999E-01	6.211E-18	4.345E-17	2.287E-16	2.013E-15	1.620E-14	1.498E-13	3.296E-12	9.518E-11	
Pu-242	Th-230	9.999E-01	1.577E-23	2.229E-22	2.514E-21	6.472E-20	1.520E-18	4.810E-17	9.501E-16	1.335E-14	
Pu-242	Ra-226+D	9.999E-01	9.118E-25	2.840E-23	7.153E-22	5.527E-20	3.769E-18	3.867E-16	7.702E-14	1.121E-12	
Pu-242	Pb-210+D	9.999E-01	5.617E-28	3.011E-26	1.415E-24	2.836E-22	4.928E-20	1.236E-17	1.306E-13	8.829E-13	
Pu-242	Po-210	9.999E-01	1.676E-29	1.299E-27	8.528E-26	2.339E-23	4.668E-21	1.237E-18	5.211E-13	3.313E-12	
Pu-242	äDSR(j)		4.171E-01	4.171E-01	4.170E-01	4.167E-01	4.160E-01	4.134E-01	4.061E-01	3.817E-01	
Ru-106+D	Ru-106+D	1.000E+00	1.136E+00	3.118E+00	1.365E+00	3.279E-04	3.449E-17	0.000E+00	0.000E+00	0.000E+00	
Sb-124	Sb-124	1.000E+00	1.323E+00	1.752E-02	4.522E-06	2.439E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	7.720E-01	7.390E-01	6.921E-01	5.157E-01	2.448E-03	1.620E-12	1.121E-44	0.000E+00	0.000E+00	
Sb-125	Sb-125	2.280E-01	2.183E-01	2.044E-01	1.523E-01	7.229E-04	4.785E-13	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Te-125m	2.280E-01	5.380E-02	2.131E-01	2.165E-01	1.080E-03	7.146E-13	0.000E+00	0.000E+00	0.000E+00	
Sb-125	äDSR(j)		2.721E-01	4.175E-01	3.688E-01	1.803E-03	1.193E-12	0.000E+00	0.000E+00	0.000E+00	
Sn-113+D	Sn-113+D	1.000E+00	2.920E-01	6.184E-02	1.202E-03	7.955E-12	6.161E-38	0.000E+00	0.000E+00	0.000E+00	
Sr-90+D	Sr-90+D	1.000E+00	4.978E+00	4.833E+00	4.556E+00	3.704E+00	2.051E+00	2.665E-01	1.098E-03	1.409E-11	
Tc-99	Tc-99	1.000E+00	5.346E-01	7.089E-01	9.023E-01	2.446E-02	2.414E-09	7.284E-34	0.000E+00	0.000E+00	
Zn-65	Zn-65	1.000E+00	2.399E+00	2.359E+00	4.991E-01	1.108E-05	1.054E-21	0.000E+00	0.000E+00	0.000E+00	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Parent	Product	Thread	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
(i)	(j)	Fraction	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Zr-95D	Zr-95D	1.000E+00	6.298E-01	1.204E-02	4.401E-06	4.108E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zr-95D	Nb-95	1.000E+00	5.768E-01	2.240E-02	8.322E-06	7.767E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zr-95D	«DSR(j)		1.207E+00	3.444E-02	1.272E-05	1.188E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii

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

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

Nuclide	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
AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA
Ag-110m	5.108E+00	1.342E+01	8.612E+01	3.573E+06	*4.754E+15	*4.754E+15	*4.754E+15	*4.754E+15	
Am-241	5.300E+01	5.354E+01	5.464E+01	5.868E+01	7.194E+01	3.663E+00	2.007E+00	2.640E+02	
C-14	1.889E+01	2.646E+01	2.603E+01	2.007E+09	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	
Ce-144	2.009E+02	4.894E+02	2.906E+03	1.483E+06	8.081E+13	*3.191E+15	*3.191E+15	*3.191E+15	
Cm-242	3.010E+03	7.504E+03	1.230E+04	1.340E+04	1.572E+04	2.750E+04	1.356E+05	1.397E+07	
Cm-243	3.948E+01	4.045E+01	4.248E+01	5.040E+01	8.213E+01	4.509E+02	2.315E+04	5.339E+04	
Co-57	1.280E+02	3.260E+02	2.114E+03	1.468E+06	1.931E+14	*8.465E+15	*8.465E+15	*8.465E+15	
Co-58	2.715E+01	9.702E+02	1.239E+06	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	
Co-60	2.821E+00	3.218E+00	4.187E+00	1.053E+01	1.465E+02	1.476E+06	*1.132E+15	*1.132E+15	
Cs-134	5.013E+00	7.016E+00	1.374E+01	1.446E+02	1.203E+05	*1.295E+15	*1.295E+15	*1.295E+15	
Cs-137	1.103E+01	1.129E+01	1.182E+01	1.390E+01	2.208E+01	1.116E+02	1.142E+04	1.239E+11	
Eu-154	5.990E+00	6.482E+00	7.591E+00	1.320E+01	6.403E+01	1.612E+04	1.167E+11	*2.639E+14	
Fe-55	9.720E+04	1.257E+05	2.101E+05	1.269E+06	2.161E+08	*2.410E+15	*2.410E+15	*2.410E+15	
H-3	1.496E+03	1.457E+03	1.483E+03	3.111E+06	*9.597E+15	*9.597E+15	*9.597E+15	*9.597E+15	
I-129	1.050E+01	5.467E-01	2.238E-01	4.985E-01	3.032E+04	*1.766E+08	*1.766E+08	*1.766E+08	
Mn-54	1.225E+01	2.757E+01	1.396E+02	4.077E+04	4.516E+11	*7.746E+15	*7.746E+15	*7.746E+15	
Nb-94	6.136E+00	6.381E+00	5.980E+00	2.284E+02	2.315E+09	*1.875E+11	*1.875E+11	*1.875E+11	
Ni-59	1.491E+04	1.492E+04	1.492E+04	1.494E+04	1.500E+04	1.519E+04	1.575E+04	1.791E+04	
Ni-63	5.448E+03	5.488E+03	5.570E+03	5.866E+03	6.801E+03	1.141E+04	5.007E+04	8.858E+06	
Np-237	2.850E+00	2.852E+00	2.856E+00	2.869E+00	2.908E+00	3.049E+00	3.489E+00	5.590E+00	
Pu-238	6.317E+01	6.368E+01	6.470E+01	6.842E+01	8.027E+01	1.404E+02	6.925E+02	7.105E+04	
Pu-239	5.691E+01	5.692E+01	5.693E+01	5.698E+01	5.711E+01	5.757E+01	5.892E+01	6.388E+01	
Pu-241	2.885E+03	2.780E+03	2.610E+03	2.266E+03	2.081E+03	1.683E+02	6.075E+01	6.267E+03	
Pu-242	5.994E+01	5.994E+01	5.995E+01	5.999E+01	6.010E+01	6.047E+01	6.155E+01	6.549E+01	
Ru-106	2.201E+01	8.017E+00	1.831E+01	7.625E+04	*3.348E+15	*3.348E+15	*3.348E+15	*3.348E+15	
Sb-124	1.890E+01	1.427E+03	5.528E+06	*1.750E+16	*1.750E+16	*1.750E+16	*1.750E+16	*1.750E+16	
Sb-125	2.473E+01	2.253E+01	2.827E+01	5.882E+03	8.886E+12	*1.033E+15	*1.033E+15	*1.033E+15	
Sn-113	8.562E+01	4.043E+02	2.081E+04	3.143E+12	*1.005E+16	*1.005E+16	*1.005E+16	*1.005E+16	
Sr-90	5.022E+00	5.173E+00	5.488E+00	6.749E+00	1.219E+01	9.380E+01	2.276E+04	1.774E+12	
Tc-99	4.676E+01	3.527E+01	2.771E+01	1.022E+03	1.036E+10	*1.697E+10	*1.697E+10	*1.697E+10	
Zn-65	1.042E+01	1.060E+01	5.009E+01	2.257E+06	*8.245E+15	*8.245E+15	*8.245E+15	*8.245E+15	
Zr-95	2.072E+01	7.259E+02	1.965E+06	*2.150E+16	*2.150E+16	*2.150E+16	*2.150E+16	*2.150E+16	
iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	

\*At specific activity limit



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 5.49 ñ 0.01 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAA	AAAAAA	AAAAAAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
Ag-110m	1.000E+00	0.000E+00	4.895E+00	5.108E+00	2.237E-02	1.118E+03
Am-241	1.000E+00	264.0 ñ 0.5	1.257E+01	1.989E+00	4.461E-01	5.605E+01
C-14	1.000E+00	0.000E+00	1.324E+00	1.889E+01	6.522E-01	3.833E+01
Ce-144	1.000E+00	0.000E+00	1.245E-01	2.009E+02	9.371E-04	2.668E+04
Cm-242	1.000E+00	0.000E+00	8.306E-03	3.010E+03	1.935E-03	1.292E+04
Cm-243	1.000E+00	0.000E+00	6.333E-01	3.948E+01	5.538E-01	4.514E+01
Co-57	1.000E+00	0.000E+00	1.953E-01	1.280E+02	1.155E-03	2.165E+04
Co-58	1.000E+00	0.000E+00	9.207E-01	2.715E+01	2.750E-09	9.091E+09
Co-60	1.000E+00	0.000E+00	8.862E+00	2.821E+00	4.302E+00	5.812E+00
Cs-134	1.000E+00	0.000E+00	4.987E+00	5.013E+00	7.878E-01	3.173E+01
Cs-137	1.000E+00	0.000E+00	2.267E+00	1.103E+01	1.997E+00	1.252E+01
Eu-154	1.000E+00	0.000E+00	4.174E+00	5.990E+00	2.705E+00	9.240E+00
Fe-55	1.000E+00	0.000E+00	2.572E-04	9.720E+04	6.279E-05	3.982E+05
H-3	1.000E+00	1.635 ñ 0.003	1.765E-02	1.416E+03	1.202E-02	2.080E+03
I-129	1.000E+00	7.56 ñ 0.02	1.419E+02	1.762E-01	1.362E+02	1.835E-01
Mn-54	1.000E+00	0.000E+00	2.041E+00	1.225E+01	2.379E-02	1.051E+03
Nb-94	1.000E+00	4.929 ñ 0.010	4.232E+00	5.908E+00	3.781E+00	6.612E+00
Ni-59	1.000E+00	0.000E+00	1.676E-03	1.491E+04	1.675E-03	1.493E+04
Ni-63	1.000E+00	0.000E+00	4.589E-03	5.448E+03	4.407E-03	5.673E+03
Np-237	1.000E+00	0.000E+00	8.772E+00	2.850E+00	8.740E+00	2.861E+00
Pu-238	1.000E+00	0.000E+00	3.957E-01	6.317E+01	3.788E-01	6.600E+01
Pu-239	1.000E+00	0.000E+00	4.393E-01	5.691E+01	4.390E-01	5.695E+01
Pu-241	1.000E+00	288.3 ñ 0.6	4.120E-01	6.068E+01	1.019E-02	2.452E+03
Pu-242	1.000E+00	0.000E+00	4.171E-01	5.994E+01	4.169E-01	5.996E+01
Ru-106	1.000E+00	1.046 ñ 0.002	3.121E+00	8.009E+00	2.460E-01	1.016E+02
Sb-124	1.000E+00	0.000E+00	1.323E+00	1.890E+01	1.301E-10	1.922E+11
Sb-125	1.000E+00	1.219 ñ 0.002	1.118E+00	2.237E+01	4.495E-01	5.562E+01
Sn-113	1.000E+00	0.000E+00	2.920E-01	8.562E+01	5.189E-06	4.818E+06
Sr-90	1.000E+00	0.000E+00	4.978E+00	5.022E+00	4.233E+00	5.907E+00
Tc-99	1.000E+00	4.929 ñ 0.010	9.402E-01	2.659E+01	8.431E-01	2.965E+01
Zn-65	1.000E+00	0.000E+00	2.399E+00	1.042E+01	3.850E-02	6.493E+02
Zr-95	1.000E+00	0.000E+00	1.207E+00	2.072E+01	6.714E-10	3.724E+10
fffff	fffff	ffffffffff	fffff	fffff	fffff	fffff

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ag-110m	Ag-110m	1.000E+00		4.895E+00	1.862E+00	2.903E-01	6.996E-06	1.095E-21	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00		4.717E-01	4.669E-01	4.575E-01	4.260E-01	3.474E-01	6.825E+00	1.245E+01	9.433E-02	
Am-241	Pu-241	1.000E+00		3.731E-04	1.090E-03	2.403E-03	5.913E-03	1.006E-02	1.485E-01	4.115E-01	3.978E-03	
Am-241	äDOSE(j)			4.721E-01	4.680E-01	4.599E-01	4.319E-01	3.575E-01	6.974E+00	1.287E+01	9.830E-02	
Np-237	Am-241	1.000E+00		1.334E-06	4.133E-06	9.667E-06	2.811E-05	7.364E-05	1.775E-04	3.081E-04	3.558E-04	
Np-237	Np-237	1.000E+00		8.772E+00	8.766E+00	8.754E+00	8.713E+00	8.596E+00	8.200E+00	7.166E+00	4.470E+00	
Np-237	Pu-241	1.000E+00		6.784E-10	4.936E-09	2.575E-08	2.044E-07	1.216E-06	5.001E-06	9.926E-06	1.163E-05	
Np-237	Pu-241	2.450E-05		3.230E-11	9.839E-11	2.219E-10	5.700E-10	1.098E-09	1.357E-09	1.196E-09	7.460E-10	
Np-237	äDOSE(j)			8.772E+00	8.766E+00	8.754E+00	8.713E+00	8.597E+00	8.200E+00	7.166E+00	4.470E+00	
U-233	Am-241	1.000E+00		3.173E-14	1.795E-13	8.360E-13	6.746E-12	5.053E-11	6.247E-10	1.991E-08	2.448E-07	
U-233	Np-237	1.000E+00		2.573E-07	6.493E-07	1.406E-06	4.005E-06	1.103E-05	3.138E-05	1.836E-04	1.744E-03	
U-233	Pu-241	1.000E+00		1.384E-17	1.637E-16	1.596E-15	3.451E-14	6.125E-13	1.234E-11	5.431E-10	7.641E-09	
U-233	Pu-241	2.450E-05		7.692E-19	4.304E-18	1.956E-17	1.452E-16	8.822E-16	4.242E-15	2.523E-14	2.749E-13	
U-233	äDOSE(j)			2.573E-07	6.493E-07	1.406E-06	4.005E-06	1.103E-05	3.138E-05	1.836E-04	1.744E-03	
Th-229	Am-241	1.000E+00		9.129E-18	1.299E-16	1.477E-15	3.787E-14	8.607E-13	2.424E-11	3.541E-10	2.830E-09	
Th-229	Np-237	1.000E+00		1.098E-10	7.423E-10	3.868E-09	3.408E-08	2.790E-07	2.749E-06	1.892E-05	9.689E-05	
Th-229	Pu-241	1.000E+00		2.991E-21	8.583E-20	2.057E-18	1.460E-16	8.203E-15	4.894E-13	1.013E-11	9.154E-11	
Th-229	Pu-241	2.450E-05		2.219E-22	3.131E-21	3.498E-20	8.429E-19	1.632E-17	3.094E-16	2.777E-15	1.560E-14	
Th-229	äDOSE(j)			1.098E-10	7.423E-10	3.868E-09	3.408E-08	2.790E-07	2.749E-06	1.892E-05	9.689E-05	
C-14	C-14	1.000E+00		1.324E+00	9.448E-01	9.603E-01	1.245E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144	Ce-144	1.000E+00		1.245E-01	5.108E-02	8.602E-03	1.686E-05	3.094E-13	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08		4.975E-10	1.050E-10	4.683E-12	8.760E-17	1.886E-30	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09		1.346E-11	2.842E-12	1.267E-13	2.370E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Cm-242	äDOSE(j)			5.109E-10	1.079E-10	4.809E-12	8.997E-17	1.886E-30	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.840E-09		1.823E-12	3.288E-12	3.612E-12	3.432E-12	2.926E-12	1.673E-12	3.386E-13	1.264E-15	
Pu-238	Pu-238	1.840E-09		7.282E-10	7.224E-10	7.109E-10	6.723E-10	5.730E-10	3.276E-10	6.632E-11	2.475E-13	
Pu-238	äDOSE(j)			7.300E-10	7.257E-10	7.145E-10	6.757E-10	5.759E-10	3.293E-10	6.666E-11	2.488E-13	
Cm-242	Cm-242	1.000E+00		7.316E-03	1.545E-03	6.886E-05	1.288E-09	3.994E-23	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.000E+00		9.907E-04	1.787E-03	1.963E-03	1.865E-03	1.590E-03	9.091E-04	1.840E-04	6.868E-07	
U-234	Cm-242	1.000E+00		2.072E-10	1.094E-09	3.407E-09	1.137E-08	3.081E-08	6.961E-08	2.918E-07	1.024E-06	
U-234	Pu-238	1.000E+00		1.164E-07	3.541E-07	8.227E-07	2.380E-06	6.176E-06	1.375E-05	5.770E-05	2.019E-04	
U-234	Pu-242	9.999E-01		6.211E-18	4.345E-17	2.287E-16	2.013E-15	1.620E-14	1.498E-13	3.296E-12	9.518E-11	
U-234	äDOSE(j)			1.166E-07	3.552E-07	8.261E-07	2.391E-06	6.207E-06	1.381E-05	5.799E-05	2.029E-04	
Th-230	Cm-242	1.000E+00		5.959E-16	6.599E-15	4.829E-14	5.234E-13	4.416E-12	3.819E-11	1.779E-10	3.822E-10	
Th-230	Pu-238	1.000E+00		3.938E-13	2.627E-12	1.349E-11	1.161E-10	9.046E-10	7.597E-09	3.510E-08	7.525E-08	
Th-230	Pu-242	9.999E-01		1.577E-23	2.229E-22	2.514E-21	6.472E-20	1.520E-18	4.810E-17	9.501E-16	1.335E-14	
Th-230	äDOSE(j)			3.944E-13	2.634E-12	1.354E-11	1.167E-10	9.090E-10	7.636E-09	3.528E-08	7.563E-08	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ra-226	Cm-242	1.000E+00		3.662E-17	9.262E-16	1.617E-14	5.678E-13	1.452E-11	4.242E-10	5.961E-09	3.592E-08	
Ra-226	Pu-238	1.000E+00		2.942E-14	4.424E-13	5.141E-12	1.332E-10	3.035E-09	8.494E-08	1.179E-06	7.077E-06	
Ra-226	Pu-242	9.999E-01		9.118E-25	2.840E-23	7.153E-22	5.527E-20	3.769E-18	3.867E-16	7.702E-14	1.121E-12	
Ra-226	äDOSE(j)			2.946E-14	4.434E-13	5.157E-12	1.338E-10	3.050E-09	8.536E-08	1.185E-06	7.113E-06	
Pb-210	Cm-242	1.000E+00		2.312E-20	1.031E-18	3.514E-17	3.412E-15	2.278E-13	1.594E-11	3.971E-10	1.030E-08	
Pb-210	Pu-238	1.000E+00		2.081E-17	5.513E-16	1.230E-14	8.390E-13	4.844E-11	3.204E-09	7.866E-08	2.034E-06	
Pb-210	Pu-242	9.999E-01		5.614E-28	3.011E-26	1.415E-24	2.836E-22	4.928E-20	1.236E-17	1.306E-13	8.829E-13	
Pb-210	äDOSE(j)			2.083E-17	5.523E-16	1.233E-14	8.424E-13	4.866E-11	3.220E-09	7.906E-08	2.044E-06	
Po-210	Cm-242	1.000E+00		7.003E-22	4.565E-20	2.199E-18	2.903E-16	2.191E-14	1.605E-12	1.989E-10	3.194E-08	
Po-210	Pu-238	1.000E+00		6.800E-19	2.597E-17	7.994E-16	7.201E-14	4.664E-12	3.226E-10	3.969E-08	6.312E-06	
Po-210	Pu-242	9.999E-01		1.539E-29	1.298E-27	8.528E-26	2.339E-23	4.668E-21	1.237E-18	5.211E-13	3.313E-12	
Po-210	äDOSE(j)			6.807E-19	2.602E-17	8.016E-16	7.230E-14	4.686E-12	3.242E-10	3.989E-08	6.344E-06	
Cm-243	Cm-243	2.400E-03		1.520E-03	1.483E-03	1.412E-03	1.190E-03	7.299E-04	1.318E-04	9.923E-07	3.670E-14	
Cm-243	Cm-243	9.976E-01		6.317E-01	6.165E-01	5.871E-01	4.947E-01	3.034E-01	5.480E-02	4.125E-04	1.525E-11	
Cm-243	äDOSE(j)			6.333E-01	6.180E-01	5.885E-01	4.959E-01	3.041E-01	5.494E-02	4.135E-04	1.529E-11	
Am-243	Cm-243	2.400E-03		1.069E-07	3.160E-07	7.138E-07	1.909E-06	4.016E-06	3.486E-05	1.655E-04	6.079E-06	
Pu-239	Cm-243	2.400E-03		4.711E-13	3.268E-12	1.691E-11	1.402E-10	9.573E-10	5.493E-09	1.785E-08	3.861E-08	
Pu-239	Cm-243	9.976E-01		6.253E-06	1.857E-05	4.232E-05	1.168E-04	2.708E-04	4.683E-04	5.008E-04	4.621E-04	
Pu-239	Pu-239	1.000E+00		4.393E-01	4.392E-01	4.391E-01	4.388E-01	4.378E-01	4.342E-01	4.243E-01	3.913E-01	
Pu-239	äDOSE(j)			4.393E-01	4.393E-01	4.392E-01	4.389E-01	4.380E-01	4.347E-01	4.248E-01	3.918E-01	
U-235	Cm-243	2.400E-03		1.343E-22	2.009E-21	2.309E-20	5.759E-19	1.181E-17	2.486E-16	4.080E-15	5.749E-14	
U-235	Cm-243	9.976E-01		2.383E-15	1.662E-14	8.646E-14	7.265E-13	5.143E-12	3.269E-11	1.139E-10	4.495E-10	
U-235	Pu-239	1.000E+00		2.510E-10	7.541E-10	1.755E-09	5.204E-09	1.459E-08	4.262E-08	1.130E-07	4.037E-07	
U-235	äDOSE(j)			2.510E-10	7.541E-10	1.755E-09	5.204E-09	1.460E-08	4.265E-08	1.132E-07	4.042E-07	
Pa-231	Cm-243	2.400E-03		1.091E-26	3.676E-25	9.573E-24	7.285E-22	4.464E-20	5.467E-18	2.675E-16	1.729E-14	
Pa-231	Cm-243	9.976E-01		2.497E-19	4.018E-18	4.800E-17	1.232E-15	2.613E-14	5.823E-13	8.359E-12	1.948E-10	
Pa-231	Pu-239	1.000E+00		3.619E-14	2.691E-13	1.456E-12	1.300E-11	1.051E-10	9.727E-10	1.003E-08	1.839E-07	
Pa-231	äDOSE(j)			3.619E-14	2.691E-13	1.456E-12	1.300E-11	1.052E-10	9.733E-10	1.004E-08	1.841E-07	
Ac-227	Cm-243	2.400E-03		4.408E-29	2.392E-27	1.127E-25	2.190E-23	3.386E-21	8.149E-18	5.895E-16	5.125E-14	
Ac-227	Cm-243	9.976E-01		1.129E-21	3.027E-20	6.781E-19	4.521E-17	2.390E-15	1.307E-13	1.492E-11	5.887E-10	
Ac-227	Pu-239	1.000E+00		1.885E-16	2.473E-15	2.612E-14	6.096E-13	1.181E-11	2.685E-10	2.008E-08	5.593E-07	
Ac-227	äDOSE(j)			1.885E-16	2.473E-15	2.612E-14	6.097E-13	1.181E-11	2.686E-10	2.009E-08	5.599E-07	
Co-57	Co-57	1.000E+00		1.953E-01	7.669E-02	1.183E-02	1.703E-05	1.295E-13	0.000E+00	0.000E+00	0.000E+00	
Co-58	Co-58	1.000E+00		9.207E-01	2.577E-02	2.018E-05	2.714E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Co-60	Co-60	1.000E+00		8.862E+00	7.769E+00	5.970E+00	2.375E+00	1.706E-01	1.694E-05	6.191E-17	0.000E+00	
Cs-134	Cs-134	1.000E+00		4.987E+00	3.563E+00	1.819E+00	1.729E-01	2.078E-04	1.251E-14	0.000E+00	0.000E+00	
Cs-137	Cs-137	1.000E+00		2.267E+00	2.215E+00	2.115E+00	1.799E+00	1.132E+00	2.241E-01	2.189E-03	2.017E-10	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413FARMER.RAD

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr								
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Eu-154	Eu-154	1.000E+00	4.174E+00	3.857E+00	3.293E+00	1.895E+00	3.904E-01	1.551E-03	2.141E-10	0.000E+00	
Fe-55	Fe-55	1.000E+00	2.572E-04	1.989E-04	1.190E-04	1.971E-05	1.157E-07	1.793E-15	0.000E+00	0.000E+00	
H-3	H-3	1.000E+00	1.671E-02	1.716E-02	1.686E-02	8.036E-06	1.970E-20	0.000E+00	0.000E+00	0.000E+00	
I-129	I-129	1.000E+00	2.380E+00	4.573E+01	1.117E+02	5.015E+01	8.245E-04	1.484E-20	0.000E+00	0.000E+00	
Mn-54	Mn-54	1.000E+00	2.041E+00	9.069E-01	1.791E-01	6.132E-04	5.535E-11	0.000E+00	0.000E+00	0.000E+00	
Nb-94	Nb-94	1.000E+00	4.074E+00	3.918E+00	4.181E+00	1.095E-01	1.080E-08	0.000E+00	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	1.676E-03	1.676E-03	1.675E-03	1.673E-03	1.667E-03	1.646E-03	1.587E-03	1.396E-03	
Ni-63	Ni-63	1.000E+00	4.589E-03	4.555E-03	4.488E-03	4.262E-03	3.676E-03	2.191E-03	4.993E-04	2.822E-06	
Pu-238	Pu-238	1.000E+00	3.957E-01	3.926E-01	3.864E-01	3.654E-01	3.114E-01	1.781E-01	3.604E-02	1.345E-04	
Pu-241	Pu-241	1.000E+00	8.284E-03	7.894E-03	7.169E-03	5.115E-03	1.950E-03	6.668E-05	4.320E-09	9.456E-24	
Pu-241	Pu-241	2.450E-05	7.474E-06	7.122E-06	6.468E-06	4.615E-06	1.759E-06	6.016E-08	3.898E-12	8.531E-27	
Pu-241	äDOSE(j)		8.292E-03	7.902E-03	7.175E-03	5.120E-03	1.952E-03	6.674E-05	4.324E-09	9.465E-24	
Pu-242	Pu-242	5.500E-06	2.294E-06	2.294E-06	2.294E-06	2.292E-06	2.288E-06	2.274E-06	2.234E-06	2.100E-06	
Pu-242	Pu-242	5.400E-05	2.252E-05	2.252E-05	2.252E-05	2.250E-05	2.246E-05	2.233E-05	2.193E-05	2.061E-05	
Pu-242	äDOSE(j)		2.482E-05	2.482E-05	2.481E-05	2.480E-05	2.475E-05	2.460E-05	2.417E-05	2.271E-05	
U-238	Pu-242	5.400E-05	3.098E-16	9.460E-16	2.215E-15	6.586E-15	1.849E-14	5.408E-14	2.846E-13	2.407E-12	
U-238	Pu-242	9.999E-01	1.266E-11	3.828E-11	8.930E-11	2.651E-10	7.438E-10	2.175E-09	7.992E-09	5.044E-08	
U-238	äDOSE(j)		1.266E-11	3.828E-11	8.930E-11	2.651E-10	7.438E-10	2.175E-09	7.992E-09	5.044E-08	
Pu-242	Pu-242	9.999E-01	4.171E-01	4.171E-01	4.170E-01	4.167E-01	4.160E-01	4.134E-01	4.061E-01	3.817E-01	
Ru-106	Ru-106	1.000E+00	1.136E+00	3.118E+00	1.365E+00	3.279E-04	3.449E-17	0.000E+00	0.000E+00	0.000E+00	
Sb-124	Sb-124	1.000E+00	1.323E+00	1.752E-02	4.522E-06	2.439E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	7.720E-01	7.390E-01	6.921E-01	5.157E-01	2.448E-03	1.620E-12	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	2.280E-01	2.183E-01	2.044E-01	1.523E-01	7.229E-04	4.785E-13	0.000E+00	0.000E+00	0.000E+00	
Sb-125	äDOSE(j)		9.573E-01	8.966E-01	6.680E-01	3.171E-03	2.099E-12	0.000E+00	0.000E+00	0.000E+00	
Te-125m	Sb-125	2.280E-01	5.380E-02	2.131E-01	2.165E-01	1.080E-03	7.146E-13	0.000E+00	0.000E+00	0.000E+00	
Sn-113	Sn-113	1.000E+00	2.920E-01	6.184E-02	1.202E-03	7.955E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sr-90	Sr-90	1.000E+00	4.978E+00	4.833E+00	4.556E+00	3.704E+00	2.051E+00	2.665E-01	1.098E-03	1.409E-11	
Tc-99	Tc-99	1.000E+00	5.346E-01	7.089E-01	9.023E-01	2.446E-02	2.414E-09	0.000E+00	0.000E+00	0.000E+00	
Zn-65	Zn-65	1.000E+00	2.399E+00	2.359E+00	4.991E-01	1.108E-05	1.054E-21	0.000E+00	0.000E+00	0.000E+00	

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr							
(j)	(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
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Zr-95	Zr-95	1.000E+00	6.298E-01	1.204E-02	4.401E-06	4.108E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Nb-95	Zr-95	1.000E+00	5.768E-01	2.240E-02	8.322E-06	7.767E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

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

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF (i) t=	S (j,t), 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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ag-110m	Ag-110m	1.000E+00	1.000E+00	1.621E-01	4.261E-03	1.254E-08	1.973E-24	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00	1.000E+00	9.899E-01	9.699E-01	9.031E-01	7.366E-01	3.609E-01	4.700E-02	3.747E-05	
Am-241	Pu-241	1.000E+00	0.000E+00	1.558E-03	4.410E-03	1.205E-02	2.114E-02	1.488E-02	1.982E-03	1.580E-06	
Am-241	äS (j) :		1.000E+00	9.914E-01	9.743E-01	9.152E-01	7.577E-01	3.758E-01	4.898E-02	3.905E-05	
Np-237	Am-241	1.000E+00	0.000E+00	3.221E-07	9.560E-07	3.069E-06	8.284E-06	1.953E-05	2.620E-05	1.734E-05	
Np-237	Np-237	1.000E+00	1.000E+00	9.993E-01	9.980E-01	9.933E-01	9.800E-01	9.348E-01	8.169E-01	5.096E-01	
Np-237	Pu-241	1.000E+00	0.000E+00	2.547E-10	2.204E-09	2.144E-08	1.354E-07	5.574E-07	8.702E-07	5.849E-07	
Np-237	Pu-241	2.450E-05	0.000E+00	7.745E-12	2.214E-11	6.273E-11	1.243E-10	1.547E-10	1.363E-10	8.505E-11	
Np-237	äS (j) :		1.000E+00	9.993E-01	9.980E-01	9.933E-01	9.800E-01	9.348E-01	8.169E-01	5.096E-01	
U-233	Am-241	1.000E+00	0.000E+00	7.049E-13	6.284E-12	6.753E-11	5.533E-10	4.479E-09	1.793E-08	2.484E-08	
U-233	Np-237	1.000E+00	0.000E+00	4.364E-06	1.304E-05	4.284E-05	1.233E-04	3.568E-04	7.262E-04	7.502E-04	
U-233	Pu-241	1.000E+00	0.000E+00	3.727E-16	9.757E-15	3.250E-13	6.594E-12	1.060E-10	5.573E-10	8.328E-10	
U-233	Pu-241	2.450E-05	0.000E+00	1.705E-17	1.483E-16	1.466E-15	9.725E-15	4.814E-14	1.154E-13	1.247E-13	
U-233	äS (j) :		0.000E+00	4.364E-06	1.304E-05	4.284E-05	1.233E-04	3.568E-04	7.262E-04	7.502E-04	
Th-229	Am-241	1.000E+00	0.000E+00	2.221E-17	5.955E-16	2.151E-14	5.410E-13	1.579E-11	2.320E-10	1.807E-09	
Th-229	Np-237	1.000E+00	0.000E+00	2.062E-10	1.851E-09	2.036E-08	1.782E-07	1.798E-06	1.246E-05	6.357E-05	
Th-229	Pu-241	1.000E+00	0.000E+00	8.827E-21	6.975E-19	7.907E-17	5.088E-15	3.180E-13	6.638E-12	5.859E-11	
Th-229	Pu-241	2.450E-05	0.000E+00	5.391E-22	1.418E-20	4.810E-19	1.030E-17	2.020E-16	1.828E-15	1.024E-14	
Th-229	äS (j) :		0.000E+00	2.062E-10	1.851E-09	2.036E-08	1.782E-07	1.798E-06	1.246E-05	6.357E-05	
C-14	C-14	1.000E+00	1.000E+00	1.615E-02	4.167E-06	1.036E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144	Ce-144	1.000E+00	1.000E+00	4.104E-01	6.911E-02	1.355E-04	2.486E-12	2.080E-39	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08	6.800E-08	1.436E-08	6.401E-10	1.197E-14	3.712E-28	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09	1.840E-09	3.885E-10	1.732E-11	3.240E-16	1.004E-29	0.000E+00	0.000E+00	0.000E+00	
Cm-242	äS (j) :		6.984E-08	1.475E-08	6.574E-10	1.230E-14	3.812E-28	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.840E-09	0.000E+00	7.336E-12	9.084E-12	8.674E-12	7.393E-12	4.227E-12	8.557E-13	3.193E-15	
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.796E-09	1.699E-09	1.448E-09	8.279E-10	1.676E-10	6.254E-13	
Pu-238	äS (j) :		1.840E-09	1.833E-09	1.806E-09	1.707E-09	1.455E-09	8.321E-10	1.684E-10	6.286E-13	
Cm-242	Cm-242	1.000E+00	1.000E+00	2.111E-01	9.413E-03	1.761E-07	5.459E-21	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.000E+00	0.000E+00	3.987E-03	4.937E-03	4.714E-03	4.018E-03	2.297E-03	4.650E-04	1.736E-06	
U-234	Cm-242	1.000E+00	0.000E+00	7.066E-09	3.354E-08	1.277E-07	3.576E-07	8.171E-07	8.379E-07	9.911E-08	
U-234	Pu-238	1.000E+00	0.000E+00	2.819E-06	8.360E-06	2.677E-05	7.169E-05	1.613E-04	1.648E-04	1.947E-05	
U-234	Pu-242	9.999E-01	0.000E+00	2.194E-16	1.965E-15	2.148E-14	1.846E-13	1.747E-12	1.012E-11	3.011E-11	
U-234	äS (j) :		0.000E+00	2.826E-06	8.394E-06	2.690E-05	7.204E-05	1.621E-04	1.656E-04	1.957E-05	
Th-230	Cm-242	1.000E+00	0.000E+00	2.367E-14	3.826E-13	5.500E-12	5.001E-11	4.435E-10	2.078E-09	4.398E-09	
Th-230	Pu-238	1.000E+00	0.000E+00	1.271E-11	1.135E-10	1.228E-09	1.025E-08	8.825E-08	4.101E-07	8.659E-07	
Th-230	Pu-242	9.999E-01	0.000E+00	6.587E-22	1.772E-20	6.483E-19	1.691E-17	5.552E-16	1.080E-14	1.509E-13	
Th-230	äS (j) :		0.000E+00	1.274E-11	1.139E-10	1.234E-09	1.030E-08	8.869E-08	4.122E-07	8.703E-07	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF(i)	S(j,t), pCi/g									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Ra-226	Cm-242	1.000E+00	0.000E+00	2.738E-18	1.437E-16	7.512E-15	2.135E-13	6.477E-12	9.192E-11	5.240E-10		
Ra-226	Pu-238	1.000E+00	0.000E+00	1.836E-15	4.922E-14	1.778E-12	4.470E-11	1.297E-09	1.818E-08	1.032E-07		
Ra-226	Pu-242	9.999E-01	0.000E+00	7.132E-26	5.754E-24	7.006E-22	5.455E-20	5.872E-18	3.253E-16	1.221E-14		
Ra-226	äS(j) :		0.000E+00	1.839E-15	4.936E-14	1.785E-12	4.492E-11	1.304E-09	1.827E-08	1.037E-07		
Pb-210	Cm-242	1.000E+00	0.000E+00	1.770E-20	2.917E-18	5.235E-16	4.145E-14	3.072E-12	7.031E-11	4.847E-10		
Pb-210	Pu-238	1.000E+00	0.000E+00	1.418E-17	1.128E-15	1.304E-13	8.829E-12	6.176E-10	1.391E-08	9.546E-08		
Pb-210	Pu-242	9.999E-01	0.000E+00	4.411E-28	1.057E-25	4.141E-23	8.790E-21	2.364E-18	2.227E-16	1.073E-14		
Pb-210	äS(j) :		0.000E+00	1.420E-17	1.130E-15	1.310E-13	8.870E-12	6.206E-10	1.398E-08	9.595E-08		
Po-210	Cm-242	1.000E+00	0.000E+00	4.364E-21	1.515E-18	4.199E-16	3.838E-14	2.991E-12	6.936E-11	4.800E-10		
Po-210	Pu-238	1.000E+00	0.000E+00	3.939E-18	6.196E-16	1.058E-13	8.185E-12	6.012E-10	1.372E-08	9.454E-08		
Po-210	Pu-242	9.999E-01	0.000E+00	1.059E-28	5.252E-26	3.207E-23	8.003E-21	2.287E-18	2.192E-16	1.061E-14		
Po-210	äS(j) :		0.000E+00	3.943E-18	6.212E-16	1.062E-13	8.223E-12	6.042E-10	1.379E-08	9.502E-08		
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.230E-03	1.879E-03	1.153E-03	2.082E-04	1.567E-06	5.795E-14		
Cm-243	Cm-243	9.976E-01	9.976E-01	9.735E-01	9.271E-01	7.812E-01	4.791E-01	8.654E-02	6.513E-04	2.409E-11		
Cm-243	äS(j) :		1.000E+00	9.758E-01	9.293E-01	7.831E-01	4.803E-01	8.675E-02	6.529E-04	2.415E-11		
Am-243	Cm-243	2.400E-03	0.000E+00	2.217E-07	6.435E-07	1.912E-06	4.153E-06	4.761E-06	1.048E-06	2.425E-09		
Pu-239	Cm-243	2.400E-03	0.000E+00	3.211E-12	2.826E-11	2.909E-10	2.119E-09	1.208E-08	2.654E-08	2.774E-08		
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.310E-05	2.548E-04	6.097E-04	1.065E-03	1.140E-03	1.052E-03		
Pu-239	Pu-239	1.000E+00	1.000E+00	9.999E-01	9.997E-01	9.988E-01	9.965E-01	9.885E-01	9.659E-01	8.908E-01		
Pu-239	äS(j) :		1.000E+00	9.999E-01	9.997E-01	9.991E-01	9.971E-01	9.896E-01	9.671E-01	8.919E-01		
U-235	Cm-243	2.400E-03	0.000E+00	1.056E-21	2.800E-20	9.731E-19	2.202E-17	4.611E-16	3.352E-15	7.630E-15		
U-235	Cm-243	9.976E-01	0.000E+00	1.402E-14	1.238E-13	1.291E-12	9.745E-12	6.332E-11	1.932E-10	2.973E-10		
U-235	Pu-239	1.000E+00	0.000E+00	9.831E-10	2.939E-09	9.675E-09	2.802E-08	8.276E-08	1.802E-07	2.533E-07		
U-235	äS(j) :		0.000E+00	9.831E-10	2.939E-09	9.676E-09	2.803E-08	8.282E-08	1.804E-07	2.536E-07		
Pa-231	Cm-243	2.400E-03	0.000E+00	5.592E-27	4.458E-25	5.205E-23	3.608E-21	2.671E-19	6.288E-18	3.927E-17		
Pa-231	Cm-243	9.976E-01	0.000E+00	9.901E-20	2.632E-18	9.232E-17	2.145E-15	4.933E-14	4.587E-13	1.619E-12		
Pa-231	Pu-239	1.000E+00	0.000E+00	1.039E-14	9.311E-14	1.018E-12	8.741E-12	8.263E-11	4.770E-10	1.400E-09		
Pa-231	äS(j) :		0.000E+00	1.039E-14	9.312E-14	1.018E-12	8.743E-12	8.268E-11	4.775E-10	1.402E-09		
Ac-227	Cm-243	2.400E-03	0.000E+00	3.541E-29	8.378E-27	3.143E-24	5.905E-22	1.070E-19	4.074E-18	3.041E-17		
Ac-227	Cm-243	9.976E-01	0.000E+00	7.829E-22	6.163E-20	6.892E-18	4.253E-16	2.261E-14	3.137E-13	1.261E-12		
Ac-227	Pu-239	1.000E+00	0.000E+00	1.093E-16	2.882E-15	9.845E-14	2.140E-12	4.208E-11	3.338E-10	1.092E-09		
Ac-227	äS(j) :		0.000E+00	1.093E-16	2.882E-15	9.846E-14	2.140E-12	4.211E-11	3.341E-10	1.094E-09		
Co-57	Co-57	1.000E+00	1.000E+00	3.927E-01	6.056E-02	8.720E-05	6.630E-13	2.542E-41	0.000E+00	0.000E+00		
Co-58	Co-58	1.000E+00	1.000E+00	2.799E-02	2.192E-05	2.947E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
Co-60	Co-60	1.000E+00	1.000E+00	8.766E-01	6.737E-01	2.680E-01	1.925E-02	1.912E-06	6.986E-18	0.000E+00		
Cs-134	Cs-134	1.000E+00	1.000E+00	7.145E-01	3.647E-01	3.467E-02	4.167E-05	2.509E-15	1.541E-44	0.000E+00		
Cs-137	Cs-137	1.000E+00	1.000E+00	9.771E-01	9.329E-01	7.934E-01	4.994E-01	9.884E-02	9.656E-04	8.898E-11		

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF (i)	S(j,t), pCi/g								
(j)	(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
AAAAAAA	AAAAAAA	AAAAAAAAA		AAAAAAAAA	AAAAAAAAA	AAAAAAAAA	AAAAAAAAA	AAAAAAAAA	AAAAAAAAA	AAAAAAAAA	AAAAAAAAA
Eu-154	Eu-154	1.000E+00		1.000E+00	9.241E-01	7.890E-01	4.539E-01	9.354E-02	3.716E-04	5.131E-11	5.020E-35
Fe-55	Fe-55	1.000E+00		1.000E+00	7.734E-01	4.627E-01	7.662E-02	4.497E-04	6.970E-12	3.385E-34	0.000E+00
H-3	H-3	1.000E+00		1.000E+00	1.881E-01	6.643E-03	5.357E-08	1.201E-22	0.000E+00	0.000E+00	0.000E+00
I-129	I-129	1.000E+00		1.000E+00	5.766E-01	1.917E-01	4.062E-03	6.703E-08	1.224E-24	0.000E+00	0.000E+00
Mn-54	Mn-54	1.000E+00		1.000E+00	4.444E-01	8.777E-02	3.005E-04	2.713E-11	5.997E-36	0.000E+00	0.000E+00
Nb-94	Nb-94	1.000E+00		1.000E+00	4.465E-01	8.900E-02	3.148E-04	3.119E-11	9.553E-36	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00		1.000E+00	9.998E-01	9.995E-01	9.982E-01	9.945E-01	9.819E-01	9.466E-01	8.329E-01
Ni-63	Ni-63	1.000E+00		1.000E+00	9.926E-01	9.781E-01	9.287E-01	8.011E-01	4.774E-01	1.088E-01	6.150E-04
Pu-238	Pu-238	1.000E+00		1.000E+00	9.920E-01	9.763E-01	9.232E-01	7.869E-01	4.499E-01	9.108E-02	3.399E-04
Pu-241	Pu-241	1.000E+00		1.000E+00	9.529E-01	8.653E-01	6.174E-01	2.353E-01	8.049E-03	5.215E-07	1.141E-21
Pu-241	Pu-241	2.450E-05		2.450E-05	2.335E-05	2.120E-05	1.513E-05	5.766E-06	1.972E-07	1.278E-11	2.796E-26
Pu-241	äS (j) :			1.000E+00	9.529E-01	8.653E-01	6.174E-01	2.354E-01	8.049E-03	5.215E-07	1.141E-21
Pu-242	Pu-242	5.500E-06		5.500E-06	5.500E-06	5.499E-06	5.495E-06	5.485E-06	5.451E-06	5.356E-06	5.033E-06
Pu-242	Pu-242	5.400E-05		5.400E-05	5.399E-05	5.399E-05	5.395E-05	5.386E-05	5.352E-05	5.258E-05	4.942E-05
Pu-242	äS (j) :			5.950E-05	5.949E-05	5.948E-05	5.945E-05	5.934E-05	5.897E-05	5.794E-05	5.445E-05
U-238	Pu-242	5.400E-05		0.000E+00	8.362E-15	2.500E-14	8.230E-14	2.384E-13	7.049E-13	1.540E-12	2.197E-12
U-238	Pu-242	9.999E-01		0.000E+00	1.549E-10	4.629E-10	1.524E-09	4.415E-09	1.305E-08	2.852E-08	4.069E-08
U-238	äS (j) :			0.000E+00	1.549E-10	4.629E-10	1.524E-09	4.415E-09	1.305E-08	2.852E-08	4.069E-08
Pu-242	Pu-242	9.999E-01		9.999E-01	9.999E-01	9.997E-01	9.991E-01	9.973E-01	9.911E-01	9.737E-01	9.151E-01
Ru-106	Ru-106	1.000E+00		1.000E+00	2.245E-01	1.131E-02	3.251E-07	3.435E-20	0.000E+00	0.000E+00	0.000E+00
Sb-124	Sb-124	1.000E+00		1.000E+00	6.659E-03	2.952E-07	1.713E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Sb-125	Sb-125	7.720E-01		7.720E-01	2.684E-01	3.244E-02	1.991E-05	1.324E-14	0.000E+00	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01		2.280E-01	7.926E-02	9.580E-03	5.880E-06	3.910E-15	0.000E+00	0.000E+00	0.000E+00
Sb-125	äS (j) :			1.000E+00	3.476E-01	4.202E-02	2.579E-05	1.715E-14	0.000E+00	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01		0.000E+00	8.271E-02	1.016E-02	6.237E-06	4.148E-15	0.000E+00	0.000E+00	0.000E+00
Sn-113	Sn-113	1.000E+00		1.000E+00	4.949E-02	1.212E-04	8.821E-14	6.863E-40	0.000E+00	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00		1.000E+00	9.709E-01	9.152E-01	7.442E-01	4.121E-01	5.208E-02	1.413E-04	1.469E-13
Tc-99	Tc-99	1.000E+00		1.000E+00	4.465E-01	8.901E-02	3.149E-04	3.122E-11	9.582E-36	0.000E+00	0.000E+00
Zn-65	Zn-65	1.000E+00		1.000E+00	1.581E-01	3.954E-03	9.775E-09	9.340E-25	0.000E+00	0.000E+00	0.000E+00



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF(i)	S(j,t), pCi/g									
(j)	(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	
AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	
Zr-95	Zr-95	1.000E+00	1.000E+00	1.912E-02	6.988E-06	6.523E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Nb-95	Zr-95	1.000E+00	0.000E+00	3.339E-02	1.242E-05	1.160E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	

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

RESCALC.EXE execution time = 123.91 seconds

Total water/soil iteration failures = 1.

