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To: "Mark Notich" <mdn@nrc.gov>, "Michael R Sackschewsky" <michael.sackschewsky@pnl.gov>
Date: 7/18/2007 11:35:20 AM
Subject: MACCS2 Input and Output File Revisions

<<VOUT.TXT>> <<VMET.INP>> <<VSITE.INP>> <<VCHRONC.INP>>
<<VEARLY.INP>>
<<VATMOS.INP>>

Mark:

The attached files represent the current input and output information for the MACCS2 run. They include the changes made in support of our recent teleconference with Van Ramsdell and Al Toblin. We will also be revising Chapter 7 of the ER to include this information in the next revision (Rev. 3) this Fall.

This information will be formally submitted for the docket in the next few days. This advance copy is provided to expedite your review. I hope that this resolves all of Van's questions regarding Chapter 7 issues.

TCM

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Files	Size	Date & Time
MESSAGE	828	7/18/2007 11:35:20 AM
VOUT.TXT	457043	8/2/2007 9:24:42 AM
VMET.INP	166621	8/2/2007 9:24:42 AM
VSITE.INP	10454	8/2/2007 9:24:42 AM
VCHRONC.INP	13308	8/2/2007 9:24:42 AM
VEARLY.INP	13611	8/2/2007 9:24:42 AM
VATMOS.INP	20308	8/2/2007 9:24:42 AM
Mime.822	956482	8/2/2007 9:24:42 AM

Options

Priority: Standard
Reply Requested: No
Return Notification: None
None

Concealed Subject: No
Security: Standard

MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

P1: ATMOS USER INPUT (UNIT 24) = V.ATM

P2: EARLY USER INPUT (UNIT 25) = V.ERL

P3: CHRONC USER INPUT (UNIT 26) = V.CHR

P4: METEOROLOGY DATA (UNIT 28) = V.MET

P5: SITE DATA INPUT (UNIT 29) = V.SIT

P6: LIST OUTPUT (UNIT 06) = V.OUT

USER INPUT IS READ FROM UNIT 24

RECORD IDENTIFIER FIELDS 11 CHARACTERS LONG ARE EXPECTED.

THE FIRST 100 COLUMNS OF EACH INPUT RECORD ARE PROCESSED.

THE MAXIMUM NUMBER OF IDENTIFIER RECORDS THAT MAY BE SAVED AS THE BASE CASE IS 1000.

RECORD

NUMBER

RECORD

* FILE NAME: VATMOS.INP

*

* GENERAL DESCRIPTIVE TITLE DESCRIBING THIS "ATMOS" INPUT

*

1 RIATNAM1001 'ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000'

*

* GEOMETRY DATA BLOCK, LOADED BY INPGEO, STORED IN /GEOM/

*

* NUMBER OF RADIAL SPATIAL ELEMENTS

*

2 GENUMRAD001 10

*

* SPATIAL ENDPOINT DISTANCES IN MILES [SEE SIT FILE]

*

* END001 1 2 3 4 5

* END002 10 20 30 40 50

*

* SPATIAL ENDPOINT DISTANCES IN KILOMETERS

*

3 GESPAEND001 1.6093 3.2187 4.8280 6.4374 8.0467

4 GESPAEND002 16.0935 32.1869 48.2804 64.3739 80.4674

* NUCLIDE DATA BLOCK, LOADED BY INPISO, STORED IN /ISOGRP/, /ISONAM/

*

* Number of pseudo-stable nuclides (used to truncate the decay chains)

*

[1:page 5-7]

5 ISNUMSTB001 27

*

* List of pseudo-stable nuclides

*

[1:page 5-7]

6 ISNAMSTB001 I-129 (daughter of Te-129 and Te-129m)

7 ISNAMSTB002 Xe-131m (daughter of I-131)

8 ISNAMSTB003 Xe-133m (daughter of I-133)

9 ISNAMSTB004 Xe-135m (daughter of I-135)

10 ISNAMSTB005 Cs-135 (daughter of Xe-135 and Xe-135m)

11 ISNAMSTB006 Sm-147 (daughter of Pm-147)
 12 ISNAMSTB007 U-234 (daughter of Pu-238)
 13 ISNAMSTB008 U-235 (daughter of Pu-239)
 14 ISNAMSTB009 U-236 (daughter of Pu-240)
 15 ISNAMSTB010 U-237 (daughter of Pu-241)
 16 ISNAMSTB011 Np-237 (daughter of Am-241)
 17 ISNAMSTB012 Rb-87 (daughter of Kr-87)
 18 ISNAMSTB013 Ba-137m (daughter of Cs-137)
 19 ISNAMSTB014 Rb-88 (daughter of Kr-88)
 20 ISNAMSTB015 Y-91m (daughter of Sr-91)
 21 ISNAMSTB016 Zr-93 (daughter of Y-93)
 22 ISNAMSTB017 Nb-93m (daughter of Zr-93)
 23 ISNAMSTB018 Nb-95m (daughter of Zr-95)
 24 ISNAMSTB019 Nb-97 (daughter of Zr-97 and Nb-97m)
 25 ISNAMSTB020 Nb-97m (daughter of Zr-97)
 26 ISNAMSTB021 Tc-99 (daughter of Mo-99)
 27 ISNAMSTB022 Rh-103m (daughter of Ru-103)
 28 ISNAMSTB023 Rh-106 (daughter of Ru-106)
 29 ISNAMSTB024 Te-131 (daughter of Te-131m)
 30 ISNAMSTB025 Pr-144 (daughter of Ce-144 and Pr-144m)
 31 ISNAMSTB026 Pr-144m (daughter of Ce-144)
 32 ISNAMSTB027 Pm-147 (daughter of Nd-147)

*

* Number of radioactive nuclides to be considered

*

33 ISNUMISO001 60

*

* NUMBER OF NUCLIDE GROUPS

*

34 ISMAXGRP001 9

*

* WET AND DRY DEPOSITION FLAGS FOR EACH NUCLIDE GROUP

*

* WETDEP DRYDEP

*

35 ISDEPFLA001 .FALSE. .FALSE.
 36 ISDEPFLA002 .TRUE. .TRUE.
 37 ISDEPFLA003 .TRUE. .TRUE.
 38 ISDEPFLA004 .TRUE. .TRUE.
 39 ISDEPFLA005 .TRUE. .TRUE.
 40 ISDEPFLA006 .TRUE. .TRUE.
 41 ISDEPFLA007 .TRUE. .TRUE.
 42 ISDEPFLA008 .TRUE. .TRUE.
 43 ISDEPFLA009 .TRUE. .TRUE.

*

* NUCLIDE GROUP DATA FOR 9 NUCLIDE GROUPS

* (SAME AS 1150 EXCEPT LOWER CASE NUCNAM, NO PARENT OR HALFLIFE [1:page 5-7])

*

* NUCNAM IGROUP

*

44 ISOTPGRP001 Co-58 6
 45 ISOTPGRP002 Co-60 6
 46 ISOTPGRP003 Kr-85 1
 47 ISOTPGRP004 Kr-85m 1
 48 ISOTPGRP005 Kr-87 1
 49 ISOTPGRP006 Kr-88 1
 50 ISOTPGRP007 Rb-86 3

51	ISOTPGRP008	Sr-89	5
52	ISOTPGRP009	Sr-90	5
53	ISOTPGRP010	Sr-91	5
54	ISOTPGRP011	Sr-92	5
55	ISOTPGRP012	Y-90	7
56	ISOTPGRP013	Y-91	7
57	ISOTPGRP014	Y-92	7
58	ISOTPGRP015	Y-93	7
59	ISOTPGRP016	Zr-95	7
60	ISOTPGRP017	Zr-97	7
61	ISOTPGRP018	Nb-95	7
62	ISOTPGRP019	Mo-99	6
63	ISOTPGRP020	Tc-99m	6
64	ISOTPGRP021	Ru-103	6
65	ISOTPGRP022	Ru-105	6
66	ISOTPGRP023	Ru-106	6
67	ISOTPGRP024	Rh-105	6
68	ISOTPGRP025	Sb-127	4
69	ISOTPGRP026	Sb-129	4
70	ISOTPGRP027	Te-127	4
71	ISOTPGRP028	Te-127m	4
72	ISOTPGRP029	Te-129	4
73	ISOTPGRP030	Te-129m	4
74	ISOTPGRP031	Te-131m	4
75	ISOTPGRP032	Te-132	4
76	ISOTPGRP033	I-131	2
77	ISOTPGRP034	I-132	2
78	ISOTPGRP035	I-133	2
79	ISOTPGRP036	I-134	2
80	ISOTPGRP037	I-135	2
81	ISOTPGRP038	Xe-133	1
82	ISOTPGRP039	Xe-135	1
83	ISOTPGRP040	Cs-134	3
84	ISOTPGRP041	Cs-136	3
85	ISOTPGRP042	Cs-137	3
86	ISOTPGRP043	Ba-139	9
87	ISOTPGRP044	Ba-140	9
88	ISOTPGRP045	La-140	7
89	ISOTPGRP046	La-141	7
90	ISOTPGRP047	La-142	7
91	ISOTPGRP048	Ce-141	8
92	ISOTPGRP049	Ce-143	8
93	ISOTPGRP050	Ce-144	8
94	ISOTPGRP051	Pr-143	7
95	ISOTPGRP052	Nd-147	7
96	ISOTPGRP053	Np-239	8
97	ISOTPGRP054	Pu-238	8
98	ISOTPGRP055	Pu-239	8
99	ISOTPGRP056	Pu-240	8
100	ISOTPGRP057	Pu-241	8
101	ISOTPGRP058	Am-241	7
102	ISOTPGRP059	Cm-242	7
103	ISOTPGRP060	Cm-244	7

* WET DEPOSITION DATA BLOCK, LOADED BY INPWET, STORED IN /WETCON/

*

* WASHOUT COEFFICIENT NUMBER ONE, LINEAR FACTOR
*

104 WDCWASH1001 9.5E-5 (JON HELTON AFTER JONES, 1986)
*

* WASHOUT COEFFICIENT NUMBER TWO, EXPONENTIAL FACTOR
*

105 WDCWASH2001 0.8 (JON HELTON AFTER JONES, 1986)

* DRY DEPOSITION DATA BLOCK, LOADED BY INPDY, STORED IN /DRYCON/
*

* NUMBER OF PARTICLE SIZE GROUPS
*

106 DDNPSGRP001 3
*

* DEPOSITION VELOCITY OF EACH PARTICLE SIZE GROUP (M/S)
*

107 DDVDEPOS001 0.0 0.01 0.001 (values from URD)
* First value is for volatile iodine (5% of total; see PSDIST002)
* Second value is for particulate iodine (95% ; see PSDIST002)
* Third value is for all other particulates except iodine (see PSDIST 3-9)

* DISPERSION PARAMETER DATA BLOCK, LOADED BY INPDIS, STORED IN /DISPY/, /DISPZ/
*

* # of distances in plume-size tables--which can be used as an alternative to the power-law model:
* (to utilize the power-law model, set NUM_DIST to zero or delete the following data card)
*

108 NUM_DIST001 0
*

* SIGMA = A * X ** B
*

* Taken from URD
* P-G CLASS: A B C D E F

109 DPCYSIGA001	0.3658	0.2751	0.2089	0.1474	0.1046	0.0722
110 DPCYSIGB001	0.9031	0.9031	0.9031	0.9031	0.9031	0.9031
111 DPCZSIGA001	2.47E-4	0.078	0.144	0.368	0.2517	0.184
112 DPCZSIGB001	2.118	1.085	0.911	0.6764	0.6720	0.6546

*
* LINEAR SCALING FACTOR FOR SIGMA-Y FUNCTION, NORMALLY 1
*

113 DPYSCALE001 1.
*

* LINEAR SCALING FACTOR FOR SIGMA-Z FUNCTION,
* NORMALLY USED FOR SURFACE ROUGHNESS LENGTH CORRECTION.
* $(Z1 / Z0) ** 0.2$, FROM CRAC2 WE HAVE $(10 \text{ CM} / 3 \text{ CM}) ** 0.2 = 1.27$
*

114 DPZSCALE001 1.27

* EXPANSION FACTOR DATA BLOCK, LOADED BY INPEXP, STORED IN /EXPAND/
*

* TIME BASE FOR EXPANSION FACTOR (SECONDS)
*

115 PMTIMBAS001 180. (from Westinghouse ATMOS file)
*

* BREAK POINT FOR FORMULA CHANGE (SECONDS)
*

116 PMBRKPNT001 3600. (1 HOUR)

```

*
* EXPONENTIAL EXPANSION FACTOR NUMBER 1
*
117 PMXPFAC1001    0.2
*
* EXPONENTIAL EXPANSION FACTOR NUMBER 2
*
118 PMXPFAC2001    0.25
*****
* PLUME RISE DATA BLOCK, LOADED BY INPLRS, STORED IN /PLUMRS/
*
* SCALING FACTOR FOR THE CRITICAL WIND SPEED FOR ENTRAINMENT OF A BOUYANT
PLUME
* (USED BY FUNCTION CAUGHT)
*
119 PRSCLCRW001    1.
*
* SCALING FACTOR FOR THE A-D STABILITY PLUME RISE FORMULA
* (USED BY FUNCTION PLMRIS)
*
120 PRSCLADP001    1.
*
* SCALING FACTOR FOR THE E-F STABILITY PLUME RISE FORMULA
* (USED BY FUNCTION PLMRIS)
*
121 PRSCLEFP001    1.
*****
* RELEASE DATA BLOCK, LOADED BY INPREL, STORED IN /ATNAM2/, /MULREL/
*****
* RELEASE DATA BLOCK *****
*
* Vogtle ESP CONTAINMENT VESSEL (DCD REV16 P.3.8-1)
* height 215'4" (65.63 meters) X width 130' (39.62 meters)
*
* Initial value of sigma-y for each plume
*
122 SIGYINIT001    9.21  9.21  9.21  9.21  *(initial sigma-y = W/4.3)
*
* Initial value of sigma-z for each plume
*
123 SIGZINIT001    30.53 30.53 30.53 30.53 *(initial sigma-z = H/2.15)
*
* Building height (meters)
*
124 WEBUILDH001    65.63 65.63 65.63 65.63 *(Height of Vogtle ESP containment)
*
* PARTICLE SIZE DISTRIBUTION OF EACH NUCLIDE GROUP
* YOU MUST SPECIFY A COLUMN OF DATA FOR EACH OF THE PARTICLE SIZE GROUPS
*
125 RDPSDIST001    0.0  0.0  1.0
126 RDPSDIST002    0.05 0.95 0.0
127 RDPSDIST003    0.0  0.0  1.0
128 RDPSDIST004    0.0  0.0  1.0
129 RDPSDIST005    0.0  0.0  1.0
130 RDPSDIST006    0.0  0.0  1.0
131 RDPSDIST007    0.0  0.0  1.0
132 RDPSDIST008    0.0  0.0  1.0

```

133 RDPDIST009 0.0 0.0 1.0

*

* AP1000 CORE INVENTORY, END-OF-CYCLE from AP1000 DCD, Rev 12 (in Rev 14)

*

*

*

NUCNAM CORINV (Bq)

*

134	RDCORINV001	Co-58	0.0
135	RDCORINV002	Co-60	0.0
136	RDCORINV003	Kr-85	3.92E+16
137	RDCORINV004	Kr-85m	9.73E+17
138	RDCORINV005	Kr-87	1.88E+18
139	RDCORINV006	Kr-88	2.64E+18
140	RDCORINV007	Rb-86	8.47E+15
141	RDCORINV008	Sr-89	3.57E+18
142	RDCORINV009	Sr-90	3.07E+17
143	RDCORINV010	Sr-91	4.44E+18
144	RDCORINV011	Sr-92	4.77E+18
145	RDCORINV012	Y-90	3.20E+17
146	RDCORINV013	Y-91	4.59E+18
147	RDCORINV014	Y-92	4.81E+18
148	RDCORINV015	Y-93	5.51E+18
149	RDCORINV016	Zr-95	6.14E+18
150	RDCORINV017	Zr-97	6.07E+18
151	RDCORINV018	Nb-95	6.18E+18
152	RDCORINV019	Mo-99	6.81E+18
153	RDCORINV020	Tc-99m	5.96E+18
154	RDCORINV021	Ru-103	5.37E+18
155	RDCORINV022	Ru-105	3.64E+18
156	RDCORINV023	Ru-106	1.76E+18
157	RDCORINV024	Rh-105	3.33E+18
158	RDCORINV025	Sb-127	3.81E+17
159	RDCORINV026	Sb-129	1.15E+18
160	RDCORINV027	Te-127	3.77E+17
161	RDCORINV028	Te-127m	4.88E+16
162	RDCORINV029	Te-129	1.12E+18
163	RDCORINV030	Te-129m	1.67E+17
164	RDCORINV031	Te-131m	5.18E+17
165	RDCORINV032	Te-132	5.11E+18
166	RDCORINV033	I-131	3.56E+18
167	RDCORINV034	I-132	5.18E+18
168	RDCORINV035	I-133	7.36E+18
169	RDCORINV036	I-134	8.07E+18
170	RDCORINV037	I-135	6.88E+18
171	RDCORINV038	Xe-133	7.03E+18
172	RDCORINV039	Xe-135	1.79E+18
173	RDCORINV040	Cs-134	7.18E+17
174	RDCORINV041	Cs-136	2.05E+17
175	RDCORINV042	Cs-137	4.18E+17
176	RDCORINV043	Ba-139	6.59E+18
177	RDCORINV044	Ba-140	6.33E+18
178	RDCORINV045	La-140	6.73E+18
179	RDCORINV046	La-141	5.99E+18
180	RDCORINV047	La-142	5.81E+18
181	RDCORINV048	Ce-141	6.03E+18
182	RDCORINV049	Ce-143	5.62E+18


```

183 RDCORINV050 Ce-144 4.55E+18
184 RDCORINV051 Pr-143 5.40E+18
185 RDCORINV052 Nd-147 2.40E+18
186 RDCORINV053 Np-239 7.14E+19
187 RDCORINV054 Pu-238 1.42E+16
188 RDCORINV055 Pu-239 1.25E+15
189 RDCORINV056 Pu-240 1.83E+15
190 RDCORINV057 Pu-241 4.11E+17
191 RDCORINV058 Am-241 4.63E+14
192 RDCORINV059 Cm-242 1.09E+17
193 RDCORINV060 Cm-244 1.346E+16
*
*
194 RDCORSCA001 1.000
*
195 RDAPLFRC001 PARENT (apply rel fracs the same as prior versions)
*
*****
* OUTPUT CONTROL DATA BLOCK, LOADED BY INPOPT, STORED IN /STOPME/, /ATMOPT/
*
* FLAG TO INDICATE THAT THIS IS THE LAST PROGRAM IN THE SERIES TO BE RUN
*
196 OCENDAT1001 .FALSE. (SET THIS VALUE TO .TRUE. TO SKIP EARLY AND CHRONC)
*
197 OCIDEBUG001 0
*
* NAME OF THE NUCLIDE TO BE LISTED ON THE DISPERSION LISTINGS
*
*OCNUCOUT001 Cs-137
*
*          NUM0          NO TABLES OUTPUT=0
198 TYPE0NUMBER 0
*
*          INDREL  INDRAD
*TYPE0OUT001 1 4
*TYPE0OUT002 1 10 XCCDF
*****
* METEOROLOGICAL SAMPLING DATA BLOCK
*
* METEOROLOGICAL SAMPLING OPTION CODE:
*
* METCOD = 1, USER SPECIFIED DAY AND HOUR IN THE YEAR (FROM MET FILE),
* 2, WEATHER CATEGORY BIN SAMPLING,
* 3, 120 HOURS OF WEATHER SPECIFIED ON THE ATMOS USER INPUT FILE,
* 4, CONSTANT MET (BOUNDARY WEATHER USED FROM THE START),
* 5, STRATIFIED RANDOM SAMPLES FOR EACH DAY OF THE YEAR.
*
199 M1METCOD001 2
*
* LAST SPATIAL INTERVAL FOR MEASURED WEATHER
*
200 M2LIMSPA001 10 (ADJUSTED FOR RADIAL INTVL)
*
* BOUNDARY WEATHER MIXING LAYER HEIGHT
*

```

201 M2BNDMXH001 1500. (METERS; used by Westinghouse)
 *
 * BOUNDARY WEATHER STABILITY CLASS INDEX
 *
 202 M2IBDSTB001 4 (D-STABILITY; Westinghouse used 6 for F class)
 *
 * BOUNDARY WEATHER RAIN RATE
 *
 203 M2BNDRAN001 0. (MM/HR)
 *
 * BOUNDARY WEATHER WIND SPEED
 *
 204 M2BNDWND001 2.0 (M/S; used by Westinghouse)
 *
 * NUMBER OF RAIN DISTANCE INTERVALS FOR BINNING
 *
 205 M4NRNINT001 5
 *
 nureg 4551 [4:page a-9]
 * ENDPOINTS OF THE RAIN DISTANCE INTERVALS (KILOMETERS)
 *
 * NOTE: THESE MUST BE CHOSEN TO MATCH THE SPATIAL ENDPOINT DISTANCES
 * SPECIFIED FOR ARRAY SPAEND (10 % ERROR IS ALLOWED).
 *
 206 M4RNDSTS001 3.22 8.05 16.09 48.28 80.47 KM
 *
 * NUMBER OF RAIN INTENSITIY BREAKPOINTS
 *
 207 M4NRINTN001 3
 *
 * RAIN INTENSITY BREAKPOINTS FOR WEATHER BINNING (MILLIMETERS PER HOUR)
 *
 208 M4RNRATE001 2. 4. 6.
 *
 * NUMBER OF SAMPLES PER BIN
 *
 209 M4NSMPLS001 4 (THIS NUMBER SHOULD BE SET TO AT LEAST 4 WHEN METCOD=2)
 *
 * INITIAL SEED FOR RANDOM NUMBER GENERATOR
 *
 210 M4IRSEED001 79
 ***** RELEASE DATA BLOCK *****
 * SOURCE TERM NUMBER 1 OF 6
 *
 211 RDATNAM2001 'CFI'
 212 RDOALARM001 2924. * value provided by Westinghouse for all source terms
 213 RDNUMREL001 4 *four plume segments
 214 RDMAXRIS001 1 *first plume segment carries greatest risk
 215 RDREFTIM001 0.5 0.5 0.5 0.5
 216 RDPLHEAT001 0.0 0.0 0.0 0.0 *neglects buoyant plume rise
 217 RDPLHITE001 0. 0. 0. 0. *Release height of each plume (meters above grade)
 218 RDPLUDUR001 29666. 36000. 36000. 36000. *PI dur=Tbl49-2 values But lim to 10 hrs
 219 RDPDELAY001 2924. 32590. 86420. 172800. *start at Table 49-2 values
 * XE/KR I CS TE(SB) SR RU(MO) LA CE BA
 220 RDRELFRC001 5.40E-1 3.19E-3 3.18E-3 4.18E-4 2.11E-2 9.11E-3 3.53E-3 2.64E-5 1.62E-2
 221 RDRELFRC002 2.58E-1 1.35E-4 1.35E-4 1.67E-5 6.50E-4 1.68E-4 4.53E-3 1.68E-5 3.40E-4
 222 RDRELFRC003 8.40E-2 0.00E0 0.00E0 4.47E-6 0.00E0 0.00E0 6.00E-3 2.17E-5 0.00E0

223 RDRELFRC004 3.83E-2 0.00E0 0.00E0 1.57E-6 0.00E0 0.00E0 5.22E-3 1.89E-5 0.00E0

***** TERMINATOR RECORD ENCOUNTERED -- END OF BASE CASE USER INPUT *****

USER INPUT PROCESSING SUMMARY - BASE CASE

NUMBER OF RECORDS READ = 430
NUMBER OF BLANK OR COMMENT RECORDS READ = 206
NUMBER OF TERMINATOR RECORDS = 1
NUMBER OF RECORDS PROCESSED = 223
NUMBER OF PROCESSED RECORDS DUPLICATED = 0
NUMBER OF PROCESSED RECORDS SORTED = 223

Decay Chain # Ba-139

Decay Chain # Ba-140 La-140
Fraction of Ba-140 going to La-140 in this chain = 1.000000

Decay Chain # Ce-143 Pr-143
Fraction of Ce-143 going to Pr-143 in this chain = 1.000000

Decay Chain # Ce-144

Decay Chain # Cm-242 Pu-238
Fraction of Cm-242 going to Pu-238 in this chain = 1.000000

Decay Chain # Cm-244 Pu-240
Fraction of Cm-244 going to Pu-240 in this chain = 1.000000

Decay Chain # Co-58

Decay Chain # Co-60

Decay Chain # Cs-134

Decay Chain # Cs-136

Decay Chain # Cs-137

Decay Chain # I-133 Xe-133
Fraction of I-133 going to Xe-133 in this chain = 0.971000

Decay Chain # I-134

Decay Chain # I-135 Xe-135
Fraction of I-135 going to Xe-135 in this chain = 0.846000

Decay Chain # Kr-85m Kr-85
Fraction of Kr-85m going to Kr-85 in this chain = 0.211000

Decay Chain # Kr-87

Decay Chain # Kr-88

Decay Chain # La-141 Ce-141

Fraction of La-141 going to Ce-141 in this chain = 1.000000

Decay Chain # La-142

Decay Chain # Mo-99 Tc-99m

Fraction of Mo-99 going to Tc-99m in this chain = 0.876000

Decay Chain # Nd-147

Decay Chain # Np-239 Pu-239

Fraction of Np-239 going to Pu-239 in this chain = 1.000000

Decay Chain # Pu-241 Am-241

Fraction of Pu-241 going to Am-241 in this chain = 1.000000

Decay Chain # Rb-86

Decay Chain # Ru-103

Decay Chain # Ru-105 Rh-105

Fraction of Ru-105 going to Rh-105 in this chain = 1.000000

Decay Chain # Ru-106

Decay Chain # Sb-127 Te-127

Fraction of Sb-127 going to Te-127 in this chain = 0.824000

Decay Chain # Sb-127 Te-127m Te-127

Fraction of Sb-127 going to Te-127m in this chain = 0.176000

Fraction of Sb-127 going to Te-127 in this chain = 0.171776

Fraction of Te-127m going to Te-127 in this chain = 0.976000

Decay Chain # Sb-129 Te-129

Fraction of Sb-129 going to Te-129 in this chain = 0.775000

Decay Chain # Sb-129 Te-129m Te-129

Fraction of Sb-129 going to Te-129m in this chain = 0.225000

Fraction of Sb-129 going to Te-129 in this chain = 0.146250

Fraction of Te-129m going to Te-129 in this chain = 0.650000

Decay Chain # Sr-89

Decay Chain # Sr-90 Y-90

Fraction of Sr-90 going to Y-90 in this chain = 1.000000

Decay Chain # Sr-91 Y-91

Fraction of Sr-91 going to Y-91 in this chain = 0.422000

Decay Chain # Sr-92 Y-92

Fraction of Sr-92 going to Y-92 in this chain = 1.000000

Decay Chain # Te-131m I-131

Fraction of Te-131m going to I-131 in this chain = 0.778000

Decay Chain # Te-132 I-132
Fraction of Te-132 going to I-132 in this chain = 1.000000

Decay Chain # Y-93

Decay Chain # Zr-95 Nb-95
Fraction of Zr-95 going to Nb-95 in this chain = 0.993000

Decay Chain # Zr-97

RELEASED INVENTORY OF ALL PLUMES

Kr-85	2.12E+16	1.01E+16	3.29E+15	1.50E+15
Kr-85m	2.45E+17	2.85E+16	9.19E+14	1.02E+13
Kr-87	6.90E+16	2.29E+14	2.15E+10	2.05E+04
Kr-88	4.28E+17	2.21E+16	1.87E+14	2.44E+11
Rb-86	2.67E+13	1.12E+12	0.00E+00	0.00E+00
Sr-89	7.51E+16	2.30E+15	0.00E+00	0.00E+00
Sr-90	6.48E+15	2.00E+14	0.00E+00	0.00E+00
Sr-91	6.54E+16	1.04E+15	0.00E+00	0.00E+00
Sr-92	2.85E+16	8.52E+13	0.00E+00	0.00E+00
Y-90	1.41E+15	1.27E+15	1.40E+15	9.41E+14
Y-91	1.62E+16	2.07E+16	2.71E+16	2.33E+16
Y-92	3.85E+16	1.76E+15	9.86E+13	7.81E+11
Y-93	1.39E+16	9.51E+15	4.52E+15	7.57E+14
Zr-95	2.16E+16	2.76E+16	3.64E+16	3.13E+16
Zr-97	1.75E+16	1.55E+16	1.11E+16	3.60E+15
Nb-95	2.18E+16	2.80E+16	3.71E+16	3.22E+16
Mo-99	5.89E+16	9.87E+14	0.00E+00	0.00E+00
Tc-99m	5.37E+16	9.31E+14	0.00E+00	0.00E+00
Ru-103	4.87E+16	8.93E+14	0.00E+00	0.00E+00
Ru-105	1.54E+16	6.82E+13	0.00E+00	0.00E+00
Ru-106	1.60E+16	2.95E+14	0.00E+00	0.00E+00
Rh-105	2.97E+16	4.82E+14	0.00E+00	0.00E+00
Sb-127	1.53E+14	5.73E+12	1.37E+12	4.02E+11
Sb-129	2.18E+14	2.01E+12	4.90E+10	3.66E+08
Te-127	1.55E+14	5.93E+12	1.46E+12	4.43E+11
Te-127m	2.04E+13	8.16E+11	2.19E+11	7.68E+10
Te-129	2.72E+14	3.94E+12	5.30E+11	1.65E+11
Te-129m	6.98E+13	2.78E+12	7.34E+11	2.53E+11
Te-131m	1.93E+14	6.25E+12	1.18E+12	2.39E+11
Te-132	2.04E+15	7.53E+13	1.77E+13	5.02E+12
I-131	1.12E+16	4.57E+14	1.29E+11	6.21E+10
I-132	5.35E+15	8.65E+13	1.82E+13	5.17E+12
I-133	1.99E+16	6.22E+14	0.00E+00	0.00E+00
I-134	5.21E+14	1.63E+10	0.00E+00	0.00E+00
I-135	1.31E+16	2.13E+14	0.00E+00	0.00E+00
Xe-133	3.70E+18	1.68E+18	5.03E+17	2.01E+17
Xe-135	6.68E+17	1.58E+17	1.65E+16	1.20E+15
Cs-134	2.28E+15	9.69E+13	0.00E+00	0.00E+00
Cs-136	6.45E+14	2.68E+13	0.00E+00	0.00E+00
Cs-137	1.33E+15	5.64E+13	0.00E+00	0.00E+00
Ba-139	8.94E+15	1.91E+12	0.00E+00	0.00E+00
Ba-140	1.01E+17	2.08E+15	0.00E+00	0.00E+00
La-140	3.01E+16	2.44E+16	2.45E+16	1.41E+16

La-141	8.86E+15	2.28E+15	2.16E+14	2.73E+12
La-142	2.23E+15	4.75E+13	7.56E+10	1.36E+06
Ce-141	2.20E+14	2.24E+14	3.04E+14	2.60E+14
Ce-143	1.34E+14	7.03E+13	6.63E+13	3.49E+13
Ce-144	1.20E+14	7.63E+13	9.84E+13	8.55E+13
Pr-143	1.89E+16	2.37E+16	3.05E+16	2.52E+16
Nd-147	8.36E+15	1.05E+16	1.33E+16	1.09E+16
Np-239	1.77E+15	1.01E+15	1.09E+15	7.04E+14
Pu-238	3.77E+11	2.45E+11	3.25E+11	2.95E+11
Pu-239	3.30E+10	2.11E+10	2.72E+10	2.38E+10
Pu-240	4.83E+10	3.08E+10	3.97E+10	3.46E+10
Pu-241	1.09E+13	6.90E+12	8.92E+12	7.77E+12
Am-241	1.63E+12	2.10E+12	2.78E+12	2.42E+12
Cm-242	3.84E+14	4.93E+14	6.51E+14	5.64E+14
Cm-244	4.75E+13	6.10E+13	8.07E+13	7.02E+13

READING FROM A WEATHER FILE WITH THE FOLLOWING HEADER:

DAY HR DR SPS RN (Julian Date, Hour, Direction, Speed, Stability, Precipitation

BLANK LINE

METEOROLOGICAL DATA FILE CONTAINS 463 HOURS OF OBSERVED RAIN DATA.

ACCUMULATED RAIN MEASUREMENTS TOTALED 32.74 INCHES FOR THE YEAR.