**ENCLOSURE 5**

**RESRAD Version 6.5 Report for  
“Dresden 10CFR20.2002 Pad DCGL Evaluation – Industrial Worker Scenario”  
(54 pages total)**

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Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Dose Conversion Factor (and Related) Parameter Summary

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ac-225 (Source: FGR 12)	6.371E-02	6.371E-02	DCF1 ( 1)
A-1	Ac-227 (Source: FGR 12)	4.951E-04	4.951E-04	DCF1 ( 2)
A-1	Ag-110 (Source: FGR 12)	2.242E-01	2.242E-01	DCF1 ( 3)
A-1	Ag-110m (Source: FGR 12)	1.717E+01	1.717E+01	DCF1 ( 4)
A-1	Am-241 (Source: FGR 12)	4.372E-02	4.372E-02	DCF1 ( 5)
A-1	Am-243 (Source: FGR 12)	1.420E-01	1.420E-01	DCF1 ( 6)
A-1	At-217 (Source: FGR 12)	1.773E-03	1.773E-03	DCF1 ( 7)
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1 ( 8)
A-1	Ba-137m (Source: FGR 12)	3.606E+00	3.606E+00	DCF1 ( 9)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1 ( 10)
A-1	Bi-211 (Source: FGR 12)	2.559E-01	2.559E-01	DCF1 ( 11)
A-1	Bi-213 (Source: FGR 12)	7.660E-01	7.660E-01	DCF1 ( 12)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1 ( 13)
A-1	C-14 (Source: FGR 12)	1.345E-05	1.345E-05	DCF1 ( 14)
A-1	Ce-144 (Source: FGR 12)	7.174E-02	7.174E-02	DCF1 ( 15)
A-1	Cm-242 (Source: FGR 12)	1.709E-04	1.709E-04	DCF1 ( 16)
A-1	Cm-243 (Source: FGR 12)	5.829E-01	5.829E-01	DCF1 ( 17)
A-1	Co-57 (Source: FGR 12)	5.007E-01	5.007E-01	DCF1 ( 18)
A-1	Co-58 (Source: FGR 12)	5.960E+00	5.960E+00	DCF1 ( 19)
A-1	Co-60 (Source: FGR 12)	1.622E+01	1.622E+01	DCF1 ( 20)
A-1	Cs-134 (Source: FGR 12)	9.472E+00	9.472E+00	DCF1 ( 21)
A-1	Cs-137 (Source: FGR 12)	7.510E-04	7.510E-04	DCF1 ( 22)
A-1	Eu-154 (Source: FGR 12)	7.678E+00	7.678E+00	DCF1 ( 23)
A-1	Fe-55 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 24)
A-1	Fr-221 (Source: FGR 12)	1.536E-01	1.536E-01	DCF1 ( 25)
A-1	Fr-223 (Source: FGR 12)	1.980E-01	1.980E-01	DCF1 ( 26)
A-1	H-3 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 27)
A-1	I-129 (Source: FGR 12)	1.295E-02	1.295E-02	DCF1 ( 28)
A-1	In-113m (Source: FGR 12)	1.435E+00	1.435E+00	DCF1 ( 29)
A-1	Mn-54 (Source: FGR 12)	5.156E+00	5.156E+00	DCF1 ( 30)
A-1	Nb-94 (Source: FGR 12)	9.677E+00	9.677E+00	DCF1 ( 31)
A-1	Nb-95 (Source: FGR 12)	4.689E+00	4.689E+00	DCF1 ( 32)
A-1	Nb-95m (Source: FGR 12)	3.195E-01	3.195E-01	DCF1 ( 33)
A-1	Ni-59 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 34)
A-1	Ni-63 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 35)
A-1	Np-237 (Source: FGR 12)	7.790E-02	7.790E-02	DCF1 ( 36)
A-1	Np-239 (Source: FGR 12)	7.529E-01	7.529E-01	DCF1 ( 37)
A-1	Pa-231 (Source: FGR 12)	1.906E-01	1.906E-01	DCF1 ( 38)
A-1	Pa-233 (Source: FGR 12)	1.020E+00	1.020E+00	DCF1 ( 39)
A-1	Pa-234 (Source: FGR 12)	1.155E+01	1.155E+01	DCF1 ( 40)
A-1	Pa-234m (Source: FGR 12)	8.967E-02	8.967E-02	DCF1 ( 41)
A-1	Pb-209 (Source: FGR 12)	7.734E-04	7.734E-04	DCF1 ( 42)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1 ( 43)
A-1	Pb-211 (Source: FGR 12)	3.064E-01	3.064E-01	DCF1 ( 44)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1 ( 45)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1 ( 46)
A-1	Po-211 (Source: FGR 12)	4.764E-02	4.764E-02	DCF1 ( 47)
A-1	Po-213 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 48)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1 ( 49)

Dose Library: FGR 12 & FGR 11

	Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	Po-215	(Source: FGR 12)	1.016E-03	1.016E-03	DCF1( 50)
A-1	Po-218	(Source: FGR 12)	5.642E-05	5.642E-05	DCF1( 51)
A-1	Pr-144	(Source: FGR 12)	2.522E-01	2.522E-01	DCF1( 52)
A-1	Pr-144m	(Source: FGR 12)	1.437E-02	1.437E-02	DCF1( 53)
A-1	Pu-238	(Source: FGR 12)	1.513E-04	1.513E-04	DCF1( 54)
A-1	Pu-239	(Source: FGR 12)	2.952E-04	2.952E-04	DCF1( 55)
A-1	Pu-241	(Source: FGR 12)	5.904E-06	5.904E-06	DCF1( 56)
A-1	Pu-242	(Source: FGR 12)	1.280E-04	1.280E-04	DCF1( 57)
A-1	Ra-223	(Source: FGR 12)	6.034E-01	6.034E-01	DCF1( 58)
A-1	Ra-225	(Source: FGR 12)	1.102E-02	1.102E-02	DCF1( 59)
A-1	Ra-226	(Source: FGR 12)	3.176E-02	3.176E-02	DCF1( 60)
A-1	Rh-106	(Source: FGR 12)	1.291E+00	1.291E+00	DCF1( 61)
A-1	Rn-219	(Source: FGR 12)	3.083E-01	3.083E-01	DCF1( 62)
A-1	Rn-222	(Source: FGR 12)	2.354E-03	2.354E-03	DCF1( 63)
A-1	Ru-106	(Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 64)
A-1	Sb-124	(Source: FGR 12)	1.169E+01	1.169E+01	DCF1( 65)
A-1	Sb-125	(Source: FGR 12)	2.447E+00	2.447E+00	DCF1( 66)
A-1	Sn-113	(Source: FGR 12)	2.970E-02	2.970E-02	DCF1( 67)
A-1	Sr-90	(Source: FGR 12)	7.043E-04	7.043E-04	DCF1( 68)
A-1	Tc-99	(Source: FGR 12)	1.255E-04	1.255E-04	DCF1( 69)
A-1	Te-125m	(Source: FGR 12)	1.515E-02	1.515E-02	DCF1( 70)
A-1	Th-227	(Source: FGR 12)	5.212E-01	5.212E-01	DCF1( 71)
A-1	Th-229	(Source: FGR 12)	3.213E-01	3.213E-01	DCF1( 72)
A-1	Th-230	(Source: FGR 12)	1.209E-03	1.209E-03	DCF1( 73)
A-1	Th-231	(Source: FGR 12)	3.643E-02	3.643E-02	DCF1( 74)
A-1	Th-234	(Source: FGR 12)	2.410E-02	2.410E-02	DCF1( 75)
A-1	Tl-207	(Source: FGR 12)	1.980E-02	1.980E-02	DCF1( 76)
A-1	Tl-209	(Source: FGR 12)	1.293E+01	1.293E+01	DCF1( 77)
A-1	Tl-210	(Source: no data)	0.000E+00	-2.000E+00	DCF1( 78)
A-1	U-233	(Source: FGR 12)	1.397E-03	1.397E-03	DCF1( 79)
A-1	U-234	(Source: FGR 12)	4.017E-04	4.017E-04	DCF1( 80)
A-1	U-235	(Source: FGR 12)	7.211E-01	7.211E-01	DCF1( 81)
A-1	U-237	(Source: FGR 12)	5.306E-01	5.306E-01	DCF1( 82)
A-1	U-238	(Source: FGR 12)	1.031E-04	1.031E-04	DCF1( 83)
A-1	Y-90	(Source: FGR 12)	2.391E-02	2.391E-02	DCF1( 84)
A-1	Zn-65	(Source: FGR 12)	3.699E+00	3.699E+00	DCF1( 85)
A-1	Zr-95	(Source: FGR 12)	4.521E+00	4.521E+00	DCF1( 86)
B-1	Dose conversion factors for inhalation, mrem/pCi:				
B-1	Ac-227+D		6.724E+00	6.700E+00	DCF2( 1)
B-1	Ag-110m+D		8.030E-05	8.030E-05	DCF2( 2)
B-1	Am-241		4.440E-01	4.440E-01	DCF2( 3)
B-1	Am-243+D		4.400E-01	4.400E-01	DCF2( 4)
B-1	C-14(p) (Class: ORGANIC)		2.090E-06	2.090E-06	DCF2( 5)
B-1	C-14(g) (Class: CO2)		2.350E-08	2.350E-08	C14GInhDCF
B-1	Ce-144+D		3.740E-04	3.740E-04	DCF2( 6)
B-1	Cm-242		1.730E-02	1.730E-02	DCF2( 7)
B-1	Cm-243		3.070E-01	3.070E-01	DCF2( 10)
B-1	Co-57		9.070E-06	9.070E-06	DCF2( 12)
B-1	Co-58		1.090E-05	1.090E-05	DCF2( 13)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
B-1	Co-60	2.190E-04	2.190E-04	DCF2( 14)
B-1	Cs-134	4.620E-05	4.620E-05	DCF2( 15)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2( 16)
B-1	Eu-154	2.860E-04	2.860E-04	DCF2( 17)
B-1	Fe-55	2.690E-06	2.690E-06	DCF2( 18)
B-1	H-3	6.400E-08	6.400E-08	DCF2( 19)
B-1	I-129	1.740E-04	1.740E-04	DCF2( 20)
B-1	Mn-54	6.700E-06	6.700E-06	DCF2( 21)
B-1	Nb-94	4.140E-04	4.140E-04	DCF2( 22)
B-1	Nb-95	5.810E-06	5.810E-06	DCF2( 23)
B-1	Ni-59	2.700E-06	2.700E-06	DCF2( 24)
B-1	Ni-63	6.290E-06	6.290E-06	DCF2( 25)
B-1	Np-237+D	5.400E-01	5.400E-01	DCF2( 26)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2( 27)
B-1	Pb-210+D	1.380E-02	1.360E-02	DCF2( 28)
B-1	Po-210	9.400E-03	9.400E-03	DCF2( 29)
B-1	Pu-238	3.920E-01	3.920E-01	DCF2( 30)
B-1	Pu-239	4.290E-01	4.290E-01	DCF2( 32)
B-1	Pu-241	8.250E-03	8.250E-03	DCF2( 33)
B-1	Pu-241+D	8.254E-03	8.250E-03	DCF2( 34)
B-1	Pu-242	4.110E-01	4.110E-01	DCF2( 35)
B-1	Ra-226+D	8.594E-03	8.580E-03	DCF2( 38)
B-1	Ru-106+D	4.770E-04	4.770E-04	DCF2( 39)
B-1	Sb-124	2.520E-05	2.520E-05	DCF2( 40)
B-1	Sb-125	1.220E-05	1.220E-05	DCF2( 41)
B-1	Sn-113+D	1.074E-05	1.070E-05	DCF2( 43)
B-1	Sr-90+D	1.308E-03	1.300E-03	DCF2( 44)
B-1	Tc-99	8.320E-06	8.320E-06	DCF2( 45)
B-1	Te-125m	7.290E-06	7.290E-06	DCF2( 46)
B-1	Th-229+D	2.169E+00	2.150E+00	DCF2( 47)
B-1	Th-230	3.260E-01	3.260E-01	DCF2( 48)
B-1	U-233	1.350E-01	1.350E-01	DCF2( 49)
B-1	U-234	1.320E-01	1.320E-01	DCF2( 50)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2( 51)
B-1	U-238	1.180E-01	1.180E-01	DCF2( 52)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2( 53)
B-1	Zn-65	2.040E-05	2.040E-05	DCF2( 54)
B-1	Zr-95+D	2.362E-05	2.360E-05	DCF2( 55)
Dose conversion factors for ingestion, mrem/pCi:				
D-1	Ac-227+D	1.480E-02	1.410E-02	DCF3( 1)
D-1	Ag-110m+D	1.080E-05	1.080E-05	DCF3( 2)
D-1	Am-241	3.640E-03	3.640E-03	DCF3( 3)
D-1	Am-243+D	3.623E-03	3.620E-03	DCF3( 4)
D-1	C-14	2.090E-06	2.090E-06	DCF3( 5)
D-1	Ce-144+D	2.112E-05	2.100E-05	DCF3( 6)
D-1	Cm-242	1.150E-04	1.150E-04	DCF3( 7)
D-1	Cm-243	2.510E-03	2.510E-03	DCF3( 10)
D-1	Co-57	1.180E-06	1.180E-06	DCF3( 12)
D-1	Co-58	3.580E-06	3.580E-06	DCF3( 13)

Dose Library: FGR 12 & FGR 11

	Current	Base	Parameter
Menu	Value#	Case*	Name
AAA			
D-1 Co-60	2.690E-05	2.690E-05	DCF3( 14)
D-1 Cs-134	7.330E-05	7.330E-05	DCF3( 15)
D-1 Cs-137+D	5.000E-05	5.000E-05	DCF3( 16)
D-1 Eu-154	9.550E-06	9.550E-06	DCF3( 17)
D-1 Fe-55	6.070E-07	6.070E-07	DCF3( 18)
D-1 H-3	6.400E-08	6.400E-08	DCF3( 19)
D-1 I-129	2.760E-04	2.760E-04	DCF3( 20)
D-1 Mn-54	2.770E-06	2.770E-06	DCF3( 21)
D-1 Nb-94	7.140E-06	7.140E-06	DCF3( 22)
D-1 Nb-95	2.570E-06	2.570E-06	DCF3( 23)
D-1 Ni-59	2.100E-07	2.100E-07	DCF3( 24)
D-1 Ni-63	5.770E-07	5.770E-07	DCF3( 25)
D-1 Np-237+D	4.444E-03	4.440E-03	DCF3( 26)
D-1 Pa-231	1.060E-02	1.060E-02	DCF3( 27)
D-1 Pb-210+D	5.376E-03	5.370E-03	DCF3( 28)
D-1 Po-210	1.900E-03	1.900E-03	DCF3( 29)
D-1 Pu-238	3.200E-03	3.200E-03	DCF3( 30)
D-1 Pu-239	3.540E-03	3.540E-03	DCF3( 32)
D-1 Pu-241	6.840E-05	6.840E-05	DCF3( 33)
D-1 Pu-241+D	7.157E-05	6.840E-05	DCF3( 34)
D-1 Pu-242	3.360E-03	3.360E-03	DCF3( 35)
D-1 Ra-226+D	1.321E-03	1.320E-03	DCF3( 38)
D-1 Ru-106+D	2.740E-05	2.740E-05	DCF3( 39)
D-1 Sb-124	1.010E-05	1.010E-05	DCF3( 40)
D-1 Sb-125	2.810E-06	2.810E-06	DCF3( 41)
D-1 Sn-113+D	3.185E-06	3.080E-06	DCF3( 43)
D-1 Sr-90+D	1.528E-04	1.420E-04	DCF3( 44)
D-1 Tc-99	1.460E-06	1.460E-06	DCF3( 45)
D-1 Te-125m	3.670E-06	3.670E-06	DCF3( 46)
D-1 Th-229+D	4.027E-03	3.530E-03	DCF3( 47)
D-1 Th-230	5.480E-04	5.480E-04	DCF3( 48)
D-1 U-233	2.890E-04	2.890E-04	DCF3( 49)
D-1 U-234	2.830E-04	2.830E-04	DCF3( 50)
D-1 U-235+D	2.673E-04	2.660E-04	DCF3( 51)
D-1 U-238	2.550E-04	2.550E-04	DCF3( 52)
D-1 U-238+D	2.687E-04	2.550E-04	DCF3( 53)
D-1 Zn-65	1.440E-05	1.440E-05	DCF3( 54)
D-1 Zr-95+D	3.786E-06	3.770E-06	DCF3( 55)
D-34 Food transfer factors:			
D-34 Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 1,1)
D-34 Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,2)
D-34 Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,3)
D-34			
D-34 Ag-110m+D , plant/soil concentration ratio, dimensionless	1.500E-01	1.500E-01	RTF( 2,1)
D-34 Ag-110m+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-03	3.000E-03	RTF( 2,2)
D-34 Ag-110m+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.500E-02	2.500E-02	RTF( 2,3)
D-34			

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 3,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 3,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 3,3)
D-34				
D-34	Am-243+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 4,1)
D-34	Am-243+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 4,2)
D-34	Am-243+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 4,3)
D-34				
D-34	C-14 , plant/soil concentration ratio, dimensionless	5.500E+00	5.500E+00	RTF( 5,1)
D-34	C-14 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.100E-02	3.100E-02	RTF( 5,2)
D-34	C-14 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.200E-02	1.200E-02	RTF( 5,3)
D-34				
D-34	Ce-144+D , plant/soil concentration ratio, dimensionless	2.000E-03	2.000E-03	RTF( 6,1)
D-34	Ce-144+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 6,2)
D-34	Ce-144+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-05	5.000E-05	RTF( 6,3)
D-34				
D-34	Cm-242 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 7,1)
D-34	Cm-242 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 7,2)
D-34	Cm-242 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 7,3)
D-34				
D-34	Cm-243 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 10,1)
D-34	Cm-243 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 10,2)
D-34	Cm-243 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 10,3)
D-34				
D-34	Co-57 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 12,1)
D-34	Co-57 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 12,2)
D-34	Co-57 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 12,3)
D-34				
D-34	Co-58 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 13,1)
D-34	Co-58 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 13,2)
D-34	Co-58 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 13,3)
D-34				
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 14,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 14,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 14,3)
D-34				
D-34	Cs-134 , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 15,1)
D-34	Cs-134 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 15,2)
D-34	Cs-134 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 15,3)
D-34				
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 16,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 16,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 16,3)
D-34				
D-34	Eu-154 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 17,1)
D-34	Eu-154 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 17,2)
D-34	Eu-154 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-05	5.000E-05	RTF( 17,3)
D-34				



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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Fe-55 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 18,1)
D-34	Fe-55 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 18,2)
D-34	Fe-55 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 18,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF( 19,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF( 19,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 19,3)
D-34				
D-34	I-129 , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 20,1)
D-34	I-129 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 20,2)
D-34	I-129 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 20,3)
D-34				
D-34	Mn-54 , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF( 21,1)
D-34	Mn-54 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-04	5.000E-04	RTF( 21,2)
D-34	Mn-54 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 21,3)
D-34				
D-34	Nb-94 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 22,1)
D-34	Nb-94 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-07	3.000E-07	RTF( 22,2)
D-34	Nb-94 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 22,3)
D-34				
D-34	Nb-95 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 23,1)
D-34	Nb-95 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-07	3.000E-07	RTF( 23,2)
D-34	Nb-95 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 23,3)
D-34				
D-34	Ni-59 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF( 24,1)
D-34	Ni-59 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 24,2)
D-34	Ni-59 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-02	2.000E-02	RTF( 24,3)
D-34				
D-34	Ni-63 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF( 25,1)
D-34	Ni-63 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 25,2)
D-34	Ni-63 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-02	2.000E-02	RTF( 25,3)
D-34				
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 26,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 26,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 26,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 27,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 27,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 27,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 28,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 28,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 28,3)
D-34				
D-34	Po-210 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 29,1)
D-34	Po-210 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 29,2)
D-34	Po-210 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.400E-04	3.400E-04	RTF( 29,3)
D-34				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 30,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 30,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 30,3)
D-34				
D-34	Pu-239 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 32,1)
D-34	Pu-239 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 32,2)
D-34	Pu-239 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 32,3)
D-34				
D-34	Pu-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 33,1)
D-34	Pu-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 33,2)
D-34	Pu-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 33,3)
D-34				
D-34	Pu-241+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 34,1)
D-34	Pu-241+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 34,2)
D-34	Pu-241+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 34,3)
D-34				
D-34	Pu-242 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 35,1)
D-34	Pu-242 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 35,2)
D-34	Pu-242 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 35,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 38,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 38,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 38,3)
D-34				
D-34	Ru-106+D , plant/soil concentration ratio, dimensionless	3.000E-02	3.000E-02	RTF( 39,1)
D-34	Ru-106+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 39,2)
D-34	Ru-106+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.300E-06	3.300E-06	RTF( 39,3)
D-34				
D-34	Sb-124 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 40,1)
D-34	Sb-124 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 40,2)
D-34	Sb-124 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-04	1.000E-04	RTF( 40,3)
D-34				
D-34	Sb-125 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 41,1)
D-34	Sb-125 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 41,2)
D-34	Sb-125 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-04	1.000E-04	RTF( 41,3)
D-34				
D-34	Sn-113+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 43,1)
D-34	Sn-113+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-02	1.000E-02	RTF( 43,2)
D-34	Sn-113+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 43,3)
D-34				
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF( 44,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF( 44,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 44,3)
D-34				
D-34	Tc-99 , plant/soil concentration ratio, dimensionless	5.000E+00	5.000E+00	RTF( 45,1)
D-34	Tc-99 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 45,2)
D-34	Tc-99 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 45,3)
D-34				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Te-125m , plant/soil concentration ratio, dimensionless	6.000E-01	6.000E-01	RTF( 46,1)
D-34	Te-125m , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 46,2)
D-34	Te-125m , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-04	5.000E-04	RTF( 46,3)
D-34				
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 47,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 47,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 47,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 48,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 48,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 48,3)
D-34				
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 49,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 49,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 49,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 50,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 50,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 50,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 51,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 51,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 51,3)
D-34				
D-34	U-238 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 52,1)
D-34	U-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 52,2)
D-34	U-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 52,3)
D-34				
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 53,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 53,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 53,3)
D-34				
D-34	Zn-65 , plant/soil concentration ratio, dimensionless	4.000E-01	4.000E-01	RTF( 54,1)
D-34	Zn-65 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-01	1.000E-01	RTF( 54,2)
D-34	Zn-65 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 54,3)
D-34				
D-34	Zr-95+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 55,1)
D-34	Zr-95+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-06	1.000E-06	RTF( 55,2)
D-34	Zr-95+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-07	6.000E-07	RTF( 55,3)
D-5				
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5				
D-5	Ag-110m+D , fish	5.000E+00	5.000E+00	BIOFAC( 2,1)
D-5	Ag-110m+D , crustacea and mollusks	7.700E+02	7.700E+02	BIOFAC( 2,2)
D-5				
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 3,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 3,2)
D-5				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-5	Am-243+D , fish	3.000E+01	3.000E+01	BIOFAC ( 4,1)
D-5	Am-243+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 4,2)
D-5				
D-5	C-14 , fish	5.000E+04	5.000E+04	BIOFAC ( 5,1)
D-5	C-14 , crustacea and mollusks	9.100E+03	9.100E+03	BIOFAC ( 5,2)
D-5				
D-5	Ce-144+D , fish	3.000E+01	3.000E+01	BIOFAC ( 6,1)
D-5	Ce-144+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 6,2)
D-5				
D-5	Cm-242 , fish	3.000E+01	3.000E+01	BIOFAC ( 7,1)
D-5	Cm-242 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 7,2)
D-5				
D-5	Cm-243 , fish	3.000E+01	3.000E+01	BIOFAC ( 10,1)
D-5	Cm-243 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 10,2)
D-5				
D-5	Co-57 , fish	3.000E+02	3.000E+02	BIOFAC ( 12,1)
D-5	Co-57 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 12,2)
D-5				
D-5	Co-58 , fish	3.000E+02	3.000E+02	BIOFAC ( 13,1)
D-5	Co-58 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 13,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC ( 14,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 14,2)
D-5				
D-5	Cs-134 , fish	2.000E+03	2.000E+03	BIOFAC ( 15,1)
D-5	Cs-134 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 15,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC ( 16,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 16,2)
D-5				
D-5	Eu-154 , fish	5.000E+01	5.000E+01	BIOFAC ( 17,1)
D-5	Eu-154 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 17,2)
D-5				
D-5	Fe-55 , fish	2.000E+02	2.000E+02	BIOFAC ( 18,1)
D-5	Fe-55 , crustacea and mollusks	3.200E+03	3.200E+03	BIOFAC ( 18,2)
D-5				
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC ( 19,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC ( 19,2)
D-5				
D-5	I-129 , fish	4.000E+01	4.000E+01	BIOFAC ( 20,1)
D-5	I-129 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC ( 20,2)
D-5				
D-5	Mn-54 , fish	4.000E+02	4.000E+02	BIOFAC ( 21,1)
D-5	Mn-54 , crustacea and mollusks	9.000E+04	9.000E+04	BIOFAC ( 21,2)
D-5				
D-5	Nb-94 , fish	3.000E+02	3.000E+02	BIOFAC ( 22,1)
D-5	Nb-94 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 22,2)
D-5				
D-5	Nb-95 , fish	3.000E+02	3.000E+02	BIOFAC ( 23,1)
D-5	Nb-95 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 23,2)

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-5	Ni-59 , fish	1.000E+02	1.000E+02	BIOFAC( 24,1)
D-5	Ni-59 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 24,2)
D-5				
D-5	Ni-63 , fish	1.000E+02	1.000E+02	BIOFAC( 25,1)
D-5	Ni-63 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 25,2)
D-5				
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 26,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 26,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 27,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 27,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 28,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 28,2)
D-5				
D-5	Po-210 , fish	1.000E+02	1.000E+02	BIOFAC( 29,1)
D-5	Po-210 , crustacea and mollusks	2.000E+04	2.000E+04	BIOFAC( 29,2)
D-5				
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 30,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 30,2)
D-5				
D-5	Pu-239 , fish	3.000E+01	3.000E+01	BIOFAC( 32,1)
D-5	Pu-239 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 32,2)
D-5				
D-5	Pu-241 , fish	3.000E+01	3.000E+01	BIOFAC( 33,1)
D-5	Pu-241 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 33,2)
D-5				
D-5	Pu-241+D , fish	3.000E+01	3.000E+01	BIOFAC( 34,1)
D-5	Pu-241+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 34,2)
D-5				
D-5	Pu-242 , fish	3.000E+01	3.000E+01	BIOFAC( 35,1)
D-5	Pu-242 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 35,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC( 38,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 38,2)
D-5				
D-5	Ru-106+D , fish	1.000E+01	1.000E+01	BIOFAC( 39,1)
D-5	Ru-106+D , crustacea and mollusks	3.000E+02	3.000E+02	BIOFAC( 39,2)
D-5				
D-5	Sb-124 , fish	1.000E+02	1.000E+02	BIOFAC( 40,1)
D-5	Sb-124 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 40,2)
D-5				
D-5	Sb-125 , fish	1.000E+02	1.000E+02	BIOFAC( 41,1)
D-5	Sb-125 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 41,2)
D-5				
D-5	Sn-113+D , fish	3.000E+03	3.000E+03	BIOFAC( 43,1)
D-5	Sn-113+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 43,2)
D-5				
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC( 44,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 44,2)

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Tc-99 , fish	2.000E+01	2.000E+01	BIOFAC ( 45,1)
D-5	Tc-99 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC ( 45,2)
D-5				
D-5	Te-125m , fish	4.000E+02	4.000E+02	BIOFAC ( 46,1)
D-5	Te-125m , crustacea and mollusks	7.500E+01	7.500E+01	BIOFAC ( 46,2)
D-5				
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC ( 47,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC ( 47,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC ( 48,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC ( 48,2)
D-5				
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC ( 49,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 49,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC ( 50,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 50,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC ( 51,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 51,2)
D-5				
D-5	U-238 , fish	1.000E+01	1.000E+01	BIOFAC ( 52,1)
D-5	U-238 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 52,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC ( 53,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 53,2)
D-5				
D-5	Zn-65 , fish	1.000E+03	1.000E+03	BIOFAC ( 54,1)
D-5	Zn-65 , crustacea and mollusks	1.000E+04	1.000E+04	BIOFAC ( 54,2)
D-5				
D-5	Zr-95+D , fish	3.000E+02	3.000E+02	BIOFAC ( 55,1)
D-5	Zr-95+D , crustacea and mollusks	6.700E+00	6.700E+00	BIOFAC ( 55,2)

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

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

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	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)
3 3 3 3 3 3					
R012	Initial principal radionuclide (pCi/g): Ag-110m	1.000E+00	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Am-241	1.000E+00	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): C-14	1.000E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Ce-144	1.000E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Cm-242	1.000E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Cm-243	1.000E+00	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): Co-57	1.000E+00	0.000E+00	---	S1(12)
R012	Initial principal radionuclide (pCi/g): Co-58	1.000E+00	0.000E+00	---	S1(13)
R012	Initial principal radionuclide (pCi/g): Co-60	1.000E+00	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.000E+00	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): Cs-137	1.000E+00	0.000E+00	---	S1(16)
R012	Initial principal radionuclide (pCi/g): Eu-154	1.000E+00	0.000E+00	---	S1(17)
R012	Initial principal radionuclide (pCi/g): Fe-55	1.000E+00	0.000E+00	---	S1(18)
R012	Initial principal radionuclide (pCi/g): H-3	1.000E+00	0.000E+00	---	S1(19)
R012	Initial principal radionuclide (pCi/g): I-129	1.000E+00	0.000E+00	---	S1(20)
R012	Initial principal radionuclide (pCi/g): Mn-54	1.000E+00	0.000E+00	---	S1(21)
R012	Initial principal radionuclide (pCi/g): Nb-94	1.000E+00	0.000E+00	---	S1(22)
R012	Initial principal radionuclide (pCi/g): Ni-59	1.000E+00	0.000E+00	---	S1(24)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(25)
R012	Initial principal radionuclide (pCi/g): Np-237	1.000E+00	0.000E+00	---	S1(26)
R012	Initial principal radionuclide (pCi/g): Pu-238	1.000E+00	0.000E+00	---	S1(30)
R012	Initial principal radionuclide (pCi/g): Pu-239	1.000E+00	0.000E+00	---	S1(32)
R012	Initial principal radionuclide (pCi/g): Pu-241	1.000E+00	0.000E+00	---	S1(33)
R012	Initial principal radionuclide (pCi/g): Pu-242	1.000E+00	0.000E+00	---	S1(35)
R012	Initial principal radionuclide (pCi/g): Ru-106	1.000E+00	0.000E+00	---	S1(39)
R012	Initial principal radionuclide (pCi/g): Sb-124	1.000E+00	0.000E+00	---	S1(40)
R012	Initial principal radionuclide (pCi/g): Sb-125	1.000E+00	0.000E+00	---	S1(41)
R012	Initial principal radionuclide (pCi/g): Sn-113	1.000E+00	0.000E+00	---	S1(43)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(44)
R012	Initial principal radionuclide (pCi/g): Tc-99	1.000E+00	0.000E+00	---	S1(45)
R012	Initial principal radionuclide (pCi/g): Zn-65	1.000E+00	0.000E+00	---	S1(54)
R012	Initial principal radionuclide (pCi/g): Zr-95	1.000E+00	0.000E+00	---	S1(55)
R012	Concentration in groundwater (pCi/L): Ag-110m	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 3)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1 ( 5)
R012	Concentration in groundwater (pCi/L): Ce-144	not used	0.000E+00	---	W1 ( 6)
R012	Concentration in groundwater (pCi/L): Cm-242	not used	0.000E+00	---	W1 ( 7)
R012	Concentration in groundwater (pCi/L): Cm-243	not used	0.000E+00	---	W1 (10)
R012	Concentration in groundwater (pCi/L): Co-57	not used	0.000E+00	---	W1 (12)
R012	Concentration in groundwater (pCi/L): Co-58	not used	0.000E+00	---	W1 (13)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1 (14)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1 (15)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1 (16)
R012	Concentration in groundwater (pCi/L): Eu-154	not used	0.000E+00	---	W1 (17)
R012	Concentration in groundwater (pCi/L): Fe-55	not used	0.000E+00	---	W1 (18)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1 (19)
R012	Concentration in groundwater (pCi/L): I-129	not used	0.000E+00	---	W1 (20)
R012	Concentration in groundwater (pCi/L): Mn-54	not used	0.000E+00	---	W1 (21)
R012	Concentration in groundwater (pCi/L): Nb-94	not used	0.000E+00	---	W1 (22)
R012	Concentration in groundwater (pCi/L): Ni-59	not used	0.000E+00	---	W1 (24)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1 (25)
R012	Concentration in groundwater (pCi/L): Np-237	not used	0.000E+00	---	W1 (26)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1 (30)
R012	Concentration in groundwater (pCi/L): Pu-239	not used	0.000E+00	---	W1 (32)
R012	Concentration in groundwater (pCi/L): Pu-241	not used	0.000E+00	---	W1 (33)
R012	Concentration in groundwater (pCi/L): Pu-242	not used	0.000E+00	---	W1 (35)
R012	Concentration in groundwater (pCi/L): Ru-106	not used	0.000E+00	---	W1 (39)
R012	Concentration in groundwater (pCi/L): Sb-124	not used	0.000E+00	---	W1 (40)
R012	Concentration in groundwater (pCi/L): Sb-125	not used	0.000E+00	---	W1 (41)
R012	Concentration in groundwater (pCi/L): Sn-113	not used	0.000E+00	---	W1 (43)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1 (44)
R012	Concentration in groundwater (pCi/L): Tc-99	not used	0.000E+00	---	W1 (45)
R012	Concentration in groundwater (pCi/L): Zn-65	not used	0.000E+00	---	W1 (54)
R012	Concentration in groundwater (pCi/L): Zr-95	not used	0.000E+00	---	W1 (55)
3					
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)	1.440E+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	4.380E+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)	8.000E+00	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
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
AA					
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-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	4.050E+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
3 3 3 3 3					
R015	Number of unsaturated zone strata	not used	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.700E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.440E+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	4.380E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
3 3 3 3 3					
R016	Distribution coefficients for Ag-110m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
3 3 3 3 3					
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 3)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
3 3 3 3 3					
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 5)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)
3 3 3 3 3					
R016	Distribution coefficients for Ce-144				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Cm-242				
R016	Contaminated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCC ( 7)
R016	Unsaturated zone 1 (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCU ( 7,1)
R016	Saturated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCS ( 7)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.260E-04	ALEACH ( 7)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK ( 7)
R016	Distribution coefficients for Cm-243				
R016	Contaminated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCC (10)
R016	Unsaturated zone 1 (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCU (10,1)
R016	Saturated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCS (10)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.260E-04	ALEACH (10)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (10)
R016	Distribution coefficients for Co-57				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (12)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (12,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (12)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (12)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (12)
R016	Distribution coefficients for Co-58				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (13)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (13,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (13)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (13)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (13)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (14)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (14,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (14)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (14)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (14)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCC (15)
R016	Unsaturated zone 1 (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCU (15,1)
R016	Saturated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCS (15)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	3.774E-05	ALEACH (15)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (15)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCC (16)
R016	Unsaturated zone 1 (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCU (16,1)
R016	Saturated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCS (16)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	3.774E-05	ALEACH (16)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (16)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Eu-154				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCC (17)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCU (17,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCS (17)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.104E-04	ALEACH (17)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (17)
R016	Distribution coefficients for Fe-55				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (18)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (18,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (18)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (18)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (18)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (19)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (19,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (19)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (19)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (19)
R016	Distribution coefficients for I-129				
R016	Contaminated zone (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCC (20)
R016	Unsaturated zone 1 (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCU (20,1)
R016	Saturated zone (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCS (20)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.506E-01	ALEACH (20)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (20)
R016	Distribution coefficients for Mn-54				
R016	Contaminated zone (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCC (21)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCU (21,1)
R016	Saturated zone (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCS (21)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.671E-04	ALEACH (21)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (21)
R016	Distribution coefficients for Nb-94				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (22)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (22,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (22)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (22)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (22)
R016	Distribution coefficients for Ni-59				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (24)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (24,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (24)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (24)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (24)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (25)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (25,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (25)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (25)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (25)
R016	Distribution coefficients for Np-237				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCC (26)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCU (26,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCS (26)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.739E-04	ALEACH (26)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (26)
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (30)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (30,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (30)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (30)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (30)
R016	Distribution coefficients for Pu-239				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (32)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (32,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (32)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (32)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (32)
R016	Distribution coefficients for Pu-241				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (33)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (33,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (33)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (33)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (33)
R016	Distribution coefficients for Pu-242				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (35)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (35,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (35)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (35)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (35)
R016	Distribution coefficients for Ru-106				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (39)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (39,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (39)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (39)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (39)

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Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Sb-124				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (40)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (40,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (40)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)
R016	Distribution coefficients for Sb-125				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (41)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (41,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (41)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (41)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (41)
R016	Distribution coefficients for Sn-113				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (43)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (43,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (43)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (43)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (43)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC (44)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU (44,1)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS (44)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.746E-03	ALEACH (44)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (44)
R016	Distribution coefficients for Tc-99				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (45)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (45,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (45)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (45)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (45)
R016	Distribution coefficients for Zn-65				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (54)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (54,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (54)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (54)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (54)
R016	Distribution coefficients for Zr-95				
R016	Contaminated zone (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCC (55)
R016	Unsaturated zone 1 (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCU (55,1)
R016	Saturated zone (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCS (55)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.891E-05	ALEACH (55)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (55)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH ( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 1)
R016	Distribution coefficients for daughter Am-243				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 4)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 4,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH ( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 4)
R016	Distribution coefficients for daughter Nb-95				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (23)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (23,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (23)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (23)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (23)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (27)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (27,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (27)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (27)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (27)
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC (28)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU (28,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS (28)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.732E-03	ALEACH (28)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (28)
R016	Distribution coefficients for daughter Po-210				
R016	Contaminated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCC (29)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCU (29,1)
R016	Saturated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCS (29)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.700E-02	ALEACH (29)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (29)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC (38)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU (38,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS (38)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.473E-03	ALEACH (38)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (38)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for daughter Te-125m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (46)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (46,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (46)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (46)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (46)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (47)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (47,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (47)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.894E-06	ALEACH (47)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (47)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (48)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (48,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (48)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.894E-06	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (49)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (49,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (49)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (49)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (49)
R016	Distribution coefficients for daughter U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (50)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (50,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (50)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (50)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (50)
R016	Distribution coefficients for daughter U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (51)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (51,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (51)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (51)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (51)
R016	Distribution coefficients for daughter U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (52)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (52,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (52)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (52)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (52)
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

	User	Used by RESRAD	Parameter
Menu	Input	Default (If different from user input)	Name
AAA			
R017	Shielding factor, external gamma	7.000E-01	SHF1
R017	Fraction of time spent indoors	1.700E-01	FIND
R017	Fraction of time spent outdoors (on site)	6.000E-02	FOTD
R017	Shape factor flag, external gamma	1.000E+00	FS
R017	Radii of shape factor array (used if FS = -1):		
R017	Outer annular radius (m), ring 1:	not used	RAD_SHAPE( 1)
R017	Outer annular radius (m), ring 2:	not used	RAD_SHAPE( 2)
R017	Outer annular radius (m), ring 3:	not used	RAD_SHAPE( 3)
R017	Outer annular radius (m), ring 4:	not used	RAD_SHAPE( 4)
R017	Outer annular radius (m), ring 5:	not used	RAD_SHAPE( 5)
R017	Outer annular radius (m), ring 6:	not used	RAD_SHAPE( 6)
R017	Outer annular radius (m), ring 7:	not used	RAD_SHAPE( 7)
R017	Outer annular radius (m), ring 8:	not used	RAD_SHAPE( 8)
R017	Outer annular radius (m), ring 9:	not used	RAD_SHAPE( 9)
R017	Outer annular radius (m), ring 10:	not used	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:		
R017	Ring 1	not used	FRACA( 1)
R017	Ring 2	not used	FRACA( 2)
R017	Ring 3	not used	FRACA( 3)
R017	Ring 4	not used	FRACA( 4)
R017	Ring 5	not used	FRACA( 5)
R017	Ring 6	not used	FRACA( 6)
R017	Ring 7	not used	FRACA( 7)
R017	Ring 8	not used	FRACA( 8)
R017	Ring 9	not used	FRACA( 9)
R017	Ring 10	not used	FRACA(10)
R017	Ring 11	not used	FRACA(11)
R017	Ring 12	not used	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	not used	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	DIET(2)
R018	Milk consumption (L/yr)	not used	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	DIET(4)
R018	Fish consumption (kg/yr)	not used	DIET(5)
R018	Other seafood consumption (kg/yr)	not used	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	SOIL
R018	Drinking water intake (L/yr)	not used	DWI
R018	Contamination fraction of drinking water	not used	FDW
R018	Contamination fraction of household water	1.000E+00	FHHW
R018	Contamination fraction of livestock water	not used	FLW
R018	Contamination fraction of irrigation water	not used	FIRW
R018	Contamination fraction of aquatic food	not used	FR9
R018	Contamination fraction of plant food	not used	FPLANT
R018	Contamination fraction of meat	not used	FMEAT
R018	Contamination fraction of milk	not used	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	LFIS



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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
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	1.000E+00	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
3 3 3 3 3					
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)
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
3 3 3 3 3					
C14	C-12 concentration in water (g/cm**3)	2.000E-05	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	3.000E-02	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	2.000E-02	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	9.800E-01	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	3.000E-01	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	7.000E-07	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	1.000E-10	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
3 3 3 3 3					
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)
3 3 3 3 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
R021	Thickness of building foundation (m)	1.500E-01	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	2.400E+00	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	1.000E-01	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	3.000E-02	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	3.000E-07	3.000E-07	---	DIFFL
R021	in contaminated zone soil	2.000E-06	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	2.000E+00	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	5.000E-01	5.000E-01	---	REXG
R021	Height of the building (room) (m)	2.500E+00	2.500E+00	---	HRM
R021	Building interior area factor	0.000E+00	0.000E+00	code computed (time dependent)	FAI
R021	Building depth below ground surface (m)	-1.000E+00	-1.000E+00	code computed (time dependent)	DMFL
R021	Emanating power of Rn-222 gas	2.500E-01	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
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	active
Find peak pathway doses	active

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
AAAAAAAAAAAAAAAAAAAAAAAAAAAA		AAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Area:	10000.00 square meters	Ag-110m	1.000E+00
Thickness:	2.00 meters	Am-241	1.000E+00
Cover Depth:	0.00 meters	C-14	1.000E+00
		Ce-144	1.000E+00
		Cm-242	1.000E+00
		Cm-243	1.000E+00
		Co-57	1.000E+00
		Co-58	1.000E+00
		Co-60	1.000E+00
		Cs-134	1.000E+00
		Cs-137	1.000E+00
		Eu-154	1.000E+00
		Fe-55	1.000E+00
		H-3	1.000E+00
		I-129	1.000E+00
		Mn-54	1.000E+00
		Nb-94	1.000E+00
		Ni-59	1.000E+00
		Ni-63	1.000E+00
		Np-237	1.000E+00
		Pu-238	1.000E+00
		Pu-239	1.000E+00
		Pu-241	1.000E+00
		Pu-242	1.000E+00
		Ru-106	1.000E+00
		Sb-124	1.000E+00
		Sb-125	1.000E+00
		Sn-113	1.000E+00
		Sr-90	1.000E+00
		Tc-99	1.000E+00
		Zn-65	1.000E+00
		Zr-95	1.000E+00

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)

AA

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):	1.114E+01	6.639E+00	4.424E+00	2.243E+00	8.877E-01	4.018E-01	2.762E-01	1.918E-01
M(t):	4.455E-01	2.655E-01	1.770E-01	8.972E-02	3.551E-02	1.607E-02	1.105E-02	7.673E-03

Maximum TDOSE(t): 1.114E+01 mrem/yr at t = 0.000E+00 years

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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.
Ag-110m	1.329E+00	0.1194	9.136E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.175E-05	0.0000
Am-241	7.556E-03	0.0007	1.091E-02	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.040E-02	0.0027
C-14	5.633E-07	0.0000	5.556E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.185E-06	0.0000
Ce-144	3.628E-02	0.0033	6.117E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.174E-04	0.0000
Cm-242	1.541E-05	0.0000	2.409E-04	0.0000	1.042E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.567E-04	0.0000
Cm-243	9.814E-02	0.0088	7.492E-03	0.0007	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.082E-02	0.0019
Co-57	5.571E-02	0.0050	1.456E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.436E-06	0.0000
Co-58	2.714E-01	0.0244	7.319E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.169E-06	0.0000
Co-60	2.560E+00	0.2299	5.069E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.116E-04	0.0000
Cs-134	1.348E+00	0.1210	9.693E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.226E-04	0.0000
Cs-137	5.651E-01	0.0507	7.790E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.149E-04	0.0000
Eu-154	1.244E+00	0.1117	6.794E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.709E-05	0.0000
Fe-55	0.000E+00	0.0000	5.860E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.494E-06	0.0000
H-3	0.000E+00	0.0000	1.126E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.611E-07	0.0000
I-129	1.770E-03	0.0002	3.305E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.782E-03	0.0002
Mn-54	5.937E-01	0.0533	1.134E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.593E-05	0.0000
Nb-94	1.115E+00	0.1001	7.021E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.115E-05	0.0000
Ni-59	0.000E+00	0.0000	6.670E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.763E-06	0.0000
Ni-63	0.000E+00	0.0000	1.548E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.826E-06	0.0000
Np-237	1.862E-01	0.0167	1.334E-02	0.0012	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.729E-02	0.0033
Pu-238	2.668E-05	0.0000	9.645E-03	0.0009	8.358E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.676E-02	0.0024
Pu-239	5.039E-05	0.0000	1.060E-02	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.972E-02	0.0027
Pu-241	9.127E-06	0.0000	2.076E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.846E-04	0.0001
Pu-242	2.251E-05	0.0000	1.015E-02	0.0009	2.596E-25	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.821E-02	0.0025
Ru-106	1.125E-01	0.0101	6.117E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.194E-04	0.0000
Sb-124	3.895E-01	0.0350	1.234E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.681E-05	0.0000
Sb-125	2.538E-01	0.0228	2.046E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.773E-05	0.0000
Sn-113	7.837E-02	0.0070	8.391E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.455E-06	0.0000
Sr-90	4.078E-03	0.0004	3.185E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.264E-03	0.0001
Tc-99	1.476E-05	0.0000	1.411E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.414E-06	0.0000
Zn-65	2.844E-01	0.0255	2.300E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.518E-05	0.0000
Zr-95	3.597E-01	0.0323	1.760E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.260E-05	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.089E+01	0.9783	6.282E-02	0.0056	8.368E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.791E-01	0.0161

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 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.
Ag-110m	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	1.329E+00	0.1194
Am-241	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	4.887E-02	0.0044
C-14	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	6.031E-05	0.0000
Ce-144	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	3.640E-02	0.0033
Cm-242	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	8.131E-04	0.0001
Cm-243	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	1.265E-01	0.0114
Co-57	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	5.571E-02	0.0050
Co-58	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	2.714E-01	0.0244
Co-60	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	2.560E+00	0.2299
Cs-134	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	1.348E+00	0.1211
Cs-137	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	5.655E-01	0.0508
Eu-154	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	1.244E+00	0.1117
Fe-55	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	4.552E-06	0.0000
H-3	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	1.128E-04	0.0000
I-129	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	3.555E-03	0.0003
Mn-54	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	5.937E-01	0.0533
Nb-94	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	1.115E+00	0.1001
Ni-59	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	1.829E-06	0.0000
Ni-63	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	4.981E-06	0.0000
Np-237	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	2.368E-01	0.0213
Pu-238	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	3.643E-02	0.0033
Pu-239	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	4.036E-02	0.0036
Pu-241	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	8.014E-04	0.0001
Pu-242	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	3.838E-02	0.0034
Ru-106	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	1.126E-01	0.0101
Sb-124	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	3.895E-01	0.0350
Sb-125	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	2.538E-01	0.0228
Sn-113	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	7.837E-02	0.0070
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	5.374E-03	0.0005
Tc-99	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	2.331E-05	0.0000
Zn-65	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	2.844E-01	0.0255
Zr-95	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	3.597E-01	0.0323
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
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	1.114E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	2.155E-01	0.0325	1.481E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.769E-06	0.0000
Am-241	7.479E-03	0.0011	1.080E-02	0.0016	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.009E-02	0.0045
C-14	9.088E-09	0.0000	8.964E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.751E-08	0.0000
Ce-144	1.489E-02	0.0022	2.510E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.816E-05	0.0000
Cm-242	3.361E-06	0.0000	8.933E-05	0.0000	2.619E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.242E-04	0.0000
Cm-243	9.577E-02	0.0144	7.312E-03	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.031E-02	0.0031
Co-57	2.188E-02	0.0033	5.717E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.527E-06	0.0000
Co-58	7.597E-03	0.0011	2.048E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.286E-07	0.0000
Co-60	2.244E+00	0.3380	4.444E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.855E-04	0.0000
Cs-134	9.630E-01	0.1451	6.925E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.734E-04	0.0001
Cs-137	5.522E-01	0.0832	7.612E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.054E-04	0.0001
Eu-154	1.150E+00	0.1732	6.278E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.123E-05	0.0000
Fe-55	0.000E+00	0.0000	4.533E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.476E-06	0.0000
H-3	0.000E+00	0.0000	2.117E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.911E-08	0.0000
I-129	1.021E-03	0.0002	1.906E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.027E-03	0.0002
Mn-54	2.638E-01	0.0397	5.039E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.080E-06	0.0000
Nb-94	4.978E-01	0.0750	3.135E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.837E-05	0.0000
Ni-59	0.000E+00	0.0000	6.668E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.762E-06	0.0000
Ni-63	0.000E+00	0.0000	1.537E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.790E-06	0.0000
Np-237	1.860E-01	0.0280	1.333E-02	0.0020	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.727E-02	0.0056
Pu-238	2.647E-05	0.0000	9.569E-03	0.0014	1.250E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.654E-02	0.0040
Pu-239	5.039E-05	0.0000	1.060E-02	0.0016	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.971E-02	0.0045
Pu-241	2.047E-05	0.0000	2.148E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.045E-04	0.0001
Pu-242	2.251E-05	0.0000	1.015E-02	0.0015	8.034E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.820E-02	0.0042
Ru-106	2.526E-02	0.0038	1.373E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.681E-05	0.0000
Sb-124	2.593E-03	0.0004	8.216E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.119E-07	0.0000
Sb-125	8.828E-02	0.0133	7.400E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.655E-06	0.0000
Sn-113	3.879E-03	0.0006	4.153E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.185E-07	0.0000
Sr-90	3.960E-03	0.0006	3.092E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.227E-03	0.0002
Tc-99	6.589E-06	0.0000	6.300E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.757E-06	0.0000
Zn-65	4.497E-02	0.0068	3.638E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.726E-06	0.0000
Zr-95	1.015E-02	0.0015	3.963E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.308E-07	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	6.400E+00	0.9641	6.214E-02	0.0094	1.252E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.764E-01	0.0266

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	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	2.155E-01	0.0325
Am-241	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	4.838E-02	0.0073
C-14	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	9.730E-07	0.0000
Ce-144	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	1.494E-02	0.0023
Cm-242	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	3.169E-04	0.0000
Cm-243	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	1.234E-01	0.0186
Co-57	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	2.188E-02	0.0033
Co-58	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	7.597E-03	0.0011
Co-60	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	2.244E+00	0.3381
Cs-134	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	9.633E-01	0.1451
Cs-137	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	5.526E-01	0.0832
Eu-154	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	1.150E+00	0.1732
Fe-55	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	3.521E-06	0.0000
H-3	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	2.122E-05	0.0000
I-129	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	2.050E-03	0.0003
Mn-54	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	2.638E-01	0.0397
Nb-94	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	4.978E-01	0.0750
Ni-59	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	1.829E-06	0.0000
Ni-63	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	4.944E-06	0.0000
Np-237	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	2.366E-01	0.0356
Pu-238	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	3.614E-02	0.0054
Pu-239	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	4.036E-02	0.0061
Pu-241	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	8.398E-04	0.0001
Pu-242	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	3.838E-02	0.0058
Ru-106	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	2.529E-02	0.0038
Sb-124	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	2.593E-03	0.0004
Sb-125	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	8.829E-02	0.0133
Sn-113	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	3.879E-03	0.0006
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	5.218E-03	0.0008
Tc-99	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	1.041E-05	0.0000
Zn-65	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	4.498E-02	0.0068
Zr-95	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	1.015E-02	0.0015
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
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	6.639E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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+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.
Ag-110m	5.664E-03	0.0013	3.893E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.779E-07	0.0000
Am-241	7.329E-03	0.0017	1.058E-02	0.0024	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.949E-02	0.0067
C-14	2.342E-12	0.0000	2.310E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.740E-11	0.0000
Ce-144	2.507E-03	0.0006	4.228E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.111E-06	0.0000
Cm-242	2.768E-07	0.0000	4.989E-05	0.0000	4.555E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.373E-04	0.0000
Cm-243	9.120E-02	0.0206	6.963E-03	0.0016	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.935E-02	0.0044
Co-57	3.373E-03	0.0008	8.816E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.897E-07	0.0000
Co-58	5.950E-06	0.0000	1.604E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.791E-10	0.0000
Co-60	1.724E+00	0.3898	3.415E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.425E-04	0.0000
Cs-134	4.916E-01	0.1111	3.535E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.906E-04	0.0000
Cs-137	5.272E-01	0.1192	7.268E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.871E-04	0.0001
Eu-154	9.818E-01	0.2219	5.360E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.083E-05	0.0000
Fe-55	0.000E+00	0.0000	2.712E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.079E-06	0.0000
H-3	0.000E+00	0.0000	7.472E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.733E-09	0.0000
I-129	3.393E-04	0.0001	6.337E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.416E-04	0.0001
Mn-54	5.211E-02	0.0118	9.952E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.398E-06	0.0000
Nb-94	9.923E-02	0.0224	6.249E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.662E-06	0.0000
Ni-59	0.000E+00	0.0000	6.666E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.762E-06	0.0000
Ni-63	0.000E+00	0.0000	1.514E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.720E-06	0.0000
Np-237	1.858E-01	0.0420	1.331E-02	0.0030	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.722E-02	0.0084
Pu-238	2.605E-05	0.0000	9.417E-03	0.0021	1.448E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.612E-02	0.0059
Pu-239	5.038E-05	0.0000	1.059E-02	0.0024	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.971E-02	0.0067
Pu-241	4.122E-05	0.0000	2.278E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.400E-04	0.0001
Pu-242	2.250E-05	0.0000	1.015E-02	0.0023	2.016E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.820E-02	0.0064
Ru-106	1.273E-03	0.0003	6.921E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.351E-06	0.0000
Sb-124	1.150E-07	0.0000	3.643E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.962E-12	0.0000
Sb-125	1.067E-02	0.0024	8.949E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.053E-07	0.0000
Sn-113	9.501E-06	0.0000	1.017E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.025E-09	0.0000
Sr-90	3.732E-03	0.0008	2.915E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.157E-03	0.0003
Tc-99	1.314E-06	0.0000	1.256E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.489E-07	0.0000
Zn-65	1.124E-03	0.0003	9.096E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.182E-07	0.0000
Zr-95	3.732E-06	0.0000	1.453E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.215E-10	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	4.190E+00	0.9470	6.134E-02	0.0139	1.453E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.732E-01	0.0391



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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+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.
Ag-110m	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	5.664E-03	0.0013
Am-241	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	4.740E-02	0.0107
C-14	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	2.508E-10	0.0000
Ce-144	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	2.516E-03	0.0006
Cm-242	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	1.875E-04	0.0000
Cm-243	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	1.175E-01	0.0266
Co-57	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	3.374E-03	0.0008
Co-58	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	5.950E-06	0.0000
Co-60	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	1.725E+00	0.3898
Cs-134	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	4.918E-01	0.1112
Cs-137	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	5.276E-01	0.1193
Eu-154	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	9.819E-01	0.2219
Fe-55	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	2.106E-06	0.0000
H-3	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	7.489E-07	0.0000
I-129	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	6.815E-04	0.0002
Mn-54	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	5.211E-02	0.0118
Nb-94	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	9.924E-02	0.0224
Ni-59	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	1.828E-06	0.0000
Ni-63	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	4.872E-06	0.0000
Np-237	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	2.363E-01	0.0534
Pu-238	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	3.557E-02	0.0080
Pu-239	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	4.035E-02	0.0091
Pu-241	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	9.089E-04	0.0002
Pu-242	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	3.837E-02	0.0087
Ru-106	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	1.274E-03	0.0003
Sb-124	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	1.150E-07	0.0000
Sb-125	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	1.067E-02	0.0024
Sn-113	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	9.502E-06	0.0000
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	4.918E-03	0.0011
Tc-99	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	2.075E-06	0.0000
Zn-65	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	1.125E-03	0.0003
Zr-95	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	3.732E-06	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
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	4.424E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	1.667E-08	0.0000	1.146E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.237E-13	0.0000
Am-241	6.824E-03	0.0030	9.856E-03	0.0044	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.746E-02	0.0122
C-14	5.792E-25	0.0000	5.713E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.303E-24	0.0000
Ce-144	4.915E-06	0.0000	8.286E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.590E-08	0.0000
Cm-242	1.258E-07	0.0000	4.547E-05	0.0000	1.597E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.261E-04	0.0001
Cm-243	7.686E-02	0.0343	5.870E-03	0.0026	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.631E-02	0.0073
Co-57	4.857E-06	0.0000	1.269E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.612E-10	0.0000
Co-58	8.000E-17	0.0000	2.157E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.408E-21	0.0000
Co-60	6.860E-01	0.3059	1.359E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.671E-05	0.0000
Cs-134	4.673E-02	0.0208	3.360E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.812E-05	0.0000
Cs-137	4.484E-01	0.1999	6.181E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.292E-04	0.0001
Eu-154	5.649E-01	0.2518	3.084E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.499E-05	0.0000
Fe-55	0.000E+00	0.0000	4.490E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.443E-07	0.0000
H-3	0.000E+00	0.0000	6.012E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.395E-14	0.0000
I-129	7.190E-06	0.0000	1.343E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.238E-06	0.0000
Mn-54	1.784E-04	0.0001	3.407E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.787E-09	0.0000
Nb-94	3.510E-04	0.0002	2.210E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.295E-08	0.0000
Ni-59	0.000E+00	0.0000	6.657E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.760E-06	0.0000
Ni-63	0.000E+00	0.0000	1.438E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.482E-06	0.0000
Np-237	1.849E-01	0.0824	1.325E-02	0.0059	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.704E-02	0.0165
Pu-238	2.464E-05	0.0000	8.905E-03	0.0040	3.746E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.470E-02	0.0110
Pu-239	5.034E-05	0.0000	1.059E-02	0.0047	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.968E-02	0.0132
Pu-241	9.667E-05	0.0000	2.596E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.272E-04	0.0003
Pu-242	2.249E-05	0.0000	1.014E-02	0.0045	1.555E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.818E-02	0.0126
Ru-106	3.658E-08	0.0000	1.989E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.882E-11	0.0000
Sb-124	6.673E-23	0.0000	2.114E-29	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.880E-27	0.0000
Sb-125	6.548E-06	0.0000	5.492E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.942E-10	0.0000
Sn-113	6.912E-15	0.0000	7.401E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.458E-19	0.0000
Sr-90	3.035E-03	0.0014	2.370E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.406E-04	0.0004
Tc-99	4.647E-09	0.0000	4.443E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.649E-09	0.0000
Zn-65	2.780E-09	0.0000	2.249E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.394E-13	0.0000
Zr-95	3.483E-18	0.0000	1.356E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.134E-22	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	2.018E+00	0.8999	5.894E-02	0.0263	3.762E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.656E-01	0.0738

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	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	1.667E-08	0.0000
Am-241	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	4.414E-02	0.0197
C-14	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	6.201E-23	0.0000
Ce-144	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	4.931E-06	0.0000
Cm-242	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	1.717E-04	0.0001
Cm-243	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	9.904E-02	0.0442
Co-57	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	4.858E-06	0.0000
Co-58	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	8.000E-17	0.0000
Co-60	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	6.861E-01	0.3059
Cs-134	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	4.674E-02	0.0208
Cs-137	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	4.487E-01	0.2000
Eu-154	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	5.649E-01	0.2519
Fe-55	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	3.488E-07	0.0000
H-3	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	6.026E-12	0.0000
I-129	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	1.444E-05	0.0000
Mn-54	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	1.784E-04	0.0001
Nb-94	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	3.510E-04	0.0002
Ni-59	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	1.826E-06	0.0000
Ni-63	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	4.626E-06	0.0000
Np-237	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	2.352E-01	0.1049
Pu-238	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	3.363E-02	0.0150
Pu-239	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	4.032E-02	0.0180
Pu-241	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	1.084E-03	0.0005
Pu-242	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	3.835E-02	0.0171
Ru-106	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	3.662E-08	0.0000
Sb-124	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	6.674E-23	0.0000
Sb-125	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	6.549E-06	0.0000
Sn-113	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	6.913E-15	0.0000
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	3.999E-03	0.0018
Tc-99	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	7.341E-09	0.0000
Zn-65	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	2.780E-09	0.0000
Zr-95	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	3.484E-18	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
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	2.243E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	2.622E-24	0.0000	1.802E-30	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.237E-29	0.0000
Am-241	5.567E-03	0.0063	8.038E-03	0.0091	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.239E-02	0.0252
C-14	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
Ce-144	9.018E-14	0.0000	1.520E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.917E-16	0.0000
Cm-242	1.072E-07	0.0000	3.876E-05	0.0000	4.079E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.075E-04	0.0001
Cm-243	4.714E-02	0.0531	3.605E-03	0.0041	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.002E-02	0.0113
Co-57	3.693E-14	0.0000	9.652E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.267E-18	0.0000
Co-58	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
Co-60	4.928E-02	0.0555	9.758E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.073E-06	0.0000
Cs-134	5.616E-05	0.0001	4.039E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.178E-08	0.0000
Cs-137	2.822E-01	0.3179	3.891E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.072E-04	0.0002
Eu-154	1.164E-01	0.1311	6.355E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.211E-06	0.0000
Fe-55	0.000E+00	0.0000	2.636E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.021E-09	0.0000
H-3	0.000E+00	0.0000	1.339E-26	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.107E-29	0.0000
I-129	1.186E-10	0.0000	2.216E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.194E-10	0.0000
Mn-54	1.610E-11	0.0000	3.076E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.321E-16	0.0000
Nb-94	3.478E-11	0.0000	2.190E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.283E-15	0.0000
Ni-59	0.000E+00	0.0000	6.633E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.753E-06	0.0000
Ni-63	0.000E+00	0.0000	1.240E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.866E-06	0.0000
Np-237	1.824E-01	0.2055	1.307E-02	0.0147	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.655E-02	0.0412
Pu-238	2.100E-05	0.0000	7.591E-03	0.0086	8.530E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.106E-02	0.0237
Pu-239	5.022E-05	0.0001	1.056E-02	0.0119	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.961E-02	0.0334
Pu-241	1.619E-04	0.0002	2.795E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.802E-04	0.0009
Pu-242	2.245E-05	0.0000	1.013E-02	0.0114	1.059E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.813E-02	0.0317
Ru-106	3.866E-21	0.0000	2.101E-25	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.102E-24	0.0000
Sb-124	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
Sb-125	4.355E-15	0.0000	3.652E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.287E-19	0.0000
Sn-113	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
Sr-90	1.681E-03	0.0019	1.313E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.209E-04	0.0006
Tc-99	4.607E-16	0.0000	4.405E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.627E-16	0.0000
Zn-65	2.656E-25	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	5.154E-29	0.0000
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	6.850E-01	0.7717	5.332E-02	0.0601	8.571E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.494E-01	0.1683

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 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.
Ag-110m	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	2.622E-24	0.0000
Am-241	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	3.600E-02	0.0406
C-14	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
Ce-144	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	9.049E-14	0.0000
Cm-242	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	1.464E-04	0.0002
Cm-243	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	6.076E-02	0.0684
Co-57	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	3.694E-14	0.0000
Co-58	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
Co-60	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	4.928E-02	0.0555
Cs-134	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	5.618E-05	0.0001
Cs-137	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	2.824E-01	0.3182
Eu-154	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	1.164E-01	0.1311
Fe-55	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	2.047E-09	0.0000
H-3	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	1.342E-26	0.0000
I-129	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	2.383E-10	0.0000
Mn-54	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	1.610E-11	0.0000
Nb-94	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	3.478E-11	0.0000
Ni-59	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	1.819E-06	0.0000
Ni-63	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	3.990E-06	0.0000
Np-237	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	2.320E-01	0.2614
Pu-238	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	2.867E-02	0.0323
Pu-239	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	4.022E-02	0.0453
Pu-241	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	1.222E-03	0.0014
Pu-242	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	3.828E-02	0.0431
Ru-106	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	3.870E-21	0.0000
Sb-124	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
Sb-125	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	4.355E-15	0.0000
Sn-113	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
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	2.215E-03	0.0025
Tc-99	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	7.278E-16	0.0000
Zn-65	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	2.657E-25	0.0000
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
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	8.877E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	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
Am-241	2.730E-03	0.0068	3.939E-03	0.0098	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.097E-02	0.0273
C-14	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
Ce-144	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
Cm-242	6.136E-08	0.0000	2.216E-05	0.0001	1.191E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.147E-05	0.0002
Cm-243	8.515E-03	0.0212	6.613E-04	0.0016	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.838E-03	0.0046
Co-57	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
Co-58	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
Co-60	4.893E-06	0.0000	9.690E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.045E-10	0.0000
Cs-134	3.381E-15	0.0000	2.432E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.311E-18	0.0000
Cs-137	5.585E-02	0.1390	7.700E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.101E-05	0.0001
Eu-154	4.624E-04	0.0012	2.524E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.865E-08	0.0000
Fe-55	0.000E+00	0.0000	4.084E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.132E-17	0.0000
H-3	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
I-129	2.166E-27	0.0000	4.044E-30	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.180E-27	0.0000
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	6.549E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.731E-06	0.0000
Ni-63	0.000E+00	0.0000	7.391E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.304E-06	0.0000
Np-237	1.740E-01	0.4331	1.247E-02	0.0310	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.486E-02	0.0868
Pu-238	1.202E-05	0.0000	4.340E-03	0.0108	2.386E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.204E-02	0.0300
Pu-239	4.982E-05	0.0001	1.048E-02	0.0261	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.938E-02	0.0731
Pu-241	1.126E-04	0.0003	1.641E-04	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.571E-04	0.0011
Pu-242	2.231E-05	0.0001	1.006E-02	0.0250	1.086E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.796E-02	0.0696
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	2.124E-04	0.0005	1.659E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.583E-05	0.0002
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	2.420E-01	0.6023	4.214E-02	0.1049	2.398E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.177E-01	0.2929

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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

	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Radio-	XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Ag-110m	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
Am-241	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	1.764E-02	0.0439
C-14	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
Ce-144	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
Cm-242	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	8.369E-05	0.0002
Cm-243	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	1.101E-02	0.0274
Co-57	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
Co-58	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
Co-60	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	4.894E-06	0.0000
Cs-134	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	3.382E-15	0.0000
Cs-137	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	5.590E-02	0.1391
Eu-154	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	4.624E-04	0.0012
Fe-55	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	3.173E-17	0.0000
H-3	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
I-129	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	4.350E-27	0.0000
Mn-54	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
Nb-94	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
Ni-59	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	1.796E-06	0.0000
Ni-63	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	2.378E-06	0.0000
Np-237	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	2.213E-01	0.5509
Pu-238	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	1.639E-02	0.0408
Pu-239	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	3.990E-02	0.0993
Pu-241	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	7.337E-04	0.0018
Pu-242	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	3.804E-02	0.0947
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
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	2.799E-04	0.0007
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
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	4.018E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	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
Am-241	3.600E-04	0.0013	5.133E-04	0.0019	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.430E-03	0.0052
C-14	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
Ce-144	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
Cm-242	1.264E-08	0.0000	4.488E-06	0.0000	1.666E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.244E-05	0.0000
Cm-243	6.430E-05	0.0002	1.698E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.750E-05	0.0002
Co-57	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
Co-58	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
Co-60	1.788E-17	0.0000	3.541E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.478E-21	0.0000
Cs-134	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
Cs-137	5.457E-04	0.0020	7.522E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.006E-07	0.0000
Eu-154	6.385E-11	0.0000	3.486E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.955E-15	0.0000
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	6.314E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.669E-06	0.0000
Ni-63	0.000E+00	0.0000	1.685E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.251E-07	0.0000
Np-237	1.521E-01	0.5506	1.090E-02	0.0395	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.047E-02	0.1103
Pu-238	2.476E-06	0.0000	8.790E-04	0.0032	3.295E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.437E-03	0.0088
Pu-239	4.870E-05	0.0002	1.024E-02	0.0371	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.870E-02	0.1039
Pu-241	1.514E-05	0.0001	2.164E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.029E-05	0.0002
Pu-242	2.192E-05	0.0001	9.887E-03	0.0358	5.912E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.747E-02	0.0994
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	5.762E-07	0.0000	4.500E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.786E-07	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.531E-01	0.5544	3.246E-02	0.1175	3.312E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.063E-02	0.3281



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	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
Am-241	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	2.303E-03	0.0083
C-14	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
Ce-144	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
Cm-242	0.000E+00	0.0000	0.000E+00	0.0000	1.165E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.695E-05	0.0001
Cm-243	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	1.288E-04	0.0005
Co-57	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
Co-58	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
Co-60	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	1.788E-17	0.0000
Cs-134	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
Cs-137	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	5.461E-04	0.0020
Eu-154	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	6.385E-11	0.0000
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	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	1.732E-06	0.0000
Ni-63	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	5.420E-07	0.0000
Np-237	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	1.934E-01	0.7003
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	2.329E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.319E-03	0.0120
Pu-239	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	3.899E-02	0.1412
Pu-241	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	9.707E-05	0.0004
Pu-242	0.000E+00	0.0000	0.000E+00	0.0000	2.859E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.737E-02	0.1353
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
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	7.593E-07	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	0.000E+00	0.0000	2.341E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.762E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	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
Am-241	3.512E-06	0.0000	6.404E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.786E-06	0.0000
C-14	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
Ce-144	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
Cm-242	1.042E-09	0.0000	1.710E-08	0.0000	9.024E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.673E-08	0.0000
Cm-243	5.343E-08	0.0000	1.115E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.126E-05	0.0002
Co-57	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
Co-58	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
Co-60	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
Cs-134	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
Cs-137	5.028E-11	0.0000	6.931E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.692E-14	0.0000
Eu-154	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
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	5.555E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.468E-06	0.0000
Ni-63	0.000E+00	0.0000	9.521E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.968E-09	0.0000
Np-237	9.488E-02	0.4946	6.802E-03	0.0355	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.901E-02	0.0991
Pu-238	2.051E-07	0.0000	3.349E-06	0.0000	1.777E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.152E-06	0.0000
Pu-239	4.492E-05	0.0002	9.441E-03	0.0492	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.647E-02	0.1380
Pu-241	1.208E-07	0.0000	2.505E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.986E-08	0.0000
Pu-242	2.060E-05	0.0001	9.292E-03	0.0484	2.104E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.581E-02	0.1346
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	5.992E-16	0.0000	4.679E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.857E-16	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	9.495E-02	0.4949	2.555E-02	0.1332	1.786E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.134E-02	0.3719

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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.
Ag-110m	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
Am-241	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	5.938E-06	0.0000
C-14	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
Ce-144	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
Cm-242	0.000E+00	0.0000	0.000E+00	0.0000	1.781E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.407E-08	0.0000
Cm-243	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	4.247E-05	0.0002
Co-57	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
Co-58	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
Co-60	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
Cs-134	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
Cs-137	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	5.032E-11	0.0000
Eu-154	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
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	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	1.524E-06	0.0000
Ni-63	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	3.063E-09	0.0000
Np-237	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	1.207E-01	0.6291
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	3.520E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.452E-05	0.0001
Pu-239	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	3.596E-02	0.1874
Pu-241	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	2.158E-07	0.0000
Pu-242	0.000E+00	0.0000	0.000E+00	0.0000	1.496E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.513E-02	0.1831
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
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	7.895E-16	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	0.000E+00	0.0000	3.538E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.918E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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	
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	
Ag-110mD	Ag-110mD	1.000E+00	1.329E+00	2.155E-01	5.664E-03	1.667E-08	2.622E-24	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00	4.887E-02	4.838E-02	4.740E-02	4.414E-02	3.600E-02	1.764E-02	2.297E-03	1.831E-06	
Am-241	Np-237D	1.000E+00	3.822E-08	1.141E-07	2.634E-07	7.612E-07	1.990E-06	4.638E-06	6.206E-06	4.106E-06	
Am-241	U-233	1.000E+00	1.411E-15	9.839E-15	5.153E-14	4.460E-13	3.424E-12	2.708E-11	1.077E-10	1.490E-10	
Am-241	Th-229D	1.000E+00	1.989E-18	2.974E-17	3.446E-16	8.915E-15	2.032E-13	5.726E-12	8.334E-11	6.472E-10	
Am-241	äDSR(j)		4.887E-02	4.838E-02	4.740E-02	4.414E-02	3.600E-02	1.764E-02	2.303E-03	5.938E-06	
C-14	C-14	1.000E+00	6.031E-05	9.730E-07	2.508E-10	6.201E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144D	Ce-144D	1.000E+00	3.640E-02	1.494E-02	2.516E-03	4.931E-06	9.049E-14	7.573E-41	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08	4.908E-11	1.036E-11	4.620E-13	8.642E-18	2.679E-31	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09	1.328E-12	2.804E-13	1.250E-14	2.339E-19	7.250E-33	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Pu-238	1.840E-09	1.680E-13	3.027E-13	3.325E-13	3.160E-13	2.693E-13	1.540E-13	3.117E-14	1.163E-16	
Cm-242	äDSR(j)		1.496E-12	5.831E-13	3.450E-13	3.160E-13	2.693E-13	1.540E-13	3.117E-14	1.163E-16	
Cm-242	Cm-242	1.000E+00	7.218E-04	1.524E-04	6.794E-06	1.271E-10	3.940E-24	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Pu-238	1.000E+00	9.128E-05	1.645E-04	1.807E-04	1.717E-04	1.464E-04	8.369E-05	1.694E-05	6.322E-08	
Cm-242	U-234	1.000E+00	1.500E-11	7.554E-11	2.310E-10	7.654E-10	2.069E-09	4.673E-09	4.777E-09	5.645E-10	
Cm-242	Th-230	1.000E+00	8.134E-17	9.477E-16	7.130E-15	7.838E-14	6.641E-13	5.752E-12	2.678E-11	5.657E-11	
Cm-242	Ra-226D	1.000E+00	1.151E-17	2.892E-16	5.029E-15	1.763E-13	4.504E-12	1.316E-10	1.842E-09	1.020E-08	
Cm-242	Pb-210D	1.000E+00	1.419E-22	7.419E-21	2.842E-19	2.992E-17	2.055E-15	1.453E-13	3.283E-12	2.255E-11	
Cm-242	Po-210	1.000E+00	1.067E-23	9.492E-22	5.626E-20	8.443E-18	6.629E-16	4.923E-14	1.128E-12	7.775E-12	
Cm-242	äDSR(j)		8.131E-04	3.169E-04	1.875E-04	1.717E-04	1.464E-04	8.369E-05	1.695E-05	7.407E-08	
Cm-243	Cm-243	2.400E-03	3.035E-04	2.962E-04	2.820E-04	2.377E-04	1.458E-04	2.633E-05	1.981E-07	7.328E-15	
Cm-243	Am-243D	2.400E-03	2.165E-08	6.399E-08	1.445E-07	3.866E-07	8.133E-07	9.224E-07	2.026E-07	4.689E-10	
Cm-243	Pu-239	2.400E-03	4.332E-14	3.004E-13	1.554E-12	1.289E-11	8.796E-11	4.905E-10	1.072E-09	1.120E-09	
Cm-243	U-235D	2.400E-03	3.555E-23	5.291E-22	6.066E-21	1.511E-19	3.097E-18	6.268E-17	4.516E-16	1.026E-15	
Cm-243	Pa-231	2.400E-03	1.712E-28	5.271E-27	1.308E-25	9.675E-24	5.872E-22	4.151E-20	9.650E-19	6.004E-18	
Cm-243	Ac-227D	2.400E-03	3.735E-30	2.325E-28	1.212E-26	2.534E-24	4.028E-22	6.888E-20	2.584E-18	1.921E-17	
Cm-243	äDSR(j)		3.035E-04	2.962E-04	2.822E-04	2.381E-04	1.466E-04	2.725E-05	4.018E-07	1.589E-09	
Cm-243	Cm-243	9.976E-01	1.261E-01	1.231E-01	1.172E-01	9.879E-02	6.058E-02	1.094E-02	8.236E-05	3.046E-12	
Cm-243	Pu-239	9.976E-01	5.752E-07	1.707E-06	3.889E-06	1.073E-05	2.489E-05	4.303E-05	4.601E-05	4.246E-05	
Cm-243	U-235D	9.976E-01	6.296E-16	4.372E-15	2.270E-14	1.905E-13	1.348E-12	8.568E-12	2.600E-11	3.997E-11	
Cm-243	Pa-231	9.976E-01	3.790E-21	5.647E-20	6.490E-19	1.631E-17	3.434E-16	7.631E-15	7.031E-14	2.475E-13	
Cm-243	Ac-227D	9.976E-01	9.912E-23	3.035E-21	7.442E-20	5.275E-18	2.852E-16	1.449E-14	1.987E-13	7.964E-13	
Cm-243	äDSR(j)		1.261E-01	1.231E-01	1.172E-01	9.880E-02	6.061E-02	1.099E-02	1.284E-04	4.246E-05	
Co-57	Co-57	1.000E+00	5.571E-02	2.188E-02	3.374E-03	4.858E-06	3.694E-14	1.415E-42	0.000E+00	0.000E+00	
Co-58	Co-58	1.000E+00	2.714E-01	7.597E-03	5.950E-06	8.000E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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				
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Co-60	Co-60	1.000E+00	2.560E+00	2.244E+00	1.725E+00	6.861E-01	4.928E-02	4.894E-06	1.788E-17	0.000E+00	
Cs-134	Cs-134	1.000E+00	1.348E+00	9.633E-01	4.918E-01	4.674E-02	5.618E-05	3.382E-15	2.102E-44	0.000E+00	
Cs-137+D	Cs-137+D	1.000E+00	5.655E-01	5.526E-01	5.276E-01	4.487E-01	2.824E-01	5.590E-02	5.461E-04	5.032E-11	
Eu-154	Eu-154	1.000E+00	1.244E+00	1.150E+00	9.819E-01	5.649E-01	1.164E-01	4.624E-04	6.385E-11	6.246E-35	
Fe-55	Fe-55	1.000E+00	4.552E-06	3.521E-06	2.106E-06	3.488E-07	2.047E-09	3.173E-17	1.541E-39	0.000E+00	
H-3	H-3	1.000E+00	1.128E-04	2.122E-05	7.489E-07	6.026E-12	1.342E-26	0.000E+00	0.000E+00	0.000E+00	
I-129	I-129	1.000E+00	3.555E-03	2.050E-03	6.815E-04	1.444E-05	2.383E-10	4.350E-27	0.000E+00	0.000E+00	
Mn-54	Mn-54	1.000E+00	5.937E-01	2.638E-01	5.211E-02	1.784E-04	1.610E-11	3.561E-36	0.000E+00	0.000E+00	
Nb-94	Nb-94	1.000E+00	1.115E+00	4.978E-01	9.924E-02	3.510E-04	3.478E-11	1.065E-35	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	1.829E-06	1.829E-06	1.828E-06	1.826E-06	1.819E-06	1.796E-06	1.732E-06	1.524E-06	
Ni-63	Ni-63	1.000E+00	4.981E-06	4.944E-06	4.872E-06	4.626E-06	3.990E-06	2.378E-06	5.420E-07	3.063E-09	
Np-237+D	Np-237+D	1.000E+00	2.368E-01	2.366E-01	2.363E-01	2.352E-01	2.320E-01	2.213E-01	1.934E-01	1.207E-01	
Np-237+D	U-233	1.000E+00	1.310E-08	3.923E-08	9.117E-08	2.696E-07	7.516E-07	2.149E-06	4.360E-06	4.500E-06	
Np-237+D	Th-229+D	1.000E+00	2.461E-11	1.721E-10	9.069E-10	8.034E-09	6.588E-08	6.495E-07	4.471E-06	2.276E-05	
Np-237+D	äDSR(j)		2.368E-01	2.366E-01	2.363E-01	2.352E-01	2.320E-01	2.213E-01	1.934E-01	1.207E-01	
Pu-238	Pu-238	1.840E-09	6.703E-11	6.650E-11	6.544E-11	6.188E-11	5.275E-11	3.016E-11	6.105E-12	2.278E-14	
Pu-238	Pu-238	1.000E+00	3.643E-02	3.614E-02	3.557E-02	3.363E-02	2.867E-02	1.639E-02	3.318E-03	1.238E-05	
Pu-238	U-234	1.000E+00	8.057E-09	2.405E-08	5.549E-08	1.600E-07	4.147E-07	9.225E-07	9.392E-07	1.109E-07	
Pu-238	Th-230	1.000E+00	5.455E-14	3.806E-13	1.997E-12	1.740E-11	1.361E-10	1.144E-09	5.284E-09	1.114E-08	
Pu-238	Ra-226+D	1.000E+00	9.228E-15	1.380E-13	1.599E-12	4.136E-11	9.419E-10	2.635E-08	3.643E-07	2.008E-06	
Pu-238	Pb-210+D	1.000E+00	1.322E-19	4.064E-18	1.006E-16	7.373E-15	4.370E-13	2.920E-11	6.496E-10	4.442E-09	
Pu-238	Po-210	1.000E+00	1.104E-20	5.631E-19	2.084E-17	2.101E-15	1.412E-13	9.895E-12	2.231E-10	1.531E-09	
Pu-238	äDSR(j)		3.643E-02	3.614E-02	3.557E-02	3.363E-02	2.867E-02	1.639E-02	3.319E-03	1.452E-05	
Pu-239	Pu-239	1.000E+00	4.036E-02	4.036E-02	4.035E-02	4.032E-02	4.022E-02	3.990E-02	3.899E-02	3.596E-02	
Pu-239	U-235+D	1.000E+00	6.611E-11	1.980E-10	4.604E-10	1.364E-09	3.825E-09	1.117E-08	2.425E-08	3.404E-08	
Pu-239	Pa-231	1.000E+00	5.300E-16	3.702E-15	1.948E-14	1.714E-13	1.380E-12	1.274E-11	7.309E-11	2.141E-10	
Pu-239	Ac-227+D	1.000E+00	1.729E-17	2.568E-16	2.929E-15	7.171E-14	1.413E-12	2.687E-11	2.113E-10	6.900E-10	
Pu-239	äDSR(j)		4.036E-02	4.036E-02	4.035E-02	4.032E-02	4.022E-02	3.990E-02	3.899E-02	3.596E-02	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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)								
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Pu-241	Pu-241	1.000E+00	7.605E-04	7.247E-04	6.581E-04	4.696E-04	1.790E-04	6.122E-06	3.966E-10	8.681E-25	
Pu-241	Am-241	1.000E+00	3.863E-05	1.129E-04	2.489E-04	6.126E-04	1.042E-03	7.275E-04	9.687E-05	7.723E-08	
Pu-241	Np-237+D	1.000E+00	2.021E-11	1.391E-10	7.080E-10	5.550E-09	3.288E-08	1.326E-07	2.061E-07	1.385E-07	
Pu-241	U-233	1.000E+00	5.608E-19	8.302E-18	9.403E-17	2.245E-15	4.130E-14	6.424E-13	3.349E-12	4.996E-12	
Pu-241	Th-229+D	1.000E+00	6.332E-22	1.942E-20	4.779E-19	3.434E-17	1.936E-15	1.156E-13	2.385E-12	2.098E-11	
Pu-241	äDSR(j)		7.992E-04	8.377E-04	9.070E-04	1.082E-03	1.221E-03	7.337E-04	9.707E-05	2.157E-07	
Pu-241+D	Pu-241+D	2.450E-05	2.186E-06	2.083E-06	1.891E-06	1.350E-06	5.145E-07	1.759E-08	1.140E-12	2.495E-27	
Pu-241+D	Np-237+D	2.450E-05	9.247E-13	2.715E-12	6.043E-12	1.542E-11	2.964E-11	3.663E-11	3.228E-11	2.014E-11	
Pu-241+D	U-233	2.450E-05	3.425E-20	2.362E-19	1.208E-18	9.622E-18	5.988E-17	2.904E-16	6.932E-16	7.480E-16	
Pu-241+D	Th-229+D	2.450E-05	4.836E-23	7.175E-22	8.166E-21	1.985E-19	3.853E-18	7.311E-17	6.561E-16	3.666E-15	
Pu-241+D	äDSR(j)		2.186E-06	2.083E-06	1.891E-06	1.350E-06	5.145E-07	1.763E-08	3.342E-11	2.014E-11	
Pu-242	Pu-242	5.500E-06	2.111E-07	2.111E-07	2.110E-07	2.109E-07	2.105E-07	2.092E-07	2.056E-07	1.932E-07	
Pu-242	Pu-242	5.400E-05	2.073E-06	2.072E-06	2.072E-06	2.071E-06	2.067E-06	2.054E-06	2.018E-06	1.897E-06	
Pu-242	U-238	5.400E-05	2.123E-17	6.359E-17	1.478E-16	4.381E-16	1.229E-15	3.592E-15	7.822E-15	1.115E-14	
Pu-242	äDSR(j)		2.073E-06	2.072E-06	2.072E-06	2.071E-06	2.067E-06	2.054E-06	2.018E-06	1.897E-06	
Pu-242	Pu-242	9.999E-01	3.838E-02	3.838E-02	3.837E-02	3.835E-02	3.828E-02	3.804E-02	3.737E-02	3.512E-02	
Pu-242	U-238+D	9.999E-01	2.385E-12	7.145E-12	1.661E-11	4.923E-11	1.381E-10	4.036E-10	8.789E-10	1.253E-09	
Pu-242	U-234	9.999E-01	4.175E-19	2.917E-18	1.535E-17	1.351E-16	1.087E-15	1.005E-14	5.785E-14	1.718E-13	
Pu-242	Th-230	9.999E-01	2.119E-24	3.173E-23	3.689E-22	9.666E-21	2.283E-19	7.243E-18	1.395E-16	1.943E-15	
Pu-242	Ra-226+D	9.999E-01	2.867E-25	8.871E-24	2.226E-22	1.716E-20	1.170E-18	1.200E-16	9.390E-15	2.485E-13	
Pu-242	Pb-210+D	9.999E-01	3.423E-30	2.143E-28	1.130E-26	2.468E-24	4.430E-22	1.124E-19	1.042E-17	4.996E-16	
Pu-242	Po-210	9.999E-01	2.521E-31	2.655E-29	2.143E-27	6.730E-25	1.406E-22	3.787E-20	3.571E-18	1.721E-16	
Pu-242	äDSR(j)		3.838E-02	3.838E-02	3.837E-02	3.835E-02	3.828E-02	3.804E-02	3.737E-02	3.512E-02	
Ru-106+D	Ru-106+D	1.000E+00	1.126E-01	2.529E-02	1.274E-03	3.662E-08	3.870E-21	0.000E+00	0.000E+00	0.000E+00	
Sb-124	Sb-124	1.000E+00	3.895E-01	2.593E-03	1.150E-07	6.674E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	7.720E-01	1.957E-01	6.805E-02	8.224E-03	5.048E-06	3.357E-15	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	2.280E-01	5.781E-02	2.010E-02	2.429E-03	1.491E-06	9.913E-16	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Te-125m	2.280E-01	2.804E-04	1.408E-04	1.711E-05	1.050E-08	6.983E-18	0.000E+00	0.000E+00	0.000E+00	
Sb-125	äDSR(j)		5.809E-02	2.024E-02	2.446E-03	1.501E-06	9.983E-16	0.000E+00	0.000E+00	0.000E+00	
Sn-113+D	Sn-113+D	1.000E+00	7.837E-02	3.879E-03	9.502E-06	6.913E-15	5.379E-41	0.000E+00	0.000E+00	0.000E+00	
Sr-90+D	Sr-90+D	1.000E+00	5.374E-03	5.218E-03	4.918E-03	3.999E-03	2.215E-03	2.799E-04	7.593E-07	7.895E-16	
Tc-99	Tc-99	1.000E+00	2.331E-05	1.041E-05	2.075E-06	7.341E-09	7.278E-16	2.234E-40	0.000E+00	0.000E+00	
Zn-65	Zn-65	1.000E+00	2.844E-01	4.498E-02	1.125E-03	2.780E-09	2.657E-25	0.000E+00	0.000E+00	0.000E+00	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Parent	Product	Thread	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
(i)	(j)	Fraction	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Zr-95D	Zr-95D	1.000E+00	1.879E-01	3.592E-03	1.313E-06	1.225E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zr-95D	Nb-95	1.000E+00	1.718E-01	6.560E-03	2.419E-06	2.258E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zr-95D	↳DSR(j)		3.597E-01	1.015E-02	3.732E-06	3.484E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii	iiiiiiiiii