CONSTANT LID HEIGHTS (M) FOR 4 SEASONS = 1500 1500 1500 1500

NON-ZERO WINDSPEEDS LESS THAN 0.5 M/S ARE SET TO 0.5 M/S

NUMTRI= 139

***** METEOROLOGICAL BIN SUMMARY *****

BIN PRIORITIES

RI XX - RAIN INTENSITY I WITHIN THE INTERVAL ENDING AT XX

INTERVAL ENDPOINTS ARE IN KILOMETERS FROM THE ACCIDENT SITE, THE 5

INTERVAL ENDPOINTS ARE 3 8 16 48 80

RAIN INTENSITIES ARE IN MILLIMETERS OF RAIN PER HOUR, THE 3 INTENSITY

BREAKPOINTS ARE 2.0 4.0 6.0

S V - INITIAL WEATHER CONDITIONS WITH STABILITY CLASS S AND WIND SPEED INTERVAL V

STABILITY CLASSES ARE B = A/B, D = C/D, E = E, AND F = F

WIND SPEED INTERVALS ARE IN METERS PER SECOND, 1 (0-1), 2 (1-2), 3 (2-3), 4 (3-5), 5 (5-7), 6 (GT 7)

WIND DIRECTION

METBIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL	PER CENT
1 B	3	0.060	0.069	0.091	0.077	0.077	0.044	0.019	0.042	0.044	0.054	0.054	0.104	0.094	0.083	0.044	0.046	481
2 B	4	0.022	0.053	0.068	0.122	0.112	0.070	0.048	0.073	0.070	0.036	0.057	0.082	0.091	0.031	0.043	0.022	645
3 D	1	0.022	0.065	0.043	0.087	0.087	0.065	0.065	0.000	0.022	0.065	0.130	0.043	0.043	0.065	0.087	0.109	46
4 D	2	0.046	0.052	0.058	0.074	0.058	0.066	0.062	0.064	0.104	0.072	0.060	0.088	0.068	0.044	0.038	0.042	498
5 D	3	0.048	0.055	0.076	0.076	0.069	0.056	0.066	0.069	0.121	0.089	0.073	0.056	0.057	0.027	0.026	0.036	768
6 D	4	0.025	0.062	0.089	0.082	0.088	0.046	0.042	0.083	0.094	0.058	0.097	0.078	0.046	0.029	0.051	0.031	650
7 D	5	0.013	0.079	0.118	0.053	0.132	0.145	0.066	0.039	0.105	0.118	0.026	0.039	0.000	0.000	0.039	0.026	76

8 D 6 0.000 0.000 0.250 0.000 0.250 0.000 0.000 0.000 0.000 0.000 0.000 0.250 0.000 0.000 0.250
 0.000 4 0.0457
 9 E 1 0.124 0.046 0.046 0.065 0.092 0.046 0.046 0.033 0.072 0.052 0.026 0.065 0.065 0.059 0.052
 0.111 153 1.7466
 10 E 2 0.081 0.072 0.091 0.078 0.074 0.038 0.044 0.029 0.047 0.050 0.072 0.055 0.062 0.065 0.056
 0.084 678 7.7397
 11 E 3 0.067 0.060 0.092 0.069 0.081 0.050 0.031 0.048 0.041 0.069 0.063 0.062 0.050 0.053 0.085
 0.079 682 7.7854
 12 E 4 0.019 0.047 0.099 0.030 0.068 0.068 0.058 0.088 0.079 0.118 0.082 0.047 0.025 0.019 0.123
 0.030 365 4.1667
 13 F 1 0.056 0.056 0.074 0.074 0.071 0.063 0.051 0.036 0.061 0.036 0.081 0.068 0.086 0.077 0.048
 0.063 607 6.9292
 14 F 2 0.057 0.093 0.121 0.127 0.085 0.060 0.031 0.041 0.044 0.028 0.039 0.064 0.062 0.058 0.039
 0.051 1351 15.4224
 15 F 3 0.068 0.093 0.084 0.037 0.031 0.031 0.031 0.068 0.080 0.046 0.121 0.105 0.068 0.043 0.040
 0.053 323 3.6872
 16 F 4 0.000 0.097 0.065 0.065 0.032 0.000 0.032 0.161 0.065 0.097 0.194 0.000 0.032 0.000 0.000
 0.161 31 0.3539
 17 R1 3 0.080 0.111 0.057 0.043 0.037 0.006 0.034 0.034 0.088 0.063 0.071 0.114 0.051 0.068 0.097
 0.048 352 4.0183
 18 R1 8 0.102 0.119 0.017 0.051 0.051 0.017 0.051 0.085 0.017 0.017 0.034 0.051 0.153 0.119 0.068
 0.051 59 0.6735
 19 R1 16 0.092 0.101 0.025 0.034 0.034 0.017 0.084 0.034 0.067 0.084 0.059 0.076 0.067 0.067 0.067
 0.092 119 1.3584
 20 R1 48 0.097 0.073 0.063 0.031 0.010 0.014 0.024 0.045 0.094 0.087 0.087 0.076 0.101 0.056 0.069
 0.073 288 3.2877
 21 R1 80 0.063 0.095 0.100 0.036 0.023 0.018 0.000 0.009 0.050 0.072 0.113 0.109 0.086 0.086 0.068
 0.072 221 2.5228
 22 R2 3 0.045 0.000 0.045 0.061 0.015 0.030 0.045 0.061 0.152 0.045 0.091 0.121 0.061 0.045 0.076
 0.106 66 0.7534
 23 R2 8 0.333 0.333 0.000 0.000 0.333 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
 0.000 3 0.0342
 24 R2 16 0.105 0.158 0.000 0.000 0.105 0.105 0.000 0.000 0.105 0.053 0.053 0.211 0.000 0.000 0.053
 0.053 19 0.2169
 25 R2 48 0.091 0.073 0.127 0.109 0.109 0.055 0.073 0.000 0.109 0.018 0.018 0.073 0.036 0.073 0.018
 0.018 55 0.6279
 26 R2 80 0.059 0.118 0.176 0.078 0.078 0.039 0.039 0.020 0.078 0.059 0.000 0.039 0.059 0.039 0.059
 0.059 51 0.5822
 27 R3 3 0.000 0.000 0.000 0.063 0.063 0.000 0.000 0.125 0.188 0.063 0.063 0.125 0.125 0.000 0.188
 0.000 16 0.1826
 29 R3 16 0.000 0.200 0.000 0.200 0.000 0.000 0.000 0.000 0.000 0.200 0.000 0.000 0.200 0.000 0.000
 0.200 5 0.0571
 30 R3 48 0.000 0.000 0.222 0.333 0.111 0.000 0.000 0.000 0.000 0.000 0.000 0.111 0.111 0.000 0.000
 0.111 9 0.1027
 31 R3 80 0.111 0.000 0.444 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.222 0.111 0.000 0.000 0.000
 0.111 9 0.1027
 32 R4 3 0.100 0.075 0.025 0.025 0.025 0.050 0.000 0.150 0.100 0.075 0.125 0.075 0.000 0.025 0.100
 0.050 40 0.4566
 33 R4 8 0.000 0.200 0.000 0.000 0.000 0.200 0.200 0.000 0.000 0.200 0.000 0.200 0.000 0.000 0.000
 0.000 5 0.0571
 34 R4 16 0.000 0.111 0.000 0.000 0.111 0.000 0.000 0.111 0.000 0.000 0.111 0.000 0.222 0.000 0.111
 0.222 9 0.1027
 35 R4 48 0.135 0.081 0.054 0.108 0.054 0.000 0.027 0.054 0.000 0.000 0.054 0.108 0.108 0.027 0.054
 0.135 37 0.4224
 36 R4 80 0.103 0.128 0.000 0.077 0.077 0.000 0.026 0.051 0.051 0.026 0.000 0.000 0.077 0.077 0.128
 0.179 39 0.4452

37 ALL 0.057 0.071 0.085 0.079 0.072 0.049 0.042 0.052 0.070 0.057 0.068 0.073 0.065 0.051 0.055
0.055 8760

**** METEOROLOGICAL BIN SUMMARY ****

BIN PRIORITIES

RI XX - RAIN INTENSITY I WITHIN THE INTERVAL ENDING AT XX

INTERVAL ENDPOINTS ARE IN KILOMETERS FROM THE ACCIDENT SITE, THE 5
INTERVAL ENDPOINTS ARE 3 8 16 48 80

RAIN INTENSITIES ARE IN MILLIMETERS OF RAIN PER HOUR, THE 3 INTENSITY
BREAKPOINTS ARE 2.0 4.0 6.0

S V - INITIAL WEATHER CONDITIONS WITH STABILITY CLASS S AND WIND SPEED INTERVAL
V

STABILITY CLASSES ARE B = A/B, D = C/D, E = E, AND F = F

WIND SPEED INTERVALS ARE IN METERS PER SECOND (M/S), 1 (0-1), 2 (1-2), 3 (2-3), 4 (3-5), 5 (5-7), 6 (GT 7)

WIND DIRECTION

METBIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL	PER CENT
1 B 3	29	33	44	37	37	21	9	20	21	26	26	50	45	40	21	22	481	5.4909
2 B 4	14	34	44	79	72	45	31	47	45	23	37	53	59	20	28	14	645	7.3630
3 D 1	1	3	2	4	4	3	3	0	1	3	6	2	2	3	4	5	46	0.5251
4 D 2	23	26	29	37	29	33	31	32	52	36	30	44	34	22	19	21	498	5.6849
5 D 3	37	42	58	58	53	43	51	53	93	68	56	43	44	21	20	28	768	8.7671
6 D 4	16	40	58	53	57	30	27	54	61	38	63	51	30	19	33	20	650	7.4201
7 D 5	1	6	9	4	10	11	5	3	8	9	2	3	0	0	3	2	76	0.8676
8 D 6	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	4	0.0457
9 E 1	19	7	7	10	14	7	7	5	11	8	4	10	10	9	8	17	153	1.7466
10 E 2	55	49	62	53	50	26	30	20	32	34	49	37	42	44	38	57	678	7.7397
11 E 3	46	41	63	47	55	34	21	33	28	47	43	42	34	36	58	54	682	7.7854
12 E 4	7	17	36	11	25	25	21	32	29	43	30	17	9	7	45	11	365	4.1667
13 F 1	34	34	45	45	43	38	31	22	37	22	49	41	52	47	29	38	607	6.9292
14 F 2	77	125	164	172	115	81	42	55	59	38	53	86	84	78	53	69	1351	15.4224
15 F 3	22	30	27	12	10	10	10	22	26	15	39	34	22	14	13	17	323	3.6872
16 F 4	0	3	2	2	1	0	1	5	2	3	6	0	1	0	0	5	31	0.3539
17 R1 3	28	39	20	15	13	2	12	12	31	22	25	40	18	24	34	17	352	4.0183
18 R1 8	6	7	1	3	3	1	3	5	1	1	2	3	9	7	4	3	59	0.6735
19 R1 16	11	12	3	4	4	2	10	4	8	10	7	9	8	8	8	11	119	1.3584
20 R1 48	28	21	18	9	3	4	7	13	27	25	25	22	29	16	20	21	288	3.2877
21 R1 80	14	21	22	8	5	4	0	2	11	16	25	24	19	19	15	16	221	2.5228
22 R2 3	3	0	3	4	1	2	3	4	10	3	6	8	4	3	5	7	66	0.7534
23 R2 8	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0.0342	
24 R2 16	2	3	0	0	2	2	0	0	2	1	1	4	0	0	1	1	19	0.2169
25 R2 48	5	4	7	6	6	3	4	0	6	1	1	4	2	4	1	1	55	0.6279
26 R2 80	3	6	9	4	4	2	2	1	4	3	0	2	3	2	3	3	51	0.5822
27 R3 3	0	0	0	1	1	0	0	2	3	1	1	2	2	0	3	0	16	0.1826
28 R3 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	
29 R3 16	0	1	0	1	0	0	0	0	0	1	0	0	1	0	0	1	5	0.0571
30 R3 48	0	0	2	3	1	0	0	0	0	0	0	1	1	0	0	1	9	0.1027
31 R3 80	1	0	4	0	0	0	0	0	0	0	2	1	0	0	0	1	9	0.1027
32 R4 3	4	3	1	1	1	2	0	6	4	3	5	3	0	1	4	2	40	0.4566
33 R4 8	0	1	0	0	0	1	1	0	0	1	0	1	0	0	0	0	5	0.0571
34 R4 16	0	1	0	0	1	0	0	1	0	0	1	0	2	0	1	2	9	0.1027
35 R4 48	5	3	2	4	2	0	1	2	0	0	2	4	4	1	2	5	37	0.4224
36 R4 80	4	5	0	3	3	0	1	2	2	1	0	0	3	3	5	7	39	0.4452

**** SUMMARIES ****

R	115	128	92	66	51	25	44	54	109	89	103	128	105	88	106	99	1402	16.0046
B	43	67	88	116	109	66	40	67	66	49	63	103	104	60	49	36	1126	12.8539
D	78	117	157	156	154	120	117	142	215	154	157	144	110	65	80	76	2042	23.3105
E	127	114	168	121	144	92	79	90	100	132	126	106	95	96	149	139	1878	21.4384
F	133	192	238	231	169	129	84	104	124	78	147	161	159	139	95	129	2312	26.3927
1	54	44	54	59	61	48	41	27	49	33	59	53	64	59	41	60	806	9.2009
2	167	208	267	266	199	143	105	111	145	114	134	171	165	154	118	155	2622	29.9315
3	122	138	180	150	150	105	89	124	166	150	162	165	140	101	104	113	2159	24.6461
4	36	89	132	135	144	91	73	135	131	98	129	115	97	46	103	49	1603	18.2991
5	2	10	17	13	18	20	12	6	14	18	9	9	2	0	6	3	159	1.8151
6	0	1	1	1	4	0	0	0	0	0	0	1	0	0	1	0	9	0.1027

***** BIN WINDROSE SUMMARY *****

BIN	DIRECTION																TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	0.060	0.069	0.091	0.077	0.077	0.044	0.019	0.042	0.044	0.054	0.054	0.104	0.094	0.083	0.044	0.046	1.000000
2	0.022	0.053	0.068	0.122	0.112	0.070	0.048	0.073	0.070	0.036	0.057	0.082	0.091	0.031	0.043	0.022	1.000000
3	0.022	0.065	0.043	0.087	0.087	0.065	0.065	0.000	0.022	0.065	0.130	0.043	0.043	0.065	0.087	0.109	1.000000
4	0.046	0.052	0.058	0.074	0.058	0.066	0.062	0.064	0.104	0.072	0.060	0.088	0.068	0.044	0.038	0.042	1.000000
5	0.048	0.055	0.076	0.076	0.069	0.056	0.066	0.069	0.121	0.089	0.073	0.056	0.057	0.027	0.026	0.036	1.000000
6	0.025	0.062	0.089	0.082	0.088	0.046	0.042	0.083	0.094	0.058	0.097	0.078	0.046	0.029	0.051	0.031	1.000000
7	0.013	0.079	0.118	0.053	0.132	0.145	0.066	0.039	0.105	0.118	0.026	0.039	0.000	0.000	0.039	0.026	1.000000
8	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	1.000000
9	0.124	0.046	0.046	0.065	0.092	0.046	0.046	0.033	0.072	0.052	0.026	0.065	0.065	0.059	0.052	0.111	1.000000
10	0.081	0.072	0.091	0.078	0.074	0.038	0.044	0.029	0.047	0.050	0.072	0.055	0.062	0.065	0.056	0.084	1.000000
11	0.067	0.060	0.092	0.069	0.081	0.050	0.031	0.048	0.041	0.069	0.063	0.062	0.050	0.053	0.085	0.079	1.000000
12	0.019	0.047	0.099	0.030	0.068	0.068	0.058	0.088	0.079	0.118	0.082	0.047	0.025	0.019	0.123	0.030	1.000000
13	0.056	0.056	0.074	0.074	0.071	0.063	0.051	0.036	0.061	0.036	0.081	0.068	0.086	0.077	0.048	0.063	1.000000
14	0.057	0.093	0.121	0.127	0.085	0.060	0.031	0.041	0.044	0.028	0.039	0.064	0.062	0.058	0.039	0.051	1.000000
15	0.068	0.093	0.084	0.037	0.031	0.031	0.031	0.068	0.080	0.046	0.121	0.105	0.068	0.043	0.040	0.053	1.000000
16	0.000	0.097	0.065	0.065	0.032	0.000	0.032	0.161	0.065	0.097	0.194	0.000	0.032	0.000	0.000	0.161	1.000000
17	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
18	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
19	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
20	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
21	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
22	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
23	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
24	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
25	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000
26	0.082	0.091	0.066	0.047	0.036	0.018	0.031	0.039	0.078	0.063	0.073	0.091	0.075	0.063	0.076	0.071	1.000000

27 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 28 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 29 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 30 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 31 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 32 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 33 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 34 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 35 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 36 0.082 0.091 0.066 0.047 0.036 0.018 0.031 0.039 0.078 0.063 0.073 0.091 0.075 0.063
 0.076 0.071 1.000000
 37 0.057 0.071 0.085 0.079 0.072 0.049 0.042 0.052 0.070 0.057 0.068 0.073 0.065 0.051
 0.055 0.055 1.000000