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

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

Nuclide	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
AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA
Ag-110m	1.881E+01	1.160E+02	4.414E+03	1.500E+09	*4.754E+15	*4.754E+15	*4.754E+15	*4.754E+15	
Am-241	5.115E+02	5.168E+02	5.274E+02	5.664E+02	6.945E+02	1.417E+03	1.085E+04	4.210E+06	
C-14	4.145E+05	2.569E+07	9.970E+10	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	
Ce-144	6.867E+02	1.673E+03	9.937E+03	5.070E+06	2.763E+14	*3.191E+15	*3.191E+15	*3.191E+15	
Cm-242	3.075E+04	7.888E+04	1.333E+05	1.456E+05	1.708E+05	2.987E+05	1.475E+06	3.375E+08	
Cm-243	1.977E+02	2.026E+02	2.127E+02	2.524E+02	4.115E+02	2.270E+03	1.941E+05	5.887E+05	
Co-57	4.487E+02	1.143E+03	7.410E+03	5.146E+06	6.768E+14	*8.465E+15	*8.465E+15	*8.465E+15	
Co-58	9.210E+01	3.291E+03	4.202E+06	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	
Co-60	9.765E+00	1.114E+01	1.450E+01	3.644E+01	5.073E+02	5.108E+06	*1.132E+15	*1.132E+15	
Cs-134	1.854E+01	2.595E+01	5.084E+01	5.348E+02	4.450E+05	*1.295E+15	*1.295E+15	*1.295E+15	
Cs-137	4.421E+01	4.524E+01	4.738E+01	5.572E+01	8.851E+01	4.473E+02	4.578E+04	4.968E+11	
Eu-154	2.009E+01	2.174E+01	2.546E+01	4.426E+01	2.148E+02	5.406E+04	3.915E+11	*2.639E+14	
Fe-55	5.492E+06	7.100E+06	1.187E+07	7.168E+07	1.221E+10	*2.410E+15	*2.410E+15	*2.410E+15	
H-3	2.216E+05	1.178E+06	3.338E+07	4.148E+12	*9.597E+15	*9.597E+15	*9.597E+15	*9.597E+15	
I-129	7.032E+03	1.220E+04	3.668E+04	1.731E+06	*1.766E+08	*1.766E+08	*1.766E+08	*1.766E+08	
Mn-54	4.211E+01	9.475E+01	4.798E+02	1.401E+05	1.552E+12	*7.746E+15	*7.746E+15	*7.746E+15	
Nb-94	2.242E+01	5.022E+01	2.519E+02	7.123E+04	*1.875E+11	*1.875E+11	*1.875E+11	*1.875E+11	
Ni-59	1.367E+07	1.367E+07	1.367E+07	1.369E+07	1.374E+07	1.392E+07	1.444E+07	1.641E+07	
Ni-63	5.019E+06	5.056E+06	5.132E+06	5.404E+06	6.266E+06	1.051E+07	4.613E+07	8.161E+09	
Np-237	1.056E+02	1.057E+02	1.058E+02	1.063E+02	1.077E+02	1.129E+02	1.292E+02	2.071E+02	
Pu-238	6.863E+02	6.918E+02	7.029E+02	7.433E+02	8.721E+02	1.525E+03	7.532E+03	1.722E+06	
Pu-239	6.194E+02	6.194E+02	6.196E+02	6.201E+02	6.215E+02	6.266E+02	6.412E+02	6.953E+02	
Pu-241	3.120E+04	2.977E+04	2.750E+04	2.307E+04	2.047E+04	3.407E+04	2.575E+05	1.159E+08	
Pu-242	6.514E+02	6.514E+02	6.515E+02	6.519E+02	6.531E+02	6.572E+02	6.689E+02	7.117E+02	
Ru-106	2.219E+02	9.886E+02	1.962E+04	6.827E+08	*3.348E+15	*3.348E+15	*3.348E+15	*3.348E+15	
Sb-124	6.419E+01	9.640E+03	2.174E+08	*1.750E+16	*1.750E+16	*1.750E+16	*1.750E+16	*1.750E+16	
Sb-125	9.849E+01	2.832E+02	2.343E+03	3.817E+06	*1.033E+15	*1.033E+15	*1.033E+15	*1.033E+15	
Sn-113	3.190E+02	6.445E+03	2.631E+06	3.616E+15	*1.005E+16	*1.005E+16	*1.005E+16	*1.005E+16	
Sr-90	4.652E+03	4.791E+03	5.083E+03	6.251E+03	1.129E+04	8.932E+04	3.292E+07	*1.365E+14	
Tc-99	1.072E+06	2.402E+06	1.205E+07	3.406E+09	*1.697E+10	*1.697E+10	*1.697E+10	*1.697E+10	
Zn-65	8.790E+01	5.559E+02	2.223E+04	8.992E+09	*8.245E+15	*8.245E+15	*8.245E+15	*8.245E+15	
Zr-95	6.951E+01	2.463E+03	6.699E+06	*2.150E+16	*2.150E+16	*2.150E+16	*2.150E+16	*2.150E+16	
iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	

\*At specific activity limit

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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)
AAAAAA	AAAAAAAA	AAAAAAAAAAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
Ag-110m	1.000E+00	0.000E+00	1.329E+00	1.881E+01	1.329E+00	1.881E+01
Am-241	1.000E+00	0.000E+00	4.887E-02	5.115E+02	4.887E-02	5.115E+02
C-14	1.000E+00	0.000E+00	6.031E-05	4.145E+05	6.031E-05	4.145E+05
Ce-144	1.000E+00	0.000E+00	3.640E-02	6.867E+02	3.640E-02	6.867E+02
Cm-242	1.000E+00	0.000E+00	8.131E-04	3.075E+04	8.131E-04	3.075E+04
Cm-243	1.000E+00	0.000E+00	1.265E-01	1.977E+02	1.265E-01	1.977E+02
Co-57	1.000E+00	0.000E+00	5.571E-02	4.487E+02	5.571E-02	4.487E+02
Co-58	1.000E+00	0.000E+00	2.714E-01	9.210E+01	2.714E-01	9.210E+01
Co-60	1.000E+00	0.000E+00	2.560E+00	9.765E+00	2.560E+00	9.765E+00
Cs-134	1.000E+00	0.000E+00	1.348E+00	1.854E+01	1.348E+00	1.854E+01
Cs-137	1.000E+00	0.000E+00	5.655E-01	4.421E+01	5.655E-01	4.421E+01
Eu-154	1.000E+00	0.000E+00	1.244E+00	2.009E+01	1.244E+00	2.009E+01
Fe-55	1.000E+00	0.000E+00	4.552E-06	5.492E+06	4.552E-06	5.492E+06
H-3	1.000E+00	0.000E+00	1.128E-04	2.216E+05	1.128E-04	2.216E+05
I-129	1.000E+00	0.000E+00	3.555E-03	7.032E+03	3.555E-03	7.032E+03
Mn-54	1.000E+00	0.000E+00	5.937E-01	4.211E+01	5.937E-01	4.211E+01
Nb-94	1.000E+00	0.000E+00	1.115E+00	2.242E+01	1.115E+00	2.242E+01
Ni-59	1.000E+00	0.000E+00	1.829E-06	1.367E+07	1.829E-06	1.367E+07
Ni-63	1.000E+00	0.000E+00	4.981E-06	5.019E+06	4.981E-06	5.019E+06
Np-237	1.000E+00	0.000E+00	2.368E-01	1.056E+02	2.368E-01	1.056E+02
Pu-238	1.000E+00	0.000E+00	3.643E-02	6.863E+02	3.643E-02	6.863E+02
Pu-239	1.000E+00	0.000E+00	4.036E-02	6.194E+02	4.036E-02	6.194E+02
Pu-241	1.000E+00	27.92 ñ 0.06	1.223E-03	2.044E+04	8.014E-04	3.120E+04
Pu-242	1.000E+00	0.000E+00	3.838E-02	6.514E+02	3.838E-02	6.514E+02
Ru-106	1.000E+00	0.000E+00	1.126E-01	2.219E+02	1.126E-01	2.219E+02
Sb-124	1.000E+00	0.000E+00	3.895E-01	6.419E+01	3.895E-01	6.419E+01
Sb-125	1.000E+00	0.000E+00	2.538E-01	9.849E+01	2.538E-01	9.849E+01
Sn-113	1.000E+00	0.000E+00	7.837E-02	3.190E+02	7.837E-02	3.190E+02
Sr-90	1.000E+00	0.000E+00	5.374E-03	4.652E+03	5.374E-03	4.652E+03
Tc-99	1.000E+00	0.000E+00	2.331E-05	1.072E+06	2.331E-05	1.072E+06
Zn-65	1.000E+00	0.000E+00	2.844E-01	8.790E+01	2.844E-01	8.790E+01
Zr-95	1.000E+00	0.000E+00	3.597E-01	6.951E+01	3.597E-01	6.951E+01
fffff	ffffffffff	ffffffffff	fffff	ffffffffff	ffffffffff	ffffffffff



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ag-110m	Ag-110m	1.000E+00		1.329E+00	2.155E-01	5.664E-03	1.667E-08	2.622E-24	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00		4.887E-02	4.838E-02	4.740E-02	4.414E-02	3.600E-02	1.764E-02	2.297E-03	1.831E-06	
Am-241	Pu-241	1.000E+00		3.863E-05	1.129E-04	2.489E-04	6.126E-04	1.042E-03	7.275E-04	9.687E-05	7.723E-08	
Am-241	äDOSE(j)			4.891E-02	4.849E-02	4.765E-02	4.475E-02	3.704E-02	1.836E-02	2.394E-03	1.909E-06	
Np-237	Am-241	1.000E+00		3.822E-08	1.141E-07	2.634E-07	7.612E-07	1.990E-06	4.638E-06	6.206E-06	4.106E-06	
Np-237	Np-237	1.000E+00		2.368E-01	2.366E-01	2.363E-01	2.352E-01	2.320E-01	2.213E-01	1.934E-01	1.207E-01	
Np-237	Pu-241	1.000E+00		2.021E-11	1.391E-10	7.080E-10	5.550E-09	3.288E-08	1.326E-07	2.061E-07	1.385E-07	
Np-237	Pu-241	2.450E-05		9.247E-13	2.715E-12	6.043E-12	1.542E-11	2.964E-11	3.663E-11	3.228E-11	2.014E-11	
Np-237	äDOSE(j)			2.368E-01	2.366E-01	2.363E-01	2.352E-01	2.320E-01	2.214E-01	1.934E-01	1.207E-01	
U-233	Am-241	1.000E+00		1.411E-15	9.839E-15	5.153E-14	4.460E-13	3.424E-12	2.708E-11	1.077E-10	1.490E-10	
U-233	Np-237	1.000E+00		1.310E-08	3.923E-08	9.117E-08	2.696E-07	7.516E-07	2.149E-06	4.360E-06	4.500E-06	
U-233	Pu-241	1.000E+00		5.608E-19	8.302E-18	9.403E-17	2.245E-15	4.130E-14	6.424E-13	3.349E-12	4.996E-12	
U-233	Pu-241	2.450E-05		3.425E-20	2.362E-19	1.208E-18	9.622E-18	5.988E-17	2.904E-16	6.932E-16	7.480E-16	
U-233	äDOSE(j)			1.310E-08	3.923E-08	9.117E-08	2.696E-07	7.516E-07	2.149E-06	4.360E-06	4.500E-06	
Th-229	Am-241	1.000E+00		1.989E-18	2.974E-17	3.446E-16	8.915E-15	2.032E-13	5.726E-12	8.334E-11	6.472E-10	
Th-229	Np-237	1.000E+00		2.461E-11	1.721E-10	9.069E-10	8.034E-09	6.588E-08	6.495E-07	4.471E-06	2.276E-05	
Th-229	Pu-241	1.000E+00		6.332E-22	1.942E-20	4.779E-19	3.434E-17	1.936E-15	1.156E-13	2.385E-12	2.098E-11	
Th-229	Pu-241	2.450E-05		4.836E-23	7.175E-22	8.166E-21	1.985E-19	3.853E-18	7.311E-17	6.561E-16	3.666E-15	
Th-229	äDOSE(j)			2.461E-11	1.721E-10	9.069E-10	8.034E-09	6.588E-08	6.495E-07	4.471E-06	2.276E-05	
C-14	C-14	1.000E+00		6.031E-05	9.730E-07	2.508E-10	6.201E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144	Ce-144	1.000E+00		3.640E-02	1.494E-02	2.516E-03	4.931E-06	9.049E-14	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08		4.908E-11	1.036E-11	4.620E-13	8.642E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09		1.328E-12	2.804E-13	1.250E-14	2.339E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Cm-242	äDOSE(j)			5.041E-11	1.064E-11	4.745E-13	8.876E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.840E-09		1.680E-13	3.027E-13	3.325E-13	3.160E-13	2.693E-13	1.540E-13	3.117E-14	1.163E-16	
Pu-238	Pu-238	1.840E-09		6.703E-11	6.650E-11	6.544E-11	6.188E-11	5.275E-11	3.016E-11	6.105E-12	2.278E-14	
Pu-238	äDOSE(j)			6.720E-11	6.680E-11	6.578E-11	6.220E-11	5.302E-11	3.031E-11	6.136E-12	2.290E-14	
Cm-242	Cm-242	1.000E+00		7.218E-04	1.524E-04	6.794E-06	1.271E-10	3.940E-24	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.000E+00		9.128E-05	1.645E-04	1.807E-04	1.717E-04	1.464E-04	8.369E-05	1.694E-05	6.322E-08	
U-234	Cm-242	1.000E+00		1.500E-11	7.554E-11	2.310E-10	7.654E-10	2.069E-09	4.673E-09	4.777E-09	5.645E-10	
U-234	Pu-238	1.000E+00		8.057E-09	2.405E-08	5.549E-08	1.600E-07	4.147E-07	9.225E-07	9.392E-07	1.109E-07	
U-234	Pu-242	9.999E-01		4.175E-19	2.917E-18	1.535E-17	1.351E-16	1.087E-15	1.005E-14	5.785E-14	1.718E-13	
U-234	äDOSE(j)			8.072E-09	2.413E-08	5.572E-08	1.607E-07	4.167E-07	9.272E-07	9.440E-07	1.115E-07	
Th-230	Cm-242	1.000E+00		8.134E-17	9.477E-16	7.130E-15	7.838E-14	6.641E-13	5.752E-12	2.678E-11	5.657E-11	
Th-230	Pu-238	1.000E+00		5.455E-14	3.806E-13	1.997E-12	1.740E-11	1.361E-10	1.144E-09	5.284E-09	1.114E-08	
Th-230	Pu-242	9.999E-01		2.119E-24	3.173E-23	3.689E-22	9.666E-21	2.283E-19	7.243E-18	1.395E-16	1.943E-15	
Th-230	äDOSE(j)			5.463E-14	3.815E-13	2.004E-12	1.748E-11	1.367E-10	1.150E-09	5.311E-09	1.119E-08	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ra-226	Cm-242	1.000E+00		1.151E-17	2.892E-16	5.029E-15	1.763E-13	4.504E-12	1.316E-10	1.842E-09	1.020E-08	
Ra-226	Pu-238	1.000E+00		9.228E-15	1.380E-13	1.599E-12	4.136E-11	9.419E-10	2.635E-08	3.643E-07	2.008E-06	
Ra-226	Pu-242	9.999E-01		2.867E-25	8.871E-24	2.226E-22	1.716E-20	1.170E-18	1.200E-16	9.390E-15	2.485E-13	
Ra-226	äDOSE(j)			9.240E-15	1.383E-13	1.604E-12	4.153E-11	9.464E-10	2.648E-08	3.661E-07	2.018E-06	
Pb-210	Cm-242	1.000E+00		1.419E-22	7.419E-21	2.842E-19	2.992E-17	2.055E-15	1.453E-13	3.283E-12	2.255E-11	
Pb-210	Pu-238	1.000E+00		1.322E-19	4.064E-18	1.006E-16	7.373E-15	4.370E-13	2.920E-11	6.496E-10	4.442E-09	
Pb-210	Pu-242	9.999E-01		3.322E-30	2.143E-28	1.130E-26	2.468E-24	4.430E-22	1.124E-19	1.042E-17	4.996E-16	
Pb-210	äDOSE(j)			1.323E-19	4.071E-18	1.009E-16	7.403E-15	4.391E-13	2.934E-11	6.529E-10	4.465E-09	
Po-210	Cm-242	1.000E+00		1.067E-23	9.492E-22	5.626E-20	8.443E-18	6.629E-16	4.923E-14	1.128E-12	7.775E-12	
Po-210	Pu-238	1.000E+00		1.104E-20	5.631E-19	2.084E-17	2.101E-15	1.412E-13	9.895E-12	2.231E-10	1.531E-09	
Po-210	Pu-242	9.999E-01		0.000E+00	2.615E-29	2.143E-27	6.730E-25	1.406E-22	3.787E-20	3.571E-18	1.721E-16	
Po-210	äDOSE(j)			1.106E-20	5.640E-19	2.089E-17	2.109E-15	1.419E-13	9.945E-12	2.242E-10	1.539E-09	
Cm-243	Cm-243	2.400E-03		3.035E-04	2.962E-04	2.820E-04	2.377E-04	1.458E-04	2.633E-05	1.981E-07	7.328E-15	
Cm-243	Cm-243	9.976E-01		1.261E-01	1.231E-01	1.172E-01	9.879E-02	6.058E-02	1.094E-02	8.236E-05	3.046E-12	
Cm-243	äDOSE(j)			1.265E-01	1.234E-01	1.175E-01	9.903E-02	6.073E-02	1.097E-02	8.256E-05	3.053E-12	
Am-243	Cm-243	2.400E-03		2.165E-08	6.399E-08	1.445E-07	3.866E-07	8.133E-07	9.224E-07	2.026E-07	4.689E-10	
Pu-239	Cm-243	2.400E-03		4.332E-14	3.004E-13	1.554E-12	1.289E-11	8.796E-11	4.905E-10	1.072E-09	1.120E-09	
Pu-239	Cm-243	9.976E-01		5.752E-07	1.707E-06	3.889E-06	1.073E-05	2.489E-05	4.303E-05	4.601E-05	4.246E-05	
Pu-239	Pu-239	1.000E+00		4.036E-02	4.036E-02	4.035E-02	4.032E-02	4.022E-02	3.990E-02	3.899E-02	3.596E-02	
Pu-239	äDOSE(j)			4.037E-02	4.036E-02	4.035E-02	4.033E-02	4.025E-02	3.994E-02	3.903E-02	3.600E-02	
U-235	Cm-243	2.400E-03		3.555E-23	5.291E-22	6.066E-21	1.511E-19	3.097E-18	6.268E-17	4.516E-16	1.026E-15	
U-235	Cm-243	9.976E-01		6.296E-16	4.372E-15	2.270E-14	1.905E-13	1.348E-12	8.568E-12	2.600E-11	3.997E-11	
U-235	Pu-239	1.000E+00		6.611E-11	1.980E-10	4.604E-10	1.364E-09	3.825E-09	1.117E-08	2.425E-08	3.404E-08	
U-235	äDOSE(j)			6.611E-11	1.980E-10	4.605E-10	1.364E-09	3.827E-09	1.118E-08	2.427E-08	3.408E-08	
Pa-231	Cm-243	2.400E-03		1.712E-28	5.271E-27	1.308E-25	9.675E-24	5.872E-22	4.151E-20	9.650E-19	6.004E-18	
Pa-231	Cm-243	9.976E-01		3.790E-21	5.647E-20	6.490E-19	1.631E-17	3.434E-16	7.631E-15	7.031E-14	2.475E-13	
Pa-231	Pu-239	1.000E+00		5.300E-16	3.702E-15	1.948E-14	1.714E-13	1.380E-12	1.274E-11	7.309E-11	2.141E-10	
Pa-231	äDOSE(j)			5.300E-16	3.702E-15	1.948E-14	1.715E-13	1.380E-12	1.275E-11	7.316E-11	2.143E-10	
Ac-227	Cm-243	2.400E-03		2.018E-30	2.325E-28	1.212E-26	2.534E-24	4.028E-22	6.888E-20	2.584E-18	1.921E-17	
Ac-227	Cm-243	9.976E-01		9.912E-23	3.035E-21	7.442E-20	5.275E-18	2.852E-16	1.449E-14	1.987E-13	7.964E-13	
Ac-227	Pu-239	1.000E+00		1.729E-17	2.568E-16	2.929E-15	7.171E-14	1.413E-12	2.687E-11	2.113E-10	6.900E-10	
Ac-227	äDOSE(j)			1.729E-17	2.568E-16	2.929E-15	7.172E-14	1.413E-12	2.688E-11	2.115E-10	6.908E-10	
Co-57	Co-57	1.000E+00		5.571E-02	2.188E-02	3.374E-03	4.858E-06	3.694E-14	0.000E+00	0.000E+00	0.000E+00	
Co-58	Co-58	1.000E+00		2.714E-01	7.597E-03	5.950E-06	8.000E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Co-60	Co-60	1.000E+00		2.560E+00	2.244E+00	1.725E+00	6.861E-01	4.928E-02	4.894E-06	1.788E-17	0.000E+00	
Cs-134	Cs-134	1.000E+00		1.348E+00	9.633E-01	4.918E-01	4.674E-02	5.618E-05	3.382E-15	0.000E+00	0.000E+00	
Cs-137	Cs-137	1.000E+00		5.655E-01	5.526E-01	5.276E-01	4.487E-01	2.824E-01	5.590E-02	5.461E-04	5.032E-11	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413INDUSTRIAL.RAD

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Eu-154	Eu-154	1.000E+00	1.244E+00	1.150E+00	9.819E-01	5.649E-01	1.164E-01	4.624E-04	6.385E-11	0.000E+00	0.000E+00	
Fe-55	Fe-55	1.000E+00	4.552E-06	3.521E-06	2.106E-06	3.488E-07	2.047E-09	3.173E-17	0.000E+00	0.000E+00	0.000E+00	
H-3	H-3	1.000E+00	1.128E-04	2.122E-05	7.489E-07	6.026E-12	1.342E-26	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I-129	I-129	1.000E+00	3.555E-03	2.050E-03	6.815E-04	1.444E-05	2.383E-10	4.350E-27	0.000E+00	0.000E+00	0.000E+00	
Mn-54	Mn-54	1.000E+00	5.937E-01	2.638E-01	5.211E-02	1.784E-04	1.610E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Nb-94	Nb-94	1.000E+00	1.115E+00	4.978E-01	9.924E-02	3.510E-04	3.478E-11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	1.829E-06	1.829E-06	1.828E-06	1.826E-06	1.819E-06	1.796E-06	1.732E-06	1.524E-06	1.524E-06	
Ni-63	Ni-63	1.000E+00	4.981E-06	4.944E-06	4.872E-06	4.626E-06	3.990E-06	2.378E-06	5.420E-07	3.063E-09	3.063E-09	
Pu-238	Pu-238	1.000E+00	3.643E-02	3.614E-02	3.557E-02	3.363E-02	2.867E-02	1.639E-02	3.318E-03	1.238E-05	1.238E-05	
Pu-241	Pu-241	1.000E+00	7.605E-04	7.247E-04	6.581E-04	4.696E-04	1.790E-04	6.122E-06	3.966E-10	8.681E-25	8.681E-25	
Pu-241	Pu-241	2.450E-05	2.186E-06	2.083E-06	1.891E-06	1.350E-06	5.145E-07	1.759E-08	1.140E-12	2.495E-27	2.495E-27	
Pu-241	äDOSE(j)		7.627E-04	7.268E-04	6.600E-04	4.709E-04	1.795E-04	6.139E-06	3.977E-10	8.706E-25	8.706E-25	
Pu-242	Pu-242	5.500E-06	2.111E-07	2.111E-07	2.110E-07	2.109E-07	2.105E-07	2.092E-07	2.056E-07	1.932E-07	1.932E-07	
Pu-242	Pu-242	5.400E-05	2.073E-06	2.072E-06	2.072E-06	2.071E-06	2.067E-06	2.054E-06	2.018E-06	1.897E-06	1.897E-06	
Pu-242	äDOSE(j)		2.284E-06	2.283E-06	2.283E-06	2.282E-06	2.278E-06	2.264E-06	2.224E-06	2.090E-06	2.090E-06	
U-238	Pu-242	5.400E-05	2.123E-17	6.359E-17	1.478E-16	4.381E-16	1.229E-15	3.592E-15	7.822E-15	1.115E-14	1.115E-14	
U-238	Pu-242	9.999E-01	2.385E-12	7.145E-12	1.661E-11	4.923E-11	1.381E-10	4.036E-10	8.789E-10	1.253E-09	1.253E-09	
U-238	äDOSE(j)		2.385E-12	7.145E-12	1.661E-11	4.923E-11	1.381E-10	4.036E-10	8.789E-10	1.253E-09	1.253E-09	
Pu-242	Pu-242	9.999E-01	3.838E-02	3.838E-02	3.837E-02	3.835E-02	3.828E-02	3.804E-02	3.737E-02	3.512E-02	3.512E-02	
Ru-106	Ru-106	1.000E+00	1.126E-01	2.529E-02	1.274E-03	3.662E-08	3.870E-21	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-124	Sb-124	1.000E+00	3.895E-01	2.593E-03	1.150E-07	6.674E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	7.720E-01	1.957E-01	6.805E-02	8.224E-03	5.048E-06	3.357E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	2.280E-01	5.781E-02	2.010E-02	2.429E-03	1.491E-06	9.913E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	äDOSE(j)		2.535E-01	8.814E-02	1.065E-02	6.538E-06	4.348E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Te-125m	Sb-125	2.280E-01	2.804E-04	1.408E-04	1.711E-05	1.050E-08	6.983E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sn-113	Sn-113	1.000E+00	7.837E-02	3.879E-03	9.502E-06	6.913E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sr-90	Sr-90	1.000E+00	5.374E-03	5.218E-03	4.918E-03	3.999E-03	2.215E-03	2.799E-04	7.593E-07	7.895E-16	7.895E-16	
Tc-99	Tc-99	1.000E+00	2.331E-05	1.041E-05	2.075E-06	7.341E-09	7.278E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Zn-65	Zn-65	1.000E+00	2.844E-01	4.498E-02	1.125E-03	2.780E-09	2.657E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr							
(j)	(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
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Zr-95	Zr-95	1.000E+00	1.879E-01	3.592E-03	1.313E-06	1.225E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Nb-95	Zr-95	1.000E+00	1.718E-01	6.560E-03	2.419E-06	2.258E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

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

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i) t=	S(j,t), 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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ag-110m	Ag-110m	1.000E+00	1.000E+00	1.621E-01	4.261E-03	1.254E-08	1.973E-24	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00	1.000E+00	9.899E-01	9.699E-01	9.031E-01	7.366E-01	3.609E-01	4.700E-02	3.747E-05	
Am-241	Pu-241	1.000E+00	0.000E+00	1.558E-03	4.410E-03	1.205E-02	2.114E-02	1.488E-02	1.982E-03	1.580E-06	
Am-241	äS(j):		1.000E+00	9.914E-01	9.743E-01	9.152E-01	7.577E-01	3.758E-01	4.898E-02	3.905E-05	
Np-237	Am-241	1.000E+00	0.000E+00	3.221E-07	9.560E-07	3.069E-06	8.284E-06	1.953E-05	2.620E-05	1.734E-05	
Np-237	Np-237	1.000E+00	1.000E+00	9.993E-01	9.980E-01	9.933E-01	9.800E-01	9.348E-01	8.169E-01	5.096E-01	
Np-237	Pu-241	1.000E+00	0.000E+00	2.547E-10	2.204E-09	2.144E-08	1.354E-07	5.574E-07	8.702E-07	5.849E-07	
Np-237	Pu-241	2.450E-05	0.000E+00	7.745E-12	2.214E-11	6.273E-11	1.243E-10	1.547E-10	1.363E-10	8.505E-11	
Np-237	äS(j):		1.000E+00	9.993E-01	9.980E-01	9.933E-01	9.800E-01	9.348E-01	8.169E-01	5.096E-01	
U-233	Am-241	1.000E+00	0.000E+00	7.049E-13	6.284E-12	6.753E-11	5.533E-10	4.479E-09	1.793E-08	2.484E-08	
U-233	Np-237	1.000E+00	0.000E+00	4.364E-06	1.304E-05	4.284E-05	1.233E-04	3.568E-04	7.262E-04	7.502E-04	
U-233	Pu-241	1.000E+00	0.000E+00	3.727E-16	9.757E-15	3.250E-13	6.594E-12	1.060E-10	5.573E-10	8.328E-10	
U-233	Pu-241	2.450E-05	0.000E+00	1.705E-17	1.483E-16	1.466E-15	9.725E-15	4.814E-14	1.154E-13	1.247E-13	
U-233	äS(j):		0.000E+00	4.364E-06	1.304E-05	4.284E-05	1.233E-04	3.568E-04	7.262E-04	7.502E-04	
Th-229	Am-241	1.000E+00	0.000E+00	2.221E-17	5.955E-16	2.151E-14	5.410E-13	1.579E-11	2.320E-10	1.807E-09	
Th-229	Np-237	1.000E+00	0.000E+00	2.062E-10	1.851E-09	2.036E-08	1.782E-07	1.798E-06	1.246E-05	6.357E-05	
Th-229	Pu-241	1.000E+00	0.000E+00	8.827E-21	6.975E-19	7.907E-17	5.088E-15	3.180E-13	6.638E-12	5.859E-11	
Th-229	Pu-241	2.450E-05	0.000E+00	5.391E-22	1.418E-20	4.810E-19	1.030E-17	2.020E-16	1.828E-15	1.024E-14	
Th-229	äS(j):		0.000E+00	2.062E-10	1.851E-09	2.036E-08	1.782E-07	1.798E-06	1.246E-05	6.357E-05	
C-14	C-14	1.000E+00	1.000E+00	1.615E-02	4.167E-06	1.036E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144	Ce-144	1.000E+00	1.000E+00	4.104E-01	6.911E-02	1.355E-04	2.486E-12	2.080E-39	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08	6.800E-08	1.436E-08	6.401E-10	1.197E-14	3.712E-28	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09	1.840E-09	3.885E-10	1.732E-11	3.240E-16	1.004E-29	0.000E+00	0.000E+00	0.000E+00	
Cm-242	äS(j):		6.984E-08	1.475E-08	6.574E-10	1.230E-14	3.812E-28	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.840E-09	0.000E+00	7.336E-12	9.084E-12	8.674E-12	7.393E-12	4.227E-12	8.557E-13	3.193E-15	
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.796E-09	1.699E-09	1.448E-09	8.279E-10	1.676E-10	6.254E-13	
Pu-238	äS(j):		1.840E-09	1.833E-09	1.806E-09	1.707E-09	1.455E-09	8.321E-10	1.684E-10	6.286E-13	
Cm-242	Cm-242	1.000E+00	1.000E+00	2.111E-01	9.413E-03	1.761E-07	5.459E-21	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.000E+00	0.000E+00	3.987E-03	4.937E-03	4.714E-03	4.018E-03	2.297E-03	4.650E-04	1.736E-06	
U-234	Cm-242	1.000E+00	0.000E+00	7.066E-09	3.354E-08	1.277E-07	3.576E-07	8.171E-07	8.379E-07	9.911E-08	
U-234	Pu-238	1.000E+00	0.000E+00	2.819E-06	8.360E-06	2.677E-05	7.169E-05	1.613E-04	1.648E-04	1.947E-05	
U-234	Pu-242	9.999E-01	0.000E+00	2.194E-16	1.965E-15	2.148E-14	1.846E-13	1.747E-12	1.012E-11	3.011E-11	
U-234	äS(j):		0.000E+00	2.826E-06	8.394E-06	2.690E-05	7.204E-05	1.621E-04	1.656E-04	1.957E-05	
Th-230	Cm-242	1.000E+00	0.000E+00	2.367E-14	3.826E-13	5.500E-12	5.001E-11	4.435E-10	2.078E-09	4.398E-09	
Th-230	Pu-238	1.000E+00	0.000E+00	1.271E-11	1.135E-10	1.228E-09	1.025E-08	8.825E-08	4.101E-07	8.659E-07	
Th-230	Pu-242	9.999E-01	0.000E+00	6.587E-22	1.772E-20	6.483E-19	1.691E-17	5.552E-16	1.080E-14	1.509E-13	
Th-230	äS(j):		0.000E+00	1.274E-11	1.139E-10	1.234E-09	1.030E-08	8.869E-08	4.122E-07	8.703E-07	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF(i)	S(j,t), pCi/g									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Ra-226	Cm-242	1.000E+00	0.000E+00	2.738E-18	1.437E-16	7.512E-15	2.135E-13	6.477E-12	9.192E-11	5.240E-10		
Ra-226	Pu-238	1.000E+00	0.000E+00	1.836E-15	4.922E-14	1.778E-12	4.470E-11	1.297E-09	1.818E-08	1.032E-07		
Ra-226	Pu-242	9.999E-01	0.000E+00	7.132E-26	5.754E-24	7.006E-22	5.455E-20	5.872E-18	3.253E-16	1.221E-14		
Ra-226	äS(j) :		0.000E+00	1.839E-15	4.936E-14	1.785E-12	4.492E-11	1.304E-09	1.827E-08	1.037E-07		
Pb-210	Cm-242	1.000E+00	0.000E+00	1.770E-20	2.917E-18	5.235E-16	4.145E-14	3.072E-12	7.031E-11	4.847E-10		
Pb-210	Pu-238	1.000E+00	0.000E+00	1.418E-17	1.128E-15	1.304E-13	8.829E-12	6.176E-10	1.391E-08	9.546E-08		
Pb-210	Pu-242	9.999E-01	0.000E+00	4.411E-28	1.057E-25	4.141E-23	8.790E-21	2.364E-18	2.227E-16	1.073E-14		
Pb-210	äS(j) :		0.000E+00	1.420E-17	1.130E-15	1.310E-13	8.870E-12	6.206E-10	1.398E-08	9.595E-08		
Po-210	Cm-242	1.000E+00	0.000E+00	4.364E-21	1.515E-18	4.199E-16	3.838E-14	2.991E-12	6.936E-11	4.800E-10		
Po-210	Pu-238	1.000E+00	0.000E+00	3.939E-18	6.196E-16	1.058E-13	8.185E-12	6.012E-10	1.372E-08	9.454E-08		
Po-210	Pu-242	9.999E-01	0.000E+00	1.059E-28	5.252E-26	3.207E-23	8.003E-21	2.287E-18	2.192E-16	1.061E-14		
Po-210	äS(j) :		0.000E+00	3.943E-18	6.212E-16	1.062E-13	8.223E-12	6.042E-10	1.379E-08	9.502E-08		
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.230E-03	1.879E-03	1.153E-03	2.082E-04	1.567E-06	5.795E-14		
Cm-243	Cm-243	9.976E-01	9.976E-01	9.735E-01	9.271E-01	7.812E-01	4.791E-01	8.654E-02	6.513E-04	2.409E-11		
Cm-243	äS(j) :		1.000E+00	9.758E-01	9.293E-01	7.831E-01	4.803E-01	8.675E-02	6.529E-04	2.415E-11		
Am-243	Cm-243	2.400E-03	0.000E+00	2.217E-07	6.435E-07	1.912E-06	4.153E-06	4.761E-06	1.048E-06	2.425E-09		
Pu-239	Cm-243	2.400E-03	0.000E+00	3.211E-12	2.826E-11	2.909E-10	2.119E-09	1.208E-08	2.654E-08	2.774E-08		
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.310E-05	2.548E-04	6.097E-04	1.065E-03	1.140E-03	1.052E-03		
Pu-239	Pu-239	1.000E+00	1.000E+00	9.999E-01	9.997E-01	9.988E-01	9.965E-01	9.885E-01	9.659E-01	8.908E-01		
Pu-239	äS(j) :		1.000E+00	9.999E-01	9.997E-01	9.991E-01	9.971E-01	9.896E-01	9.671E-01	8.919E-01		
U-235	Cm-243	2.400E-03	0.000E+00	1.056E-21	2.800E-20	9.731E-19	2.202E-17	4.611E-16	3.352E-15	7.630E-15		
U-235	Cm-243	9.976E-01	0.000E+00	1.402E-14	1.238E-13	1.291E-12	9.745E-12	6.332E-11	1.932E-10	2.973E-10		
U-235	Pu-239	1.000E+00	0.000E+00	9.831E-10	2.939E-09	9.675E-09	2.802E-08	8.276E-08	1.802E-07	2.533E-07		
U-235	äS(j) :		0.000E+00	9.831E-10	2.939E-09	9.676E-09	2.803E-08	8.282E-08	1.804E-07	2.536E-07		
Pa-231	Cm-243	2.400E-03	0.000E+00	5.592E-27	4.458E-25	5.205E-23	3.608E-21	2.671E-19	6.288E-18	3.927E-17		
Pa-231	Cm-243	9.976E-01	0.000E+00	9.901E-20	2.632E-18	9.232E-17	2.145E-15	4.933E-14	4.587E-13	1.619E-12		
Pa-231	Pu-239	1.000E+00	0.000E+00	1.039E-14	9.311E-14	1.018E-12	8.741E-12	8.263E-11	4.770E-10	1.400E-09		
Pa-231	äS(j) :		0.000E+00	1.039E-14	9.312E-14	1.018E-12	8.743E-12	8.268E-11	4.775E-10	1.402E-09		
Ac-227	Cm-243	2.400E-03	0.000E+00	3.541E-29	8.378E-27	3.143E-24	5.905E-22	1.070E-19	4.074E-18	3.041E-17		
Ac-227	Cm-243	9.976E-01	0.000E+00	7.829E-22	6.163E-20	6.892E-18	4.253E-16	2.261E-14	3.137E-13	1.261E-12		
Ac-227	Pu-239	1.000E+00	0.000E+00	1.093E-16	2.882E-15	9.845E-14	2.140E-12	4.208E-11	3.338E-10	1.092E-09		
Ac-227	äS(j) :		0.000E+00	1.093E-16	2.882E-15	9.846E-14	2.140E-12	4.211E-11	3.341E-10	1.094E-09		
Co-57	Co-57	1.000E+00	1.000E+00	3.927E-01	6.056E-02	8.720E-05	6.630E-13	2.542E-41	0.000E+00	0.000E+00		
Co-58	Co-58	1.000E+00	1.000E+00	2.799E-02	2.192E-05	2.947E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
Co-60	Co-60	1.000E+00	1.000E+00	8.766E-01	6.737E-01	2.680E-01	1.925E-02	1.912E-06	6.986E-18	0.000E+00		
Cs-134	Cs-134	1.000E+00	1.000E+00	7.145E-01	3.647E-01	3.467E-02	4.167E-05	2.509E-15	1.541E-44	0.000E+00		
Cs-137	Cs-137	1.000E+00	1.000E+00	9.771E-01	9.329E-01	7.934E-01	4.994E-01	9.884E-02	9.656E-04	8.898E-11		