***** BEGINNING OF CHANGE CASE 1 USER INPUT *****

***** RELEASE DATA BLOCK *****

* SOURCE TERM NUMBER 2 OF 6

*

224 RDATNAM2001 'CFE'

***** RECORD NUMBER 224 REPLACES RECORD NUMBER 211 *****

225 RDOALARM001 3004.

***** RECORD NUMBER 225 REPLACES RECORD NUMBER 212 *****

226 RDNUMREL001 4 *four plume segments

***** RECORD NUMBER 226 REPLACES RECORD NUMBER 213 *****

227 RDMAXRIS001 1 *first plume segment carries greatest risk

***** RECORD NUMBER 227 REPLACES RECORD NUMBER 214 *****

*RDREFTIM001 *defined in source term 1

*RDPLHEAT001 *defined in source term 1

*RDPLHITE001 *defined in source term 1

228 RDPLUDUR001 16806. 36000. 36000. 36000. *PI dur=Tbl49-2 values But lim to 10 hrs

***** RECORD NUMBER 228 REPLACES RECORD NUMBER 218 *****

229 RDPDELAY001 3004. 19810. 89970. 176300. *start at Table 49-2 seconds after scram

***** RECORD NUMBER 229 REPLACES RECORD NUMBER 219 *****

* XE/KR I CS TE(SB) SR RU(MO) LA CE BA

230 RDRELFRC001 4.16E-1 5.53E-2 5.37E-2 1.23E-3 3.14E-3 1.16E-2 5.57E-5 9.54E-7 4.63E-3

***** RECORD NUMBER 230 REPLACES RECORD NUMBER 220 *****

231 RDRELFRC002 4.05E-1 1.26E-3 1.21E-3 1.61E-4 3.43E-4 2.58E-3 9.66E-6 4.56E-8 6.45E-4

***** RECORD NUMBER 231 REPLACES RECORD NUMBER 221 *****

232 RDRELFRC003 1.08E-1 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0

***** RECORD NUMBER 232 REPLACES RECORD NUMBER 222 *****

233 RDRELFRC004 3.43E-2 0.00E0 0.00E0 6.04E-7 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0

***** RECORD NUMBER 233 REPLACES RECORD NUMBER 223 *****

***** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE 1 USER INPUT *****

USER INPUT PROCESSING SUMMARY - CHANGE CASE 1

NUMBER OF RECORDS CHANGED = 10
NUMBER OF RECORDS ADDED = 0

RELEASED INVENTORY OF ALL PLUMES

Kr-85	1.63E+16	1.59E+16	4.23E+15	1.34E+15
Kr-85m	2.48E+17	7.76E+16	1.01E+15	7.88E+12
Kr-87	1.39E+17	2.49E+15	1.61E+10	1.08E+04
Kr-88	5.07E+17	8.24E+16	1.89E+14	1.72E+11
Rb-86	4.53E+14	1.01E+13	0.00E+00	0.00E+00
Sr-89	1.12E+16	1.22E+15	0.00E+00	0.00E+00
Sr-90	9.64E+14	1.05E+14	0.00E+00	0.00E+00
Sr-91	1.11E+16	7.08E+14	0.00E+00	0.00E+00
Sr-92	6.66E+15	1.11E+14	0.00E+00	0.00E+00
Y-90	4.97E+13	1.41E+13	0.00E+00	0.00E+00
Y-91	2.63E+14	4.64E+13	0.00E+00	0.00E+00
Y-92	4.69E+15	3.25E+14	0.00E+00	0.00E+00
Y-93	2.47E+14	2.59E+13	0.00E+00	0.00E+00
Zr-95	3.42E+14	5.90E+13	0.00E+00	0.00E+00
Zr-97	2.97E+14	3.81E+13	0.00E+00	0.00E+00
Nb-95	3.44E+14	5.97E+13	0.00E+00	0.00E+00
Mo-99	7.64E+16	1.57E+16	0.00E+00	0.00E+00
Tc-99m	6.88E+16	1.47E+16	0.00E+00	0.00E+00
Ru-103	6.21E+16	1.37E+16	0.00E+00	0.00E+00
Ru-105	2.57E+16	1.82E+15	0.00E+00	0.00E+00
Ru-106	2.04E+16	4.54E+15	0.00E+00	0.00E+00
Rh-105	3.83E+16	7.83E+15	0.00E+00	0.00E+00
Sb-127	4.58E+14	5.67E+13	0.00E+00	1.54E+11
Sb-129	8.51E+14	3.43E+13	0.00E+00	1.20E+08
Te-127	4.59E+14	5.82E+13	0.00E+00	1.69E+11
Te-127m	6.00E+13	7.86E+12	0.00E+00	2.95E+10
Te-129	9.97E+14	5.38E+13	0.00E+00	6.33E+10
Te-129m	2.06E+14	2.68E+13	0.00E+00	9.71E+10
Te-131m	5.92E+14	6.54E+13	0.00E+00	8.99E+10
Te-132	6.11E+15	7.50E+14	0.00E+00	1.91E+12
I-131	1.95E+17	4.32E+15	0.00E+00	2.40E+10
I-132	1.14E+17	1.01E+15	0.00E+00	1.97E+12
I-133	3.66E+17	6.54E+15	0.00E+00	0.00E+00
I-134	3.64E+16	2.52E+12	0.00E+00	0.00E+00
I-135	2.73E+17	2.88E+15	0.00E+00	0.00E+00
Xe-133	2.88E+18	2.69E+18	6.44E+17	1.79E+17
Xe-135	6.43E+17	3.28E+17	1.96E+16	1.00E+15
Cs-134	3.86E+16	8.68E+14	0.00E+00	0.00E+00
Cs-136	1.09E+16	2.42E+14	0.00E+00	0.00E+00
Cs-137	2.24E+16	5.06E+14	0.00E+00	0.00E+00
Ba-139	6.20E+15	2.16E+13	0.00E+00	0.00E+00
Ba-140	2.91E+16	3.99E+15	0.00E+00	0.00E+00
La-140	1.90E+15	7.21E+14	0.00E+00	0.00E+00
La-141	1.91E+14	9.08E+12	0.00E+00	0.00E+00
La-142	7.79E+13	4.99E+11	0.00E+00	0.00E+00
Ce-141	6.46E+12	5.17E+11	0.00E+00	0.00E+00
Ce-143	5.02E+12	2.06E+11	0.00E+00	0.00E+00
Ce-144	4.34E+12	2.07E+11	0.00E+00	0.00E+00

Pr-143	2.99E+14	5.10E+13	0.00E+00	0.00E+00
Nd-147	1.33E+14	2.26E+13	0.00E+00	0.00E+00
Np-239	6.55E+13	2.86E+12	0.00E+00	0.00E+00
Pu-238	1.36E+10	6.57E+08	0.00E+00	0.00E+00
Pu-239	1.19E+09	5.71E+07	0.00E+00	0.00E+00
Pu-240	1.75E+09	8.35E+07	0.00E+00	0.00E+00
Pu-241	3.92E+11	1.87E+10	0.00E+00	0.00E+00
Am-241	2.58E+10	4.47E+09	0.00E+00	0.00E+00
Cm-242	6.07E+12	1.05E+12	0.00E+00	0.00E+00
Cm-244	7.50E+11	1.30E+11	0.00E+00	0.00E+00

***** BEGINNING OF CHANGE CASE 2 USER INPUT *****

***** RELEASE DATA BLOCK *****

* SOURCE TERM NUMBER 3 OF 6

*

234 RDATNAM2001 'IC'

***** RECORD NUMBER 234 REPLACES RECORD NUMBER 211 *****

235 RDOALARM001 4378.

***** RECORD NUMBER 235 REPLACES RECORD NUMBER 212 *****

236 RDNUMREL001 4 *four plume segments

***** RECORD NUMBER 236 REPLACES RECORD NUMBER 213 *****

237 RDMAXRIS001 1 *first plume segment carries greatest risk

***** RECORD NUMBER 237 REPLACES RECORD NUMBER 214 *****

*RDREFTIM001 *defined in source term 1

*RDPLHEAT001 *defined in source term 1

*RDPLHITE001 *defined in source term 1

238 RDPLUDUR001 36000. 36000. 36000. 36000. *PI dur=Tbl49-2 values But lim to 10 hrs

***** RECORD NUMBER 238 REPLACES RECORD NUMBER 218 *****

239 RDPDELAY001 4378. 84810. 134400. 177600. *start at Table 49-2 seconds after scram

***** RECORD NUMBER 239 REPLACES RECORD NUMBER 219 *****

* XE/KR I CS TE(SB) SR RU(MO) LA CE BA

240 RDRELFRC001 9.83E-4 1.20E-5 1.15E-5 8.04E-7 1.07E-5 1.31E-5 1.35E-6 5.85E-9 1.20E-5

***** RECORD NUMBER 240 REPLACES RECORD NUMBER 220 *****

241 RDRELFRC002 4.93E-4 0.00E0 0.00E0 4.83E-9 0.00E0 0.00E0 6.00E-9 3.20E-11 0.00E0

***** RECORD NUMBER 241 REPLACES RECORD NUMBER 221 *****

242 RDRELFRC003 3.94E-4 0.00E0 0.00E0 1.21E-9 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0

***** RECORD NUMBER 242 REPLACES RECORD NUMBER 222 *****

243 RDRELFRC004 7.72E-4 0.00E0 0.00E0 6.04E-10 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0

***** RECORD NUMBER 243 REPLACES RECORD NUMBER 223 *****

***** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE 2 USER INPUT *****

USER INPUT PROCESSING SUMMARY - CHANGE CASE 2

NUMBER OF RECORDS CHANGED = 10

NUMBER OF RECORDS ADDED = 0

RELEASED INVENTORY OF ALL PLUMES

Kr-85	3.85E+13	1.93E+13	1.54E+13	3.03E+13
Kr-85m	3.66E+14	5.78E+12	5.48E+11	1.68E+11
Kr-87	6.24E+13	1.61E+08	7.05E+04	2.00E+02
Kr-88	5.69E+14	1.22E+12	3.39E+10	3.55E+09

Rb-86	9.65E+10	0.00E+00	0.00E+00	0.00E+00
Sr-89	3.81E+13	0.00E+00	0.00E+00	0.00E+00
Sr-90	3.28E+12	0.00E+00	0.00E+00	0.00E+00
Sr-91	3.02E+13	0.00E+00	0.00E+00	0.00E+00
Sr-92	1.04E+13	0.00E+00	0.00E+00	0.00E+00
Y-90	6.18E+11	1.41E+09	0.00E+00	0.00E+00
Y-91	6.23E+12	2.72E+10	0.00E+00	0.00E+00
Y-92	1.73E+13	1.08E+08	0.00E+00	0.00E+00
Y-93	4.86E+12	4.66E+09	0.00E+00	0.00E+00
Zr-95	8.27E+12	3.64E+10	0.00E+00	0.00E+00
Zr-97	6.35E+12	1.13E+10	0.00E+00	0.00E+00
Nb-95	8.34E+12	3.71E+10	0.00E+00	0.00E+00
Mo-99	8.36E+13	0.00E+00	0.00E+00	0.00E+00
Tc-99m	7.67E+13	0.00E+00	0.00E+00	0.00E+00
Ru-103	7.00E+13	0.00E+00	0.00E+00	0.00E+00
Ru-105	1.81E+13	0.00E+00	0.00E+00	0.00E+00
Ru-106	2.30E+13	0.00E+00	0.00E+00	0.00E+00
Rh-105	4.21E+13	0.00E+00	0.00E+00	0.00E+00
Sb-127	2.92E+11	1.49E+09	3.36E+08	1.53E+08
Sb-129	3.41E+11	5.68E+07	1.56E+06	1.14E+05
Te-127	2.96E+11	1.58E+09	3.64E+08	1.69E+08
Te-127m	3.93E+10	2.36E+08	5.92E+07	2.95E+07
Te-129	4.45E+11	5.77E+08	1.30E+08	6.33E+07
Te-129m	1.34E+11	7.94E+08	1.96E+08	9.71E+07
Te-131m	3.61E+11	1.29E+09	2.36E+08	8.92E+07
Te-132	3.89E+12	1.92E+10	4.25E+09	1.91E+09
I-131	4.18E+13	1.38E+08	4.34E+07	2.41E+07
I-132	1.29E+13	1.97E+10	4.38E+09	1.96E+09
I-133	7.18E+13	0.00E+00	0.00E+00	0.00E+00
I-134	7.11E+11	0.00E+00	0.00E+00	0.00E+00
I-135	4.30E+13	0.00E+00	0.00E+00	0.00E+00
Xe-133	6.68E+15	2.96E+15	2.19E+15	4.02E+15
Xe-135	1.11E+15	1.00E+14	2.80E+13	2.19E+13
Cs-134	8.26E+12	0.00E+00	0.00E+00	0.00E+00
Cs-136	2.33E+12	0.00E+00	0.00E+00	0.00E+00
Cs-137	4.81E+12	0.00E+00	0.00E+00	0.00E+00
Ba-139	3.47E+12	0.00E+00	0.00E+00	0.00E+00
Ba-140	7.49E+13	0.00E+00	0.00E+00	0.00E+00
La-140	1.58E+13	2.47E+10	0.00E+00	0.00E+00
La-141	2.70E+12	2.33E+08	0.00E+00	0.00E+00
La-142	4.79E+11	9.25E+04	0.00E+00	0.00E+00
Ce-141	6.21E+10	3.64E+08	0.00E+00	0.00E+00
Ce-143	2.89E+10	9.87E+07	0.00E+00	0.00E+00
Ce-144	2.66E+10	1.45E+08	0.00E+00	0.00E+00
Pr-143	7.19E+12	3.05E+10	0.00E+00	0.00E+00
Nd-147	3.19E+12	1.34E+10	0.00E+00	0.00E+00
Np-239	3.87E+11	1.61E+09	0.00E+00	0.00E+00
Pu-238	8.39E+07	4.71E+05	0.00E+00	0.00E+00
Pu-239	7.32E+06	4.02E+04	0.00E+00	0.00E+00
Pu-240	1.07E+07	5.86E+04	0.00E+00	0.00E+00
Pu-241	2.40E+09	1.31E+07	0.00E+00	0.00E+00
Am-241	6.25E+08	2.78E+06	0.00E+00	0.00E+00
Cm-242	1.47E+11	6.51E+08	0.00E+00	0.00E+00
Cm-244	1.82E+10	8.07E+07	0.00E+00	0.00E+00

***** BEGINNING OF CHANGE CASE 3 USER INPUT *****

***** RELEASE DATA BLOCK *****

* SOURCE TERM NUMBER 4 OF 6

*

244 RDATNAM2001 'BP'

***** RECORD NUMBER 244 REPLACES RECORD NUMBER 211 *****

245 RDOALARM001 31890.

***** RECORD NUMBER 245 REPLACES RECORD NUMBER 212 *****

246 RDNUMREL001 4 *four plume segments

***** RECORD NUMBER 246 REPLACES RECORD NUMBER 213 *****

247 RDMAXRIS001 1 *first plume segment carries greatest risk

***** RECORD NUMBER 247 REPLACES RECORD NUMBER 214 *****

*RDREFTIM001 *defined in source term 1

*RDPLHEAT001 *defined in source term 1

*RDPLHITE001 *defined in source term 1

248 RDPLUDUR001 14550. 36000. 36000. 36000. *PI dur=Tbl49-2 values But lim to 10 hrs

***** RECORD NUMBER 248 REPLACES RECORD NUMBER 218 *****

249 RDPDELAY001 31890. 46440. 86490. 172800. *start at Table 49-2 seconds after scram

***** RECORD NUMBER 249 REPLACES RECORD NUMBER 219 *****

* XE/KR I CS TE(SB) SR RU(MO) LA CE BA

250 RDRELFRC001 1.00E0 1.69E-1 1.62E-1 6.27E-3 3.57E-3 4.48E-2 1.30E-4 3.19E-6 8.93E-3

***** RECORD NUMBER 250 REPLACES RECORD NUMBER 220 *****

251 RDRELFRC002 0.00E0 4.64E-2 3.38E-2 3.12E-3 0.00E0 0.00E0 0.00E0 0.00E0 2.00E-6

***** RECORD NUMBER 251 REPLACES RECORD NUMBER 221 *****

252 RDRELFRC003 0.00E0 2.31E-1 6.60E-2 5.32E-3 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0

***** RECORD NUMBER 252 REPLACES RECORD NUMBER 222 *****

253 RDRELFRC004 0.00E0 2.80E-3 9.96E-3 1.57E-3 0.00E0 0.00E0 0.00E0 1.00E-6 0.00E0

***** RECORD NUMBER 253 REPLACES RECORD NUMBER 223 *****

***** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE 3 USER INPUT *****

USER INPUT PROCESSING SUMMARY - CHANGE CASE 3

NUMBER OF RECORDS CHANGED = 10

NUMBER OF RECORDS ADDED = 0

RELEASED INVENTORY OF ALL PLUMES

Kr-85	3.92E+16	0.00E+00	0.00E+00	0.00E+00
Kr-85m	1.81E+17	0.00E+00	0.00E+00	0.00E+00
Kr-87	5.00E+15	0.00E+00	0.00E+00	0.00E+00
Kr-88	1.86E+17	0.00E+00	0.00E+00	0.00E+00
Rb-86	1.35E+15	2.78E+14	5.34E+14	7.77E+13
Sr-89	1.27E+16	0.00E+00	0.00E+00	0.00E+00
Sr-90	1.10E+15	0.00E+00	0.00E+00	0.00E+00
Sr-91	7.17E+15	0.00E+00	0.00E+00	0.00E+00
Sr-92	1.05E+15	0.00E+00	0.00E+00	0.00E+00
Y-90	1.59E+14	0.00E+00	0.00E+00	0.00E+00
Y-91	6.18E+14	0.00E+00	0.00E+00	0.00E+00
Y-92	3.24E+15	0.00E+00	0.00E+00	0.00E+00
Y-93	3.40E+14	0.00E+00	0.00E+00	0.00E+00
Zr-95	7.94E+14	0.00E+00	0.00E+00	0.00E+00
Zr-97	5.05E+14	0.00E+00	0.00E+00	0.00E+00
Nb-95	8.03E+14	0.00E+00	0.00E+00	0.00E+00