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF (i)	S(j,t), pCi/g								
(j)	(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
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Eu-154	Eu-154	1.000E+00		1.000E+00	9.241E-01	7.890E-01	4.539E-01	9.354E-02	3.716E-04	5.131E-11	5.020E-35
Fe-55	Fe-55	1.000E+00		1.000E+00	7.734E-01	4.627E-01	7.662E-02	4.497E-04	6.970E-12	3.385E-34	0.000E+00
H-3	H-3	1.000E+00		1.000E+00	1.881E-01	6.643E-03	5.357E-08	1.201E-22	0.000E+00	0.000E+00	0.000E+00
I-129	I-129	1.000E+00		1.000E+00	5.766E-01	1.917E-01	4.062E-03	6.703E-08	1.224E-24	0.000E+00	0.000E+00
Mn-54	Mn-54	1.000E+00		1.000E+00	4.444E-01	8.777E-02	3.005E-04	2.713E-11	5.997E-36	0.000E+00	0.000E+00
Nb-94	Nb-94	1.000E+00		1.000E+00	4.465E-01	8.900E-02	3.148E-04	3.119E-11	9.553E-36	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00		1.000E+00	9.998E-01	9.995E-01	9.982E-01	9.945E-01	9.819E-01	9.466E-01	8.329E-01
Ni-63	Ni-63	1.000E+00		1.000E+00	9.926E-01	9.781E-01	9.287E-01	8.011E-01	4.774E-01	1.088E-01	6.150E-04
Pu-238	Pu-238	1.000E+00		1.000E+00	9.920E-01	9.763E-01	9.232E-01	7.869E-01	4.499E-01	9.108E-02	3.399E-04
Pu-241	Pu-241	1.000E+00		1.000E+00	9.529E-01	8.653E-01	6.174E-01	2.353E-01	8.049E-03	5.215E-07	1.141E-21
Pu-241	Pu-241	2.450E-05		2.450E-05	2.335E-05	2.120E-05	1.513E-05	5.766E-06	1.972E-07	1.278E-11	2.796E-26
Pu-241	äS (j) :			1.000E+00	9.529E-01	8.653E-01	6.174E-01	2.354E-01	8.049E-03	5.215E-07	1.141E-21
Pu-242	Pu-242	5.500E-06		5.500E-06	5.500E-06	5.499E-06	5.495E-06	5.485E-06	5.451E-06	5.356E-06	5.033E-06
Pu-242	Pu-242	5.400E-05		5.400E-05	5.399E-05	5.399E-05	5.395E-05	5.386E-05	5.352E-05	5.258E-05	4.942E-05
Pu-242	äS (j) :			5.950E-05	5.949E-05	5.948E-05	5.945E-05	5.934E-05	5.897E-05	5.794E-05	5.445E-05
U-238	Pu-242	5.400E-05		0.000E+00	8.362E-15	2.500E-14	8.230E-14	2.384E-13	7.049E-13	1.540E-12	2.197E-12
U-238	Pu-242	9.999E-01		0.000E+00	1.549E-10	4.629E-10	1.524E-09	4.415E-09	1.305E-08	2.852E-08	4.069E-08
U-238	äS (j) :			0.000E+00	1.549E-10	4.629E-10	1.524E-09	4.415E-09	1.305E-08	2.852E-08	4.069E-08
Pu-242	Pu-242	9.999E-01		9.999E-01	9.999E-01	9.997E-01	9.991E-01	9.973E-01	9.911E-01	9.737E-01	9.151E-01
Ru-106	Ru-106	1.000E+00		1.000E+00	2.245E-01	1.131E-02	3.251E-07	3.435E-20	0.000E+00	0.000E+00	0.000E+00
Sb-124	Sb-124	1.000E+00		1.000E+00	6.659E-03	2.952E-07	1.713E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Sb-125	Sb-125	7.720E-01		7.720E-01	2.684E-01	3.244E-02	1.991E-05	1.324E-14	0.000E+00	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01		2.280E-01	7.926E-02	9.580E-03	5.880E-06	3.910E-15	0.000E+00	0.000E+00	0.000E+00
Sb-125	äS (j) :			1.000E+00	3.476E-01	4.202E-02	2.579E-05	1.715E-14	0.000E+00	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01		0.000E+00	8.271E-02	1.016E-02	6.237E-06	4.148E-15	0.000E+00	0.000E+00	0.000E+00
Sn-113	Sn-113	1.000E+00		1.000E+00	4.949E-02	1.212E-04	8.821E-14	6.863E-40	0.000E+00	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00		1.000E+00	9.709E-01	9.152E-01	7.442E-01	4.121E-01	5.208E-02	1.413E-04	1.469E-13
Tc-99	Tc-99	1.000E+00		1.000E+00	4.465E-01	8.901E-02	3.149E-04	3.122E-11	9.582E-36	0.000E+00	0.000E+00
Zn-65	Zn-65	1.000E+00		1.000E+00	1.581E-01	3.954E-03	9.775E-09	9.340E-25	0.000E+00	0.000E+00	0.000E+00

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF(i)	S(j,t), pCi/g									
(j)	(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	
AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	AAAAAA	
Zr-95	Zr-95	1.000E+00	1.000E+00	1.912E-02	6.988E-06	6.523E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Nb-95	Zr-95	1.000E+00	0.000E+00	3.339E-02	1.242E-05	1.160E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	fffff	

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

RESCALC.EXE execution time = 66.99 seconds



**ENCLOSURE 6**

**RESRAD Version 6.5 Report for  
“Dresden 10CFR20.2002 Pad DCGL Evaluation – Recreationist Scenario”  
(56 pages total)**

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Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Dose Conversion Factor (and Related) Parameter Summary

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ac-225 (Source: FGR 12)	6.371E-02	6.371E-02	DCF1 ( 1)
A-1	Ac-227 (Source: FGR 12)	4.951E-04	4.951E-04	DCF1 ( 2)
A-1	Ag-110 (Source: FGR 12)	2.242E-01	2.242E-01	DCF1 ( 3)
A-1	Ag-110m (Source: FGR 12)	1.717E+01	1.717E+01	DCF1 ( 4)
A-1	Am-241 (Source: FGR 12)	4.372E-02	4.372E-02	DCF1 ( 5)
A-1	Am-243 (Source: FGR 12)	1.420E-01	1.420E-01	DCF1 ( 6)
A-1	At-217 (Source: FGR 12)	1.773E-03	1.773E-03	DCF1 ( 7)
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1 ( 8)
A-1	Ba-137m (Source: FGR 12)	3.606E+00	3.606E+00	DCF1 ( 9)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1 ( 10)
A-1	Bi-211 (Source: FGR 12)	2.559E-01	2.559E-01	DCF1 ( 11)
A-1	Bi-213 (Source: FGR 12)	7.660E-01	7.660E-01	DCF1 ( 12)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1 ( 13)
A-1	C-14 (Source: FGR 12)	1.345E-05	1.345E-05	DCF1 ( 14)
A-1	Ce-144 (Source: FGR 12)	7.174E-02	7.174E-02	DCF1 ( 15)
A-1	Cm-242 (Source: FGR 12)	1.709E-04	1.709E-04	DCF1 ( 16)
A-1	Cm-243 (Source: FGR 12)	5.829E-01	5.829E-01	DCF1 ( 17)
A-1	Co-57 (Source: FGR 12)	5.007E-01	5.007E-01	DCF1 ( 18)
A-1	Co-58 (Source: FGR 12)	5.960E+00	5.960E+00	DCF1 ( 19)
A-1	Co-60 (Source: FGR 12)	1.622E+01	1.622E+01	DCF1 ( 20)
A-1	Cs-134 (Source: FGR 12)	9.472E+00	9.472E+00	DCF1 ( 21)
A-1	Cs-137 (Source: FGR 12)	7.510E-04	7.510E-04	DCF1 ( 22)
A-1	Eu-154 (Source: FGR 12)	7.678E+00	7.678E+00	DCF1 ( 23)
A-1	Fe-55 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 24)
A-1	Fr-221 (Source: FGR 12)	1.536E-01	1.536E-01	DCF1 ( 25)
A-1	Fr-223 (Source: FGR 12)	1.980E-01	1.980E-01	DCF1 ( 26)
A-1	H-3 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 27)
A-1	I-129 (Source: FGR 12)	1.295E-02	1.295E-02	DCF1 ( 28)
A-1	In-113m (Source: FGR 12)	1.435E+00	1.435E+00	DCF1 ( 29)
A-1	Mn-54 (Source: FGR 12)	5.156E+00	5.156E+00	DCF1 ( 30)
A-1	Nb-94 (Source: FGR 12)	9.677E+00	9.677E+00	DCF1 ( 31)
A-1	Nb-95 (Source: FGR 12)	4.689E+00	4.689E+00	DCF1 ( 32)
A-1	Nb-95m (Source: FGR 12)	3.195E-01	3.195E-01	DCF1 ( 33)
A-1	Ni-59 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 34)
A-1	Ni-63 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 35)
A-1	Np-237 (Source: FGR 12)	7.790E-02	7.790E-02	DCF1 ( 36)
A-1	Np-239 (Source: FGR 12)	7.529E-01	7.529E-01	DCF1 ( 37)
A-1	Pa-231 (Source: FGR 12)	1.906E-01	1.906E-01	DCF1 ( 38)
A-1	Pa-233 (Source: FGR 12)	1.020E+00	1.020E+00	DCF1 ( 39)
A-1	Pa-234 (Source: FGR 12)	1.155E+01	1.155E+01	DCF1 ( 40)
A-1	Pa-234m (Source: FGR 12)	8.967E-02	8.967E-02	DCF1 ( 41)
A-1	Pb-209 (Source: FGR 12)	7.734E-04	7.734E-04	DCF1 ( 42)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1 ( 43)
A-1	Pb-211 (Source: FGR 12)	3.064E-01	3.064E-01	DCF1 ( 44)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1 ( 45)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1 ( 46)
A-1	Po-211 (Source: FGR 12)	4.764E-02	4.764E-02	DCF1 ( 47)
A-1	Po-213 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 48)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1 ( 49)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
A-1	Po-215 (Source: FGR 12)	1.016E-03	1.016E-03	DCF1( 50)
A-1	Po-218 (Source: FGR 12)	5.642E-05	5.642E-05	DCF1( 51)
A-1	Pr-144 (Source: FGR 12)	2.522E-01	2.522E-01	DCF1( 52)
A-1	Pr-144m (Source: FGR 12)	1.437E-02	1.437E-02	DCF1( 53)
A-1	Pu-238 (Source: FGR 12)	1.513E-04	1.513E-04	DCF1( 54)
A-1	Pu-239 (Source: FGR 12)	2.952E-04	2.952E-04	DCF1( 55)
A-1	Pu-241 (Source: FGR 12)	5.904E-06	5.904E-06	DCF1( 56)
A-1	Pu-242 (Source: FGR 12)	1.280E-04	1.280E-04	DCF1( 57)
A-1	Ra-223 (Source: FGR 12)	6.034E-01	6.034E-01	DCF1( 58)
A-1	Ra-225 (Source: FGR 12)	1.102E-02	1.102E-02	DCF1( 59)
A-1	Ra-226 (Source: FGR 12)	3.176E-02	3.176E-02	DCF1( 60)
A-1	Rh-106 (Source: FGR 12)	1.291E+00	1.291E+00	DCF1( 61)
A-1	Rn-219 (Source: FGR 12)	3.083E-01	3.083E-01	DCF1( 62)
A-1	Rn-222 (Source: FGR 12)	2.354E-03	2.354E-03	DCF1( 63)
A-1	Ru-106 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1( 64)
A-1	Sb-124 (Source: FGR 12)	1.169E+01	1.169E+01	DCF1( 65)
A-1	Sb-125 (Source: FGR 12)	2.447E+00	2.447E+00	DCF1( 66)
A-1	Sn-113 (Source: FGR 12)	2.970E-02	2.970E-02	DCF1( 67)
A-1	Sr-90 (Source: FGR 12)	7.043E-04	7.043E-04	DCF1( 68)
A-1	Tc-99 (Source: FGR 12)	1.255E-04	1.255E-04	DCF1( 69)
A-1	Te-125m (Source: FGR 12)	1.515E-02	1.515E-02	DCF1( 70)
A-1	Th-227 (Source: FGR 12)	5.212E-01	5.212E-01	DCF1( 71)
A-1	Th-229 (Source: FGR 12)	3.213E-01	3.213E-01	DCF1( 72)
A-1	Th-230 (Source: FGR 12)	1.209E-03	1.209E-03	DCF1( 73)
A-1	Th-231 (Source: FGR 12)	3.643E-02	3.643E-02	DCF1( 74)
A-1	Th-234 (Source: FGR 12)	2.410E-02	2.410E-02	DCF1( 75)
A-1	Tl-207 (Source: FGR 12)	1.980E-02	1.980E-02	DCF1( 76)
A-1	Tl-209 (Source: FGR 12)	1.293E+01	1.293E+01	DCF1( 77)
A-1	Tl-210 (Source: no data)	0.000E+00	-2.000E+00	DCF1( 78)
A-1	U-233 (Source: FGR 12)	1.397E-03	1.397E-03	DCF1( 79)
A-1	U-234 (Source: FGR 12)	4.017E-04	4.017E-04	DCF1( 80)
A-1	U-235 (Source: FGR 12)	7.211E-01	7.211E-01	DCF1( 81)
A-1	U-237 (Source: FGR 12)	5.306E-01	5.306E-01	DCF1( 82)
A-1	U-238 (Source: FGR 12)	1.031E-04	1.031E-04	DCF1( 83)
A-1	Y-90 (Source: FGR 12)	2.391E-02	2.391E-02	DCF1( 84)
A-1	Zn-65 (Source: FGR 12)	3.699E+00	3.699E+00	DCF1( 85)
A-1	Zr-95 (Source: FGR 12)	4.521E+00	4.521E+00	DCF1( 86)
B-1 Dose conversion factors for inhalation, mrem/pCi:				
B-1	Ac-227+D	6.724E+00	6.700E+00	DCF2( 1)
B-1	Ag-110m+D	8.030E-05	8.030E-05	DCF2( 2)
B-1	Am-241	4.440E-01	4.440E-01	DCF2( 3)
B-1	Am-243+D	4.400E-01	4.400E-01	DCF2( 4)
B-1	C-14 (p) (Class: ORGANIC)	2.090E-06	2.090E-06	DCF2( 5)
B-1	C-14 (g) (Class: CO2)	2.350E-08	2.350E-08	C14GInhDCF
B-1	Ce-144+D	3.740E-04	3.740E-04	DCF2( 6)
B-1	Cm-242	1.730E-02	1.730E-02	DCF2( 7)
B-1	Cm-243	3.070E-01	3.070E-01	DCF2( 10)
B-1	Co-57	9.070E-06	9.070E-06	DCF2( 12)
B-1	Co-58	1.090E-05	1.090E-05	DCF2( 13)

Dose Library: FGR 12 & FGR 11

			Current	Base	Parameter
Menu		Parameter	Value#	Case*	Name
AAA					
B-1	Co-60		2.190E-04	2.190E-04	DCF2( 14)
B-1	Cs-134		4.620E-05	4.620E-05	DCF2( 15)
B-1	Cs-137+D		3.190E-05	3.190E-05	DCF2( 16)
B-1	Eu-154		2.860E-04	2.860E-04	DCF2( 17)
B-1	Fe-55		2.690E-06	2.690E-06	DCF2( 18)
B-1	H-3		6.400E-08	6.400E-08	DCF2( 19)
B-1	I-129		1.740E-04	1.740E-04	DCF2( 20)
B-1	Mn-54		6.700E-06	6.700E-06	DCF2( 21)
B-1	Nb-94		4.140E-04	4.140E-04	DCF2( 22)
B-1	Nb-95		5.810E-06	5.810E-06	DCF2( 23)
B-1	Ni-59		2.700E-06	2.700E-06	DCF2( 24)
B-1	Ni-63		6.290E-06	6.290E-06	DCF2( 25)
B-1	Np-237+D		5.400E-01	5.400E-01	DCF2( 26)
B-1	Pa-231		1.280E+00	1.280E+00	DCF2( 27)
B-1	Pb-210+D		1.380E-02	1.360E-02	DCF2( 28)
B-1	Po-210		9.400E-03	9.400E-03	DCF2( 29)
B-1	Pu-238		3.920E-01	3.920E-01	DCF2( 30)
B-1	Pu-239		4.290E-01	4.290E-01	DCF2( 32)
B-1	Pu-241		8.250E-03	8.250E-03	DCF2( 33)
B-1	Pu-241+D		8.254E-03	8.250E-03	DCF2( 34)
B-1	Pu-242		4.110E-01	4.110E-01	DCF2( 35)
B-1	Ra-226+D		8.594E-03	8.580E-03	DCF2( 38)
B-1	Ru-106+D		4.770E-04	4.770E-04	DCF2( 39)
B-1	Sb-124		2.520E-05	2.520E-05	DCF2( 40)
B-1	Sb-125		1.220E-05	1.220E-05	DCF2( 41)
B-1	Sn-113+D		1.074E-05	1.070E-05	DCF2( 43)
B-1	Sr-90+D		1.308E-03	1.300E-03	DCF2( 44)
B-1	Tc-99		8.320E-06	8.320E-06	DCF2( 45)
B-1	Te-125m		7.290E-06	7.290E-06	DCF2( 46)
B-1	Th-229+D		2.169E+00	2.150E+00	DCF2( 47)
B-1	Th-230		3.260E-01	3.260E-01	DCF2( 48)
B-1	U-233		1.350E-01	1.350E-01	DCF2( 49)
B-1	U-234		1.320E-01	1.320E-01	DCF2( 50)
B-1	U-235+D		1.230E-01	1.230E-01	DCF2( 51)
B-1	U-238		1.180E-01	1.180E-01	DCF2( 52)
B-1	U-238+D		1.180E-01	1.180E-01	DCF2( 53)
B-1	Zn-65		2.040E-05	2.040E-05	DCF2( 54)
B-1	Zr-95+D		2.362E-05	2.360E-05	DCF2( 55)
D-1	Dose conversion factors for ingestion, mrem/pCi:				
D-1	Ac-227+D		1.480E-02	1.410E-02	DCF3( 1)
D-1	Ag-110m+D		1.080E-05	1.080E-05	DCF3( 2)
D-1	Am-241		3.640E-03	3.640E-03	DCF3( 3)
D-1	Am-243+D		3.623E-03	3.620E-03	DCF3( 4)
D-1	C-14		2.090E-06	2.090E-06	DCF3( 5)
D-1	Ce-144+D		2.112E-05	2.100E-05	DCF3( 6)
D-1	Cm-242		1.150E-04	1.150E-04	DCF3( 7)
D-1	Cm-243		2.510E-03	2.510E-03	DCF3( 10)
D-1	Co-57		1.180E-06	1.180E-06	DCF3( 12)
D-1	Co-58		3.580E-06	3.580E-06	DCF3( 13)

## Dose Library: FGR 12 &amp; FGR 11

	Current	Base	Parameter
Menu	Value#	Case*	Name
AAA			
D-1 Co-60	2.690E-05	2.690E-05	DCF3( 14)
D-1 Cs-134	7.330E-05	7.330E-05	DCF3( 15)
D-1 Cs-137+D	5.000E-05	5.000E-05	DCF3( 16)
D-1 Eu-154	9.550E-06	9.550E-06	DCF3( 17)
D-1 Fe-55	6.070E-07	6.070E-07	DCF3( 18)
D-1 H-3	6.400E-08	6.400E-08	DCF3( 19)
D-1 I-129	2.760E-04	2.760E-04	DCF3( 20)
D-1 Mn-54	2.770E-06	2.770E-06	DCF3( 21)
D-1 Nb-94	7.140E-06	7.140E-06	DCF3( 22)
D-1 Nb-95	2.570E-06	2.570E-06	DCF3( 23)
D-1 Ni-59	2.100E-07	2.100E-07	DCF3( 24)
D-1 Ni-63	5.770E-07	5.770E-07	DCF3( 25)
D-1 Np-237+D	4.444E-03	4.440E-03	DCF3( 26)
D-1 Pa-231	1.060E-02	1.060E-02	DCF3( 27)
D-1 Pb-210+D	5.376E-03	5.370E-03	DCF3( 28)
D-1 Po-210	1.900E-03	1.900E-03	DCF3( 29)
D-1 Pu-238	3.200E-03	3.200E-03	DCF3( 30)
D-1 Pu-239	3.540E-03	3.540E-03	DCF3( 32)
D-1 Pu-241	6.840E-05	6.840E-05	DCF3( 33)
D-1 Pu-241+D	7.157E-05	6.840E-05	DCF3( 34)
D-1 Pu-242	3.360E-03	3.360E-03	DCF3( 35)
D-1 Ra-226+D	1.321E-03	1.320E-03	DCF3( 38)
D-1 Ru-106+D	2.740E-05	2.740E-05	DCF3( 39)
D-1 Sb-124	1.010E-05	1.010E-05	DCF3( 40)
D-1 Sb-125	2.810E-06	2.810E-06	DCF3( 41)
D-1 Sn-113+D	3.185E-06	3.080E-06	DCF3( 43)
D-1 Sr-90+D	1.528E-04	1.420E-04	DCF3( 44)
D-1 Tc-99	1.460E-06	1.460E-06	DCF3( 45)
D-1 Te-125m	3.670E-06	3.670E-06	DCF3( 46)
D-1 Th-229+D	4.027E-03	3.530E-03	DCF3( 47)
D-1 Th-230	5.480E-04	5.480E-04	DCF3( 48)
D-1 U-233	2.890E-04	2.890E-04	DCF3( 49)
D-1 U-234	2.830E-04	2.830E-04	DCF3( 50)
D-1 U-235+D	2.673E-04	2.660E-04	DCF3( 51)
D-1 U-238	2.550E-04	2.550E-04	DCF3( 52)
D-1 U-238+D	2.687E-04	2.550E-04	DCF3( 53)
D-1 Zn-65	1.440E-05	1.440E-05	DCF3( 54)
D-1 Zr-95+D	3.786E-06	3.770E-06	DCF3( 55)
D-34 Food transfer factors:			
D-34 Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 1,1)
D-34 Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,2)
D-34 Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,3)
D-34			
D-34 Ag-110m+D , plant/soil concentration ratio, dimensionless	1.500E-01	1.500E-01	RTF( 2,1)
D-34 Ag-110m+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-03	3.000E-03	RTF( 2,2)
D-34 Ag-110m+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.500E-02	2.500E-02	RTF( 2,3)
D-34			

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 3,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 3,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 3,3)
D-34				
D-34	Am-243+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 4,1)
D-34	Am-243+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 4,2)
D-34	Am-243+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 4,3)
D-34				
D-34	C-14 , plant/soil concentration ratio, dimensionless	5.500E+00	5.500E+00	RTF( 5,1)
D-34	C-14 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.100E-02	3.100E-02	RTF( 5,2)
D-34	C-14 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.200E-02	1.200E-02	RTF( 5,3)
D-34				
D-34	Ce-144+D , plant/soil concentration ratio, dimensionless	2.000E-03	2.000E-03	RTF( 6,1)
D-34	Ce-144+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 6,2)
D-34	Ce-144+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-05	5.000E-05	RTF( 6,3)
D-34				
D-34	Cm-242 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 7,1)
D-34	Cm-242 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 7,2)
D-34	Cm-242 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 7,3)
D-34				
D-34	Cm-243 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 10,1)
D-34	Cm-243 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 10,2)
D-34	Cm-243 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 10,3)
D-34				
D-34	Co-57 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 12,1)
D-34	Co-57 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 12,2)
D-34	Co-57 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 12,3)
D-34				
D-34	Co-58 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 13,1)
D-34	Co-58 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 13,2)
D-34	Co-58 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 13,3)
D-34				
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 14,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 14,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 14,3)
D-34				
D-34	Cs-134 , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 15,1)
D-34	Cs-134 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 15,2)
D-34	Cs-134 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 15,3)
D-34				
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 16,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 16,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 16,3)
D-34				
D-34	Eu-154 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 17,1)
D-34	Eu-154 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 17,2)
D-34	Eu-154 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-05	5.000E-05	RTF( 17,3)
D-34				

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Fe-55 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 18,1)
D-34	Fe-55 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 18,2)
D-34	Fe-55 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 18,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF( 19,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF( 19,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 19,3)
D-34				
D-34	I-129 , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 20,1)
D-34	I-129 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 20,2)
D-34	I-129 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 20,3)
D-34				
D-34	Mn-54 , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF( 21,1)
D-34	Mn-54 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-04	5.000E-04	RTF( 21,2)
D-34	Mn-54 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 21,3)
D-34				
D-34	Nb-94 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 22,1)
D-34	Nb-94 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-07	3.000E-07	RTF( 22,2)
D-34	Nb-94 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 22,3)
D-34				
D-34	Nb-95 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 23,1)
D-34	Nb-95 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-07	3.000E-07	RTF( 23,2)
D-34	Nb-95 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 23,3)
D-34				
D-34	Ni-59 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF( 24,1)
D-34	Ni-59 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 24,2)
D-34	Ni-59 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-02	2.000E-02	RTF( 24,3)
D-34				
D-34	Ni-63 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF( 25,1)
D-34	Ni-63 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 25,2)
D-34	Ni-63 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-02	2.000E-02	RTF( 25,3)
D-34				
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 26,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 26,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 26,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 27,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 27,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 27,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 28,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 28,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 28,3)
D-34				
D-34	Po-210 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 29,1)
D-34	Po-210 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 29,2)
D-34	Po-210 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.400E-04	3.400E-04	RTF( 29,3)
D-34				



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 30,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 30,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 30,3)
D-34				
D-34	Pu-239 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 32,1)
D-34	Pu-239 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 32,2)
D-34	Pu-239 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 32,3)
D-34				
D-34	Pu-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 33,1)
D-34	Pu-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 33,2)
D-34	Pu-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 33,3)
D-34				
D-34	Pu-241+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 34,1)
D-34	Pu-241+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 34,2)
D-34	Pu-241+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 34,3)
D-34				
D-34	Pu-242 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 35,1)
D-34	Pu-242 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 35,2)
D-34	Pu-242 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 35,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 38,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 38,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 38,3)
D-34				
D-34	Ru-106+D , plant/soil concentration ratio, dimensionless	3.000E-02	3.000E-02	RTF( 39,1)
D-34	Ru-106+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 39,2)
D-34	Ru-106+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.300E-06	3.300E-06	RTF( 39,3)
D-34				
D-34	Sb-124 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 40,1)
D-34	Sb-124 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 40,2)
D-34	Sb-124 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-04	1.000E-04	RTF( 40,3)
D-34				
D-34	Sb-125 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 41,1)
D-34	Sb-125 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 41,2)
D-34	Sb-125 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-04	1.000E-04	RTF( 41,3)
D-34				
D-34	Sn-113+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 43,1)
D-34	Sn-113+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-02	1.000E-02	RTF( 43,2)
D-34	Sn-113+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 43,3)
D-34				
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	3.000E-01	3.000E-01	RTF( 44,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-03	8.000E-03	RTF( 44,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 44,3)
D-34				
D-34	Tc-99 , plant/soil concentration ratio, dimensionless	5.000E+00	5.000E+00	RTF( 45,1)
D-34	Tc-99 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 45,2)
D-34	Tc-99 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 45,3)
D-34				

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-34	Te-125m , plant/soil concentration ratio, dimensionless	6.000E-01	6.000E-01	RTF( 46,1)
D-34	Te-125m , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 46,2)
D-34	Te-125m , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-04	5.000E-04	RTF( 46,3)
D-34				
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 47,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 47,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 47,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 48,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 48,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 48,3)
D-34				
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 49,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 49,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 49,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 50,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 50,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 50,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 51,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 51,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 51,3)
D-34				
D-34	U-238 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 52,1)
D-34	U-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 52,2)
D-34	U-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 52,3)
D-34				
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 53,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 53,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 53,3)
D-34				
D-34	Zn-65 , plant/soil concentration ratio, dimensionless	4.000E-01	4.000E-01	RTF( 54,1)
D-34	Zn-65 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-01	1.000E-01	RTF( 54,2)
D-34	Zn-65 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 54,3)
D-34				
D-34	Zr-95+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 55,1)
D-34	Zr-95+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-06	1.000E-06	RTF( 55,2)
D-34	Zr-95+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-07	6.000E-07	RTF( 55,3)
D-5				
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5				
D-5	Ag-110m+D , fish	5.000E+00	5.000E+00	BIOFAC( 2,1)
D-5	Ag-110m+D , crustacea and mollusks	7.700E+02	7.700E+02	BIOFAC( 2,2)
D-5				
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 3,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 3,2)
D-5				

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-5	Am-243+D , fish	3.000E+01	3.000E+01	BIOFAC ( 4,1)
D-5	Am-243+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 4,2)
D-5				
D-5	C-14 , fish	5.000E+04	5.000E+04	BIOFAC ( 5,1)
D-5	C-14 , crustacea and mollusks	9.100E+03	9.100E+03	BIOFAC ( 5,2)
D-5				
D-5	Ce-144+D , fish	3.000E+01	3.000E+01	BIOFAC ( 6,1)
D-5	Ce-144+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 6,2)
D-5				
D-5	Cm-242 , fish	3.000E+01	3.000E+01	BIOFAC ( 7,1)
D-5	Cm-242 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 7,2)
D-5				
D-5	Cm-243 , fish	3.000E+01	3.000E+01	BIOFAC ( 10,1)
D-5	Cm-243 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 10,2)
D-5				
D-5	Co-57 , fish	3.000E+02	3.000E+02	BIOFAC ( 12,1)
D-5	Co-57 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 12,2)
D-5				
D-5	Co-58 , fish	3.000E+02	3.000E+02	BIOFAC ( 13,1)
D-5	Co-58 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 13,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC ( 14,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC ( 14,2)
D-5				
D-5	Cs-134 , fish	2.000E+03	2.000E+03	BIOFAC ( 15,1)
D-5	Cs-134 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 15,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC ( 16,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 16,2)
D-5				
D-5	Eu-154 , fish	5.000E+01	5.000E+01	BIOFAC ( 17,1)
D-5	Eu-154 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC ( 17,2)
D-5				
D-5	Fe-55 , fish	2.000E+02	2.000E+02	BIOFAC ( 18,1)
D-5	Fe-55 , crustacea and mollusks	3.200E+03	3.200E+03	BIOFAC ( 18,2)
D-5				
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC ( 19,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC ( 19,2)
D-5				
D-5	I-129 , fish	4.000E+01	4.000E+01	BIOFAC ( 20,1)
D-5	I-129 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC ( 20,2)
D-5				
D-5	Mn-54 , fish	4.000E+02	4.000E+02	BIOFAC ( 21,1)
D-5	Mn-54 , crustacea and mollusks	9.000E+04	9.000E+04	BIOFAC ( 21,2)
D-5				
D-5	Nb-94 , fish	3.000E+02	3.000E+02	BIOFAC ( 22,1)
D-5	Nb-94 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 22,2)
D-5				
D-5	Nb-95 , fish	3.000E+02	3.000E+02	BIOFAC ( 23,1)
D-5	Nb-95 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC ( 23,2)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
AA				
D-5	Ni-59 , fish	1.000E+02	1.000E+02	BIOFAC( 24,1)
D-5	Ni-59 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 24,2)
D-5				
D-5	Ni-63 , fish	1.000E+02	1.000E+02	BIOFAC( 25,1)
D-5	Ni-63 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 25,2)
D-5				
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 26,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 26,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 27,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 27,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 28,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 28,2)
D-5				
D-5	Po-210 , fish	1.000E+02	1.000E+02	BIOFAC( 29,1)
D-5	Po-210 , crustacea and mollusks	2.000E+04	2.000E+04	BIOFAC( 29,2)
D-5				
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 30,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 30,2)
D-5				
D-5	Pu-239 , fish	3.000E+01	3.000E+01	BIOFAC( 32,1)
D-5	Pu-239 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 32,2)
D-5				
D-5	Pu-241 , fish	3.000E+01	3.000E+01	BIOFAC( 33,1)
D-5	Pu-241 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 33,2)
D-5				
D-5	Pu-241+D , fish	3.000E+01	3.000E+01	BIOFAC( 34,1)
D-5	Pu-241+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 34,2)
D-5				
D-5	Pu-242 , fish	3.000E+01	3.000E+01	BIOFAC( 35,1)
D-5	Pu-242 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 35,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC( 38,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 38,2)
D-5				
D-5	Ru-106+D , fish	1.000E+01	1.000E+01	BIOFAC( 39,1)
D-5	Ru-106+D , crustacea and mollusks	3.000E+02	3.000E+02	BIOFAC( 39,2)
D-5				
D-5	Sb-124 , fish	1.000E+02	1.000E+02	BIOFAC( 40,1)
D-5	Sb-124 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 40,2)
D-5				
D-5	Sb-125 , fish	1.000E+02	1.000E+02	BIOFAC( 41,1)
D-5	Sb-125 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 41,2)
D-5				
D-5	Sn-113+D , fish	3.000E+03	3.000E+03	BIOFAC( 43,1)
D-5	Sn-113+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 43,2)
D-5				
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC( 44,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 44,2)

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Dose Library: FGR 12 &amp; FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Tc-99 , fish	2.000E+01	2.000E+01	BIOFAC ( 45,1)
D-5	Tc-99 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC ( 45,2)
D-5				
D-5	Te-125m , fish	4.000E+02	4.000E+02	BIOFAC ( 46,1)
D-5	Te-125m , crustacea and mollusks	7.500E+01	7.500E+01	BIOFAC ( 46,2)
D-5				
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC ( 47,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC ( 47,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC ( 48,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC ( 48,2)
D-5				
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC ( 49,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 49,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC ( 50,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 50,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC ( 51,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 51,2)
D-5				
D-5	U-238 , fish	1.000E+01	1.000E+01	BIOFAC ( 52,1)
D-5	U-238 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 52,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC ( 53,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC ( 53,2)
D-5				
D-5	Zn-65 , fish	1.000E+03	1.000E+03	BIOFAC ( 54,1)
D-5	Zn-65 , crustacea and mollusks	1.000E+04	1.000E+04	BIOFAC ( 54,2)
D-5				
D-5	Zr-95+D , fish	3.000E+02	3.000E+02	BIOFAC ( 55,1)
D-5	Zr-95+D , crustacea and mollusks	6.700E+00	6.700E+00	BIOFAC ( 55,2)

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

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

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	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)
3					
R012	Initial principal radionuclide (pCi/g): Ag-110m	1.000E+00	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Am-241	1.000E+00	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): C-14	1.000E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Ce-144	1.000E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Cm-242	1.000E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Cm-243	1.000E+00	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): Co-57	1.000E+00	0.000E+00	---	S1(12)
R012	Initial principal radionuclide (pCi/g): Co-58	1.000E+00	0.000E+00	---	S1(13)
R012	Initial principal radionuclide (pCi/g): Co-60	1.000E+00	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.000E+00	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): Cs-137	1.000E+00	0.000E+00	---	S1(16)
R012	Initial principal radionuclide (pCi/g): Eu-154	1.000E+00	0.000E+00	---	S1(17)
R012	Initial principal radionuclide (pCi/g): Fe-55	1.000E+00	0.000E+00	---	S1(18)
R012	Initial principal radionuclide (pCi/g): H-3	1.000E+00	0.000E+00	---	S1(19)
R012	Initial principal radionuclide (pCi/g): I-129	1.000E+00	0.000E+00	---	S1(20)
R012	Initial principal radionuclide (pCi/g): Mn-54	1.000E+00	0.000E+00	---	S1(21)
R012	Initial principal radionuclide (pCi/g): Nb-94	1.000E+00	0.000E+00	---	S1(22)
R012	Initial principal radionuclide (pCi/g): Ni-59	1.000E+00	0.000E+00	---	S1(24)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(25)
R012	Initial principal radionuclide (pCi/g): Np-237	1.000E+00	0.000E+00	---	S1(26)
R012	Initial principal radionuclide (pCi/g): Pu-238	1.000E+00	0.000E+00	---	S1(30)
R012	Initial principal radionuclide (pCi/g): Pu-239	1.000E+00	0.000E+00	---	S1(32)
R012	Initial principal radionuclide (pCi/g): Pu-241	1.000E+00	0.000E+00	---	S1(33)
R012	Initial principal radionuclide (pCi/g): Pu-242	1.000E+00	0.000E+00	---	S1(35)
R012	Initial principal radionuclide (pCi/g): Ru-106	1.000E+00	0.000E+00	---	S1(39)
R012	Initial principal radionuclide (pCi/g): Sb-124	1.000E+00	0.000E+00	---	S1(40)
R012	Initial principal radionuclide (pCi/g): Sb-125	1.000E+00	0.000E+00	---	S1(41)
R012	Initial principal radionuclide (pCi/g): Sn-113	1.000E+00	0.000E+00	---	S1(43)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(44)
R012	Initial principal radionuclide (pCi/g): Tc-99	1.000E+00	0.000E+00	---	S1(45)
R012	Initial principal radionuclide (pCi/g): Zn-65	1.000E+00	0.000E+00	---	S1(54)
R012	Initial principal radionuclide (pCi/g): Zr-95	1.000E+00	0.000E+00	---	S1(55)
R012	Concentration in groundwater (pCi/L): Ag-110m	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 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
AA					
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1 ( 5)
R012	Concentration in groundwater (pCi/L): Ce-144	not used	0.000E+00	---	W1 ( 6)
R012	Concentration in groundwater (pCi/L): Cm-242	not used	0.000E+00	---	W1 ( 7)
R012	Concentration in groundwater (pCi/L): Cm-243	not used	0.000E+00	---	W1 (10)
R012	Concentration in groundwater (pCi/L): Co-57	not used	0.000E+00	---	W1 (12)
R012	Concentration in groundwater (pCi/L): Co-58	not used	0.000E+00	---	W1 (13)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1 (14)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1 (15)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1 (16)
R012	Concentration in groundwater (pCi/L): Eu-154	not used	0.000E+00	---	W1 (17)
R012	Concentration in groundwater (pCi/L): Fe-55	not used	0.000E+00	---	W1 (18)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1 (19)
R012	Concentration in groundwater (pCi/L): I-129	not used	0.000E+00	---	W1 (20)
R012	Concentration in groundwater (pCi/L): Mn-54	not used	0.000E+00	---	W1 (21)
R012	Concentration in groundwater (pCi/L): Nb-94	not used	0.000E+00	---	W1 (22)
R012	Concentration in groundwater (pCi/L): Ni-59	not used	0.000E+00	---	W1 (24)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1 (25)
R012	Concentration in groundwater (pCi/L): Np-237	not used	0.000E+00	---	W1 (26)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1 (30)
R012	Concentration in groundwater (pCi/L): Pu-239	not used	0.000E+00	---	W1 (32)
R012	Concentration in groundwater (pCi/L): Pu-241	not used	0.000E+00	---	W1 (33)
R012	Concentration in groundwater (pCi/L): Pu-242	not used	0.000E+00	---	W1 (35)
R012	Concentration in groundwater (pCi/L): Ru-106	not used	0.000E+00	---	W1 (39)
R012	Concentration in groundwater (pCi/L): Sb-124	not used	0.000E+00	---	W1 (40)
R012	Concentration in groundwater (pCi/L): Sb-125	not used	0.000E+00	---	W1 (41)
R012	Concentration in groundwater (pCi/L): Sn-113	not used	0.000E+00	---	W1 (43)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1 (44)
R012	Concentration in groundwater (pCi/L): Tc-99	not used	0.000E+00	---	W1 (45)
R012	Concentration in groundwater (pCi/L): Zn-65	not used	0.000E+00	---	W1 (54)
R012	Concentration in groundwater (pCi/L): Zr-95	not used	0.000E+00	---	W1 (55)
3					
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)	1.440E+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	4.380E+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)	8.000E+00	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	Romberg failures occurred	EPS
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
AA					
R014	Density of saturated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-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	4.050E+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
3 3 3 3 3					
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.700E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.440E+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	4.380E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
3 3 3 3 3					
R016	Distribution coefficients for Ag-110m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
3 3 3 3 3					
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 3)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
3 3 3 3 3					
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 5)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)
3 3 3 3 3					
R016	Distribution coefficients for Ce-144				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)



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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Cm-242				
R016	Contaminated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCC ( 7)
R016	Unsaturated zone 1 (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCU ( 7,1)
R016	Saturated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCS ( 7)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.260E-04	ALEACH ( 7)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK ( 7)
R016	Distribution coefficients for Cm-243				
R016	Contaminated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCC (10)
R016	Unsaturated zone 1 (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCU (10,1)
R016	Saturated zone (cm**3/g)	3-1.000E+00	3-1.000E+00	1.378E+03	DCNUCS (10)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.260E-04	ALEACH (10)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (10)
R016	Distribution coefficients for Co-57				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (12)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (12,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (12)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (12)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (12)
R016	Distribution coefficients for Co-58				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (13)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (13,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (13)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (13)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (13)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCC (14)
R016	Unsaturated zone 1 (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCU (14,1)
R016	Saturated zone (cm**3/g)	3 1.000E+03	3 1.000E+03	---	DCNUCS (14)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	1.736E-04	ALEACH (14)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (14)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCC (15)
R016	Unsaturated zone 1 (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCU (15,1)
R016	Saturated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCS (15)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	3.774E-05	ALEACH (15)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (15)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCC (16)
R016	Unsaturated zone 1 (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCU (16,1)
R016	Saturated zone (cm**3/g)	3 4.600E+03	3 4.600E+03	---	DCNUCS (16)
R016	Leach rate (/yr)	3 0.000E+00	3 0.000E+00	3.774E-05	ALEACH (16)
R016	Solubility constant	3 0.000E+00	3 0.000E+00	not used	SOLUBK (16)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Eu-154				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCC (17)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCU (17,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCS (17)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.104E-04	ALEACH (17)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (17)
R016	Distribution coefficients for Fe-55				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (18)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (18,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (18)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (18)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (18)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (19)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (19,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (19)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (19)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (19)
R016	Distribution coefficients for I-129				
R016	Contaminated zone (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCC (20)
R016	Unsaturated zone 1 (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCU (20,1)
R016	Saturated zone (cm**3/g)	1.000E-01	1.000E-01	---	DCNUCS (20)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.506E-01	ALEACH (20)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (20)
R016	Distribution coefficients for Mn-54				
R016	Contaminated zone (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCC (21)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCU (21,1)
R016	Saturated zone (cm**3/g)	2.000E+02	2.000E+02	---	DCNUCS (21)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.671E-04	ALEACH (21)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (21)
R016	Distribution coefficients for Nb-94				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (22)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (22,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (22)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (22)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (22)
R016	Distribution coefficients for Ni-59				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (24)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (24,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (24)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (24)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (24)

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Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC (25)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU (25,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS (25)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.736E-04	ALEACH (25)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (25)
R016	Distribution coefficients for Np-237				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCC (26)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCU (26,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCS (26)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.739E-04	ALEACH (26)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (26)
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (30)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (30,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (30)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (30)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (30)
R016	Distribution coefficients for Pu-239				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (32)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (32,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (32)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (32)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (32)
R016	Distribution coefficients for Pu-241				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (33)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (33,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (33)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (33)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (33)
R016	Distribution coefficients for Pu-242				
R016	Contaminated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCC (35)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCU (35,1)
R016	Saturated zone (cm**3/g)	2.000E+03	2.000E+03	---	DCNUCS (35)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.680E-05	ALEACH (35)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (35)
R016	Distribution coefficients for Ru-106				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (39)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (39,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (39)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (39)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (39)

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## Site-Specific Parameter Summary (continued)

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AA					
R016	Distribution coefficients for Sb-124				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (40)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (40,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (40)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)
R016	Distribution coefficients for Sb-125				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (41)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (41,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (41)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (41)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (41)
R016	Distribution coefficients for Sn-113				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (43)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (43,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (43)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (43)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (43)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC (44)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU (44,1)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS (44)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.746E-03	ALEACH (44)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (44)
R016	Distribution coefficients for Tc-99				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (45)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (45,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (45)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (45)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (45)
R016	Distribution coefficients for Zn-65				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (54)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (54,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (54)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (54)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (54)
R016	Distribution coefficients for Zr-95				
R016	Contaminated zone (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCC (55)
R016	Unsaturated zone 1 (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCU (55,1)
R016	Saturated zone (cm**3/g)	2.200E+03	2.200E+03	---	DCNUCS (55)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.891E-05	ALEACH (55)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (55)

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH ( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 1)
R016	Distribution coefficients for daughter Am-243				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 4)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 4,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.588E-03	ALEACH ( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 4)
R016	Distribution coefficients for daughter Nb-95				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (23)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (23,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (23)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (23)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (23)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (27)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (27,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (27)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (27)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (27)
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC (28)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU (28,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS (28)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.732E-03	ALEACH (28)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (28)
R016	Distribution coefficients for daughter Po-210				
R016	Contaminated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCC (29)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCU (29,1)
R016	Saturated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCS (29)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.700E-02	ALEACH (29)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (29)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC (38)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU (38,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS (38)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.473E-03	ALEACH (38)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (38)

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Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
AA					
R016	Distribution coefficients for daughter Te-125m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (46)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (46,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (46)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.063E-01	ALEACH (46)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (46)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (47)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (47,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (47)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.894E-06	ALEACH (47)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (47)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (48)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (48,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (48)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.894E-06	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (49)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (49,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (49)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (49)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (49)
R016	Distribution coefficients for daughter U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (50)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (50,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (50)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (50)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (50)
R016	Distribution coefficients for daughter U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (51)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (51,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (51)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (51)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (51)
R016	Distribution coefficients for daughter U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (52)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (52,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (52)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.457E-03	ALEACH (52)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (52)
R017	Inhalation rate (m**3/yr)	1.400E+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

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AA					
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)	6.000E-03	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)
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)	3.650E+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	1.000E+00	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	-1	0.500E+00	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

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AA					
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	1.000E+00	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
3 3 3 3 3					
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)
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
3 3 3 3 3					
C14	C-12 concentration in water (g/cm**3)	2.000E-05	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	3.000E-02	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	2.000E-02	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	9.800E-01	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	3.000E-01	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	7.000E-07	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	1.000E-10	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
3 3 3 3 3					
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)
3 3 3 3 3					



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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	2.000E-06	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	2.000E+00	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	code computed (time dependent)	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	code computed (time dependent)	DMFL
R021	Emanating power of Rn-222 gas	2.500E-01	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
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	active
Find peak pathway doses	active

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
AAAAAAAAAAAAAAAAAAAAAAAAAAAA		AAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Area:	10000.00 square meters	Ag-110m	1.000E+00
Thickness:	2.00 meters	Am-241	1.000E+00
Cover Depth:	0.00 meters	C-14	1.000E+00
		Ce-144	1.000E+00
		Cm-242	1.000E+00
		Cm-243	1.000E+00
		Co-57	1.000E+00
		Co-58	1.000E+00
		Co-60	1.000E+00
		Cs-134	1.000E+00
		Cs-137	1.000E+00
		Eu-154	1.000E+00
		Fe-55	1.000E+00
		H-3	1.000E+00
		I-129	1.000E+00
		Mn-54	1.000E+00
		Nb-94	1.000E+00
		Ni-59	1.000E+00
		Ni-63	1.000E+00
		Np-237	1.000E+00
		Pu-238	1.000E+00
		Pu-239	1.000E+00
		Pu-241	1.000E+00
		Pu-242	1.000E+00
		Ru-106	1.000E+00
		Sb-124	1.000E+00
		Sb-125	1.000E+00
		Sn-113	1.000E+00
		Sr-90	1.000E+00
		Tc-99	1.000E+00
		Zn-65	1.000E+00
		Zr-95	1.000E+00

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)

AA

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):	3.259E+00	5.630E+00	8.502E+00	4.079E+00	7.094E-01	3.985E-01	3.644E-01	1.515E-01
M(t):	1.303E-01	2.252E-01	3.401E-01	1.631E-01	2.837E-02	1.594E-02	1.458E-02	6.058E-03

Maximum TDOSE(t): 9.436E+00 mrem/yr at t = 5.05 ± 0.01 years

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 5.051E+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.
Nuclide	XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX	
Ag-110m	4.552E-06	0.0000	5.372E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.905E-07	0.0000	0.000E+00	0.0000	1.113E-10	0.0000
Am-241	2.406E-04	0.0000	5.967E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	3.081E-03	0.0003	0.000E+00	0.0000	7.533E-04	0.0001
C-14	1.619E-17	0.0000	1.527E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.826E-10	0.0000	0.000E+00	0.0000	9.362E-17	0.0000
Ce-144	1.353E-05	0.0000	3.918E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.236E-08	0.0000	0.000E+00	0.0000	3.406E-08	0.0000
Cm-242	4.585E-09	0.0000	2.727E-06	0.0000	8.551E-20	0.0000	0.000E+00	0.0000	2.798E-05	0.0000	0.000E+00	0.0000	3.427E-06	0.0000
Cm-243	2.908E-03	0.0003	3.813E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.856E-04	0.0001	0.000E+00	0.0000	4.801E-04	0.0001
Co-57	1.663E-05	0.0000	7.465E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.556E-05	0.0000	0.000E+00	0.0000	1.496E-09	0.0000
Co-58	1.304E-10	0.0000	6.038E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.221E-11	0.0000	0.000E+00	0.0000	3.054E-15	0.0000
Co-60	4.413E-02	0.0047	1.501E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.851E-02	0.0051	0.000E+00	0.0000	2.839E-06	0.0000
Cs-134	8.270E-03	0.0009	1.021E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.468E-02	0.0037	0.000E+00	0.0000	2.496E-06	0.0000
Cs-137	1.685E-02	0.0018	3.990E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.338E-01	0.0142	0.000E+00	0.0000	9.630E-06	0.0000
Eu-154	2.799E-02	0.0030	2.624E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.602E-04	0.0000	0.000E+00	0.0000	1.350E-06	0.0000
Fe-55	0.000E+00	0.0000	9.218E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.237E-05	0.0000	0.000E+00	0.0000	3.203E-08	0.0000
H-3	0.000E+00	0.0000	7.737E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.070E-07	0.0000	0.000E+00	0.0000	1.461E-12	0.0000
I-129	3.677E-06	0.0000	1.179E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.857E-03	0.0006	0.000E+00	0.0000	2.881E-06	0.0000
Mn-54	3.311E-04	0.0000	1.086E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.039E-05	0.0000	0.000E+00	0.0000	6.914E-09	0.0000
Nb-94	6.366E-04	0.0001	6.884E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.032E-09	0.0000	0.000E+00	0.0000	1.828E-08	0.0000
Ni-59	0.000E+00	0.0000	3.836E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.289E-04	0.0000	0.000E+00	0.0000	4.594E-08	0.0000
Ni-63	0.000E+00	0.0000	8.585E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.402E-04	0.0000	0.000E+00	0.0000	1.213E-07	0.0000
Np-237	6.219E-03	0.0007	7.651E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.595E-01	0.0275	0.000E+00	0.0000	9.695E-04	0.0001
Pu-238	8.590E-07	0.0000	5.333E-04	0.0001	2.318E-17	0.0000	0.000E+00	0.0000	5.480E-03	0.0006	0.000E+00	0.0000	6.704E-04	0.0001
Pu-239	1.688E-06	0.0000	6.097E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.333E-03	0.0007	0.000E+00	0.0000	7.748E-04	0.0001
Pu-241	2.013E-06	0.0000	1.376E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.186E-04	0.0000	0.000E+00	0.0000	1.751E-05	0.0000
Pu-242	7.541E-07	0.0000	5.842E-04	0.0001	5.076E-27	0.0000	0.000E+00	0.0000	6.012E-03	0.0006	0.000E+00	0.0000	7.355E-04	0.0001
Ru-106	1.994E-06	0.0000	1.862E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.363E-06	0.0000	0.000E+00	0.0000	1.647E-09	0.0000
Sb-124	1.327E-13	0.0000	7.218E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.387E-16	0.0000	0.000E+00	0.0000	4.455E-18	0.0000
Sb-125	4.098E-05	0.0000	5.902E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.393E-05	0.0000	0.000E+00	0.0000	2.407E-09	0.0000
Sn-113	6.702E-10	0.0000	1.232E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.823E-11	0.0000	0.000E+00	0.0000	5.628E-14	0.0000
Sr-90	1.178E-04	0.0000	1.579E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.838E-01	0.0725	0.000E+00	0.0000	2.840E-05	0.0000
Tc-99	8.427E-09	0.0000	1.384E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.114E-05	0.0000	0.000E+00	0.0000	3.739E-09	0.0000
Zn-65	8.586E-07	0.0000	1.193E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.954E-05	0.0000	0.000E+00	0.0000	1.297E-10	0.0000
Zr-95	3.743E-11	0.0000	2.502E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.221E-17	0.0000	0.000E+00	0.0000	9.484E-16	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.078E-01	0.0114	3.489E-03	0.0004	2.327E-17	0.0000	0.000E+00	0.0000	1.189E+00	0.1260	0.000E+00	0.0000	4.452E-03	0.0005

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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 = 5.051E+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.
Nuclide	XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX		XXXXXXXXXXXXXXXX	
Ag-110m	0.000E+00	0.0000	1.529E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.976E-04	0.0001	0.000E+00	0.0000	8.556E-04	0.0001
Am-241	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	4.672E-03	0.0005
C-14	0.000E+00	0.0000	5.967E-01	0.0632	0.000E+00	0.0000	0.000E+00	0.0000	1.664E-02	0.0018	0.000E+00	0.0000	6.133E-01	0.0650
Ce-144	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	1.363E-05	0.0000
Cm-242	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	3.414E-05	0.0000
Cm-243	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	4.555E-03	0.0005
Co-57	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	4.219E-05	0.0000
Co-58	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	1.826E-10	0.0000
Co-60	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	9.264E-02	0.0098
Cs-134	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	4.295E-02	0.0046
Cs-137	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	1.507E-01	0.0160
Eu-154	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	2.825E-02	0.0030
Fe-55	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	5.240E-05	0.0000
H-3	0.000E+00	0.0000	7.804E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.037E-04	0.0000	0.000E+00	0.0000	3.049E-04	0.0000
I-129	0.000E+00	0.0000	2.084E-01	0.0221	0.000E+00	0.0000	0.000E+00	0.0000	7.188E+00	0.7618	0.000E+00	0.0000	7.402E+00	0.7845
Mn-54	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	3.415E-04	0.0000
Nb-94	0.000E+00	0.0000	6.362E-02	0.0067	0.000E+00	0.0000	0.000E+00	0.0000	1.221E-05	0.0000	0.000E+00	0.0000	6.427E-02	0.0068
Ni-59	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	1.289E-04	0.0000
Ni-63	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	3.403E-04	0.0000
Np-237	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	2.674E-01	0.0283
Pu-238	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	6.685E-03	0.0007
Pu-239	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	7.720E-03	0.0008
Pu-241	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	1.519E-04	0.0000
Pu-242	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	7.333E-03	0.0008
Ru-106	0.000E+00	0.0000	1.039E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	7.010E-03	0.0007	0.000E+00	0.0000	8.052E-03	0.0009
Sb-124	0.000E+00	0.0000	4.048E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.012E-12	0.0000	0.000E+00	0.0000	1.219E-11	0.0000
Sb-125	0.000E+00	0.0000	4.440E-03	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	1.138E-02	0.0012	0.000E+00	0.0000	1.588E-02	0.0017
Sn-113	0.000E+00	0.0000	1.720E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.097E-06	0.0000	0.000E+00	0.0000	2.818E-06	0.0000
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	6.839E-01	0.0725
Tc-99	0.000E+00	0.0000	8.560E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	9.168E-04	0.0001	0.000E+00	0.0000	1.794E-03	0.0002
Zn-65	0.000E+00	0.0000	3.557E-03	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	2.719E-02	0.0029	0.000E+00	0.0000	3.081E-02	0.0033
Zr-95	0.000E+00	0.0000	9.087E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.174E-16	0.0000	0.000E+00	0.0000	3.834E-11	0.0000
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii
Total	0.000E+00	0.0000	8.788E-01	0.0931	0.000E+00	0.0000	0.000E+00	0.0000	7.252E+00	0.7686	0.000E+00	0.0000	9.436E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	4.456E-02	0.0137	5.259E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.571E-03	0.0017	0.000E+00	0.0000	1.089E-06	0.0000
Am-241	2.533E-04	0.0001	6.282E-04	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	3.243E-03	0.0010	0.000E+00	0.0000	7.931E-04	0.0002
C-14	1.888E-08	0.0000	1.780E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.496E-01	0.0766	0.000E+00	0.0000	1.092E-07	0.0000
Ce-144	1.216E-03	0.0004	3.521E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.604E-06	0.0000	0.000E+00	0.0000	3.061E-06	0.0000
Cm-242	5.167E-07	0.0000	1.387E-05	0.0000	4.266E-23	0.0000	0.000E+00	0.0000	3.440E-05	0.0000	0.000E+00	0.0000	1.452E-05	0.0000
Cm-243	3.290E-03	0.0010	4.313E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.879E-04	0.0003	0.000E+00	0.0000	5.430E-04	0.0002
Co-57	1.867E-03	0.0006	8.380E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.869E-03	0.0009	0.000E+00	0.0000	1.679E-07	0.0000
Co-58	9.099E-03	0.0028	4.213E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.643E-03	0.0011	0.000E+00	0.0000	2.131E-07	0.0000
Co-60	8.581E-02	0.0263	2.918E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.433E-02	0.0289	0.000E+00	0.0000	5.520E-06	0.0000
Cs-134	4.518E-02	0.0139	5.580E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.894E-01	0.0581	0.000E+00	0.0000	1.363E-05	0.0000
Cs-137	1.894E-02	0.0058	4.484E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.504E-01	0.0462	0.000E+00	0.0000	1.082E-05	0.0000
Eu-154	4.171E-02	0.0128	3.911E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.878E-04	0.0001	0.000E+00	0.0000	2.011E-06	0.0000
Fe-55	0.000E+00	0.0000	3.374E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.917E-04	0.0001	0.000E+00	0.0000	1.172E-07	0.0000
H-3	0.000E+00	0.0000	3.606E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.769E-03	0.0005	0.000E+00	0.0000	6.812E-09	0.0000
I-129	5.933E-05	0.0000	1.903E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.316E-02	0.0286	0.000E+00	0.0000	4.648E-05	0.0000
Mn-54	1.990E-02	0.0061	6.527E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.247E-04	0.0002	0.000E+00	0.0000	4.156E-07	0.0000
Nb-94	3.737E-02	0.0115	4.041E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.939E-08	0.0000	0.000E+00	0.0000	1.073E-06	0.0000
Ni-59	0.000E+00	0.0000	3.839E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.290E-04	0.0000	0.000E+00	0.0000	4.599E-08	0.0000
Ni-63	0.000E+00	0.0000	8.912E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.532E-04	0.0001	0.000E+00	0.0000	1.259E-07	0.0000
Np-237	6.240E-03	0.0019	7.677E-04	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	2.603E-01	0.0799	0.000E+00	0.0000	9.728E-04	0.0003
Pu-238	8.944E-07	0.0000	5.552E-04	0.0002	3.422E-20	0.0000	0.000E+00	0.0000	5.706E-03	0.0018	0.000E+00	0.0000	6.980E-04	0.0002
Pu-239	1.689E-06	0.0000	6.101E-04	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	6.337E-03	0.0019	0.000E+00	0.0000	7.752E-04	0.0002
Pu-241	3.059E-07	0.0000	1.195E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.223E-04	0.0000	0.000E+00	0.0000	1.525E-05	0.0000
Pu-242	7.544E-07	0.0000	5.845E-04	0.0002	1.063E-30	0.0000	0.000E+00	0.0000	6.015E-03	0.0018	0.000E+00	0.0000	7.358E-04	0.0002
Ru-106	3.772E-03	0.0012	3.521E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.502E-03	0.0008	0.000E+00	0.0000	3.115E-06	0.0000
Sb-124	1.305E-02	0.0040	7.103E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.828E-05	0.0000	0.000E+00	0.0000	4.384E-07	0.0000
Sb-125	8.508E-03	0.0026	1.178E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.702E-03	0.0005	0.000E+00	0.0000	4.626E-07	0.0000
Sn-113	2.627E-03	0.0008	4.830E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.224E-04	0.0001	0.000E+00	0.0000	2.206E-07	0.0000
Sr-90	1.367E-04	0.0000	1.834E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.937E-01	0.2436	0.000E+00	0.0000	3.297E-05	0.0000
Tc-99	4.947E-07	0.0000	8.122E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.207E-03	0.0004	0.000E+00	0.0000	2.195E-07	0.0000
Zn-65	9.532E-03	0.0029	1.324E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.364E-01	0.1953	0.000E+00	0.0000	1.439E-06	0.0000
Zr-95	1.206E-02	0.0037	1.013E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.303E-08	0.0000	0.000E+00	0.0000	3.286E-07	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	3.652E-01	0.1121	3.612E-03	0.0011	3.426E-20	0.0000	0.000E+00	0.0000	2.511E+00	0.7706	0.000E+00	0.0000	4.672E-03	0.0014

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	0.000E+00	0.0000	1.309E-03	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.156E-03	0.0010	0.000E+00	0.0000	5.459E-02	0.0168
Am-241	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	4.918E-03	0.0015
C-14	0.000E+00	0.0000	1.509E-01	0.0463	0.000E+00	0.0000	0.000E+00	0.0000	2.708E-03	0.0008	0.000E+00	0.0000	4.032E-01	0.1237
Ce-144	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	1.225E-03	0.0004
Cm-242	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	6.331E-05	0.0000
Cm-243	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	5.152E-03	0.0016
Co-57	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	4.737E-03	0.0015
Co-58	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	1.274E-02	0.0039
Co-60	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	1.801E-01	0.0553
Cs-134	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-01	0.0720
Cs-137	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	1.694E-01	0.0520
Eu-154	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	4.210E-02	0.0129
Fe-55	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	1.918E-04	0.0001
H-3	0.000E+00	0.0000	1.355E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.913E-05	0.0000	0.000E+00	0.0000	1.812E-03	0.0006
I-129	0.000E+00	0.0000	2.621E-03	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	2.024E-02	0.0062	0.000E+00	0.0000	1.161E-01	0.0356
Mn-54	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	2.053E-02	0.0063
Nb-94	0.000E+00	0.0000	4.809E-03	0.0015	0.000E+00	0.0000	0.000E+00	0.0000	5.068E-07	0.0000	0.000E+00	0.0000	4.218E-02	0.0129
Ni-59	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	1.290E-04	0.0000
Ni-63	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	3.533E-04	0.0001
Np-237	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	2.683E-01	0.0823
Pu-238	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	6.960E-03	0.0021
Pu-239	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	7.724E-03	0.0024
Pu-241	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	1.499E-04	0.0000
Pu-242	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	7.336E-03	0.0023
Ru-106	0.000E+00	0.0000	1.962E-03	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	7.085E-03	0.0022	0.000E+00	0.0000	1.532E-02	0.0047
Sb-124	0.000E+00	0.0000	6.999E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.284E-05	0.0000	0.000E+00	0.0000	1.327E-02	0.0041
Sb-125	0.000E+00	0.0000	1.065E-03	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	1.480E-03	0.0005	0.000E+00	0.0000	1.275E-02	0.0039
Sn-113	0.000E+00	0.0000	3.447E-03	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	1.103E-03	0.0003	0.000E+00	0.0000	7.400E-03	0.0023
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	7.939E-01	0.2436
Tc-99	0.000E+00	0.0000	6.469E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.728E-05	0.0000	0.000E+00	0.0000	1.310E-03	0.0004
Zn-65	0.000E+00	0.0000	3.420E-02	0.0105	0.000E+00	0.0000	0.000E+00	0.0000	1.378E-01	0.0423	0.000E+00	0.0000	8.180E-01	0.2510
Zr-95	0.000E+00	0.0000	5.842E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.457E-10	0.0000	0.000E+00	0.0000	1.206E-02	0.0037
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	2.005E-01	0.0615	0.000E+00	0.0000	0.000E+00	0.0000	1.737E-01	0.0533	0.000E+00	0.0000	3.259E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	7.223E-03	0.0013	8.526E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.371E-04	0.0002	0.000E+00	0.0000	1.766E-07	0.0000
Am-241	2.507E-04	0.0000	6.218E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	3.211E-03	0.0006	0.000E+00	0.0000	7.851E-04	0.0001
C-14	3.046E-10	0.0000	2.872E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.303E-03	0.0009	0.000E+00	0.0000	1.761E-09	0.0000
Ce-144	4.991E-04	0.0001	1.445E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.300E-06	0.0000	0.000E+00	0.0000	1.256E-06	0.0000
Cm-242	1.127E-07	0.0000	5.142E-06	0.0000	1.072E-21	0.0000	0.000E+00	0.0000	2.996E-05	0.0000	0.000E+00	0.0000	5.850E-06	0.0000
Cm-243	3.210E-03	0.0006	4.209E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.666E-04	0.0002	0.000E+00	0.0000	5.299E-04	0.0001
Co-57	7.332E-04	0.0001	3.291E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.127E-03	0.0002	0.000E+00	0.0000	6.593E-08	0.0000
Co-58	2.546E-04	0.0000	1.179E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.020E-04	0.0000	0.000E+00	0.0000	5.964E-09	0.0000
Co-60	7.522E-02	0.0134	2.558E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.269E-02	0.0147	0.000E+00	0.0000	4.839E-06	0.0000
Cs-134	3.228E-02	0.0057	3.987E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.354E-01	0.0240	0.000E+00	0.0000	9.741E-06	0.0000
Cs-137	1.851E-02	0.0033	4.382E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.470E-01	0.0261	0.000E+00	0.0000	1.058E-05	0.0000
Eu-154	3.854E-02	0.0068	3.614E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.583E-04	0.0001	0.000E+00	0.0000	1.858E-06	0.0000
Fe-55	0.000E+00	0.0000	2.609E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.482E-04	0.0000	0.000E+00	0.0000	9.067E-08	0.0000
H-3	0.000E+00	0.0000	6.783E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.566E-04	0.0001	0.000E+00	0.0000	1.281E-09	0.0000
I-129	3.421E-03	0.0000	1.097E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.448E-02	0.0097	0.000E+00	0.0000	2.680E-05	0.0000
Mn-54	8.844E-03	0.0016	2.901E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.777E-04	0.0000	0.000E+00	0.0000	1.847E-07	0.0000
Nb-94	1.669E-02	0.0030	1.804E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.705E-08	0.0000	0.000E+00	0.0000	4.792E-07	0.0000
Ni-59	0.000E+00	0.0000	3.839E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.290E-04	0.0000	0.000E+00	0.0000	4.598E-08	0.0000
Ni-63	0.000E+00	0.0000	8.846E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.506E-04	0.0001	0.000E+00	0.0000	1.250E-07	0.0000
Np-237	6.236E-03	0.0011	7.672E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.602E-01	0.0462	0.000E+00	0.0000	9.722E-04	0.0002
Pu-238	8.873E-07	0.0000	5.508E-04	0.0001	5.116E-19	0.0000	0.000E+00	0.0000	5.661E-03	0.0010	0.000E+00	0.0000	6.925E-04	0.0001
Pu-239	1.689E-06	0.0000	6.100E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.336E-03	0.0011	0.000E+00	0.0000	7.751E-04	0.0001
Pu-241	6.860E-07	0.0000	1.237E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.217E-04	0.0000	0.000E+00	0.0000	1.577E-05	0.0000
Pu-242	7.544E-07	0.0000	5.844E-04	0.0001	3.289E-29	0.0000	0.000E+00	0.0000	6.014E-03	0.0011	0.000E+00	0.0000	7.357E-04	0.0001
Ru-106	8.467E-04	0.0002	7.905E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.789E-04	0.0001	0.000E+00	0.0000	6.993E-07	0.0000
Sb-124	8.692E-05	0.0000	4.730E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.496E-07	0.0000	0.000E+00	0.0000	2.919E-09	0.0000
Sb-125	2.959E-03	0.0005	4.260E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.956E-04	0.0002	0.000E+00	0.0000	1.736E-07	0.0000
Sn-113	1.300E-04	0.0000	2.391E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.129E-05	0.0000	0.000E+00	0.0000	1.092E-08	0.0000
Sr-90	1.327E-04	0.0000	1.780E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.707E-01	0.1369	0.000E+00	0.0000	3.201E-05	0.0000
Tc-99	2.209E-07	0.0000	3.626E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.540E-04	0.0001	0.000E+00	0.0000	9.800E-08	0.0000
Zn-65	1.507E-03	0.0003	2.094E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.045E-01	0.0186	0.000E+00	0.0000	2.276E-07	0.0000
Zr-95	3.403E-04	0.0001	2.282E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.664E-10	0.0000	0.000E+00	0.0000	8.629E-09	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	2.145E-01	0.0381	3.576E-03	0.0006	5.127E-19	0.0000	0.000E+00	0.0000	1.588E+00	0.2821	0.000E+00	0.0000	4.602E-03	0.0008

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	0.000E+00	0.0000	4.653E-03	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	1.887E-02	0.0034	0.000E+00	0.0000	3.168E-02	0.0056
Am-241	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	4.868E-03	0.0009
C-14	0.000E+00	0.0000	5.837E-01	0.1037	0.000E+00	0.0000	0.000E+00	0.0000	1.566E-02	0.0028	0.000E+00	0.0000	6.047E-01	0.1074
Ce-144	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	5.028E-04	0.0001
Cm-242	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	4.106E-05	0.0000
Cm-243	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	5.028E-03	0.0009
Co-57	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	1.860E-03	0.0003
Co-58	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	3.566E-04	0.0001
Co-60	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	1.579E-01	0.0280
Cs-134	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	1.676E-01	0.0298
Cs-137	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	1.655E-01	0.0294
Eu-154	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	3.890E-02	0.0069
Fe-55	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	1.483E-04	0.0000
H-3	0.000E+00	0.0000	7.499E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.787E-04	0.0000	0.000E+00	0.0000	6.368E-04	0.0001
I-129	0.000E+00	0.0000	7.076E-02	0.0126	0.000E+00	0.0000	0.000E+00	0.0000	2.067E+00	0.3672	0.000E+00	0.0000	2.192E+00	0.3894
Mn-54	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	9.122E-03	0.0016
Nb-94	0.000E+00	0.0000	3.409E-02	0.0061	0.000E+00	0.0000	0.000E+00	0.0000	5.891E-06	0.0000	0.000E+00	0.0000	5.078E-02	0.0090
Ni-59	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	1.290E-04	0.0000
Ni-63	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	3.507E-04	0.0001
Np-237	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	2.681E-01	0.0476
Pu-238	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	6.905E-03	0.0012
Pu-239	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	7.723E-03	0.0014
Pu-241	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	1.505E-04	0.0000
Pu-242	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	7.335E-03	0.0013
Ru-106	0.000E+00	0.0000	8.636E-03	0.0015	0.000E+00	0.0000	0.000E+00	0.0000	5.202E-02	0.0092	0.000E+00	0.0000	6.208E-02	0.0110
Sb-124	0.000E+00	0.0000	4.270E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.182E-05	0.0000	0.000E+00	0.0000	2.020E-04	0.0000
Sb-125	0.000E+00	0.0000	6.441E-03	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	1.481E-02	0.0026	0.000E+00	0.0000	2.520E-02	0.0045
Sn-113	0.000E+00	0.0000	5.950E-03	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	3.313E-03	0.0006	0.000E+00	0.0000	9.405E-03	0.0017
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	7.709E-01	0.1369
Tc-99	0.000E+00	0.0000	4.586E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.409E-04	0.0001	0.000E+00	0.0000	1.454E-03	0.0003
Zn-65	0.000E+00	0.0000	1.196E-01	0.0212	0.000E+00	0.0000	0.000E+00	0.0000	8.119E-01	0.1442	0.000E+00	0.0000	1.038E+00	0.1843
Zr-95	0.000E+00	0.0000	5.638E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.185E-10	0.0000	0.000E+00	0.0000	3.459E-04	0.0001
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	8.343E-01	0.1482	0.000E+00	0.0000	0.000E+00	0.0000	2.984E+00	0.5301	0.000E+00	0.0000	5.630E+00	1.0000

\*Sum of all water independent and dependent pathways.



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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+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.
Ag-110m	1.899E-04	0.0000	2.241E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.463E-05	0.0000	0.000E+00	0.0000	4.641E-09	0.0000
Am-241	2.456E-04	0.0000	6.093E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	3.146E-03	0.0004	0.000E+00	0.0000	7.692E-04	0.0001
C-14	7.850E-14	0.0000	7.402E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.368E-06	0.0000	0.000E+00	0.0000	4.539E-13	0.0000
Ce-144	8.405E-05	0.0000	2.434E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.873E-07	0.0000	0.000E+00	0.0000	2.116E-07	0.0000
Cm-242	9.279E-09	0.0000	2.872E-06	0.0000	1.864E-20	0.0000	0.000E+00	0.0000	2.849E-05	0.0000	0.000E+00	0.0000	3.583E-06	0.0000
Cm-243	3.057E-03	0.0004	4.009E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.256E-04	0.0001	0.000E+00	0.0000	5.047E-04	0.0001
Co-57	1.131E-04	0.0000	5.075E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.738E-04	0.0000	0.000E+00	0.0000	1.017E-08	0.0000
Co-58	1.994E-07	0.0000	9.236E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.987E-08	0.0000	0.000E+00	0.0000	4.671E-12	0.0000
Co-60	5.780E-02	0.0068	1.966E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.354E-02	0.0075	0.000E+00	0.0000	3.718E-06	0.0000
Cs-134	1.648E-02	0.0019	2.035E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.910E-02	0.0081	0.000E+00	0.0000	4.972E-06	0.0000
Cs-137	1.767E-02	0.0021	4.184E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.403E-01	0.0165	0.000E+00	0.0000	1.010E-05	0.0000
Eu-154	3.291E-02	0.0039	3.086E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.060E-04	0.0000	0.000E+00	0.0000	1.587E-06	0.0000
Fe-55	0.000E+00	0.0000	1.561E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.868E-05	0.0000	0.000E+00	0.0000	5.424E-08	0.0000
H-3	0.000E+00	0.0000	2.394E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.259E-05	0.0000	0.000E+00	0.0000	4.521E-11	0.0000
I-129	1.137E-05	0.0000	3.648E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.811E-02	0.0021	0.000E+00	0.0000	8.910E-06	0.0000
Mn-54	1.747E-03	0.0002	5.729E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.483E-05	0.0000	0.000E+00	0.0000	3.647E-08	0.0000
Nb-94	3.326E-03	0.0004	3.597E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.392E-09	0.0000	0.000E+00	0.0000	9.553E-08	0.0000
Ni-59	0.000E+00	0.0000	3.837E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.289E-04	0.0000	0.000E+00	0.0000	4.596E-08	0.0000
Ni-63	0.000E+00	0.0000	8.717E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.454E-04	0.0000	0.000E+00	0.0000	1.231E-07	0.0000
Np-237	6.227E-03	0.0007	7.661E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.598E-01	0.0306	0.000E+00	0.0000	9.709E-04	0.0001
Pu-238	8.732E-07	0.0000	5.421E-04	0.0001	5.927E-18	0.0000	0.000E+00	0.0000	5.571E-03	0.0007	0.000E+00	0.0000	6.815E-04	0.0001
Pu-239	1.689E-06	0.0000	6.098E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.335E-03	0.0007	0.000E+00	0.0000	7.749E-04	0.0001
Pu-241	1.382E-06	0.0000	1.311E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.202E-04	0.0000	0.000E+00	0.0000	1.669E-05	0.0000
Pu-242	7.542E-07	0.0000	5.843E-04	0.0001	8.254E-28	0.0000	0.000E+00	0.0000	6.013E-03	0.0007	0.000E+00	0.0000	7.356E-04	0.0001
Ru-106	4.267E-05	0.0000	3.984E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.918E-05	0.0000	0.000E+00	0.0000	3.524E-08	0.0000
Sb-124	3.854E-09	0.0000	2.097E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.437E-11	0.0000	0.000E+00	0.0000	1.294E-13	0.0000
Sb-125	3.576E-04	0.0000	5.151E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.216E-04	0.0000	0.000E+00	0.0000	2.101E-08	0.0000
Sn-113	3.185E-07	0.0000	5.856E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.767E-08	0.0000	0.000E+00	0.0000	2.674E-11	0.0000
Sr-90	1.251E-04	0.0000	1.678E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.265E-01	0.0854	0.000E+00	0.0000	3.018E-05	0.0000
Tc-99	4.403E-08	0.0000	7.230E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.104E-04	0.0000	0.000E+00	0.0000	1.954E-08	0.0000
Zn-65	3.769E-05	0.0000	5.236E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.614E-03	0.0003	0.000E+00	0.0000	5.692E-09	0.0000
Zr-95	1.251E-07	0.0000	8.362E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.079E-13	0.0000	0.000E+00	0.0000	3.169E-12	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	1.404E-01	0.0165	3.531E-03	0.0004	5.946E-18	0.0000	0.000E+00	0.0000	1.303E+00	0.1533	0.000E+00	0.0000	4.517E-03	0.0005

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	0.000E+00	0.0000	1.121E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	5.054E-03	0.0006	0.000E+00	0.0000	6.390E-03	0.0008
Am-241	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	4.770E-03	0.0006
C-14	0.000E+00	0.0000	6.060E-01	0.0713	0.000E+00	0.0000	0.000E+00	0.0000	1.664E-02	0.0020	0.000E+00	0.0000	6.226E-01	0.0732
Ce-144	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	8.467E-05	0.0000
Cm-242	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	3.495E-05	0.0000
Cm-243	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	4.788E-03	0.0006
Co-57	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	2.868E-04	0.0000
Co-58	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	2.793E-07	0.0000
Co-60	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	1.214E-01	0.0143
Cs-134	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	8.558E-02	0.0101
Cs-137	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	1.580E-01	0.0186
Eu-154	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	3.322E-02	0.0039
Fe-55	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	8.874E-05	0.0000
H-3	0.000E+00	0.0000	8.741E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.378E-04	0.0000	0.000E+00	0.0000	3.512E-04	0.0000
I-129	0.000E+00	0.0000	1.738E-01	0.0204	0.000E+00	0.0000	0.000E+00	0.0000	5.898E+00	0.6937	0.000E+00	0.0000	6.089E+00	0.7162
Mn-54	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	1.801E-03	0.0002
Nb-94	0.000E+00	0.0000	5.890E-02	0.0069	0.000E+00	0.0000	0.000E+00	0.0000	1.116E-05	0.0000	0.000E+00	0.0000	6.223E-02	0.0073
Ni-59	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	1.290E-04	0.0000
Ni-63	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	3.455E-04	0.0000
Np-237	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	2.678E-01	0.0315
Pu-238	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	6.795E-03	0.0008
Pu-239	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	7.721E-03	0.0009
Pu-241	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	1.514E-04	0.0000
Pu-242	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	7.334E-03	0.0009
Ru-106	0.000E+00	0.0000	3.918E-03	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	2.611E-02	0.0031	0.000E+00	0.0000	3.010E-02	0.0035
Sb-124	0.000E+00	0.0000	2.034E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.977E-08	0.0000	0.000E+00	0.0000	6.398E-08	0.0000
Sb-125	0.000E+00	0.0000	6.852E-03	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	1.734E-02	0.0020	0.000E+00	0.0000	2.467E-02	0.0029
Sn-113	0.000E+00	0.0000	1.427E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.985E-05	0.0000	0.000E+00	0.0000	2.329E-04	0.0000
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	7.266E-01	0.0855
Tc-99	0.000E+00	0.0000	7.924E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.373E-04	0.0001	0.000E+00	0.0000	1.740E-03	0.0002
Zn-65	0.000E+00	0.0000	2.745E-02	0.0032	0.000E+00	0.0000	0.000E+00	0.0000	2.073E-01	0.0244	0.000E+00	0.0000	2.374E-01	0.0279
Zr-95	0.000E+00	0.0000	3.039E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.925E-13	0.0000	0.000E+00	0.0000	1.281E-07	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	8.789E-01	0.1034	0.000E+00	0.0000	0.000E+00	0.0000	6.171E+00	0.7259	0.000E+00	0.0000	8.502E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	5.588E-10	0.0000	6.596E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.250E-11	0.0000	0.000E+00	0.0000	1.366E-14	0.0000
Am-241	2.287E-04	0.0001	5.673E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.930E-03	0.0007	0.000E+00	0.0000	7.163E-04	0.0002
C-14	1.941E-26	0.0000	1.831E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.398E-19	0.0000	0.000E+00	0.0000	1.122E-25	0.0000
Ce-144	1.647E-07	0.0000	4.770E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.592E-10	0.0000	0.000E+00	0.0000	4.147E-10	0.0000
Cm-242	4.216E-09	0.0000	2.617E-06	0.0000	6.533E-19	0.0000	0.000E+00	0.0000	2.690E-05	0.0000	0.000E+00	0.0000	3.290E-06	0.0000
Cm-243	2.576E-03	0.0006	3.379E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.969E-04	0.0002	0.000E+00	0.0000	4.255E-04	0.0001
Co-57	1.628E-07	0.0000	7.308E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.502E-07	0.0000	0.000E+00	0.0000	1.464E-11	0.0000
Co-58	2.682E-18	0.0000	1.242E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.074E-18	0.0000	0.000E+00	0.0000	6.281E-23	0.0000
Co-60	2.300E-02	0.0056	7.821E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.528E-02	0.0062	0.000E+00	0.0000	1.479E-06	0.0000
Cs-134	1.566E-03	0.0004	1.934E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.568E-03	0.0016	0.000E+00	0.0000	4.726E-07	0.0000
Cs-137	1.503E-02	0.0037	3.558E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.193E-01	0.0293	0.000E+00	0.0000	8.588E-06	0.0000
Eu-154	1.893E-02	0.0046	1.775E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.760E-04	0.0000	0.000E+00	0.0000	9.129E-07	0.0000
Fe-55	0.000E+00	0.0000	2.585E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.468E-05	0.0000	0.000E+00	0.0000	8.982E-09	0.0000
H-3	0.000E+00	0.0000	1.926E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.014E-10	0.0000	0.000E+00	0.0000	3.638E-16	0.0000
I-129	2.410E-07	0.0000	7.730E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.838E-04	0.0001	0.000E+00	0.0000	1.888E-07	0.0000
Mn-54	5.979E-06	0.0000	1.961E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.877E-07	0.0000	0.000E+00	0.0000	1.249E-10	0.0000
Nb-94	1.176E-05	0.0000	1.272E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.907E-11	0.0000	0.000E+00	0.0000	3.379E-10	0.0000
Ni-59	0.000E+00	0.0000	3.832E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.288E-04	0.0000	0.000E+00	0.0000	4.590E-08	0.0000
Ni-63	0.000E+00	0.0000	8.277E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.280E-04	0.0001	0.000E+00	0.0000	1.169E-07	0.0000
Np-237	6.198E-03	0.0015	7.625E-04	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	2.586E-01	0.0634	0.000E+00	0.0000	9.663E-04	0.0002
Pu-238	8.258E-07	0.0000	5.126E-04	0.0001	1.533E-16	0.0000	0.000E+00	0.0000	5.268E-03	0.0013	0.000E+00	0.0000	6.444E-04	0.0002
Pu-239	1.687E-06	0.0000	6.093E-04	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.330E-03	0.0016	0.000E+00	0.0000	7.743E-04	0.0002
Pu-241	3.240E-06	0.0000	1.495E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.146E-04	0.0000	0.000E+00	0.0000	1.897E-05	0.0000
Pu-242	7.538E-07	0.0000	5.839E-04	0.0001	6.361E-26	0.0000	0.000E+00	0.0000	6.010E-03	0.0015	0.000E+00	0.0000	7.352E-04	0.0002
Ru-106	1.226E-09	0.0000	1.145E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.384E-10	0.0000	0.000E+00	0.0000	1.013E-12	0.0000
Sb-124	2.237E-24	0.0000	1.217E-30	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.414E-26	0.0000	0.000E+00	0.0000	7.512E-29	0.0000
Sb-125	2.195E-07	0.0000	3.162E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.461E-08	0.0000	0.000E+00	0.0000	1.289E-11	0.0000
Sn-113	2.317E-16	0.0000	4.261E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.013E-17	0.0000	0.000E+00	0.0000	1.946E-20	0.0000
Sr-90	1.017E-04	0.0000	1.364E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.907E-01	0.1448	0.000E+00	0.0000	2.454E-05	0.0000
Tc-99	1.558E-10	0.0000	2.557E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.907E-07	0.0000	0.000E+00	0.0000	6.911E-11	0.0000
Zn-65	9.317E-11	0.0000	1.294E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.461E-09	0.0000	0.000E+00	0.0000	1.407E-14	0.0000
Zr-95	1.168E-19	0.0000	7.805E-26	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.941E-25	0.0000	0.000E+00	0.0000	2.958E-24	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	6.765E-02	0.0166	3.393E-03	0.0008	1.539E-16	0.0000	0.000E+00	0.0000	1.023E+00	0.2508	0.000E+00	0.0000	4.321E-03	0.0011