Mo-99	2.72E+17	0.00E+00	0.00E+00	0.00E+00
Tc-99m	2.55E+17	0.00E+00	0.00E+00	0.00E+00
Ru-103	2.39E+17	0.00E+00	0.00E+00	0.00E+00
Ru-105	2.98E+16	0.00E+00	0.00E+00	0.00E+00
Ru-106	7.88E+16	0.00E+00	0.00E+00	0.00E+00
Rh-105	1.35E+17	0.00E+00	0.00E+00	0.00E+00
Sb-127	2.20E+15	1.04E+15	1.63E+15	4.02E+14
Sb-129	1.26E+15	2.03E+14	5.81E+13	3.66E+11
Te-127	2.26E+15	1.09E+15	1.74E+15	4.43E+14
Te-127m	3.06E+14	1.52E+14	2.60E+14	7.68E+13
Te-129	2.01E+15	5.52E+14	6.30E+14	1.65E+14
Te-129m	1.04E+15	5.17E+14	8.74E+14	2.53E+14
Te-131m	2.53E+15	1.07E+15	1.41E+15	2.39E+14
Te-132	2.91E+16	1.36E+16	2.10E+16	5.02E+15
I-131	5.79E+17	1.55E+17	7.41E+17	8.30E+15
I-132	6.17E+16	1.50E+16	2.18E+16	5.17E+15
I-133	8.66E+17	1.88E+17	6.46E+17	3.52E+15
I-134	2.51E+14	2.67E+11	2.01E+08	1.43E-02
I-135	3.72E+17	4.89E+16	7.57E+16	7.43E+13
Xe-133	6.68E+18	2.33E+16	1.54E+17	2.28E+15
Xe-135	1.09E+18	7.37E+16	2.21E+17	5.96E+14
Cs-134	1.16E+17	2.43E+16	4.73E+16	7.14E+15
Cs-136	3.24E+16	6.66E+15	1.27E+16	1.82E+15
Cs-137	6.77E+16	1.41E+16	2.76E+16	4.16E+15
Ba-139	2.48E+14	1.62E+09	0.00E+00	0.00E+00
Ba-140	5.51E+16	1.22E+13	0.00E+00	0.00E+00
La-140	1.03E+16	3.29E+12	0.00E+00	0.00E+00
La-141	1.14E+14	0.00E+00	0.00E+00	0.00E+00
La-142	5.67E+12	0.00E+00	0.00E+00	0.00E+00
Ce-141	2.24E+13	0.00E+00	0.00E+00	5.75E+12
Ce-143	1.43E+13	0.00E+00	0.00E+00	1.85E+12
Ce-144	1.45E+13	0.00E+00	0.00E+00	4.53E+12
Pr-143	6.86E+14	0.00E+00	0.00E+00	3.58E+11
Nd-147	3.03E+14	0.00E+00	0.00E+00	0.00E+00
Np-239	1.99E+14	0.00E+00	0.00E+00	3.73E+13
Pu-238	4.54E+10	0.00E+00	0.00E+00	1.42E+10
Pu-239	4.00E+09	0.00E+00	0.00E+00	1.26E+09
Pu-240	5.84E+09	0.00E+00	0.00E+00	1.83E+09
Pu-241	1.31E+12	0.00E+00	0.00E+00	4.11E+11
Am-241	6.02E+10	0.00E+00	0.00E+00	3.98E+06
Cm-242	1.41E+13	0.00E+00	0.00E+00	0.00E+00
Cm-244	1.75E+12	0.00E+00	0.00E+00	0.00E+00

***** BEGINNING OF CHANGE CASE 4 USER INPUT *****

***** RELEASE DATA BLOCK *****

* SOURCE TERM NUMBER 5 OF 6

*

254 RDATNAM2001 'CI'

***** RECORD NUMBER 254 REPLACES RECORD NUMBER 211 *****

255 RDOALARM001 101.

***** RECORD NUMBER 255 REPLACES RECORD NUMBER 212 *****

256 RDNUMREL001 4 *four plume segments

***** RECORD NUMBER 256 REPLACES RECORD NUMBER 213 *****

257 RDMAXRIS001 1 *first plume segment carries greatest risk

***** RECORD NUMBER 257 REPLACES RECORD NUMBER 214 *****

*RDREFTIM001 *defined in source term 1
 *RDPLHEAT001 *defined in source term 1
 *RDPLHITE001 *defined in source term 1
 258 RDPLUDUR001 36000. 36000. 36000. 36000. *PI dur=Tbl49-2 values But lim to 10 hrs
 ***** RECORD NUMBER 258 REPLACES RECORD NUMBER 218 *****
 259 RDPDELAY001 101. 50020. 136400. 211700. *start at Table 49-2 seconds after scram
 ***** RECORD NUMBER 259 REPLACES RECORD NUMBER 219 *****
 * XE/KR I CS TE(SB) SR RU(MO) LA CE BA
 260 RDRELFRC001 5.73E-1 4.56E-2 2.10E-2 1.64E-3 2.03E-2 4.04E-2 2.39E-4 2.97E-6 3.16E-2
 ***** RECORD NUMBER 260 REPLACES RECORD NUMBER 220 *****
 261 RDRELFRC002 1.13E-1 0.00E0 0.00E0 1.15E-5 0.00E0 0.00E0 1.00E-7 0.00E0 0.00E0
 ***** RECORD NUMBER 261 REPLACES RECORD NUMBER 221 *****
 262 RDRELFRC003 5.66E-2 0.0E0 0.00E0 8.10E-5 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
 ***** RECORD NUMBER 262 REPLACES RECORD NUMBER 222 *****
 263 RDRELFRC004 2.74E-2 0.0E0 0.00E0 1.27E-5 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
 ***** RECORD NUMBER 263 REPLACES RECORD NUMBER 223 *****
 ***** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE 4 USER INPUT *****

USER INPUT PROCESSING SUMMARY - CHANGE CASE 4

NUMBER OF RECORDS CHANGED = 10

NUMBER OF RECORDS ADDED = 0

RELEASED INVENTORY OF ALL PLUMES

Kr-85	2.25E+16	4.43E+15	2.22E+15	1.07E+15
Kr-85m	2.56E+17	5.91E+15	7.23E+13	1.38E+12
Kr-87	6.95E+16	7.15E+12	7.49E+06	4.05E+01
Kr-88	4.43E+17	2.96E+15	4.25E+12	1.25E+10
Rb-86	1.76E+14	0.00E+00	0.00E+00	0.00E+00
Sr-89	7.23E+16	0.00E+00	0.00E+00	0.00E+00
Sr-90	6.23E+15	0.00E+00	0.00E+00	0.00E+00
Sr-91	6.25E+16	0.00E+00	0.00E+00	0.00E+00
Sr-92	2.68E+16	0.00E+00	0.00E+00	0.00E+00
Y-90	4.03E+14	2.61E+10	0.00E+00	0.00E+00
Y-91	1.17E+15	4.55E+11	0.00E+00	0.00E+00
Y-92	3.12E+16	1.19E+10	0.00E+00	0.00E+00
Y-93	9.33E+14	1.51E+11	0.00E+00	0.00E+00
Zr-95	1.46E+15	6.09E+11	0.00E+00	0.00E+00
Zr-97	1.18E+15	2.80E+11	0.00E+00	0.00E+00
Nb-95	1.48E+15	6.18E+11	0.00E+00	0.00E+00
Mo-99	2.61E+17	0.00E+00	0.00E+00	0.00E+00
Tc-99m	2.38E+17	0.00E+00	0.00E+00	0.00E+00
Ru-103	2.16E+17	0.00E+00	0.00E+00	0.00E+00
Ru-105	6.71E+16	0.00E+00	0.00E+00	0.00E+00
Ru-106	7.11E+16	0.00E+00	0.00E+00	0.00E+00
Rh-105	1.31E+17	0.00E+00	0.00E+00	0.00E+00
Sb-127	6.02E+14	3.80E+12	2.24E+13	3.00E+12
Sb-129	8.42E+14	6.38E+11	9.56E+10	5.23E+08
Te-127	6.07E+14	3.98E+12	2.43E+13	3.35E+12
Te-127m	8.01E+13	5.62E+11	3.96E+12	6.21E+11
Te-129	1.05E+15	1.92E+12	8.66E+12	1.32E+12
Te-129m	2.74E+14	1.90E+12	1.31E+13	2.02E+12

Te-131m	7.56E+14	3.85E+12	1.56E+13	1.51E+12
Te-132	8.02E+15	4.97E+13	2.83E+14	3.69E+13
I-131	1.59E+17	2.46E+11	2.92E+12	5.33E+11
I-132	5.83E+16	5.10E+13	2.92E+14	3.80E+13
I-133	2.84E+17	0.00E+00	0.00E+00	0.00E+00
I-134	6.91E+15	0.00E+00	0.00E+00	0.00E+00
I-135	1.85E+17	0.00E+00	0.00E+00	0.00E+00
Xe-133	3.93E+18	7.16E+17	3.14E+17	1.36E+17
Xe-135	7.64E+17	4.79E+16	3.85E+15	3.78E+14
Cs-134	1.51E+16	0.00E+00	0.00E+00	0.00E+00
Cs-136	4.26E+15	0.00E+00	0.00E+00	0.00E+00
Cs-137	8.78E+15	0.00E+00	0.00E+00	0.00E+00
Ba-139	1.66E+16	0.00E+00	0.00E+00	0.00E+00
Ba-140	1.98E+17	0.00E+00	0.00E+00	0.00E+00
La-140	1.80E+16	4.86E+11	0.00E+00	0.00E+00
La-141	5.90E+14	2.14E+10	0.00E+00	0.00E+00
La-142	1.45E+14	1.19E+08	0.00E+00	0.00E+00
Ce-141	2.21E+13	2.87E+09	0.00E+00	0.00E+00
Ce-143	1.50E+13	0.00E+00	0.00E+00	0.00E+00
Ce-144	1.35E+13	0.00E+00	0.00E+00	0.00E+00
Pr-143	1.28E+15	5.19E+11	0.00E+00	0.00E+00
Nd-147	5.66E+14	2.28E+11	0.00E+00	0.00E+00
Np-239	1.99E+14	0.00E+00	0.00E+00	0.00E+00
Pu-238	4.23E+10	1.85E+05	0.00E+00	0.00E+00
Pu-239	3.72E+09	0.00E+00	0.00E+00	0.00E+00
Pu-240	5.44E+09	3.08E+02	0.00E+00	0.00E+00
Pu-241	1.22E+12	0.00E+00	0.00E+00	0.00E+00
Am-241	1.11E+11	4.63E+07	0.00E+00	0.00E+00
Cm-242	2.60E+13	1.09E+10	0.00E+00	0.00E+00
Cm-244	3.22E+12	1.35E+09	0.00E+00	0.00E+00

***** BEGINNING OF CHANGE CASE 5 USER INPUT *****

***** RELEASE DATA BLOCK *****

* SOURCE TERM NUMBER 6 OF 6

*

264 RDATNAM2001 'CFL'

***** RECORD NUMBER 264 REPLACES RECORD NUMBER 211 *****

265 RDOALARM001 2922.

***** RECORD NUMBER 265 REPLACES RECORD NUMBER 212 *****

266 RDNUMREL001 4 *four plume segments

***** RECORD NUMBER 266 REPLACES RECORD NUMBER 213 *****

267 RDMAXRIS001 3 *third segment is largest noble gas/i/cs release

***** RECORD NUMBER 267 REPLACES RECORD NUMBER 214 *****

*RDREFTIM001 *defined in source term 1

*RDPLHEAT001 *defined in source term 1

*RDPLHITE001 *defined in source term 1

268 RDPLUDUR001 23438. 36000. 36000. 36000. *PI dur=Tbl49-2 values But lim to 10 hrs

***** RECORD NUMBER 268 REPLACES RECORD NUMBER 218 *****

269 RDPDELAY001 2922. 26360. 108000. 194400. *start at Table 49-2 seconds after scram

***** RECORD NUMBER 269 REPLACES RECORD NUMBER 219 *****

* XE/KR I CS TE(SB) SR RU(MO) LA CE BA

270 RDRELFRC001 3.36E-4 1.20E-5 1.15E-5 1.00E-6 1.57E-5 1.68E-5 9.96E-7 7.41E-9 1.61E-5

***** RECORD NUMBER 270 REPLACES RECORD NUMBER 220 *****

271 RDRELFRC002 1.19E-3 5.00E-8 3.23E-8 1.75E-8 1.04E-6 2.90E-7 1.07E-5 4.05E-8 6.60E-7

***** RECORD NUMBER 271 REPLACES RECORD NUMBER 221 *****

272 RDRELFRC003 9.79E-1 2.13E-5 1.16E-5 2.47E-5 2.39E-3 1.26E-3 9.75E-2 3.68E-4 2.25E-3
 ***** RECORD NUMBER 272 REPLACES RECORD NUMBER 222 *****
 273 RDRELFRC004 0.00E0 0.00E0 2.56E-7 1.20E-5 4.42E-4 1.55E-4 4.39E-2 1.66E-4 3.46E-4
 ***** RECORD NUMBER 273 REPLACES RECORD NUMBER 223 *****

***** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE 5 USER INPUT *****

USER INPUT PROCESSING SUMMARY - CHANGE CASE 5

NUMBER OF RECORDS CHANGED = 10

NUMBER OF RECORDS ADDED = 0

RELEASED INVENTORY OF ALL PLUMES

Kr-85	1.32E+13	4.67E+13	3.84E+16	0.00E+00
Kr-85m	1.74E+14	1.72E+14	4.24E+15	0.00E+00
Kr-87	6.88E+13	2.71E+12	9.54E+09	0.00E+00
Kr-88	3.29E+14	1.55E+14	5.04E+14	0.00E+00
Rb-86	9.68E+10	2.68E+08	9.31E+10	1.98E+09
Sr-89	5.59E+13	3.69E+12	8.36E+15	1.53E+15
Sr-90	4.82E+12	3.19E+11	7.34E+14	1.36E+14
Sr-91	5.18E+13	1.88E+12	8.26E+14	2.65E+13
Sr-92	2.65E+13	2.12E+11	1.48E+12	5.89E+08
Y-90	5.13E+11	3.04E+12	2.16E+16	7.48E+15
Y-91	4.61E+12	4.88E+13	4.40E+17	1.96E+17
Y-92	2.60E+13	5.37E+12	5.30E+14	2.09E+12
Y-93	4.15E+12	2.53E+13	4.86E+16	4.22E+15
Zr-95	6.10E+12	6.53E+13	5.89E+17	2.62E+17
Zr-97	5.12E+12	3.92E+13	1.41E+17	2.37E+16
Nb-95	6.15E+12	6.61E+13	6.02E+17	2.71E+17
Mo-99	1.10E+14	1.74E+12	5.94E+15	5.68E+14
Tc-99m	9.93E+13	1.63E+12	5.71E+15	5.47E+14
Ru-103	8.99E+13	1.54E+12	6.59E+15	7.97E+14
Ru-105	3.24E+13	1.54E+11	1.94E+13	5.64E+10
Ru-106	2.96E+13	5.10E+11	2.21E+15	2.72E+14
Rh-105	5.51E+13	8.55E+11	2.44E+15	1.88E+14
Sb-127	3.70E+11	6.08E+09	7.24E+12	2.94E+12
Sb-129	5.99E+11	2.79E+09	1.03E+11	1.07E+09
Te-127	3.72E+11	6.27E+09	7.78E+12	3.26E+12
Te-127m	4.88E+10	8.55E+08	1.21E+12	5.87E+11
Te-129	7.25E+11	4.85E+09	2.74E+12	1.25E+12
Te-129m	1.67E+11	2.91E+09	4.04E+12	1.92E+12
Te-131m	4.72E+11	6.82E+09	5.70E+12	1.59E+12
Te-132	4.93E+12	8.02E+10	9.26E+13	3.63E+13
I-131	4.21E+13	1.71E+11	6.77E+13	4.92E+11
I-132	2.18E+13	8.67E+10	9.54E+13	3.74E+13
I-133	7.71E+13	2.44E+11	4.88E+13	0.00E+00
I-134	3.89E+12	2.37E+07	1.65E+02	0.00E+00
I-135	5.39E+13	9.45E+10	3.73E+12	0.00E+00
Xe-133	2.31E+15	7.82E+15	5.68E+18	0.00E+00
Xe-135	4.56E+14	8.32E+14	1.22E+17	0.00E+00
Cs-134	8.26E+12	2.32E+10	8.32E+12	1.83E+11
Cs-136	2.34E+12	6.44E+09	2.20E+12	4.61E+10
Cs-137	4.81E+12	1.35E+10	4.85E+12	1.07E+11

Ba-139	1.37E+13	8.86E+09	3.37E+08	2.97E+02
Ba-140	1.01E+14	4.06E+12	1.32E+16	1.92E+15
La-140	1.31E+13	5.90E+13	3.65E+17	1.08E+17
La-141	2.91E+12	7.29E+12	1.22E+15	7.95E+12
La-142	9.30E+11	2.44E+11	8.30E+10	7.69E+05
Ce-141	5.99E+10	5.26E+11	5.01E+15	2.21E+15
Ce-143	3.82E+10	1.76E+11	9.92E+14	2.70E+14
Ce-144	3.37E+10	1.84E+11	1.67E+15	7.51E+14
Pr-143	5.33E+12	5.63E+13	4.89E+17	2.09E+17
Nd-147	2.36E+12	2.49E+13	2.13E+17	9.02E+16
Np-239	5.03E+11	2.49E+12	1.71E+16	5.75E+15
Pu-238	1.06E+08	5.88E+08	5.56E+12	2.61E+12
Pu-239	9.27E+06	5.07E+07	4.62E+11	2.09E+11
Pu-240	1.36E+07	7.41E+07	6.74E+11	3.04E+11
Pu-241	3.05E+09	1.66E+10	1.51E+14	6.82E+13
Am-241	4.61E+08	4.95E+09	4.51E+13	2.03E+13
Cm-242	1.08E+11	1.16E+12	1.06E+16	4.74E+15
Cm-244	1.34E+10	1.44E+11	1.31E+15	5.91E+14

USER INPUT IS READ FROM UNIT 25

RECORD IDENTIFIER FIELDS 11 CHARACTERS LONG ARE EXPECTED.