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	0.000E+00	0.0000	2.859E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.445E-07	0.0000	0.000E+00	0.0000	1.738E-07	0.0000
Am-241	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	4.443E-03	0.0011
C-14	0.000E+00	0.0000	7.830E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.462E-10	0.0000	0.000E+00	0.0000	8.177E-09	0.0000
Ce-144	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	1.660E-07	0.0000
Cm-242	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	3.281E-05	0.0000
Cm-243	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	4.037E-03	0.0010
Co-57	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	4.130E-07	0.0000
Co-58	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	3.756E-18	0.0000
Co-60	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	4.828E-02	0.0118
Cs-134	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	8.135E-03	0.0020
Cs-137	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	1.344E-01	0.0329
Eu-154	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	1.911E-02	0.0047
Fe-55	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	1.469E-05	0.0000
H-3	0.000E+00	0.0000	4.268E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.855E-07	0.0000	0.000E+00	0.0000	1.861E-07	0.0000
I-129	0.000E+00	0.0000	7.799E-02	0.0191	0.000E+00	0.0000	0.000E+00	0.0000	2.901E+00	0.7111	0.000E+00	0.0000	2.979E+00	0.7304
Mn-54	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	6.167E-06	0.0000
Nb-94	0.000E+00	0.0000	1.679E-03	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.565E-07	0.0000	0.000E+00	0.0000	1.691E-03	0.0004
Ni-59	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	1.288E-04	0.0000
Ni-63	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	3.281E-04	0.0001
Np-237	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	2.665E-01	0.0653
Pu-238	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	6.426E-03	0.0016
Pu-239	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	7.715E-03	0.0019
Pu-241	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	1.518E-04	0.0000
Pu-242	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	7.329E-03	0.0018
Ru-106	0.000E+00	0.0000	9.536E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.125E-06	0.0000	0.000E+00	0.0000	8.081E-06	0.0000
Sb-124	0.000E+00	0.0000	1.204E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.642E-22	0.0000	0.000E+00	0.0000	3.868E-22	0.0000
Sb-125	0.000E+00	0.0000	3.452E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.793E-05	0.0000	0.000E+00	0.0000	1.327E-04	0.0000
Sn-113	0.000E+00	0.0000	9.681E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.841E-13	0.0000	0.000E+00	0.0000	1.652E-12	0.0000
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	5.909E-01	0.1449
Tc-99	0.000E+00	0.0000	2.259E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.683E-05	0.0000	0.000E+00	0.0000	4.981E-05	0.0000
Zn-65	0.000E+00	0.0000	5.891E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.989E-06	0.0000	0.000E+00	0.0000	5.584E-06	0.0000
Zr-95	0.000E+00	0.0000	2.820E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.642E-25	0.0000	0.000E+00	0.0000	1.196E-19	0.0000
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	7.973E-02	0.0195	0.000E+00	0.0000	0.000E+00	0.0000	2.901E+00	0.7112	0.000E+00	0.0000	4.079E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	8.790E-26	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.140E-26	0.0000	0.000E+00	0.0000	2.149E-30	0.0000
Am-241	1.866E-04	0.0003	4.627E-04	0.0007	0.000E+00	0.0000	0.000E+00	0.0000	2.391E-03	0.0034	0.000E+00	0.0000	5.842E-04	0.0008
C-14	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
Ce-144	3.023E-15	0.0000	8.753E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.393E-17	0.0000	0.000E+00	0.0000	7.610E-18	0.0000
Cm-242	3.594E-09	0.0000	2.231E-06	0.0000	1.667E-17	0.0000	0.000E+00	0.0000	2.293E-05	0.0000	0.000E+00	0.0000	2.805E-06	0.0000
Cm-243	1.580E-03	0.0022	2.075E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	4.303E-04	0.0006	0.000E+00	0.0000	2.613E-04	0.0004
Co-57	1.238E-15	0.0000	5.556E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.902E-15	0.0000	0.000E+00	0.0000	1.113E-19	0.0000
Co-58	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
Co-60	1.652E-03	0.0023	5.617E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.816E-03	0.0026	0.000E+00	0.0000	1.063E-07	0.0000
Cs-134	1.883E-06	0.0000	2.325E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.894E-06	0.0000	0.000E+00	0.0000	5.681E-10	0.0000
Cs-137	9.460E-03	0.0133	2.240E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.512E-02	0.1059	0.000E+00	0.0000	5.406E-06	0.0000
Eu-154	3.902E-03	0.0055	3.658E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.628E-05	0.0001	0.000E+00	0.0000	1.881E-07	0.0000
Fe-55	0.000E+00	0.0000	1.517E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.620E-08	0.0000	0.000E+00	0.0000	5.272E-11	0.0000
H-3	0.000E+00	0.0000	4.291E-28	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.265E-25	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
I-129	3.977E-12	0.0000	1.275E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.333E-09	0.0000	0.000E+00	0.0000	3.116E-12	0.0000
Mn-54	5.398E-13	0.0000	1.771E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.695E-14	0.0000	0.000E+00	0.0000	1.127E-17	0.0000
Nb-94	1.166E-12	0.0000	1.261E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.890E-18	0.0000	0.000E+00	0.0000	3.348E-17	0.0000
Ni-59	0.000E+00	0.0000	3.818E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.283E-04	0.0002	0.000E+00	0.0000	4.573E-08	0.0000
Ni-63	0.000E+00	0.0000	7.139E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.829E-04	0.0004	0.000E+00	0.0000	1.009E-07	0.0000
Np-237	6.115E-03	0.0086	7.523E-04	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	2.551E-01	0.3596	0.000E+00	0.0000	9.534E-04	0.0013
Pu-238	7.040E-07	0.0000	4.370E-04	0.0006	3.487E-15	0.0000	0.000E+00	0.0000	4.490E-03	0.0063	0.000E+00	0.0000	5.493E-04	0.0008
Pu-239	1.683E-06	0.0000	6.079E-04	0.0009	0.000E+00	0.0000	0.000E+00	0.0000	6.315E-03	0.0089	0.000E+00	0.0000	7.725E-04	0.0011
Pu-241	5.426E-06	0.0000	1.609E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.740E-05	0.0001	0.000E+00	0.0000	2.035E-05	0.0000
Pu-242	7.524E-07	0.0000	5.829E-04	0.0008	4.330E-24	0.0000	0.000E+00	0.0000	5.999E-03	0.0085	0.000E+00	0.0000	7.339E-04	0.0010
Ru-106	1.296E-22	0.0000	1.210E-26	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.859E-23	0.0000	0.000E+00	0.0000	1.070E-25	0.0000
Sb-124	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
Sb-125	1.460E-16	0.0000	2.103E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.961E-17	0.0000	0.000E+00	0.0000	8.574E-21	0.0000
Sn-113	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
Sr-90	5.634E-05	0.0001	7.556E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.271E-01	0.4612	0.000E+00	0.0000	1.359E-05	0.0000
Tc-99	1.544E-17	0.0000	2.536E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.873E-14	0.0000	0.000E+00	0.0000	6.852E-18	0.0000
Zn-65	8.903E-27	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.174E-25	0.0000	0.000E+00	0.0000	1.345E-30	0.0000
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	2.296E-02	0.0324	3.070E-03	0.0043	3.503E-15	0.0000	0.000E+00	0.0000	6.794E-01	0.9577	0.000E+00	0.0000	3.897E-03	0.0055

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	0.000E+00	0.0000	4.477E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.263E-23	0.0000	0.000E+00	0.0000	2.721E-23	0.0000
Am-241	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	3.625E-03	0.0051
C-14	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
Ce-144	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	3.045E-15	0.0000
Cm-242	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	2.797E-05	0.0000
Cm-243	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	2.479E-03	0.0035
Co-57	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	3.141E-15	0.0000
Co-58	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
Co-60	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	3.468E-03	0.0049
Cs-134	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	9.777E-06	0.0000
Cs-137	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	8.459E-02	0.1192
Eu-154	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	3.938E-03	0.0056
Fe-55	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	8.625E-08	0.0000
H-3	0.000E+00	0.0000	1.046E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.552E-22	0.0000	0.000E+00	0.0000	4.564E-22	0.0000
I-129	0.000E+00	0.0000	1.282E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.768E-05	0.0001	0.000E+00	0.0000	4.897E-05	0.0001
Mn-54	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	5.568E-13	0.0000
Nb-94	0.000E+00	0.0000	1.656E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.516E-14	0.0000	0.000E+00	0.0000	1.668E-10	0.0000
Ni-59	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	1.283E-04	0.0002
Ni-63	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	2.830E-04	0.0004
Np-237	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	2.629E-01	0.3707
Pu-238	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	5.477E-03	0.0077
Pu-239	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	7.697E-03	0.0109
Pu-241	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	1.393E-04	0.0002
Pu-242	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	7.317E-03	0.0103
Ru-106	0.000E+00	0.0000	1.003E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.495E-19	0.0000	0.000E+00	0.0000	8.500E-19	0.0000
Sb-124	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
Sb-125	0.000E+00	0.0000	2.285E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.482E-14	0.0000	0.000E+00	0.0000	8.786E-14	0.0000
Sn-113	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
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	3.272E-01	0.4613
Tc-99	0.000E+00	0.0000	2.230E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.648E-12	0.0000	0.000E+00	0.0000	4.916E-12	0.0000
Zn-65	0.000E+00	0.0000	5.602E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.744E-22	0.0000	0.000E+00	0.0000	5.311E-22	0.0000
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	1.282E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.768E-05	0.0001	0.000E+00	0.0000	7.094E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	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
Am-241	9.152E-05	0.0002	2.267E-04	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	1.176E-03	0.0030	0.000E+00	0.0000	2.862E-04	0.0007
C-14	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
Ce-144	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
Cm-242	2.057E-09	0.0000	1.276E-06	0.0000	4.836E-16	0.0000	0.000E+00	0.0000	1.311E-05	0.0000	0.000E+00	0.0000	1.604E-06	0.0000
Cm-243	2.854E-04	0.0007	3.807E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.379E-05	0.0002	0.000E+00	0.0000	4.794E-05	0.0001
Co-57	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
Co-58	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
Co-60	1.640E-07	0.0000	5.578E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.803E-07	0.0000	0.000E+00	0.0000	1.055E-11	0.0000
Cs-134	1.133E-16	0.0000	1.400E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.752E-16	0.0000	0.000E+00	0.0000	3.420E-20	0.0000
Cs-137	1.872E-03	0.0047	4.432E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.487E-02	0.0373	0.000E+00	0.0000	1.070E-06	0.0000
Eu-154	1.550E-05	0.0000	1.453E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.441E-07	0.0000	0.000E+00	0.0000	7.473E-10	0.0000
Fe-55	0.000E+00	0.0000	2.351E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.336E-15	0.0000	0.000E+00	0.0000	8.170E-19	0.0000
H-3	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
I-129	7.259E-29	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.156E-25	0.0000	0.000E+00	0.0000	5.687E-29	0.0000
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	3.770E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.267E-04	0.0003	0.000E+00	0.0000	4.515E-08	0.0000
Ni-63	0.000E+00	0.0000	4.255E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.686E-04	0.0004	0.000E+00	0.0000	6.010E-08	0.0000
Np-237	5.833E-03	0.0146	7.177E-04	0.0018	0.000E+00	0.0000	0.000E+00	0.0000	2.434E-01	0.6107	0.000E+00	0.0000	9.094E-04	0.0023
Pu-238	4.029E-07	0.0000	2.498E-04	0.0006	9.684E-14	0.0000	0.000E+00	0.0000	2.568E-03	0.0064	0.000E+00	0.0000	3.141E-04	0.0008
Pu-239	1.670E-06	0.0000	6.030E-04	0.0015	0.000E+00	0.0000	0.000E+00	0.0000	6.264E-03	0.0157	0.000E+00	0.0000	7.663E-04	0.0019
Pu-241	3.774E-06	0.0000	9.444E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.939E-05	0.0001	0.000E+00	0.0000	1.192E-05	0.0000
Pu-242	7.478E-07	0.0000	5.793E-04	0.0015	4.409E-22	0.0000	0.000E+00	0.0000	5.962E-03	0.0150	0.000E+00	0.0000	7.293E-04	0.0018
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	7.120E-06	0.0000	9.550E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.134E-02	0.1038	0.000E+00	0.0000	1.717E-06	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	8.112E-03	0.0204	2.426E-03	0.0061	9.732E-14	0.0000	0.000E+00	0.0000	3.160E-01	0.7929	0.000E+00	0.0000	3.070E-03	0.0077

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	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
Am-241	0.000E+00	0.0000	6.368E-02	0.1598	0.000E+00	0.0000	0.000E+00	0.0000	3.267E-03	0.0082	0.000E+00	0.0000	6.872E-02	0.1725
C-14	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
Ce-144	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
Cm-242	0.000E+00	0.0000	5.721E-25	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.272E-25	0.0000	0.000E+00	0.0000	1.599E-05	0.0000
Cm-243	0.000E+00	0.0000	2.899E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.485E-08	0.0000	0.000E+00	0.0000	4.555E-04	0.0011
Co-57	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
Co-58	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
Co-60	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	3.444E-07	0.0000
Cs-134	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	5.886E-16	0.0000
Cs-137	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	1.674E-02	0.0420
Eu-154	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	1.564E-05	0.0000
Fe-55	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	1.337E-15	0.0000
H-3	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
I-129	0.000E+00	0.0000	2.308E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.583E-22	0.0000	0.000E+00	0.0000	8.815E-22	0.0000
Mn-54	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
Nb-94	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
Ni-59	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	1.267E-04	0.0003
Ni-63	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	1.687E-04	0.0004
Np-237	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	2.508E-01	0.6294
Pu-238	0.000E+00	0.0000	1.405E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.126E-23	0.0000	0.000E+00	0.0000	3.132E-03	0.0079
Pu-239	0.000E+00	0.0000	3.998E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.773E-15	0.0000	0.000E+00	0.0000	7.635E-03	0.0192
Pu-241	0.000E+00	0.0000	1.353E-03	0.0034	0.000E+00	0.0000	0.000E+00	0.0000	6.934E-05	0.0002	0.000E+00	0.0000	1.497E-03	0.0038
Pu-242	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	7.271E-03	0.0182
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	0.000E+00	0.0000	2.416E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	5.099E-04	0.0013	0.000E+00	0.0000	4.189E-02	0.1051
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	6.506E-02	0.1633	0.000E+00	0.0000	0.000E+00	0.0000	3.846E-03	0.0097	0.000E+00	0.0000	3.985E-01	1.0000

\*Sum of all water independent and dependent pathways.



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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+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.
Ag-110m	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
Am-241	1.207E-05	0.0000	2.955E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	1.593E-04	0.0004	0.000E+00	0.0000	3.730E-05	0.0001
C-14	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
Ce-144	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
Cm-242	4.237E-10	0.0000	2.584E-07	0.0000	6.662E-15	0.0000	0.000E+00	0.0000	2.655E-06	0.0000	0.000E+00	0.0000	3.246E-07	0.0000
Cm-243	2.155E-06	0.0000	9.777E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.807E-06	0.0000	0.000E+00	0.0000	1.239E-06	0.0000
Co-57	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
Co-58	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
Co-60	5.994E-19	0.0000	2.038E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.589E-19	0.0000	0.000E+00	0.0000	3.856E-23	0.0000
Cs-134	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
Cs-137	1.829E-05	0.0001	4.330E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.452E-04	0.0004	0.000E+00	0.0000	1.045E-08	0.0000
Eu-154	2.140E-12	0.0000	2.007E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.990E-14	0.0000	0.000E+00	0.0000	1.032E-16	0.0000
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	3.634E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.221E-04	0.0003	0.000E+00	0.0000	4.353E-08	0.0000
Ni-63	0.000E+00	0.0000	9.697E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.843E-05	0.0001	0.000E+00	0.0000	1.370E-08	0.0000
Np-237	5.097E-03	0.0140	6.273E-04	0.0017	0.000E+00	0.0000	0.000E+00	0.0000	2.127E-01	0.5836	0.000E+00	0.0000	7.947E-04	0.0022
Pu-238	8.299E-08	0.0000	5.060E-05	0.0001	1.317E-12	0.0000	0.000E+00	0.0000	5.200E-04	0.0014	0.000E+00	0.0000	6.358E-05	0.0002
Pu-239	1.632E-06	0.0000	5.893E-04	0.0016	0.000E+00	0.0000	0.000E+00	0.0000	6.121E-03	0.0168	0.000E+00	0.0000	7.488E-04	0.0021
Pu-241	5.074E-07	0.0000	1.246E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.656E-06	0.0000	0.000E+00	0.0000	1.573E-06	0.0000
Pu-242	7.347E-07	0.0000	5.691E-04	0.0016	2.363E-20	0.0000	0.000E+00	0.0000	5.857E-03	0.0161	0.000E+00	0.0000	7.165E-04	0.0020
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	1.931E-08	0.0000	2.591E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.122E-04	0.0003	0.000E+00	0.0000	4.659E-09	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	5.133E-03	0.0141	1.868E-03	0.0051	1.324E-12	0.0000	0.000E+00	0.0000	2.258E-01	0.6196	0.000E+00	0.0000	2.364E-03	0.0065

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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+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.
Ag-110m	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
Am-241	0.000E+00	0.0000	1.190E-01	0.3265	0.000E+00	0.0000	0.000E+00	0.0000	6.117E-03	0.0168	0.000E+00	0.0000	1.253E-01	0.3440
C-14	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
Ce-144	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
Cm-242	0.000E+00	0.0000	2.358E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.376E-10	0.0000	0.000E+00	0.0000	3.240E-06	0.0000
Cm-243	0.000E+00	0.0000	1.575E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.095E-08	0.0000	0.000E+00	0.0000	1.383E-05	0.0000
Co-57	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
Co-58	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
Co-60	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	1.258E-18	0.0000
Cs-134	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
Cs-137	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	1.635E-04	0.0004
Eu-154	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	2.160E-12	0.0000
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	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	1.222E-04	0.0003
Ni-63	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	3.844E-05	0.0001
Np-237	0.000E+00	0.0000	1.160E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.980E-07	0.0000	0.000E+00	0.0000	2.192E-01	0.6015
Pu-238	0.000E+00	0.0000	4.676E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.461E-07	0.0000	0.000E+00	0.0000	6.345E-04	0.0017
Pu-239	0.000E+00	0.0000	1.877E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.822E-10	0.0000	0.000E+00	0.0000	7.461E-03	0.0205
Pu-241	0.000E+00	0.0000	3.930E-03	0.0108	0.000E+00	0.0000	0.000E+00	0.0000	2.020E-04	0.0006	0.000E+00	0.0000	4.142E-03	0.0114
Pu-242	0.000E+00	0.0000	3.222E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.083E-11	0.0000	0.000E+00	0.0000	7.143E-03	0.0196
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	0.000E+00	0.0000	1.313E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.788E-05	0.0001	0.000E+00	0.0000	1.414E-04	0.0004
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	1.229E-01	0.3373	0.000E+00	0.0000	0.000E+00	0.0000	6.348E-03	0.0174	0.000E+00	0.0000	3.644E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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.
Ag-110m	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
Am-241	1.177E-07	0.0000	3.686E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.636E-06	0.0000	0.000E+00	0.0000	4.659E-08	0.0000
C-14	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
Ce-144	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
Cm-242	3.492E-11	0.0000	9.843E-10	0.0000	3.114E-14	0.0000	0.000E+00	0.0000	1.035E-08	0.0000	0.000E+00	0.0000	1.219E-09	0.0000
Cm-243	1.791E-09	0.0000	6.418E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.667E-06	0.0000	0.000E+00	0.0000	8.156E-07	0.0000
Co-57	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
Co-58	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
Co-60	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
Cs-134	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
Cs-137	1.685E-12	0.0000	3.990E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.338E-11	0.0000	0.000E+00	0.0000	9.631E-16	0.0000
Eu-154	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
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	0.000E+00	0.0000	3.198E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.074E-04	0.0007	0.000E+00	0.0000	3.830E-08	0.0000
Ni-63	0.000E+00	0.0000	5.481E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.172E-07	0.0000	0.000E+00	0.0000	7.743E-11	0.0000
Np-237	3.180E-03	0.0210	3.915E-04	0.0026	0.000E+00	0.0000	0.000E+00	0.0000	1.327E-01	0.8760	0.000E+00	0.0000	4.958E-04	0.0033
Pu-238	6.876E-09	0.0000	1.928E-07	0.0000	6.133E-12	0.0000	0.000E+00	0.0000	2.027E-06	0.0000	0.000E+00	0.0000	2.388E-07	0.0000
Pu-239	1.506E-06	0.0000	5.435E-04	0.0036	0.000E+00	0.0000	0.000E+00	0.0000	5.645E-03	0.0373	0.000E+00	0.0000	6.906E-04	0.0046
Pu-241	4.051E-09	0.0000	1.442E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.574E-07	0.0000	0.000E+00	0.0000	1.822E-09	0.0000
Pu-242	6.905E-07	0.0000	5.349E-04	0.0035	7.260E-19	0.0000	0.000E+00	0.0000	5.505E-03	0.0363	0.000E+00	0.0000	6.734E-04	0.0044
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	2.008E-17	0.0000	2.694E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.166E-13	0.0000	0.000E+00	0.0000	4.844E-18	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	3.183E-03	0.0210	1.471E-03	0.0097	6.164E-12	0.0000	0.000E+00	0.0000	1.439E-01	0.9504	0.000E+00	0.0000	1.861E-03	0.0123

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 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.
Ag-110m	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
Am-241	0.000E+00	0.0000	9.037E-04	0.0060	0.000E+00	0.0000	0.000E+00	0.0000	4.846E-05	0.0003	0.000E+00	0.0000	9.570E-04	0.0063
C-14	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
Ce-144	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
Cm-242	0.000E+00	0.0000	5.413E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.492E-09	0.0000	0.000E+00	0.0000	2.249E-08	0.0000
Cm-243	0.000E+00	0.0000	5.823E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.030E-09	0.0000	0.000E+00	0.0000	8.187E-06	0.0001
Co-57	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
Co-58	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
Co-60	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
Cs-134	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
Cs-137	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	1.507E-11	0.0000
Eu-154	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
Fe-55	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
H-3	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
I-129	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
Mn-54	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
Nb-94	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
Ni-59	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	1.075E-04	0.0007
Ni-63	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	2.173E-07	0.0000
Np-237	0.000E+00	0.0000	1.627E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.576E-06	0.0000	0.000E+00	0.0000	1.367E-01	0.9029
Pu-238	0.000E+00	0.0000	1.069E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.864E-07	0.0000	0.000E+00	0.0000	4.422E-06	0.0000
Pu-239	0.000E+00	0.0000	5.381E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.962E-09	0.0000	0.000E+00	0.0000	6.881E-03	0.0454
Pu-241	0.000E+00	0.0000	3.810E-05	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.023E-06	0.0000	0.000E+00	0.0000	4.029E-05	0.0003
Pu-242	0.000E+00	0.0000	4.276E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.456E-10	0.0000	0.000E+00	0.0000	6.714E-03	0.0443
Ru-106	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
Sb-124	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
Sb-125	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
Sn-113	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
Sr-90	0.000E+00	0.0000	4.444E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.445E-13	0.0000	0.000E+00	0.0000	1.106E-12	0.0000
Tc-99	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
Zn-65	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
Zr-95	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
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff
Total	0.000E+00	0.0000	9.445E-04	0.0062	0.000E+00	0.0000	0.000E+00	0.0000	5.697E-05	0.0004	0.000E+00	0.0000	1.515E-01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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	
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	
Ag-110m+D	Ag-110m+D	1.000E+00	5.459E-02	3.168E-02	6.390E-03	1.738E-07	2.721E-23	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00	4.918E-03	4.868E-03	4.770E-03	4.442E-03	3.623E-03	6.872E-02	1.253E-01	9.494E-04	
Am-241	Np-237+D	1.000E+00	3.331E-08	1.177E-07	2.872E-07	8.520E-07	2.246E-06	5.337E-06	8.168E-06	7.601E-06	
Am-241	U-233	1.000E+00	1.173E-15	6.213E-15	2.596E-14	1.914E-13	1.381E-12	1.164E-11	1.207E-10	1.099E-09	
Am-241	Th-229+D	1.000E+00	1.745E-19	2.017E-18	2.090E-17	5.146E-16	1.157E-14	3.246E-13	4.736E-12	3.760E-11	
Am-241	äDSR(j)		4.918E-03	4.868E-03	4.770E-03	4.443E-03	3.625E-03	6.872E-02	1.253E-01	9.570E-04	
C-14	C-14	1.000E+00	4.032E-01	6.047E-01	6.226E-01	8.177E-09	4.204E-45	0.000E+00	0.000E+00	0.000E+00	
Ce-144+D	Ce-144+D	1.000E+00	1.225E-03	5.028E-04	8.467E-05	1.660E-07	3.045E-15	2.546E-42	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08	3.172E-12	6.698E-13	2.986E-14	5.586E-19	1.732E-32	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09	8.584E-14	1.813E-14	8.080E-16	1.511E-20	4.686E-34	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Pu-238	1.840E-09	3.065E-14	5.743E-14	6.351E-14	6.037E-14	5.146E-14	2.942E-14	5.955E-15	2.223E-17	
Cm-242	äDSR(j)		1.165E-13	7.555E-14	6.432E-14	6.037E-14	5.146E-14	2.942E-14	5.955E-15	2.223E-17	
Cm-242	Cm-242	1.000E+00	4.665E-05	9.851E-06	4.391E-07	8.215E-12	2.547E-25	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Pu-238	1.000E+00	1.666E-05	3.121E-05	3.452E-05	3.281E-05	2.797E-05	1.599E-05	3.237E-06	1.208E-08	
Cm-242	U-234	1.000E+00	4.920E-12	2.804E-11	9.002E-11	3.041E-10	8.265E-10	1.869E-09	2.857E-09	4.580E-09	
Cm-242	Th-230	1.000E+00	1.307E-17	1.352E-16	9.353E-16	9.797E-15	8.175E-14	7.042E-13	3.276E-12	6.984E-12	
Cm-242	Ra-226+D	1.000E+00	7.203E-20	2.268E-18	4.474E-17	1.680E-15	4.384E-14	1.293E-12	1.847E-11	1.448E-10	
Cm-242	Pb-210+D	1.000E+00	8.065E-22	4.091E-20	1.335E-18	1.178E-16	7.496E-15	5.145E-13	1.240E-11	2.580E-10	
Cm-242	Po-210	1.000E+00	1.902E-22	1.472E-20	7.617E-19	1.049E-16	8.027E-15	5.910E-13	4.077E-11	5.424E-09	
Cm-242	äDSR(j)		6.331E-05	4.106E-05	3.495E-05	3.281E-05	2.797E-05	1.599E-05	3.240E-06	2.249E-08	
Cm-243	Cm-243	2.400E-03	1.236E-05	1.207E-05	1.149E-05	9.683E-06	5.938E-06	1.073E-06	8.073E-09	2.985E-16	
Cm-243	Am-243+D	2.400E-03	1.071E-09	3.203E-09	7.265E-09	1.947E-08	4.099E-08	3.513E-07	1.666E-06	6.119E-08	
Cm-243	Pu-239	2.400E-03	7.756E-15	5.585E-14	2.937E-13	2.456E-12	1.681E-11	9.458E-11	2.267E-10	3.009E-10	
Cm-243	U-235+D	2.400E-03	1.610E-24	2.473E-23	2.883E-22	7.249E-21	1.491E-19	3.061E-18	3.187E-17	2.792E-16	
Cm-243	Pa-231	2.400E-03	1.311E-27	5.276E-26	1.502E-24	1.202E-22	7.492E-21	6.588E-19	2.206E-17	8.962E-16	
Cm-243	Ac-227+D	2.400E-03	3.328E-30	1.387E-28	4.227E-27	4.142E-25	3.764E-23	7.482E-20	5.276E-18	4.649E-16	
Cm-243	äDSR(j)		1.237E-05	1.207E-05	1.150E-05	9.702E-06	5.979E-06	1.424E-06	1.674E-06	6.149E-08	
Cm-243	Cm-243	9.976E-01	5.139E-03	5.015E-03	4.776E-03	4.025E-03	2.468E-03	4.459E-04	3.356E-06	1.241E-13	
Cm-243	Pu-239	9.976E-01	1.034E-07	3.190E-07	7.369E-07	2.048E-06	4.758E-06	8.234E-06	8.805E-06	8.126E-06	
Cm-243	U-235+D	9.976E-01	2.892E-17	2.062E-16	1.084E-15	9.157E-15	6.495E-14	4.130E-13	1.317E-12	3.201E-12	
Cm-243	Pa-231	9.976E-01	3.202E-20	5.982E-19	7.673E-18	2.047E-16	4.396E-15	9.838E-14	1.053E-12	1.175E-11	
Cm-243	Ac-227+D	9.976E-01	8.183E-23	1.594E-21	2.220E-20	7.516E-19	2.444E-17	1.031E-15	1.321E-13	5.328E-12	
Cm-243	äDSR(j)		5.140E-03	5.016E-03	4.777E-03	4.027E-03	2.473E-03	4.541E-04	1.216E-05	8.126E-06	
Co-57	Co-57	1.000E+00	4.737E-03	1.860E-03	2.868E-04	4.130E-07	3.141E-15	1.205E-43	0.000E+00	0.000E+00	
Co-58	Co-58	1.000E+00	1.274E-02	3.566E-04	2.793E-07	3.756E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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				
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Co-60	Co-60	1.000E+00	1.801E-01	1.579E-01	1.214E-01	4.828E-02	3.468E-03	3.444E-07	1.258E-18	0.000E+00	
Cs-134	Cs-134	1.000E+00	2.346E-01	1.676E-01	8.558E-02	8.135E-03	9.777E-06	5.886E-16	0.000E+00	0.000E+00	
Cs-137+D	Cs-137+D	1.000E+00	1.694E-01	1.655E-01	1.580E-01	1.344E-01	8.459E-02	1.674E-02	1.635E-04	1.507E-11	
Eu-154	Eu-154	1.000E+00	4.210E-02	3.890E-02	3.322E-02	1.911E-02	3.938E-03	1.564E-05	2.160E-12	2.113E-36	
Fe-55	Fe-55	1.000E+00	1.918E-04	1.483E-04	8.874E-05	1.469E-05	8.625E-08	1.337E-15	6.493E-38	0.000E+00	
H-3	H-3	1.000E+00	1.812E-03	6.368E-04	3.512E-04	1.861E-07	4.564E-22	0.000E+00	0.000E+00	0.000E+00	
I-129	I-129	1.000E+00	1.161E-01	2.192E+00	6.089E+00	2.979E+00	4.897E-05	8.815E-22	0.000E+00	0.000E+00	
Mn-54	Mn-54	1.000E+00	2.053E-02	9.122E-03	1.801E-03	6.167E-06	5.568E-13	1.231E-37	0.000E+00	0.000E+00	
Nb-94	Nb-94	1.000E+00	4.218E-02	5.078E-02	6.223E-02	1.691E-03	1.668E-10	5.021E-35	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	1.290E-04	1.290E-04	1.290E-04	1.288E-04	1.283E-04	1.267E-04	1.222E-04	1.075E-04	
Ni-63	Ni-63	1.000E+00	3.533E-04	3.507E-04	3.455E-04	3.281E-04	2.830E-04	1.687E-04	3.844E-05	2.173E-07	
Np-237+D	Np-237+D	1.000E+00	2.683E-01	2.681E-01	2.678E-01	2.665E-01	2.629E-01	2.508E-01	2.192E-01	1.367E-01	
Np-237+D	U-233	1.000E+00	9.840E-09	2.083E-08	4.107E-08	1.106E-07	2.984E-07	8.429E-07	2.218E-06	8.954E-06	
Np-237+D	Th-229+D	1.000E+00	1.918E-12	1.086E-11	5.353E-11	4.604E-10	3.742E-09	3.678E-08	2.531E-07	1.294E-06	
Np-237+D	äDSR(j)		2.683E-01	2.681E-01	2.678E-01	2.665E-01	2.629E-01	2.508E-01	2.192E-01	1.367E-01	
Pu-238	Pu-238	1.840E-09	1.281E-11	1.270E-11	1.250E-11	1.182E-11	1.008E-11	5.762E-12	1.166E-12	4.353E-15	
Pu-238	Pu-238	1.000E+00	6.960E-03	6.905E-03	6.795E-03	6.426E-03	5.477E-03	3.132E-03	6.339E-04	2.366E-06	
Pu-238	U-234	1.000E+00	2.932E-09	9.287E-09	2.188E-08	6.372E-08	1.657E-07	3.692E-07	5.632E-07	9.031E-07	
Pu-238	Th-230	1.000E+00	8.586E-15	5.305E-14	2.597E-13	2.172E-12	1.675E-11	1.401E-10	6.465E-10	1.375E-09	
Pu-238	Ra-226+D	1.000E+00	6.144E-17	1.119E-15	1.439E-14	3.947E-13	9.171E-12	2.589E-10	3.653E-09	2.854E-08	
Pu-238	Pb-210+D	1.000E+00	7.673E-19	2.193E-17	4.628E-16	2.887E-14	1.593E-12	1.034E-10	2.455E-09	5.093E-08	
Pu-238	Po-210	1.000E+00	1.943E-19	8.514E-18	2.786E-16	2.605E-14	1.709E-12	1.188E-10	8.124E-09	1.072E-06	
Pu-238	äDSR(j)		6.960E-03	6.905E-03	6.795E-03	6.426E-03	5.477E-03	3.132E-03	6.345E-04	4.422E-06	
Pu-239	Pu-239	1.000E+00	7.724E-03	7.723E-03	7.721E-03	7.715E-03	7.697E-03	7.635E-03	7.461E-03	6.881E-03	
Pu-239	U-235+D	1.000E+00	3.091E-12	9.436E-12	2.209E-11	6.567E-11	1.844E-10	5.386E-10	1.257E-09	2.816E-09	
Pu-239	Pa-231	1.000E+00	4.969E-15	4.165E-14	2.370E-13	2.172E-12	1.771E-11	1.644E-10	1.160E-09	1.091E-08	
Pu-239	Ac-227+D	1.000E+00	1.278E-17	1.133E-16	7.166E-16	8.737E-15	1.112E-13	2.105E-12	1.786E-10	5.062E-09	
Pu-239	äDSR(j)		7.724E-03	7.723E-03	7.721E-03	7.715E-03	7.697E-03	7.635E-03	7.461E-03	6.881E-03	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

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				
AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA	AAAAAAAAAA
Pu-241	Pu-241	1.000E+00	1.457E-04	1.388E-04	1.260E-04	8.993E-05	3.428E-05	1.172E-06	7.596E-11	1.663E-25	
Pu-241	Am-241	1.000E+00	4.126E-06	1.163E-05	2.530E-05	6.183E-05	1.049E-04	1.496E-03	4.141E-03	4.003E-05	
Pu-241	Np-237+D	1.000E+00	1.513E-11	1.320E-10	7.439E-10	6.143E-09	3.701E-08	1.514E-07	2.669E-07	2.510E-07	
Pu-241	U-233	1.000E+00	4.956E-19	5.846E-18	5.175E-17	1.001E-15	1.686E-14	2.660E-13	3.428E-12	3.441E-11	
Pu-241	Th-229+D	1.000E+00	6.165E-23	1.411E-21	2.983E-20	1.996E-18	1.104E-16	6.555E-15	1.355E-13	1.217E-12	
Pu-241	äDSR(j)		1.498E-04	1.504E-04	1.513E-04	1.518E-04	1.392E-04	1.497E-03	4.142E-03	4.029E-05	
Pu-241+D	Pu-241+D	2.450E-05	7.635E-08	7.275E-08	6.606E-08	4.714E-08	1.797E-08	6.145E-10	3.981E-14	8.714E-29	
Pu-241+D	Np-237+D	2.450E-05	8.088E-13	2.809E-12	6.605E-12	1.731E-11	3.353E-11	4.151E-11	3.658E-11	2.282E-11	
Pu-241+D	U-233	2.450E-05	2.847E-20	1.488E-19	6.061E-19	4.107E-18	2.403E-17	1.140E-16	3.357E-16	1.424E-15	
Pu-241+D	Th-229+D	2.450E-05	4.241E-24	4.860E-23	4.947E-22	1.145E-20	2.192E-19	4.141E-18	3.713E-17	2.083E-16	
Pu-241+D	äDSR(j)		7.635E-08	7.275E-08	6.607E-08	4.715E-08	1.800E-08	6.560E-10	3.662E-11	2.282E-11	
Pu-242	Pu-242	5.500E-06	4.035E-08	4.034E-08	4.034E-08	4.031E-08	4.024E-08	3.999E-08	3.929E-08	3.693E-08	
Pu-242	Pu-242	5.400E-05	3.961E-07	3.961E-07	3.960E-07	3.958E-07	3.951E-07	3.926E-07	3.857E-07	3.625E-07	
Pu-242	U-238	5.400E-05	7.815E-18	2.484E-17	5.898E-17	1.766E-16	4.969E-16	1.454E-15	3.882E-15	1.412E-14	
Pu-242	äDSR(j)		3.961E-07	3.961E-07	3.960E-07	3.958E-07	3.951E-07	3.926E-07	3.857E-07	3.625E-07	
Pu-242	Pu-242	9.999E-01	7.336E-03	7.335E-03	7.334E-03	7.329E-03	7.316E-03	7.271E-03	7.143E-03	6.713E-03	
Pu-242	U-238+D	9.999E-01	2.183E-13	6.817E-13	1.609E-12	4.803E-12	1.350E-11	3.950E-11	9.999E-11	3.100E-10	
Pu-242	U-234	9.999E-01	1.646E-19	1.165E-18	6.141E-18	5.408E-17	4.353E-16	4.025E-15	3.360E-14	4.660E-13	
Pu-242	Th-230	9.999E-01	3.651E-25	4.680E-24	4.943E-23	1.220E-21	2.822E-20	8.880E-19	1.732E-17	2.423E-16	
Pu-242	Ra-226+D	9.999E-01	1.770E-27	6.837E-26	1.949E-24	1.622E-22	1.135E-20	1.177E-18	7.427E-16	6.460E-15	
Pu-242	Pb-210+D	9.999E-01	1.932E-29	1.189E-27	5.418E-26	9.904E-24	1.632E-21	3.998E-19	3.045E-15	1.970E-14	
Pu-242	Po-210	9.999E-01	4.496E-30	4.156E-28	2.936E-26	8.421E-24	1.707E-21	4.551E-19	8.876E-14	5.363E-13	
Pu-242	äDSR(j)		7.336E-03	7.335E-03	7.334E-03	7.329E-03	7.316E-03	7.271E-03	7.143E-03	6.713E-03	
Ru-106+D	Ru-106+D	1.000E+00	1.532E-02	6.208E-02	3.010E-02	8.081E-06	8.500E-19	0.000E+00	0.000E+00	0.000E+00	
Sb-124	Sb-124	1.000E+00	1.327E-02	2.020E-04	6.398E-08	3.868E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	7.720E-01	7.407E-03	8.590E-03	7.384E-03	3.884E-05	2.571E-14	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	2.280E-01	2.187E-03	2.537E-03	2.181E-03	1.147E-05	7.593E-15	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Te-125m	2.280E-01	3.160E-03	1.408E-02	1.511E-02	8.243E-05	5.456E-14	0.000E+00	0.000E+00	0.000E+00	
Sb-125	äDSR(j)		5.348E-03	1.661E-02	1.729E-02	9.390E-05	6.215E-14	0.000E+00	0.000E+00	0.000E+00	
Sn-113+D	Sn-113+D	1.000E+00	7.400E-03	9.405E-03	2.329E-04	1.652E-12	1.280E-38	0.000E+00	0.000E+00	0.000E+00	
Sr-90+D	Sr-90+D	1.000E+00	7.939E-01	7.709E-01	7.266E-01	5.909E-01	3.272E-01	4.189E-02	1.414E-04	1.106E-12	
Tc-99	Tc-99	1.000E+00	1.310E-03	1.454E-03	1.740E-03	4.981E-05	4.916E-12	1.483E-36	0.000E+00	0.000E+00	
Zn-65	Zn-65	1.000E+00	8.180E-01	1.038E+00	2.374E-01	5.584E-06	5.311E-22	0.000E+00	0.000E+00	0.000E+00	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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
AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA
Zr-95D	Zr-95D	1.000E+00	6.297E-03	1.204E-04	4.400E-08	4.108E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zr-95D	Nb-95	1.000E+00	5.765E-03	2.255E-04	8.412E-08	7.851E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Zr-95D	äDSR(j)		1.206E-02	3.459E-04	1.281E-07	1.196E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

The DSR includes contributions from associated (half-life ó 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	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA	AAAAA
Ag-110m	4.579E+02	7.891E+02	3.912E+03	1.439E+08	*4.754E+15	*4.754E+15	*4.754E+15	*4.754E+15	
Am-241	5.083E+03	5.135E+03	5.241E+03	5.627E+03	6.897E+03	3.638E+02	1.995E+02	2.612E+04	
C-14	6.200E+01	4.134E+01	4.015E+01	3.058E+09	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	
Ce-144	2.041E+04	4.972E+04	2.953E+05	1.506E+08	*3.191E+15	*3.191E+15	*3.191E+15	*3.191E+15	
Cm-242	3.949E+05	6.088E+05	7.152E+05	7.620E+05	8.939E+05	1.563E+06	7.717E+06	1.111E+09	
Cm-243	4.853E+03	4.972E+03	5.221E+03	6.193E+03	1.008E+04	5.488E+04	1.807E+06	3.053E+06	
Co-57	5.278E+03	1.344E+04	8.716E+04	6.053E+07	7.960E+15	*8.465E+15	*8.465E+15	*8.465E+15	
Co-58	1.962E+03	7.010E+04	8.951E+07	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	
Co-60	1.388E+02	1.583E+02	2.060E+02	5.178E+02	7.210E+03	7.260E+07	*1.132E+15	*1.132E+15	
Cs-134	1.065E+02	1.491E+02	2.921E+02	3.073E+03	2.557E+06	*1.295E+15	*1.295E+15	*1.295E+15	
Cs-137	1.476E+02	1.511E+02	1.582E+02	1.860E+02	2.956E+02	1.493E+03	1.529E+05	1.659E+12	
Eu-154	5.938E+02	6.426E+02	7.526E+02	1.308E+03	6.348E+03	1.598E+06	1.157E+13	*2.639E+14	
Fe-55	1.304E+05	1.685E+05	2.817E+05	1.701E+06	2.898E+08	*2.410E+15	*2.410E+15	*2.410E+15	
H-3	1.379E+04	3.926E+04	7.118E+04	1.344E+08	*9.597E+15	*9.597E+15	*9.597E+15	*9.597E+15	
I-129	2.153E+02	1.140E+01	4.105E+00	8.392E+00	5.105E+05	*1.766E+08	*1.766E+08	*1.766E+08	
Mn-54	1.218E+03	2.741E+03	1.388E+04	4.054E+06	4.490E+13	*7.746E+15	*7.746E+15	*7.746E+15	
Nb-94	5.927E+02	4.923E+02	4.017E+02	1.478E+04	1.499E+11	*1.875E+11	*1.875E+11	*1.875E+11	
Ni-59	1.937E+05	1.938E+05	1.938E+05	1.941E+05	1.948E+05	1.973E+05	2.047E+05	2.326E+05	
Ni-63	7.076E+04	7.129E+04	7.235E+04	7.619E+04	8.834E+04	1.482E+05	6.503E+05	1.151E+08	
Np-237	9.317E+01	9.324E+01	9.336E+01	9.380E+01	9.508E+01	9.967E+01	1.141E+02	1.828E+02	
Pu-238	3.592E+03	3.621E+03	3.679E+03	3.890E+03	4.564E+03	7.982E+03	3.940E+04	5.654E+06	
Pu-239	3.237E+03	3.237E+03	3.238E+03	3.240E+03	3.248E+03	3.274E+03	3.351E+03	3.633E+03	
Pu-241	1.668E+05	1.661E+05	1.651E+05	1.647E+05	1.795E+05	1.670E+04	6.036E+03	6.206E+05	
Pu-242	3.408E+03	3.408E+03	3.409E+03	3.411E+03	3.417E+03	3.438E+03	3.500E+03	3.724E+03	
Ru-106	1.631E+03	4.027E+02	8.306E+02	3.094E+06	*3.348E+15	*3.348E+15	*3.348E+15	*3.348E+15	
Sb-124	1.885E+03	1.238E+05	3.908E+08	*1.750E+16	*1.750E+16	*1.750E+16	*1.750E+16	*1.750E+16	
Sb-125	1.960E+03	9.919E+02	1.013E+03	1.883E+05	2.845E+14	*1.033E+15	*1.033E+15	*1.033E+15	
Sn-113	3.379E+03	2.658E+03	1.074E+05	1.513E+13	*1.005E+16	*1.005E+16	*1.005E+16	*1.005E+16	
Sr-90	3.149E+01	3.243E+01	3.441E+01	4.231E+01	7.640E+01	5.968E+02	1.768E+05	2.261E+13	
Tc-99	1.908E+04	1.720E+04	1.437E+04	5.019E+05	*1.697E+10	*1.697E+10	*1.697E+10	*1.697E+10	
Zn-65	3.056E+01	2.410E+01	1.053E+02	4.477E+06	*8.245E+15	*8.245E+15	*8.245E+15	*8.245E+15	
Zr-95	2.073E+03	7.227E+04	1.951E+08	*2.150E+16	*2.150E+16	*2.150E+16	*2.150E+16	*2.150E+16	
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	

\*At specific activity limit



Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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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 = 5.05 ± 0.01 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAA	AAAAAAAA	AAAAAAAAAAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
Ag-110m	1.000E+00	0.000E+00	5.459E-02	4.579E+02	8.556E-04	2.922E+04
Am-241	1.000E+00	263.9 ± 0.5	1.265E-01	1.976E+02	4.672E-03	5.351E+03
C-14	1.000E+00	4.929 ± 0.010	6.242E-01	4.005E+01	6.133E-01	4.076E+01
Ce-144	1.000E+00	0.000E+00	1.225E-03	2.041E+04	1.363E-05	1.834E+06
Cm-242	1.000E+00	0.000E+00	6.331E-05	3.949E+05	3.414E-05	7.322E+05
Cm-243	1.000E+00	0.000E+00	5.152E-03	4.853E+03	4.555E-03	5.489E+03
Co-57	1.000E+00	0.000E+00	4.737E-03	5.278E+03	4.219E-05	5.925E+05
Co-58	1.000E+00	0.000E+00	1.274E-02	1.962E+03	1.826E-10	1.369E+11
Co-60	1.000E+00	0.000E+00	1.801E-01	1.388E+02	9.264E-02	2.699E+02
Cs-134	1.000E+00	0.000E+00	2.346E-01	1.065E+02	4.295E-02	5.820E+02
Cs-137	1.000E+00	0.000E+00	1.694E-01	1.476E+02	1.507E-01	1.659E+02
Eu-154	1.000E+00	0.000E+00	4.210E-02	5.938E+02	2.825E-02	8.849E+02
Fe-55	1.000E+00	0.000E+00	1.918E-04	1.304E+05	5.240E-05	4.771E+05
H-3	1.000E+00	0.000E+00	1.812E-03	1.379E+04	3.049E-04	8.200E+04
I-129	1.000E+00	7.61 ± 0.02	7.876E+00	3.174E+00	7.402E+00	3.377E+00
Mn-54	1.000E+00	0.000E+00	2.053E-02	1.218E+03	3.415E-04	7.321E+04
Nb-94	1.000E+00	4.929 ± 0.010	6.448E-02	3.877E+02	6.427E-02	3.890E+02
Ni-59	1.000E+00	0.000E+00	1.290E-04	1.937E+05	1.289E-04	1.939E+05
Ni-63	1.000E+00	0.000E+00	3.533E-04	7.076E+04	3.403E-04	7.346E+04
Np-237	1.000E+00	0.000E+00	2.683E-01	9.317E+01	2.674E-01	9.349E+01
Pu-238	1.000E+00	0.000E+00	6.960E-03	3.592E+03	6.685E-03	3.740E+03
Pu-239	1.000E+00	0.000E+00	7.724E-03	3.237E+03	7.720E-03	3.239E+03
Pu-241	1.000E+00	288.3 ± 0.6	4.146E-03	6.030E+03	1.519E-04	1.646E+05
Pu-242	1.000E+00	0.000E+00	7.336E-03	3.408E+03	7.333E-03	3.409E+03
Ru-106	1.000E+00	1.185 ± 0.002	6.335E-02	3.946E+02	8.052E-03	3.105E+03
Sb-124	1.000E+00	0.000E+00	1.327E-02	1.885E+03	1.219E-11	2.050E+12
Sb-125	1.000E+00	1.748 ± 0.003	2.818E-02	8.870E+02	1.588E-02	1.575E+03
Sn-113	1.000E+00	0.660 ± 0.001	1.197E-02	2.088E+03	2.818E-06	8.872E+06
Sr-90	1.000E+00	0.000E+00	7.939E-01	3.149E+01	6.839E-01	3.655E+01
Tc-99	1.000E+00	4.929 ± 0.010	1.796E-03	1.392E+04	1.794E-03	1.394E+04
Zn-65	1.000E+00	0.872 ± 0.002	1.052E+00	2.376E+01	3.081E-02	8.114E+02
Zr-95	1.000E+00	0.000E+00	1.206E-02	2.073E+03	3.834E-11	6.520E+11
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Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Nuclide	Parent	THF (i)	DOSE(j,t), mrem/yr								
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ag-110m	Ag-110m	1.000E+00	5.459E-02	3.168E-02	6.390E-03	1.738E-07	2.721E-23	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00	4.918E-03	4.868E-03	4.770E-03	4.442E-03	3.623E-03	6.872E-02	1.253E-01	9.494E-04	
Am-241	Pu-241	1.000E+00	4.126E-06	1.163E-05	2.530E-05	6.183E-05	1.049E-04	1.496E-03	4.141E-03	4.003E-05	
Am-241	äDOSE (j)		4.922E-03	4.880E-03	4.795E-03	4.503E-03	3.728E-03	7.022E-02	1.295E-01	9.894E-04	
Np-237	Am-241	1.000E+00	3.331E-08	1.177E-07	2.872E-07	8.520E-07	2.246E-06	5.337E-06	8.168E-06	7.601E-06	
Np-237	Np-237	1.000E+00	2.683E-01	2.681E-01	2.678E-01	2.665E-01	2.629E-01	2.508E-01	2.192E-01	1.367E-01	
Np-237	Pu-241	1.000E+00	1.513E-11	1.320E-10	7.439E-10	6.143E-09	3.701E-08	1.514E-07	2.669E-07	2.510E-07	
Np-237	Pu-241	2.450E-05	8.088E-13	2.809E-12	6.605E-12	1.731E-11	3.353E-11	4.151E-11	3.658E-11	2.282E-11	
Np-237	äDOSE (j)		2.683E-01	2.681E-01	2.678E-01	2.665E-01	2.629E-01	2.508E-01	2.192E-01	1.367E-01	
U-233	Am-241	1.000E+00	1.173E-15	6.213E-15	2.596E-14	1.914E-13	1.381E-12	1.164E-11	1.207E-10	1.099E-09	
U-233	Np-237	1.000E+00	9.840E-09	2.083E-08	4.107E-08	1.106E-07	2.984E-07	8.429E-07	2.218E-06	8.954E-06	
U-233	Pu-241	1.000E+00	4.956E-19	5.846E-18	5.175E-17	1.001E-15	1.686E-14	2.660E-13	3.428E-12	3.441E-11	
U-233	Pu-241	2.450E-05	2.847E-20	1.488E-19	6.061E-19	4.107E-18	2.403E-17	1.140E-16	3.357E-16	1.424E-15	
U-233	äDOSE (j)		9.840E-09	2.083E-08	4.107E-08	1.106E-07	2.984E-07	8.429E-07	2.218E-06	8.955E-06	
Th-229	Am-241	1.000E+00	1.745E-19	2.017E-18	2.090E-17	5.146E-16	1.157E-14	3.246E-13	4.736E-12	3.760E-11	
Th-229	Np-237	1.000E+00	1.918E-12	1.086E-11	5.353E-11	4.604E-10	3.742E-09	3.678E-08	2.531E-07	1.294E-06	
Th-229	Pu-241	1.000E+00	6.165E-23	1.411E-21	2.983E-20	1.996E-18	1.104E-16	6.555E-15	1.355E-13	1.217E-12	
Th-229	Pu-241	2.450E-05	4.241E-24	4.860E-23	4.947E-22	1.145E-20	2.192E-19	4.141E-18	3.713E-17	2.083E-16	
Th-229	äDOSE (j)		1.918E-12	1.086E-11	5.353E-11	4.604E-10	3.742E-09	3.678E-08	2.531E-07	1.294E-06	
C-14	C-14	1.000E+00	4.032E-01	6.047E-01	6.226E-01	8.177E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144	Ce-144	1.000E+00	1.225E-03	5.028E-04	8.467E-05	1.660E-07	3.045E-15	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08	3.172E-12	6.698E-13	2.986E-14	5.586E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09	8.584E-14	1.813E-14	8.080E-16	1.511E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Cm-242	äDOSE (j)		3.258E-12	6.880E-13	3.067E-14	5.737E-19	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.840E-09	3.065E-14	5.743E-14	6.351E-14	6.037E-14	5.146E-14	2.942E-14	5.955E-15	2.223E-17	
Pu-238	Pu-238	1.840E-09	1.281E-11	1.270E-11	1.250E-11	1.182E-11	1.008E-11	5.762E-12	1.166E-12	4.353E-15	
Pu-238	äDOSE (j)		1.284E-11	1.276E-11	1.257E-11	1.188E-11	1.013E-11	5.791E-12	1.172E-12	4.375E-15	
Cm-242	Cm-242	1.000E+00	4.665E-05	9.851E-06	4.391E-07	8.215E-12	2.547E-25	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.000E+00	1.666E-05	3.121E-05	3.452E-05	3.281E-05	2.797E-05	1.599E-05	3.237E-06	1.208E-08	
U-234	Cm-242	1.000E+00	4.920E-12	2.804E-11	9.002E-11	3.041E-10	8.265E-10	1.869E-09	2.857E-09	4.580E-09	
U-234	Pu-238	1.000E+00	2.932E-09	9.287E-09	2.188E-08	6.372E-08	1.657E-07	3.692E-07	5.632E-07	9.031E-07	
U-234	Pu-242	9.999E-01	1.646E-19	1.165E-18	6.141E-18	5.408E-17	4.353E-16	4.025E-15	3.360E-14	4.660E-13	
U-234	äDOSE (j)		2.937E-09	9.315E-09	2.197E-08	6.402E-08	1.666E-07	3.710E-07	5.660E-07	9.076E-07	
Th-230	Cm-242	1.000E+00	1.307E-17	1.352E-16	9.353E-16	9.797E-15	8.175E-14	7.042E-13	3.276E-12	6.984E-12	
Th-230	Pu-238	1.000E+00	8.586E-15	5.305E-14	2.597E-13	2.172E-12	1.675E-11	1.401E-10	6.465E-10	1.375E-09	
Th-230	Pu-242	9.999E-01	3.651E-25	4.680E-24	4.943E-23	1.220E-21	2.822E-20	8.880E-19	1.732E-17	2.423E-16	
Th-230	äDOSE (j)		8.599E-15	5.318E-14	2.606E-13	2.182E-12	1.683E-11	1.408E-10	6.498E-10	1.382E-09	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Ra-226	Cm-242	1.000E+00	7.203E-20	2.268E-18	4.474E-17	1.680E-15	4.384E-14	1.293E-12	1.847E-11	1.448E-10		
Ra-226	Pu-238	1.000E+00	6.144E-17	1.119E-15	1.439E-14	3.947E-13	9.171E-12	2.589E-10	3.653E-09	2.854E-08		
Ra-226	Pu-242	9.999E-01	1.770E-27	6.837E-26	1.949E-24	1.622E-22	1.135E-20	1.177E-18	7.427E-16	6.460E-15		
Ra-226	äDOSE(j)		6.151E-17	1.121E-15	1.444E-14	3.964E-13	9.215E-12	2.601E-10	3.672E-09	2.868E-08		
Pb-210	Cm-242	1.000E+00	8.065E-22	4.091E-20	1.335E-18	1.178E-16	7.496E-15	5.145E-13	1.240E-11	2.580E-10		
Pb-210	Pu-238	1.000E+00	7.673E-19	2.193E-17	4.628E-16	2.887E-14	1.593E-12	1.034E-10	2.455E-09	5.093E-08		
Pb-210	Pu-242	9.999E-01	1.923E-29	1.189E-27	5.418E-26	9.904E-24	1.632E-21	3.998E-19	3.045E-15	1.970E-14		
Pb-210	äDOSE(j)		7.681E-19	2.197E-17	4.641E-16	2.899E-14	1.601E-12	1.039E-10	2.467E-09	5.119E-08		
Po-210	Cm-242	1.000E+00	1.902E-22	1.472E-20	7.617E-19	1.049E-16	8.027E-15	5.910E-13	4.077E-11	5.424E-09		
Po-210	Pu-238	1.000E+00	1.943E-19	8.514E-18	2.786E-16	2.605E-14	1.709E-12	1.188E-10	8.124E-09	1.072E-06		
Po-210	Pu-242	9.999E-01	4.490E-30	4.149E-28	2.936E-26	8.421E-24	1.707E-21	4.551E-19	8.876E-14	5.363E-13		
Po-210	äDOSE(j)		1.945E-19	8.529E-18	2.793E-16	2.615E-14	1.717E-12	1.194E-10	8.164E-09	1.077E-06		
Cm-243	Cm-243	2.400E-03	1.236E-05	1.207E-05	1.149E-05	9.683E-06	5.938E-06	1.073E-06	8.073E-09	2.985E-16		
Cm-243	Cm-243	9.976E-01	5.139E-03	5.015E-03	4.776E-03	4.025E-03	2.468E-03	4.459E-04	3.356E-06	1.241E-13		
Cm-243	äDOSE(j)		5.152E-03	5.027E-03	4.788E-03	4.035E-03	2.474E-03	4.469E-04	3.364E-06	1.244E-13		
Am-243	Cm-243	2.400E-03	1.071E-09	3.203E-09	7.265E-09	1.947E-08	4.099E-08	3.513E-07	1.666E-06	6.119E-08		
Pu-239	Cm-243	2.400E-03	7.756E-15	5.585E-14	2.937E-13	2.456E-12	1.681E-11	9.458E-11	2.267E-10	3.009E-10		
Pu-239	Cm-243	9.976E-01	1.034E-07	3.190E-07	7.369E-07	2.048E-06	4.758E-06	8.234E-06	8.805E-06	8.126E-06		
Pu-239	Pu-239	1.000E+00	7.724E-03	7.723E-03	7.721E-03	7.715E-03	7.697E-03	7.635E-03	7.461E-03	6.881E-03		
Pu-239	äDOSE(j)		7.724E-03	7.724E-03	7.722E-03	7.717E-03	7.702E-03	7.644E-03	7.470E-03	6.889E-03		
U-235	Cm-243	2.400E-03	1.610E-24	2.473E-23	2.883E-22	7.249E-21	1.491E-19	3.061E-18	3.187E-17	2.792E-16		
U-235	Cm-243	9.976E-01	2.892E-17	2.062E-16	1.084E-15	9.157E-15	6.495E-14	4.130E-13	1.317E-12	3.201E-12		
U-235	Pu-239	1.000E+00	3.091E-12	9.436E-12	2.209E-11	6.567E-11	1.844E-10	5.386E-10	1.257E-09	2.816E-09		
U-235	äDOSE(j)		3.092E-12	9.436E-12	2.209E-11	6.568E-11	1.844E-10	5.390E-10	1.258E-09	2.819E-09		
Pa-231	Cm-243	2.400E-03	1.311E-27	5.276E-26	1.502E-24	1.202E-22	7.492E-21	6.588E-19	2.206E-17	8.962E-16		
Pa-231	Cm-243	9.976E-01	3.202E-20	5.982E-19	7.673E-18	2.047E-16	4.396E-15	9.838E-14	1.053E-12	1.175E-11		
Pa-231	Pu-239	1.000E+00	4.969E-15	4.165E-14	2.370E-13	2.172E-12	1.771E-11	1.644E-10	1.160E-09	1.091E-08		
Pa-231	äDOSE(j)		4.969E-15	4.165E-14	2.371E-13	2.173E-12	1.772E-11	1.645E-10	1.161E-09	1.092E-08		
Ac-227	Cm-243	2.400E-03	3.185E-30	1.387E-28	4.227E-27	4.142E-25	3.764E-23	7.482E-20	5.276E-18	4.649E-16		
Ac-227	Cm-243	9.976E-01	8.183E-23	1.594E-21	2.220E-20	7.516E-19	2.444E-17	1.031E-15	1.321E-13	5.328E-12		
Ac-227	Pu-239	1.000E+00	1.278E-17	1.133E-16	7.166E-16	8.737E-15	1.112E-13	2.105E-12	1.786E-10	5.062E-09		
Ac-227	äDOSE(j)		1.278E-17	1.133E-16	7.166E-16	8.738E-15	1.113E-13	2.106E-12	1.787E-10	5.068E-09		
Co-57	Co-57	1.000E+00	4.737E-03	1.860E-03	2.868E-04	4.130E-07	3.141E-15	0.000E+00	0.000E+00	0.000E+00		
Co-58	Co-58	1.000E+00	1.274E-02	3.566E-04	2.793E-07	3.756E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
Co-60	Co-60	1.000E+00	1.801E-01	1.579E-01	1.214E-01	4.828E-02	3.468E-03	3.444E-07	1.258E-18	0.000E+00		
Cs-134	Cs-134	1.000E+00	2.346E-01	1.676E-01	8.558E-02	8.135E-03	9.777E-06	5.886E-16	0.000E+00	0.000E+00		
Cs-137	Cs-137	1.000E+00	1.694E-01	1.655E-01	1.580E-01	1.344E-01	8.459E-02	1.674E-02	1.635E-04	1.507E-11		

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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

Nuclide	Parent	THF (i)	DOSE(j,t), mrem/yr								
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Eu-154	Eu-154	1.000E+00	4.210E-02	3.890E-02	3.322E-02	1.911E-02	3.938E-03	1.564E-05	2.160E-12	0.000E+00	
Fe-55	Fe-55	1.000E+00	1.918E-04	1.483E-04	8.874E-05	1.469E-05	8.625E-08	1.337E-15	0.000E+00	0.000E+00	
H-3	H-3	1.000E+00	1.812E-03	6.368E-04	3.512E-04	1.861E-07	4.564E-22	0.000E+00	0.000E+00	0.000E+00	
I-129	I-129	1.000E+00	1.161E-01	2.192E+00	6.089E+00	2.979E+00	4.897E-05	8.815E-22	0.000E+00	0.000E+00	
Mn-54	Mn-54	1.000E+00	2.053E-02	9.122E-03	1.801E-03	6.167E-06	5.568E-13	0.000E+00	0.000E+00	0.000E+00	
Nb-94	Nb-94	1.000E+00	4.218E-02	5.078E-02	6.223E-02	1.691E-03	1.668E-10	0.000E+00	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	1.290E-04	1.290E-04	1.290E-04	1.288E-04	1.283E-04	1.267E-04	1.222E-04	1.075E-04	
Ni-63	Ni-63	1.000E+00	3.533E-04	3.507E-04	3.455E-04	3.281E-04	2.830E-04	1.687E-04	3.844E-05	2.173E-07	
Pu-238	Pu-238	1.000E+00	6.960E-03	6.905E-03	6.795E-03	6.426E-03	5.477E-03	3.132E-03	6.339E-04	2.366E-06	
Pu-241	Pu-241	1.000E+00	1.457E-04	1.388E-04	1.260E-04	8.993E-05	3.428E-05	1.172E-06	7.596E-11	1.663E-25	
Pu-241	Pu-241	2.450E-05	7.635E-08	7.275E-08	6.606E-08	4.714E-08	1.797E-08	6.145E-10	3.981E-14	8.639E-29	
Pu-241	äDOSE (j)		1.457E-04	1.389E-04	1.261E-04	8.998E-05	3.430E-05	1.173E-06	7.600E-11	1.663E-25	
Pu-242	Pu-242	5.500E-06	4.035E-08	4.034E-08	4.034E-08	4.031E-08	4.024E-08	3.999E-08	3.929E-08	3.693E-08	
Pu-242	Pu-242	5.400E-05	3.961E-07	3.961E-07	3.960E-07	3.958E-07	3.951E-07	3.926E-07	3.857E-07	3.625E-07	
Pu-242	äDOSE (j)		4.365E-07	4.365E-07	4.364E-07	4.361E-07	4.353E-07	4.326E-07	4.250E-07	3.995E-07	
U-238	Pu-242	5.400E-05	7.815E-18	2.484E-17	5.898E-17	1.766E-16	4.969E-16	1.454E-15	3.882E-15	1.412E-14	
U-238	Pu-242	9.999E-01	2.183E-13	6.817E-13	1.609E-12	4.803E-12	1.350E-11	3.950E-11	9.999E-11	3.100E-10	
U-238	äDOSE (j)		2.183E-13	6.818E-13	1.609E-12	4.803E-12	1.350E-11	3.951E-11	1.000E-10	3.100E-10	
Pu-242	Pu-242	9.999E-01	7.336E-03	7.335E-03	7.334E-03	7.329E-03	7.316E-03	7.271E-03	7.143E-03	6.713E-03	
Ru-106	Ru-106	1.000E+00	1.532E-02	6.208E-02	3.010E-02	8.081E-06	8.500E-19	0.000E+00	0.000E+00	0.000E+00	
Sb-124	Sb-124	1.000E+00	1.327E-02	2.020E-04	6.398E-08	3.868E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	7.720E-01	7.407E-03	8.590E-03	7.384E-03	3.884E-05	2.571E-14	0.000E+00	0.000E+00	0.000E+00	
Sb-125	Sb-125	2.280E-01	2.187E-03	2.537E-03	2.181E-03	1.147E-05	7.593E-15	0.000E+00	0.000E+00	0.000E+00	
Sb-125	äDOSE (j)		9.594E-03	1.113E-02	9.565E-03	5.031E-05	3.330E-14	0.000E+00	0.000E+00	0.000E+00	
Te-125m	Sb-125	2.280E-01	3.160E-03	1.408E-02	1.511E-02	8.243E-05	5.456E-14	0.000E+00	0.000E+00	0.000E+00	
Sn-113	Sn-113	1.000E+00	7.400E-03	9.405E-03	2.329E-04	1.652E-12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Sr-90	Sr-90	1.000E+00	7.939E-01	7.709E-01	7.266E-01	5.909E-01	3.272E-01	4.189E-02	1.414E-04	1.106E-12	
Tc-99	Tc-99	1.000E+00	1.310E-03	1.454E-03	1.740E-03	4.981E-05	4.916E-12	0.000E+00	0.000E+00	0.000E+00	
Zn-65	Zn-65	1.000E+00	8.180E-01	1.038E+00	2.374E-01	5.584E-06	5.311E-22	0.000E+00	0.000E+00	0.000E+00	

Nuclide	Parent	THF(i)	DOSE(j,t), mrem/yr							
(j)	(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
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Zr-95	Zr-95	1.000E+00	6.297E-03	1.204E-04	4.400E-08	4.108E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Nb-95	Zr-95	1.000E+00	5.765E-03	2.255E-04	8.412E-08	7.851E-20	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

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

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF (i) t=	S (j,t), 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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Ag-110m	Ag-110m	1.000E+00	1.000E+00	1.621E-01	4.261E-03	1.254E-08	1.973E-24	0.000E+00	0.000E+00	0.000E+00	
Am-241	Am-241	1.000E+00	1.000E+00	9.899E-01	9.699E-01	9.031E-01	7.366E-01	3.609E-01	4.700E-02	3.747E-05	
Am-241	Pu-241	1.000E+00	0.000E+00	1.558E-03	4.410E-03	1.205E-02	2.114E-02	1.488E-02	1.982E-03	1.580E-06	
Am-241	äS (j) :		1.000E+00	9.914E-01	9.743E-01	9.152E-01	7.577E-01	3.758E-01	4.898E-02	3.905E-05	
Np-237	Am-241	1.000E+00	0.000E+00	3.221E-07	9.560E-07	3.069E-06	8.284E-06	1.953E-05	2.620E-05	1.734E-05	
Np-237	Np-237	1.000E+00	1.000E+00	9.993E-01	9.980E-01	9.933E-01	9.800E-01	9.348E-01	8.169E-01	5.096E-01	
Np-237	Pu-241	1.000E+00	0.000E+00	2.547E-10	2.204E-09	2.144E-08	1.354E-07	5.574E-07	8.702E-07	5.849E-07	
Np-237	Pu-241	2.450E-05	0.000E+00	7.745E-12	2.214E-11	6.273E-11	1.243E-10	1.547E-10	1.363E-10	8.505E-11	
Np-237	äS (j) :		1.000E+00	9.993E-01	9.980E-01	9.933E-01	9.800E-01	9.348E-01	8.169E-01	5.096E-01	
U-233	Am-241	1.000E+00	0.000E+00	7.049E-13	6.284E-12	6.753E-11	5.533E-10	4.479E-09	1.793E-08	2.484E-08	
U-233	Np-237	1.000E+00	0.000E+00	4.364E-06	1.304E-05	4.284E-05	1.233E-04	3.568E-04	7.262E-04	7.502E-04	
U-233	Pu-241	1.000E+00	0.000E+00	3.727E-16	9.757E-15	3.250E-13	6.594E-12	1.060E-10	5.573E-10	8.328E-10	
U-233	Pu-241	2.450E-05	0.000E+00	1.705E-17	1.483E-16	1.466E-15	9.725E-15	4.814E-14	1.154E-13	1.247E-13	
U-233	äS (j) :		0.000E+00	4.364E-06	1.304E-05	4.284E-05	1.233E-04	3.568E-04	7.262E-04	7.502E-04	
Th-229	Am-241	1.000E+00	0.000E+00	2.221E-17	5.955E-16	2.151E-14	5.410E-13	1.579E-11	2.320E-10	1.807E-09	
Th-229	Np-237	1.000E+00	0.000E+00	2.062E-10	1.851E-09	2.036E-08	1.782E-07	1.798E-06	1.246E-05	6.357E-05	
Th-229	Pu-241	1.000E+00	0.000E+00	8.827E-21	6.975E-19	7.907E-17	5.088E-15	3.180E-13	6.638E-12	5.859E-11	
Th-229	Pu-241	2.450E-05	0.000E+00	5.391E-22	1.418E-20	4.810E-19	1.030E-17	2.020E-16	1.828E-15	1.024E-14	
Th-229	äS (j) :		0.000E+00	2.062E-10	1.851E-09	2.036E-08	1.782E-07	1.798E-06	1.246E-05	6.357E-05	
C-14	C-14	1.000E+00	1.000E+00	1.615E-02	4.167E-06	1.036E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Ce-144	Ce-144	1.000E+00	1.000E+00	4.104E-01	6.911E-02	1.355E-04	2.486E-12	2.080E-39	0.000E+00	0.000E+00	
Cm-242	Cm-242	6.800E-08	6.800E-08	1.436E-08	6.401E-10	1.197E-14	3.712E-28	0.000E+00	0.000E+00	0.000E+00	
Cm-242	Cm-242	1.840E-09	1.840E-09	3.885E-10	1.732E-11	3.240E-16	1.004E-29	0.000E+00	0.000E+00	0.000E+00	
Cm-242	äS (j) :		6.984E-08	1.475E-08	6.574E-10	1.230E-14	3.812E-28	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.840E-09	0.000E+00	7.336E-12	9.084E-12	8.674E-12	7.393E-12	4.227E-12	8.557E-13	3.193E-15	
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.796E-09	1.699E-09	1.448E-09	8.279E-10	1.676E-10	6.254E-13	
Pu-238	äS (j) :		1.840E-09	1.833E-09	1.806E-09	1.707E-09	1.455E-09	8.321E-10	1.684E-10	6.286E-13	
Cm-242	Cm-242	1.000E+00	1.000E+00	2.111E-01	9.413E-03	1.761E-07	5.459E-21	0.000E+00	0.000E+00	0.000E+00	
Pu-238	Cm-242	1.000E+00	0.000E+00	3.987E-03	4.937E-03	4.714E-03	4.018E-03	2.297E-03	4.650E-04	1.736E-06	
U-234	Cm-242	1.000E+00	0.000E+00	7.066E-09	3.354E-08	1.277E-07	3.576E-07	8.171E-07	8.379E-07	9.911E-08	
U-234	Pu-238	1.000E+00	0.000E+00	2.819E-06	8.360E-06	2.677E-05	7.169E-05	1.613E-04	1.648E-04	1.947E-05	
U-234	Pu-242	9.999E-01	0.000E+00	2.194E-16	1.965E-15	2.148E-14	1.846E-13	1.747E-12	1.012E-11	3.011E-11	
U-234	äS (j) :		0.000E+00	2.826E-06	8.394E-06	2.690E-05	7.204E-05	1.621E-04	1.656E-04	1.957E-05	
Th-230	Cm-242	1.000E+00	0.000E+00	2.367E-14	3.826E-13	5.500E-12	5.001E-11	4.435E-10	2.078E-09	4.398E-09	
Th-230	Pu-238	1.000E+00	0.000E+00	1.271E-11	1.135E-10	1.228E-09	1.025E-08	8.825E-08	4.101E-07	8.659E-07	
Th-230	Pu-242	9.999E-01	0.000E+00	6.587E-22	1.772E-20	6.483E-19	1.691E-17	5.552E-16	1.080E-14	1.509E-13	
Th-230	äS (j) :		0.000E+00	1.274E-11	1.139E-10	1.234E-09	1.030E-08	8.869E-08	4.122E-07	8.703E-07	

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF(i)	S(j,t), pCi/g									
(j)	(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	
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Ra-226	Cm-242	1.000E+00	0.000E+00	2.738E-18	1.437E-16	7.512E-15	2.135E-13	6.477E-12	9.192E-11	5.240E-10		
Ra-226	Pu-238	1.000E+00	0.000E+00	1.836E-15	4.922E-14	1.778E-12	4.470E-11	1.297E-09	1.818E-08	1.032E-07		
Ra-226	Pu-242	9.999E-01	0.000E+00	7.132E-26	5.754E-24	7.006E-22	5.455E-20	5.872E-18	3.253E-16	1.221E-14		
Ra-226	äS(j) :		0.000E+00	1.839E-15	4.936E-14	1.785E-12	4.492E-11	1.304E-09	1.827E-08	1.037E-07		
Pb-210	Cm-242	1.000E+00	0.000E+00	1.770E-20	2.917E-18	5.235E-16	4.145E-14	3.072E-12	7.031E-11	4.847E-10		
Pb-210	Pu-238	1.000E+00	0.000E+00	1.418E-17	1.128E-15	1.304E-13	8.829E-12	6.176E-10	1.391E-08	9.546E-08		
Pb-210	Pu-242	9.999E-01	0.000E+00	4.411E-28	1.057E-25	4.141E-23	8.790E-21	2.364E-18	2.227E-16	1.073E-14		
Pb-210	äS(j) :		0.000E+00	1.420E-17	1.130E-15	1.310E-13	8.870E-12	6.206E-10	1.398E-08	9.595E-08		
Po-210	Cm-242	1.000E+00	0.000E+00	4.364E-21	1.515E-18	4.199E-16	3.838E-14	2.991E-12	6.936E-11	4.800E-10		
Po-210	Pu-238	1.000E+00	0.000E+00	3.939E-18	6.196E-16	1.058E-13	8.185E-12	6.012E-10	1.372E-08	9.454E-08		
Po-210	Pu-242	9.999E-01	0.000E+00	1.059E-28	5.252E-26	3.207E-23	8.003E-21	2.287E-18	2.192E-16	1.061E-14		
Po-210	äS(j) :		0.000E+00	3.943E-18	6.212E-16	1.062E-13	8.223E-12	6.042E-10	1.379E-08	9.502E-08		
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.230E-03	1.879E-03	1.153E-03	2.082E-04	1.567E-06	5.795E-14		
Cm-243	Cm-243	9.976E-01	9.976E-01	9.735E-01	9.271E-01	7.812E-01	4.791E-01	8.654E-02	6.513E-04	2.409E-11		
Cm-243	äS(j) :		1.000E+00	9.758E-01	9.293E-01	7.831E-01	4.803E-01	8.675E-02	6.529E-04	2.415E-11		
Am-243	Cm-243	2.400E-03	0.000E+00	2.217E-07	6.435E-07	1.912E-06	4.153E-06	4.761E-06	1.048E-06	2.425E-09		
Pu-239	Cm-243	2.400E-03	0.000E+00	3.211E-12	2.826E-11	2.909E-10	2.119E-09	1.208E-08	2.654E-08	2.774E-08		
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.310E-05	2.548E-04	6.097E-04	1.065E-03	1.140E-03	1.052E-03		
Pu-239	Pu-239	1.000E+00	1.000E+00	9.999E-01	9.997E-01	9.988E-01	9.965E-01	9.885E-01	9.659E-01	8.908E-01		
Pu-239	äS(j) :		1.000E+00	9.999E-01	9.997E-01	9.991E-01	9.971E-01	9.896E-01	9.671E-01	8.919E-01		
U-235	Cm-243	2.400E-03	0.000E+00	1.056E-21	2.800E-20	9.731E-19	2.202E-17	4.611E-16	3.352E-15	7.630E-15		
U-235	Cm-243	9.976E-01	0.000E+00	1.402E-14	1.238E-13	1.291E-12	9.745E-12	6.332E-11	1.932E-10	2.973E-10		
U-235	Pu-239	1.000E+00	0.000E+00	9.831E-10	2.939E-09	9.675E-09	2.802E-08	8.276E-08	1.802E-07	2.533E-07		
U-235	äS(j) :		0.000E+00	9.831E-10	2.939E-09	9.676E-09	2.803E-08	8.282E-08	1.804E-07	2.536E-07		
Pa-231	Cm-243	2.400E-03	0.000E+00	5.592E-27	4.458E-25	5.205E-23	3.608E-21	2.671E-19	6.288E-18	3.927E-17		
Pa-231	Cm-243	9.976E-01	0.000E+00	9.901E-20	2.632E-18	9.232E-17	2.145E-15	4.933E-14	4.587E-13	1.619E-12		
Pa-231	Pu-239	1.000E+00	0.000E+00	1.039E-14	9.311E-14	1.018E-12	8.741E-12	8.263E-11	4.770E-10	1.400E-09		
Pa-231	äS(j) :		0.000E+00	1.039E-14	9.312E-14	1.018E-12	8.743E-12	8.268E-11	4.775E-10	1.402E-09		
Ac-227	Cm-243	2.400E-03	0.000E+00	3.541E-29	8.378E-27	3.143E-24	5.905E-22	1.070E-19	4.074E-18	3.041E-17		
Ac-227	Cm-243	9.976E-01	0.000E+00	7.829E-22	6.163E-20	6.892E-18	4.253E-16	2.261E-14	3.137E-13	1.261E-12		
Ac-227	Pu-239	1.000E+00	0.000E+00	1.093E-16	2.882E-15	9.845E-14	2.140E-12	4.208E-11	3.338E-10	1.092E-09		
Ac-227	äS(j) :		0.000E+00	1.093E-16	2.882E-15	9.846E-14	2.140E-12	4.211E-11	3.341E-10	1.094E-09		
Co-57	Co-57	1.000E+00	1.000E+00	3.927E-01	6.056E-02	8.720E-05	6.630E-13	2.542E-41	0.000E+00	0.000E+00		
Co-58	Co-58	1.000E+00	1.000E+00	2.799E-02	2.192E-05	2.947E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
Co-60	Co-60	1.000E+00	1.000E+00	8.766E-01	6.737E-01	2.680E-01	1.925E-02	1.912E-06	6.986E-18	0.000E+00		
Cs-134	Cs-134	1.000E+00	1.000E+00	7.145E-01	3.647E-01	3.467E-02	4.167E-05	2.509E-15	1.541E-44	0.000E+00		
Cs-137	Cs-137	1.000E+00	1.000E+00	9.771E-01	9.329E-01	7.934E-01	4.994E-01	9.884E-02	9.656E-04	8.898E-11		

Summary : Dresden 10CFR20.2002 Pad DCGL Evaluation

File : C:\RESRAD\_FAMILY\RESRAD\6.5\USERFILES\JJC012413RECREATIONIST.RAD

Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide	Parent	THF (i)	S(j,t), pCi/g								
(j)	(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
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Eu-154	Eu-154	1.000E+00		1.000E+00	9.241E-01	7.890E-01	4.539E-01	9.354E-02	3.716E-04	5.131E-11	5.020E-35
Fe-55	Fe-55	1.000E+00		1.000E+00	7.734E-01	4.627E-01	7.662E-02	4.497E-04	6.970E-12	3.385E-34	0.000E+00
H-3	H-3	1.000E+00		1.000E+00	1.881E-01	6.643E-03	5.357E-08	1.201E-22	0.000E+00	0.000E+00	0.000E+00
I-129	I-129	1.000E+00		1.000E+00	5.766E-01	1.917E-01	4.062E-03	6.703E-08	1.224E-24	0.000E+00	0.000E+00
Mn-54	Mn-54	1.000E+00		1.000E+00	4.444E-01	8.777E-02	3.005E-04	2.713E-11	5.997E-36	0.000E+00	0.000E+00
Nb-94	Nb-94	1.000E+00		1.000E+00	4.465E-01	8.900E-02	3.148E-04	3.119E-11	9.553E-36	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00		1.000E+00	9.998E-01	9.995E-01	9.982E-01	9.945E-01	9.819E-01	9.466E-01	8.329E-01
Ni-63	Ni-63	1.000E+00		1.000E+00	9.926E-01	9.781E-01	9.287E-01	8.011E-01	4.774E-01	1.088E-01	6.150E-04
Pu-238	Pu-238	1.000E+00		1.000E+00	9.920E-01	9.763E-01	9.232E-01	7.869E-01	4.499E-01	9.108E-02	3.399E-04
Pu-241	Pu-241	1.000E+00		1.000E+00	9.529E-01	8.653E-01	6.174E-01	2.353E-01	8.049E-03	5.215E-07	1.141E-21
Pu-241	Pu-241	2.450E-05		2.450E-05	2.335E-05	2.120E-05	1.513E-05	5.766E-06	1.972E-07	1.278E-11	2.796E-26
Pu-241	äS (j) :			1.000E+00	9.529E-01	8.653E-01	6.174E-01	2.354E-01	8.049E-03	5.215E-07	1.141E-21
Pu-242	Pu-242	5.500E-06		5.500E-06	5.500E-06	5.499E-06	5.495E-06	5.485E-06	5.451E-06	5.356E-06	5.033E-06
Pu-242	Pu-242	5.400E-05		5.400E-05	5.399E-05	5.399E-05	5.395E-05	5.386E-05	5.352E-05	5.258E-05	4.942E-05
Pu-242	äS (j) :			5.950E-05	5.949E-05	5.948E-05	5.945E-05	5.934E-05	5.897E-05	5.794E-05	5.445E-05
U-238	Pu-242	5.400E-05		0.000E+00	8.362E-15	2.500E-14	8.230E-14	2.384E-13	7.049E-13	1.540E-12	2.197E-12
U-238	Pu-242	9.999E-01		0.000E+00	1.549E-10	4.629E-10	1.524E-09	4.415E-09	1.305E-08	2.852E-08	4.069E-08
U-238	äS (j) :			0.000E+00	1.549E-10	4.629E-10	1.524E-09	4.415E-09	1.305E-08	2.852E-08	4.069E-08
Pu-242	Pu-242	9.999E-01		9.999E-01	9.999E-01	9.997E-01	9.991E-01	9.973E-01	9.911E-01	9.737E-01	9.151E-01
Ru-106	Ru-106	1.000E+00		1.000E+00	2.245E-01	1.131E-02	3.251E-07	3.435E-20	0.000E+00	0.000E+00	0.000E+00
Sb-124	Sb-124	1.000E+00		1.000E+00	6.659E-03	2.952E-07	1.713E-22	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Sb-125	Sb-125	7.720E-01		7.720E-01	2.684E-01	3.244E-02	1.991E-05	1.324E-14	0.000E+00	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01		2.280E-01	7.926E-02	9.580E-03	5.880E-06	3.910E-15	0.000E+00	0.000E+00	0.000E+00
Sb-125	äS (j) :			1.000E+00	3.476E-01	4.202E-02	2.579E-05	1.715E-14	0.000E+00	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01		0.000E+00	8.271E-02	1.016E-02	6.237E-06	4.148E-15	0.000E+00	0.000E+00	0.000E+00
Sn-113	Sn-113	1.000E+00		1.000E+00	4.949E-02	1.212E-04	8.821E-14	6.863E-40	0.000E+00	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00		1.000E+00	9.709E-01	9.152E-01	7.442E-01	4.121E-01	5.208E-02	1.413E-04	1.469E-13
Tc-99	Tc-99	1.000E+00		1.000E+00	4.465E-01	8.901E-02	3.149E-04	3.122E-11	9.582E-36	0.000E+00	0.000E+00
Zn-65	Zn-65	1.000E+00		1.000E+00	1.581E-01	3.954E-03	9.775E-09	9.340E-25	0.000E+00	0.000E+00	0.000E+00



Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide Parent		THF(i)	S(j,t), pCi/g									
(j)	(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									
AAAAAA	AAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
Zr-95	Zr-95	1.000E+00	1.000E+00	1.912E-02	6.988E-06	6.523E-18	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Nb-95	Zr-95	1.000E+00	0.000E+00	3.339E-02	1.242E-05	1.160E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
iiiiii	iiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii	iiiiiiii
THF(i) is the thread fraction of the parent nuclide.												

RESCALC.EXE execution time = 117.42 seconds  
Total water/soil iteration failures = 1.