THE FIRST 100 COLUMNS OF EACH INPUT RECORD ARE PROCESSED.

THE MAXIMUM NUMBER OF IDENTIFIER RECORDS THAT MAY BE SAVED AS THE BASE CASE IS 1000.

RECORD
NUMBER

RECORD

* FILE NAME: YEARLY.INP

*

* DESCRIPTIVE TITLE DESCRIBING THIS "EARLY" INPUT FILE

*

1 MIEANAM1001 'SNC AP1000 EARLY FILE – 95% Evacuation'

2 DCF_FILE001 'C:\MACCS2\DOSDATA.INP' (DCF file of MACCS 1.5.11.1)

*

* ORGNAM ORGFLG

*

3 MIORGDEF001 'A-SKIN' .TRUE.

4 MIORGDEF002 'A-RED MARR' .TRUE.

5 MIORGDEF003 'A-LUNGS' .TRUE.

6 MIORGDEF004 'A-THYROIDH' .TRUE.

7 MIORGDEF005 'A-STOMACH' .TRUE.

8 MIORGDEF006 'A-LOWER LI' .FALSE. (does not contribute to early fatalities)

9 MIORGDEF007 'L-EDEWBODY' .TRUE.

10 MIORGDEF008 'L-RED MARR' .TRUE.

11 MIORGDEF009 'L-BONE SUR' .TRUE.

12 MIORGDEF010 'L-BREAST' .TRUE.

13 MIORGDEF011 'L-LUNGS' .TRUE.

14 MIORGDEF012 'L-THYROID' .TRUE.

15 MIORGDEF013 'L-LOWER LI' .TRUE.

16 MIORGDEF014 'L-BLAD WAL' .TRUE.

17 MIORGDEF015 'L-LIVER' .FALSE.

18 MIORGDEF016 'L-THYROIDH' .TRUE.

*

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* FLAG TO INDICATE THAT THIS IS THE LAST PROGRAM IN THE SERIES TO BE RUN
*
19 MIENDAT2001 .FALSE. (SET THIS VALUE TO .TRUE. TO SKIP CHRONC)
*
* DISPERSION MODEL OPTION CODE: 1 * STRAIGHT LINE
*                               2 * WIND-SHIFT WITH ROTATION
*                               3 * WIND-SHIFT WITHOUT ROTATION
*
20 MIIPLUME001 1 * URD used 1
*
* NUMBER OF FINE GRID SUBDIVISIONS USED BY THE MODEL
*
21 MINUMFIN001 7 (3, 5 OR 7 ALLOWED)
*
* LEVEL OF DEBUG OUTPUT REQUIRED, NORMAL RUNS SHOULD SPECIFY ZERO
*
22 MIIPRINT001 0
*
* LOGICAL FLAG SIGNIFYING THAT THE BREAKDOWN OF RISK BY WEATHER CATEGORY
* BIN ARE TO BE PRESENTED TO SHOW THEIR RELATIVE CONTRIBUTION TO THE MEAN
*
* RISBIN
*
23 MIRISCAT001 .FALSE.
*
* FLAG INDICATING IF WIND-ROSES FROM ATMOS ARE TO BE OVERRIDDEN
*
24 MIOVRRID001 .FALSE. (USE THE WIND ROSE CALCULATED FOR EACH WEATHER BIN)
*****
* POPULATION DISTRIBUTION DATA BLOCK, LOADED BY INPOPU, STORED IN /POPDAT/
*
25 PDPOPFLG001 FILE
*
*****
* SHIELDING AND EXPOSURE FACTORS, LOADED BY INDFAC, STORED IN /EADFAC/
*
* THREE VALUES OF EACH PROTECTION FACTOR ARE SUPPLIED,
* ONE FOR EACH TYPE OF ACTIVITY:
*
* ACTIVITY TYPE:
* 1 - EVACUEES WHILE MOVING
* 2 - NORMAL ACTIVITY IN SHELTERING AND EVACUATION ZONE
* 3 - SHELTERED ACTIVITY
*
* CLOUD SHIELDING FACTOR
*
* SITE    GG  PB  SEQ  SUR  ZION
* SHELTERING 0.7 0.5 0.65 0.6 0.5
*
* EVACUEES NORMAL SHELTER
*
26 SECSFACT001 0.75 0.75 0.75 * use URD values
*
* PROTECTION FACTOR FOR INHALATION
*
27 SEPROTIN001 0.4 0.4 0.4 * URD Values*

```

*
 * BREATHING RATE (CUBIC METERS PER SECOND)
 *

28 SEBRRATE001 3.3E-4 3.3E-4 3.3E-4 *URD values
 *

* SKIN PROTECTION FACTOR
 *

29 SESKPFAC001 1.0 0.41 0.33 * VALUES FOR NORMAL ACTIVITY AND
 * SHELTERING SELECTED BY NRC STAFF
 *

* GROUND SHIELDING FACTOR
 *

* SITE GG PB SEQ SUR ZION
 * SHELTERING 0.25 0.1 0.2 0.2 0.1
 *

30 SEGSHFAC001 0.33 0.33 0.33 * URD values
 *

* RESUSPENSION INHALATION MODEL CONCENTRATION COEFFICIENT (/METER)
 *

* RESCON = 1.E-4 IS APPROPRIATE FOR MECHANICAL RESUSPENSION BY VEHICLES.
 * RESHAF = 2.11 DAYS CAUSES 1.E-4 TO DECAY IN ONE WEEK TO 1.E-5, THE VALUE
 * OF RESCON USED IN THE FIRST TERM OF THE LONG-TERM RESUSPENSION EQUATION
 * USED IN CHRONC.
 *

31 SERESCON001 1.E-4 (RESUSPENSION IS TURNED ON)
 *

* RESUSPENSION CONCENTRATION COEFFICIENT HALF-LIFE (SEC)
 *

32 SERESHAF001 1.82E5 (2.11 DAYS)

 * EVACUATION ZONE DATA BLOCK, LOADED BY EVNETW, STORED IN /NETWORK/, /EOPTIO/
 *

* SPECIFIC DESCRIPTION OF THE EMERGENCY RESPONSE SCENARIO BEING USED
 *

33 EZEANAM2001 '95% EVACUATION WITHIN 10 MILES- 24-HOUR RELOCATION'
 *

* THE TYPE OF WEIGHTING TO BE APPLIED TO THE EMERGENCY RESPONSE SCENARIOS
 * YOU MUST SUPPLY A VALUE OF 'TIME' OR 'PEOPLE'
 *

34 EZWTNAME001 'PEOPLE'
 *

* WEIGHTING FRACTION APPLICABLE TO THIS SCENARIO
 *

35 EZWTFRAC001 0.95 *95% of people evacuated
 *

* LAST RING IN THE MOVEMENT ZONE
 *

36 EZLASMOV001 6 (10 miles)
 *

* Flag defining the time at which evacuees "enter" the destination element
 *

37 TRAVELPOINT 'CENTERPOINT' (new option implemented at MACCS2 v. 1.11f)
 *TRAVELPOINT 'BOUNDARY' (Westinghouse used BOUNDARY)
 *

* RADIAL EVACUATION SPEED (M/S) = speed to exit EPZ, 30 min after alarm

```

*
38 EZESPEED001 2.20 2.20 2.20 *(based on 125-42 min for all zones to clear EPZ,
* in 2010, extrapolated for 2040 population)
39 EZEVATYP001 'RADIAL'
40 EZDURBEG001 86400.0
41 EZDURMID001 0.0
42 EZREFPNT001 'ALARM'
43 EZNUMEVA001 6
44 EZDLTSHL001 2520. 2520. 2520. 2520. 2520. 2520. (42 MINUTES DELAY, 95% MOBILIZATION)
45 EZDLTEVA001 0. 0. 0. 0. 0. 0.

*****
* SHELTER AND RELOCATION ZONE DATA BLOCK, LOADED BY INPEMR,
* STORED IN /INPSRZ/, /RELOCA/
*
* DURATION OF THE EMERGENCY PHASE (SECONDS FROM PLUME ARRIVAL)
*
46 SRENDEMP001 604800. (ONE WEEK)
*
* CRITICAL ORGAN FOR RELOCATION DECISIONS
*
47 SRCRIORG001 'L-EDEWBODY'
*
* HOT SPOT RELOCATION TIME (SECONDS FROM PLUME ARRIVAL)
*
48 SRTIMHOT001 43200. (ONE HALF DAY)
*
* NORMAL RELOCATION TIME (SECONDS FROM PLUME ARRIVAL)
*
49 SRTIMNRM001 86400. (ONE DAY)
*
* HOT SPOT RELOCATION DOSE CRITERION THRESHOLD (SIEVERTS)
*
50 SRDOSHOT001 0.5 (50 REM DOSE TO WHOLE BODY IN 1 WEEK TRIGGERS RELOCATION)
*
* NORMAL RELOCATION DOSE CRITERION THRESHOLD (SIEVERTS)
*
51 SRDOSNRM001 0.25 (25 REM DOSE TO WHOLE BODY IN 1 WEEK TRIGGERS
RELOCATION)
*****
* EARLY FATALITY MODEL PARAMETERS, LOADED BY INEFAT, STORED IN /EFATAL/
*
* NUMBER OF EARLY FATALITY EFFECTS
*
52 EFNUMEFA001 2
*
* ORGNAM EFFACA EFFACB EFFTHR
*
53 EFATAGRP001 'A-RED MARR' 3.8 5.0 1.5
54 EFATAGRP002 'A-LUNGS' 10.0 7.0 5.0
*****
* EARLY INJURY MODEL PARAMETERS, LOADED BY INEINJ, STORED IN /EINJUR/
*
* NUMBER OF EARLY INJURY EFFECTS
*
55 EINUMEIN001 0

```



```

*
*      EINAME      ORGNAM  EISUSC EITHRE EIFACA EIFACB
*
*EINJUGRP001 'PRODRIMAL VOMIT' 'A-STOMACH' 1.  .5  2.  3.
*EINJUGRP002 'DIARRHEA'      'A-STOMACH' 1.  1.  3.  2.5
*EINJUGRP003 'PNEUMONITIS'  'A-LUNGS'  1.  5.  10.  7.
*EINJUGRP004 'SKIN ERYTHEMA' 'A-SKIN'   1.  3.  6.  5.
*EINJUGRP005 'TRANSEPIDERMAL' 'A-SKIN'  1.  10. 20.  5.
*EINJUGRP006 'THYROIDITIS'   'A-THYROIDH' 1.  40. 240.  2.
*EINJUGRP007 'HYPOTHYROIDISM' 'A-THYROIDH' 1.  2.  60.  1.3
*****
* ACUTE EXPOSURE CANCER PARAMETERS, LOADED BY INACAN STORED IN /ACANCR/.
*
* NUMBER OF ACUTE EXPOSURE CANCER EFFECTS
*
56 LCNUMACA001  1
*
* THRESHOLD DOSE FOR APPLYING THE DOSE DEPENDENT REDUCTION FACTOR
*
57 LCDDTHRE001  0.2 (LOWEST DOSE FOR WHICH DDREFA WILL BE APPLIED)
*
* DOSE THRESHOLD FOR LINEAR DOSE RESPONSE (Sv)
*
58 LCACTHRE001  0.0 (LINEAR-QUADRATIC MODEL IS NOT BEING USED)
*
*      ACNAME      ORGNAM  ACSUSC DOSEFA DOSEFB CFRISK  CIRISK  DDREFA
*
59 LCANCERS001 'OTHER'  'L-EDEWBODY' 1.0  1.0  0.0  0.12  0.16  2.0
*****
* RESULT 1 OPTIONS BLOCK, LOADED BY INOUT1, STORED IN /INOUT1/
* TOTAL NUMBER OF A GIVEN EFFECT (LATENT CANCER, EARLY DEATH, EARLY INJURY)
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
60 TYPE1NUMBER  5
*
61 TYPE1OUT001  'CAN FAT/TOTAL'          1 10  (0 to 50 miles)
62 TYPE1OUT002  'CAN FAT/TOTAL'          1 6  (0 to 10 miles)
63 TYPE1OUT003  'ERL FAT/TOTAL'          1 10  (0 to 50 miles)
64 TYPE1OUT004  'ERL FAT/TOTAL'          1 2  (0 to 2 miles)
65 TYPE1OUT005  'ERL FAT/TOTAL'          1 1  (0 to 1 miles)
*****
* RESULT 2 OPTIONS BLOCK, LOADED BY INOUT2, STORED IN /INOUT2/
* FURTHEST DISTANCE AT WHICH A GIVEN RISK OF EARLY DEATH IS EXCEEDED.
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
66 TYPE2NUMBER  0
*
*      FATALITY RISK THRESHOLD
*
*TYPE2OUT001  0.
*****
* RESULT 3 OPTIONS BLOCK, LOADED BY INOUT3, STORED IN /INOUT3/
* NUMBER OF PEOPLE WHOSE DOSE TO A GIVEN ORGAN EXCEEDS A GIVEN THRESHOLD.
*

```

* NUMBER OF DESIRED RESULTS OF THIS TYPE

*

67 TYPE3NUMBER 0

*

* ORGAN NAME DOSE THRESHOLD (Sv)

*

*TYPE3OUT001 'A-RED MARR' 1.5

*TYPE3OUT002 'A-LUNGS' 5.0

*TYPE3OUT003 'L-EDEWBODY' 0.05

* RESULT 4 OPTIONS BLOCK, LOADED BY INOUT4, STORED IN /INOUT4/

* 360 DEGREE AVERAGE RISK OF A GIVEN EFFECT AT A GIVEN DISTANCE.

*

* POSSIBLE TYPES OF EFFECTS ARE:

*

* 'ERL FAT/TOTAL'

* 'ERL INJ/INJURY NAME'

* 'CAN FAT/CANCER NAME'

* 'CAN FAT/TOTAL'

*

* NUMBER OF DESIRED RESULTS OF THIS TYPE

*

68 TYPE4NUMBER 0

*

* RADIAL INDEX TYPE OF EFFECT

*

*TYPE4OUT001 1 'ERL FAT/TOTAL'

*TYPE4OUT002 2 'ERL FAT/TOTAL'

*TYPE4OUT003 3 'ERL FAT/TOTAL'

*TYPE4OUT004 5 'ERL FAT/TOTAL'

*TYPE4OUT005 6 'ERL FAT/TOTAL'

* RESULT 5 OPTIONS BLOCK, LOADED BY INOUT5, STORED IN /INOUT5/

*

* TOTAL POPULATION DOSE TO A GIVEN ORGAN BETWEEN TWO DISTANCES.

*

* NUMBER OF DESIRED RESULTS OF THIS TYPE

*

69 TYPE5NUMBER 2

*

* ORGAN I1DIS5 I2DIS5

*

70 TYPE5OUT001 'L-EDEWBODY' 1 6 (0-10 MILES)

71 TYPE5OUT002 'L-EDEWBODY' 1 10 (0-50 MILES)

* RESULT 6 OPTIONS BLOCK, LOADED BY INOUT6, STORED IN /INOUT6/

*

* CENTERLINE DOSE TO AN ORGAN VS DIST BY PATHWAY, PATHWAY NAMES ARE AS
FOLLOWS:

*

* PATHWAY NAME:

* 'CLD' - CLOUDSHINE

* 'GRD' - GROUNDSHINE

* 'INH ACU' - "ACUTE DOSE EQUIVALENT" FROM DIRECT INHALATION OF THE CLOUD

* 'INH LIF' - "LIFETIME DOSE COMMITMENT" FROM DIRECT INHALATION OF THE CLOUD

* 'RES ACU' - "ACUTE DOSE EQUIVALENT" FROM RESUSPENSION INHALATION

```

* 'RES LIF' - "LIFETIME DOSE COMMITMENT" FROM RESUSPENSION INHALATION
* 'TOT ACU' - "ACUTE DOSE EQUIVALENT" FROM ALL PATHWAYS
* 'TOT LIF' - "LIFETIME DOSE COMMITMENT" FROM ALL PATHWAYS
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
72 TYPE6NUMBER 0
*
*      ORGNAM      PATHNM      I1DIS6 I2DIS6
*
*TYPE6OUT001 'A-RED MARR' 'TOT ACU' 1 19 (0-50 MILES)
*TYPE6OUT002 'A-LUNGS' 'TOT ACU' 1 19 (0-50 MILES)
*TYPE6OUT003 'L-EDEWBODY' 'TOT LIF' 1 26 (0-1000 MILES)
*****
* RESULT 7 OPTIONS BLOCK, LOADED BY INOUT7, STORED IN /INOUT7/
*
* CENTERLINE RISK OF A GIVEN EFFECT VS DISTANCE
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
73 TYPE7NUMBER 0
*
*      NAME      I1DIS7 I2DIS7
*
*TYPE7OUT001 'ERL FAT/TOTAL' 1 10 (0-50 MILES)
*TYPE7OUT002 'CAN FAT/TOTAL' 1 10 (0-50 MILES)
*****
* RESULT 8 OPTIONS BLOCK, LOADED BY INOUT8, STORED IN /INOUT8/
*
* POPULATION WEIGHTED FATALITY RISK BETWEEN 2 DISTANCES
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
74 TYPE8NUMBER 6
*
*      NAME      I1DIS8 I2DIS8
*
75 TYPE8OUT001 'ERL FAT/TOTAL' 1 10 NOCCDF (0-50 MILES)
76 TYPE8OUT002 'ERL FAT/TOTAL' 1 2 NOCCDF (0- 2 MILES)
77 TYPE8OUT003 'ERL FAT/TOTAL' 1 1 NOCCDF (0- 1 MILES)
78 TYPE8OUT004 'ERL FAT/TOTAL' 3 3 NOCCDF (2- 3 MILES)
79 TYPE8OUT005 'CAN FAT/TOTAL' 1 10 NOCCDF (0-50 MILES)
80 TYPE8OUT006 'CAN FAT/TOTAL' 1 6 NOCCDF (0-10 MILES)
*****
* RESULT A OPTIONS BLOCK, LOADED BY INOUTA, STORED IN /INOUTA/
*
* peak dose to a given organ
*
*      NUMA
81 TYPEANUMBER 1
*
*      ORGNAM I1DISA I2DISA
82 TYPEAOUT001 'L-EDEWBODY' 1 1 CCDF
*
83 NUMB
***** WARNING -- RECORD IDENTIFIER HAS 4 CHARACTERS INSTEAD OF 11 CHARACTERS

```

84 TYPEBNUMBER 0

***** TERMINATOR RECORD ENCOUNTERED -- END OF BASE CASE USER INPUT *****

USER INPUT PROCESSING SUMMARY - BASE CASE

NUMBER OF RECORDS READ = 362
NUMBER OF BLANK OR COMMENT RECORDS READ = 277
NUMBER OF TERMINATOR RECORDS = 1
NUMBER OF RECORDS PROCESSED = 84
NUMBER OF PROCESSED RECORDS DUPLICATED = 0
NUMBER OF PROCESSED RECORDS SORTED = 84

The list of defined organs is as follows (A- is ACUTE and L- is LIFETIME):

A-SKIN
A-RED MARR
A-LUNGS
A-THYROIDH
A-STOMACH
L-EDEWBODY
L-RED MARR
L-BONE SUR
L-BREAST
L-LUNGS
L-THYROID
L-LOWER LI
L-BLAD WAL
L-THYROIDH

Am using a DOSFAC/DOSFAC2/IDCF2 dose factor file

READING FROM A DOSE CONVERSION FILE WITH THE FOLLOWING HEADER:

MACCS File DOSDATA.INP: Changed by D. CHANIN25-JUN-92, 09:53:47
Seven new organs added with MACCS Version 1.5.11.1

USING THE FOLLOWING SITE DATA FILE:

SECPOP2000 V3.12 MACCS2 Site Data File for Vogtle + transients projected to ye
Lat: 33d 8'31" Long: 81d45'45" Population multiplier: 1.0000 10/06/2006

10 SPATIAL INTERVALS

16 WIND DIRECTIONS

7 CROP CATEGORIES

4 WATER PATHWAY ISOTOPES

1 WATERSHEDS

97 ECONOMIC REGIONS

SPATIAL DISTANCES KILOMETERS

1.6093 3.2187 4.8280 6.4374 8.0467 16.0935 32.1869 48.2804
64.3739 80.4674

POPULATION

0. 69. 0. 0. 0. 0. 8727. 92192.

28873.	22032.							
0.	0.	0.	0.	0.	0.	4594.	14508.	
7731.	13488.							
0.	0.	0.	0.	0.	0.	0.	9309.	
5508.	10769.							
0.	0.	0.	0.	0.	0.	774.	13423.	
12596.	11961.							
0.	0.	0.	0.	0.	13.	735.	3547.	
1805.	3263.							
0.	0.	0.	22.	1.	346.	249.	6077.	
7848.	12492.							
0.	0.	0.	19.	17.	281.	336.	344.	
869.	11149.							
0.	0.	34.	0.	0.	991.	881.	7749.	
3263.	7071.							
0.	0.	0.	0.	25.	315.	2322.	1938.	
4168.	69610.							
0.	0.	0.	0.	3.	58.	609.	5337.	
2694.	9893.							
0.	7.	0.	7.	1.	193.	859.	737.	
2006.	7607.							
0.	0.	19.	79.	22.	763.	9211.	797.	
5609.	5525.							
0.	0.	70.	9.	4.	392.	4333.	1613.	
4660.	3290.							
0.	0.	90.	0.	86.	226.	4262.	10681.	
12014.	22397.							
0.	50.	0.	156.	122.	156.	12373.	142545.	
353009.	27595.							
0.	0.	0.	0.	0.	91.	4875.	140058.	
60057.	10509.							

LAND FRACTION

0.00 0.00 0.99 0.00 0.00 0.98 0.98 0.98 0.98 0.98
0.00 0.00 0.00 0.00 0.00 0.00 0.98 0.98 0.98 0.98
0.91 0.00 0.00 0.00 0.00 0.00 0.00 0.99 0.98 0.99
0.91 0.00 0.00 0.00 0.99 0.00 0.99 0.99 0.99 0.99
0.91 0.00 0.00 0.00 0.00 0.99 1.00 0.99 0.99 0.98
0.91 0.91 0.91 0.91 0.91 0.92 0.99 1.00 0.91 0.85
0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.96 0.89 0.82
0.91 0.00 0.91 0.00 0.00 0.91 0.91 0.91 0.91 0.93
0.91 0.91 0.00 0.00 0.91 0.91 0.93 0.92 0.94 0.99
0.91 0.91 0.00 0.00 0.91 0.91 0.96 1.00 0.99 0.99
0.91 0.91 0.00 0.91 0.91 0.91 0.92 0.97 0.96 0.98
0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.97 0.98
0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.92 0.99 0.99
0.00 0.00 0.91 0.91 0.91 0.91 0.85 0.80 0.92 0.96
0.00 0.91 0.00 0.91 0.91 0.90 0.76 0.74 0.97 0.98
0.00 0.00 0.00 0.00 0.00 0.97 0.95 0.89 0.98 0.99

REGION INDEX

1 2 2 2 2 3 4 5 6 7
1 8 8 8 8 9 10 11 12 13
11 14 14 14 14 15 16 17 18 19
12 02 02 02 02 12 22 32 42 5
12 62 62 62 62 72 82 93 03 1
13 23 23 23 23 33 43 53 63 7
13 83 83 83 94 04 14 24 3

WATERSHED INDEX

[illegible]

CROP SEASON AND SHARE

1 PASTURE	90.270	0.4100
2 STORED FORAGE	150.240	0.1300
3 GRAINS	150.240	0.2100
4 GRN LEAFY VEGETABLES	150.240	0.0020
5 OTHER FOOD CROPS	150.240	0.0040
6 LEGUMES AND SEEDS	150.240	0.1500
7 ROOTS AND TUBERS	150.240	0.0030

WATERSHED DEFINITION -- INITIAL AND ANNUAL WASHOFF AND INGESTION FACTORS

1 Sr-89	5.00E-06	0.0
2 Sr-90	5.00E-06	0.0
3 Cs-134	5.00E-06	0.0
4 Cs-137	5.00E-06	0.0

REGIONAL ECONOMIC DATA

1 EXCLUSION	.214 0.001	4971.0	14888.0	143897.0
2 REGION_02	.331 0.252	1065.0	3848.0	80147.0
3 REGION_03	.327 0.002	1067.0	3003.0	86571.0
4 REGION_04	.327 0.002	1067.0	3003.0	86571.0
5 REGION_05	.327 0.002	1067.0	3003.0	86571.2
6 REGION_06	.364 0.017	1027.3	3086.3	85815.6
7 REGION_07	.468 0.097	763.3	4024.3	86190.3
8 REGION_08	.000 0.000	0.0	0.0	0.0
9 REGION_09	.000 0.000	0.0	0.0	0.0
10 REGION_10	.327 0.002	1067.0	3003.0	86571.0
11 REGION_11	.327 0.002	1067.0	3003.0	86571.0
12 REGION_12	.327 0.002	1067.0	3003.0	86571.0
13 REGION_13	.315 0.005	858.5	3170.5	85006.6
14 REGION_14	.000 0.000	0.0	0.0	0.0
15 REGION_15	.000 0.000	0.0	0.0	0.0
16 REGION_16	.000 0.000	0.0	0.0	0.0

17 REGION_17	.329	0.159	1065.7	3534.0	82534.3
18 REGION_18	.243	0.074	1119.9	6538.0	104101.4
19 REGION_19	.164	0.003	1046.3	9118.2	121204.5
20 REGION_20	.331	0.252	1065.0	3848.0	80147.0
21 REGION_21	.000	0.000	0.0	0.0	0.0
22 REGION_22	.331	0.252	1065.0	3848.0	80147.0
23 REGION_23	.331	0.252	1065.0	3848.0	80147.0
24 REGION_24	.277	0.131	981.5	5407.5	100054.8
25 REGION_25	.109	0.015	1139.1	11472.1	138770.2
26 REGION_26	.000	0.000	0.0	0.0	0.0
27 REGION_27	.331	0.252	1065.0	3848.0	80147.0
28 REGION_28	.231	0.149	485.0	2877.2	83330.2
29 REGION_29	.283	0.203	787.0	3382.7	81672.6
30 REGION_30	.247	0.078	716.8	4608.5	100922.2
31 REGION_31	.302	0.048	853.0	5113.6	104661.1
32 REGION_32	.214	0.001	4971.0	14888.0	143897.0
33 REGION_33	.222	0.019	4689.9	14094.3	139324.5
34 REGION_34	.163	0.075	275.8	2704.7	87813.1
35 REGION_35	.162	0.078	84.0	2206.0	85531.0
36 REGION_36	.107	0.041	84.5	2789.9	83824.1
37 REGION_37	.145	0.007	243.6	3442.7	83083.6
38 REGION_38	.214	0.001	4971.0	14888.0	143897.0
39 REGION_39	.214	0.001	4971.0	14888.0	143897.0
40 REGION_40	.077	0.028	4095.0	12799.2	131784.3
41 REGION_41	.105	0.057	1871.6	6954.9	105898.1
42 REGION_42	.097	0.034	86.6	2912.1	83506.2
43 REGION_43	.059	0.000	252.6	3687.0	82558.9
44 REGION_44	.214	0.001	4971.0	14888.0	143897.0
45 REGION_45	.214	0.001	4971.0	14888.0	143897.0
46 REGION_46	.075	0.027	4130.2	12894.8	132165.3
47 REGION_47	.040	0.034	3921.0	12399.0	129247.0
48 REGION_48	.040	0.034	3919.1	12394.5	129223.2
49 REGION_49	.140	0.013	1659.3	6804.9	104062.8
50 REGION_50	.214	0.001	4971.0	14888.0	143897.0
51 REGION_51	.214	0.001	4971.0	14888.0	143897.0
52 REGION_52	.193	0.011	3746.7	11842.2	127607.4
53 REGION_53	.080	0.030	3545.0	11426.9	124445.9
54 REGION_54	.108	0.031	2984.3	10214.6	121352.5
55 REGION_55	.243	0.027	1071.2	5772.9	105572.3
56 REGION_56	.214	0.001	4971.0	14888.0	143897.0
57 REGION_57	.214	0.001	4971.0	14888.0	143897.0
58 REGION_58	.308	0.000	2579.7	8833.1	112664.4
59 REGION_59	.381	0.000	727.0	4142.0	88467.0
60 REGION_60	.347	0.034	784.4	4286.9	91108.1
61 REGION_61	.240	0.107	692.0	3950.5	95403.3
62 REGION_62	.214	0.001	4971.0	14888.0	143897.0
63 REGION_63	.214	0.001	4971.0	14888.0	143897.0
64 REGION_64	.222	0.001	4778.3	14400.1	141380.3
65 REGION_65	.327	0.000	2092.0	7598.3	106295.1
66 REGION_66	.257	0.141	2006.6	6914.3	105976.2
67 REGION_67	.250	0.233	969.1	3969.4	92895.2
68 REGION_68	.214	0.001	4971.0	14888.0	143897.0
69 REGION_69	.214	0.001	4971.0	14888.0	143897.0
70 REGION_70	.214	0.001	4971.0	14888.0	143897.0
71 REGION_71	.214	0.001	4971.0	14888.0	143897.0
72 REGION_72	.166	0.333	1593.4	10683.1	122616.1

73 REGION_73	.219	0.359	342.5	7373.4	104993.8
74 REGION_74	.214	0.001	4971.0	14888.0	143897.0
75 REGION_75	.214	0.001	4971.0	14888.0	143897.0
76 REGION_76	.214	0.001	4971.0	14888.0	143897.0
77 REGION_77	.205	0.064	4336.7	14130.8	140041.0
78 REGION_78	.145	0.462	343.4	9363.9	115765.8
79 REGION_79	.247	0.343	272.7	7345.8	103055.8
80 REGION_80	.214	0.001	4971.0	14888.0	143897.0
81 REGION_81	.214	0.001	4971.0	14888.0	143897.0
82 REGION_82	.141	0.001	3521.8	11365.6	129080.4
83 REGION_83	.088	0.001	2452.0	8770.0	118158.2
84 REGION_84	.329	0.140	630.7	5364.1	97969.9
85 REGION_85	.595	0.027	645.2	3859.5	92133.0
86 REGION_86	.214	0.001	4971.0	14888.0	143897.0
87 REGION_87	.203	0.001	4667.1	14115.3	140542.7
88 REGION_88	.039	0.000	1469.0	6372.9	108068.8
89 REGION_89	.014	0.000	981.0	5190.0	103103.1
90 REGION_90	.523	0.013	890.5	3564.9	88208.1
91 REGION_91	.556	0.030	879.3	3475.5	86076.3
92 REGION_92	.000	0.000	0.0	0.0	0.0
93 REGION_93	.325	0.002	1066.2	3022.3	86717.2
94 REGION_94	.288	0.002	1056.3	3275.5	88631.1
95 REGION_95	.218	0.002	1036.9	3767.8	92352.3
96 REGION_96	.526	0.084	936.4	3909.6	83919.0
97 REGION_97	.522	0.098	1324.4	5422.0	86588.9

POPULATION

```

***** BEGINNING OF CHANGE CASE  1 USER INPUT *****
*****
* EMERGENCY RESPONSE SCENARIO NUMBER 2
*****
* EVACUATION ZONE DATA BLOCK, LOADED BY EVNETW, STORED IN /NETWOR/, /EOPTIO/
*
* SPECIFIC DESCRIPTION OF THE EMERGENCY RESPONSE SCENARIO BEING USED
*
85 EZEANAM2001 'NO EVACUATION'
***** RECORD NUMBER  85 REPLACES RECORD NUMBER  33 *****
*
* WEIGHTING FRACTION APPLICABLE TO THIS SCENARIO
*
86 EZWTFRAC001 0.05 *5% of people relocated but not evacuated
***** RECORD NUMBER  86 REPLACES RECORD NUMBER  35 *****
*
* LAST RING IN THE MOVEMENT ZONE
*
87 EZLASMOV001  0 (A ZERO TURNS OFF THE EVACUATION MODEL)
***** RECORD NUMBER  87 REPLACES RECORD NUMBER  36 *****
*
***** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE  1 USER INPUT *****

```

USER INPUT PROCESSING SUMMARY - CHANGE CASE 1
 NUMBER OF RECORDS CHANGED = 3
 NUMBER OF RECORDS ADDED = 0

NO EVACUATION REQUESTED

***** WARNING -- THE FOLLOWING RECORDS WERE NEVER ACCESSED *****

NUMB

USER INPUT IS READ FROM UNIT 26
RECORD IDENTIFIER FIELDS 11 CHARACTERS LONG ARE EXPECTED.
THE FIRST 100 COLUMNS OF EACH INPUT RECORD ARE PROCESSED.
THE MAXIMUM NUMBER OF IDENTIFIER RECORDS THAT MAY BE SAVED AS THE BASE CASE IS 1000.

RECORD
NUMBER

RECORD

```
*****
*****
* FILE NAME Vchronc.inp
*
* DESCRIPTIVE TITLE DESCRIBING THIS "CHRONC" INPUT FILE
*
1 CHCHNAME001 'SNC AP1000 CHRONC FILE'
*****
* EMERGENCY RESPONSE COST DATA BLOCK
*
* DAILY COST FOR A PERSON WHO IS EVACUATED (DOLLARS/PERSON-DAY)
* ESCALATED FROM $27/DAY IN 1986 TO
* ESCALATED FROM $27/DAY IN 1986 TO 49.64 in 2006 {FACTOR OF 1.8385036} FROM
* WWW.BLS.GOV/CPI/HOME.HTM, INFLATION CALCULATOR
2 CHEVACST001 49.64 (INCLUDES FOOD AND HOUSING COSTS BUT NOT LOST INCOME)
*
* DAILY COST FOR A PERSON WHO IS RELOCATED (DOLLARS/PERSON-DAY)
* ESCALATED '86 TO '06, FACTOR = 1.8385036
3 CHRELCST001 49.64 (INCLUDES FOOD AND HOUSING COSTS BUT NOT LOST INCOME)
*****
* LONG TERM PROTECTIVE ACTION DATA BLOCK
*
* Duration of the intermediate phase period--at version 1.11c TMIPND is no
* longer processed. The new input variable DUR_INTPHAS is the period's
* duration, not the time after plume arrival at which the period ends.
*
4 DUR_INTPHAS 0.0 (in seconds) (no intermediate phase)
*
* LONG-TERM PHASE DOSE PROJECTION PERIOD, THE DURATION OF THE EXPOSURE
* PERIOD OVER WHICH THE LONG-TERM DOSE CRITERION IS EVALUATED (SECONDS)
*
5 CHTMPACT001 1.58E8 (5 YEARS)
*
* DOSE CRITERION FOR INTERMEDIATE PHASE RELOCATION (Sv)
*
6 CHDSCRTI001 1.0E5 (NO INTERMEDIATE PHASE RELOCATION)
*
```

* DOSE CRITERION FOR LONG-TERM PHASE RELOCATION (Sv)
 *
 7 CHDSCRLT001 0.04
 *
 * CRITICAL ORGAN NAME FOR LONG-TERM ACTIONS
 *
 8 CHCRTOCR001 'L-EDEWBODY'
 *
 * Long Term Exposure Period Previously permanently set to:
 * one million years = 3.15 E13 seconds
 * MACCS2 allowable range is 3.15E7 to 1.E10
 *
 9 CHEXPTIM001 1.E10

 * DECONTAMINATION PLAN DATA BLOCK
 *
 * NUMBER OF LEVELS OF DECONTAMINATION
 *
 10 CHLVLDEC001 2
 *
 * DECONTAMINATION TIMES CORRESPONDING TO THE LVLDEC LEVELS OF
 DECONTAMINATION
 * (SECONDS)
 *
 11 CHTIMDEC001 5.184E6 1.0368E7 (60, 120 DAYS)
 *
 * DOSE REDUCTION FACTORS CORRESPONDING TO THE LVLDEC LEVELS OF
 DECONTAMINATION
 *
 12 CHDSRFCT001 3. 15.
 *
 * COST OF FARM DECONTAMINATION PER FARMLAND UNIT AREA (DOLLARS/HECTARE)
 * FOR THE VARIOUS LEVELS OF DECONTAMINATION
 *
 *CHCDFRM0001 562.5 1250. ESCALATED '86 TO '06
 * FACTOR = 1.8385036
 13 CHCDFRM0001 1034.16 2298.13
 *
 * COST OF NONFARM DECONTAMINATION PER RESIDENT PERSON (DOLLARS/PERSON)
 * FOR THE VARIOUS LEVELS OF DECONTAMINATION
 *
 *CHCDNFRM001 3000. 8000. ESCALATED '86 TO '06
 * FACTOR = 1.8385036
 14 CHCDNFRM001 5515.51 14708.03
 *
 * FRACTION OF FARMLAND DECONTAMINATION COST DUE TO LABOR
 * FOR THE VARIOUS DECONTAMINATION LEVELS
 *
 15 CHFRFDL0001 .3 .35
 *
 * FRACTION OF NON-FARM DECONTAMINATION COST DUE TO LABOR
 * FOR THE VARIOUS DECONTAMINATION LEVELS
 *
 16 CHFRNFDL001 .7 .5
 *
 * FRACTION OF TIME WORKERS IN FARM AREAS SPEND IN CONTAMINATED AREAS

* FOR THE VARIOUS DECONTAMINATION LEVELS
*

17 CHTFWKF0001 .10 .33
*

* FRACTION OF TIME WORKERS IN NON-FARM AREAS SPEND IN CONTAMINATED AREAS
* FOR THE VARIOUS DECONTAMINATION LEVELS
*

18 CHTFWKNF001 .33 .33
*

* AVERAGE COST OF DECONTAMINATION LABOR (DOLLARS/MAN-YEAR)
*

*CHDLBCST001 35000. ESCALATED '86 TO '06
* FACTOR = 1.8385036

19 CHDLBCST001 64347.63

* INTERDICTION COST DATA BLOCK
*

* DEPRECIATION (DETERIORATION) RATE DURING INTERDICTION PERIOD (PER YEAR)
*

20 CHDPRATE001 .20 (VALUE OBTAINED FROM WASH-1400, APPENDIX 6)
*

* INVESTMENT INCOME RETURN (DISCOUNT RATE) DURING INTERDICTION PERIOD (PER YEAR)
* THIS VALUE SHOULD BE DERIVED AS A REAL RETURN RATE ADJUSTED FOR INFLATION
*

21 CHDSRATE001 .12 (VALUE OBTAINED FROM WASH-1400, APPENDIX 6)
*

* POPULATION RELOCATION COST (DOLLARS/PERSON):
* ALTERNATIVE HOUSING, MOVING COSTS, AND LOST INCOME FOR PEOPLE IN
* AREAS WHICH REQUIRE DECONTAMINATION, INTERDICTION, OR CONDEMNATION
*

*CHPOPCST001 5000. ESCALATED '86 TO '06
* FACTOR = 1.8385036

22 CHPOPCST001 9192.52

* GROUNDSHINE WEATHERING DEFINITION DATA BLOCK
*

* NUMBER OF TERMS IN THE GROUNDSHINE WEATHERING RELATIONSHIP (EITHER 1 OR 2)
*

23 CHNGWTRM001 2
*

* GROUNDSHINE WEATHERING COEFFICIENTS
*

24 CHGWCOEF001 0.5 0.5 (JON HELTON)
*

* HALF LIVES CORRESPONDING TO THE GROUNDSHINE WEATHERING COEFFICIENTS (S)
*

25 CHTGWHLF001 1.6E7 2.8E9 (JON HELTON)

* RESUSPENSION WEATHERING DEFINITION DATA BLOCK
*

* NUMBER OF TERMS IN THE RESUSPENSION WEATHERING RELATIONSHIP
*

26 CHNRWTRM001 3
*

* RESUSPENSION CONCENTRATION COEFFICIENTS (/ METER)

* RELATIONSHIP BETWEEN GROUND CONCENTRATION AND INSTANTANEOUS AIR CONC.
 *

27 CHRWCOEF001 1.0E-5 1.0E-7 1.0E-9 (VALUES HERE SELECTED BY JON HELTON)
 *

* HALF-LIVES CORRESPONDING TO THE RESUSPENSION CONCENTRATION COEFFICIENTS
 (S)
 *

28 CHTRWHLF001 1.6E7 1.6E8 1.6E9 (6 MONTHS, 5 YEARS, 50 YEARS)

 * SITE REGION DESCRIPTION DATA BLOCK
 *

* FRACTION OF AREA THAT IS LAND IN THE REGION
 *

29 CHFRACLD001 0.95 (ROUGH GUESS VALUE, SITE FILE OVERRIDES THIS VALUE)
 *

* FRACTION OF LAND DEVOTED TO FARMING IN THE REGION
 *

30 CHFRCFRM001 0.382 (VIRGINIA STATE VALUE, SITE FILE OVERRIDES THIS VALUE)
 *

* AVERAGE VALUE OF ANNUAL FARM PRODUCTION IN THE REGION (DOLLARS/HECTARE)
 * (CASH RECEIPTS FROM FARMING PLUS VALUE OF HOME CONSUMPTION)/(LAND IN
 FARMS)
 *

31 CHFRMPRD001 371.0 (VIRGINIA STATE VALUE, SITE FILE OVERRIDES THIS VALUE)
 *

* FRACTION OF FARM PRODUCTION RESULTING FROM DAIRY PRODUCTION IN THE
 REGION
 * (VALUE OF MILK PRODUCED)/(CASH RECEIPTS FROM FARMING PLUS HOME
 CONSUMPTION)
 *

32 CHDPFRCT001 0.198 (VIRGINIA STATE VALUE, SITE FILE OVERRIDES THIS VALUE)
 *

* VALUE OF FARM WEALTH (DOLLARS/HECTARE)
 * (AVERAGE VALUE PER HECTARE OF FARM LAND AND BUILDINGS TO 50 MILES)
 *

*CHVALWF0001 2541. ESCALATED '03 TO '06
 * FACTOR = 1.0951087

33 CHVALWF0001 2782.67 * FARM SIZE/AREA WEIGHTED AVERAGE FOR GA/SC
 * COUNTIES WITHIN 50 MILE RADIUS TAKING SRS INTO ACCOUNT
 *

* FRACTION OF FARM WEALTH IN IMPROVEMENTS FOR THE REGION
 *

34 CHFRFIM0001 0.25 * SURRY
 *

* NON-FARM WEALTH, PROPERTY AND IMPROVEMENTS FOR THE REGION
 (DOLLARS/PERSON)
 * THE VALUE OF ALL RESIDENTIAL, BUSINESS, AND PUBLIC ASSETS WHICH WOULD BE
 * LOST IN THE EVENT OF PERMANENT INTERDICTION (CONDEMNATION) OF THE AREA
 *

*CHVALWNF001 107602. ESCALATED 2003 TO 2006
 * FACTOR = 1.0951087

35 CHVALWNF001 117836. * POPULATION/AREA WEIGHTED AVERAGE FOR GA/SC
 * COUNTIES WITHIN 50 MILE RADIUS
 *

* FRACTION OF NON-FARM WEALTH IN IMPROVEMENTS FOR THE REGION
 *

36 CHFRNFIM001 0.8

37 CHFDPATH001 'NEW'

*

* name of the COMIDA2 binary output file

*

38 BIN_FILE001 'C:\MACCS2\SAMP_A.BIN' (binary data file of 1/04)

*

* Dose limits triggering first year crop disposal of the separate
* milk and non-milk components of the diet, corresponding in purpose,
* more or less, to the MACCS 1.5 input variables PSCMLK and PSCOTH

*

* For NUREG-1150 calculations, the maximum allowable ground concentrations for
* production of milk and non-milk crops contaminated by an accident occurring
* in the growing season were derived based on an assumed maximum allowable
* dose of 5 rem effective or 15 rem thyroid, per the 1982 FDA guidance that's
* reprinted in the 1992 EPA PAG Manual. For purposes of comparison against
* the prior results, it is being assumed, for simplicity, that milk and
* non-milk crops contribute equally to the first year dose. Thus, the 5 rem
* effective dose limit used in NUREG-1150 is equally split between milk and
* non-milk crops, with 2.5 rem allowed for each. Similarly, the 15 rem
* thyroid limit is split into 7.5 and 7.5 rem for the milk and non-milk
* portions of the diet.

*

* SUPPORTING DOCUMENT FOR GUIDANCE LEVELS FOR RADIONUCLIDES IN DOMESTIC

AND

* DOMESTIC FOODS, July, 2004, FDA (www.cfsan.fda.gov/~dms/nucleve2.html, see
* especially Section II) revises limits from 5/15 rem (effective/thyroid) to
* 0.5/5 rem. The latter is incorporated below.

*

* effective thyroid (doses in sieverts)

39 DOSEMILK001 0.0025 0.025

40 DOSEOTHR001 0.0025 0.025

*

* Annual dose limits for the subsequent year's (i.e., after the first year)
* interdiction of BOTH the milk and non-milk (combined) components of the diet

*

* Note: the long-term food criteria, GCMAXR, used for NUREG-1150 were based on
* an ingestion dose integrated from zero to infinity. It is not possible to
* translate those parameter values into corresponding annual dose limits, as is
* required by the COMIDA2-based food model. The "total" dose limits used in
* NUREG-1150 for "root uptake", 0.5 rem effective and 1.5 rem thyroid, are used
* here as annual dose limits for interdiction of food production in years the
* years subsequent to the accident.

*

* effective thyroid (doses in sieverts)

41 DOSELONG001 0.005 0.015

*

*

* NUMBER OF NUCLIDES IN THE WATER INGESTION PATHWAY MODEL

*

42 CHNUMWPI001 4

*

* TABLE OF NUCLIDE DEFINITIONS IN THE WATER INGESTION PATHWAY MODEL

*

```

* IF A SITE DATA FILE IS DEFINED, THE DATA DEFINING THE WATERSHED INGESTION
* FACTOR IS SUPERSEDED BY THE CORRESPONDING DATA IN THE SITE DATA FILE
*
*           INITIAL  ANNUAL  INGESTION FACTOR
*           WATER   WASHOFF  WASHOFF  ((Bq INGESTED)/
*           NUCLIDE  FRACTION  RATE    (Bq IN WATER))
*
*           NAMWPI   WSHFRI   WSHRTA   WINGF
43 CHWTRISO001 Sr-89    0.01    0.004   5.0E-6
44 CHWTRISO002 Sr-90    0.01    0.004   5.0E-6
45 CHWTRISO003 Cs-134   0.005   0.001   5.0E-6
46 CHWTRISO004 Cs-137   0.005   0.001   5.0E-6
*****
* SPECIAL OPTIONS DATA BLOCK
*
* DETAILED PRINT OPTION CONTROL SWITCHES, LOOK AT THE CODE BEFORE TURNING
ON!!
*       KSWDSC
*
47 CHKSWTCH001 0
*****
* DEFINE THE TYPE 9 RESULTS
*
* LONG-TERM POPULATION DOSE IN A GIVEN REGION BROKEN DOWN BY THE 12
PATHWAYS
*
* NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
* FOR EACH RESULT YOU REQUEST, THE CODE WILL PRODUCE A SET OF 12
*
48 TYPE9NUMBER 2  (UP TO 10 ALLOWED)
*
*       ORGNAM     INNER  OUTER
*
49 TYPE9OUT001 'L-EDEWBODY'  1    6  (0-10 MILES)
50 TYPE9OUT002 'L-EDEWBODY'  1   10 (0-50 MILES)
*****
* ECONOMIC COST RESULTS IN A REGION BROKEN DOWN BY 12 TYPES OF COSTS
*
* NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
* FOR EACH RESULT YOU REQUEST, THE CODE WILL PRODUCE A SET OF 12
*
51 TYP10NUMBER 1  (UP TO 10 ALLOWED)
*
*       INNER  OUTER
*
52 TYP10OUT001 1    10 (0-50 MILES)
*****
* DEFINE A FLAG THAT CONTROLS THE PRODUCTION OF THE ACTION DISTANCE RESULTS
*
* SPECIFYING A VALUE OF .TRUE. TURNS ON ALL 8 OF THE ACTION DISTANCE RESULTS,
* A VALUE OF .FALSE. WILL ELIMINATE THE ACTION DISTANCE RESULTS FROM THE
OUTPUT.
*
53 TYP11FLAG11 .FALSE.
*****
* IMPACTED AREA/POPULATION RESULTS IN A REGION BROKEN DOWN BY 6 TYPES OF

```

IMPACTS

*
* NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
* FOR EACH RESULT YOU REQUEST, THE CODE WILL PRODUCE A SET OF 8
*

54 TYP12NUMBER 1 (UP TO 10 ALLOWED)

*
* INNER OUTER
*

55 TYP12OUT001 1 10 (0-50 MILES)

* Maximal annual food ingestion dose to an individual, requested by IXOT13

*
* This result is calculated after accounting for temporary or
* permanent interdiction. It is only available for the "new" food model.
*

* NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
*

56 TYP13NUMBER 0 (UP TO 10 ALLOWED)

*
* IRAD13 is the radial spatial interval at which results are requested
*

* ORGN13 is the name of the organ for which results are requested
* (allowable values for ORGN13 are 'EFFECTIVE' or 'THYROID')
*

* IRAD13 ORGN13
*

*TYP13OUT001 2 EFFECTIVE
*TYP13OUT002 4 EFFECTIVE
*TYP13OUT003 6 EFFECTIVE
*TYP13OUT004 9 EFFECTIVE
*

***** TERMINATOR RECORD ENCOUNTERED -- END OF BASE CASE USER INPUT *****

USER INPUT PROCESSING SUMMARY - BASE CASE

NUMBER OF RECORDS READ = 336
NUMBER OF BLANK OR COMMENT RECORDS READ = 279
NUMBER OF TERMINATOR RECORDS = 1
NUMBER OF RECORDS PROCESSED = 56
NUMBER OF PROCESSED RECORDS DUPLICATED = 0
NUMBER OF PROCESSED RECORDS SORTED = 56

COMIDA2 binary file header =
COMIDA2 01/14/2004 13:06:02 Version 1.11.1, 01/12/2004

COMIDA2 descriptive title =
MACCS File DOSDATA.INP: Changed by D. CHANIN25-JUN-92, 09:53:47

Seven new organs added with MACCS Version 1.5.11.1

A SITE DATA FILE IS BEING USED FOR BOTH "EARLY" AND "CHRONC"

1 CANCER EFFECTS ARE DEFINED IN THE MODEL.

INDEX	CANCER EFFECT	ORGAN	ALPHA	BETA	CFRISK	CIRISK
1	OTHER	L-EDEWBODY	1.000E+00	0.000E+00	1.200E-01	1.600E-01

TIME OF HOTSPOT RELOCATION IS 4.3200E+04.

TIME OF NORMAL RETURN IS 8.640E+04 AND THE EMERGENCY PHASE ENDS AT 6.048E+05.

GROUNDSHINE SHIELDING FACTOR = 0.330

RESUSPENSION PROTECTION FACTOR = 0.400

BREATHING RATE (CUBIC M/S) = 3.300E-04

DISPERSION MODEL FLAG IS 1

WINDROSE PROBABILITIES BY WIND DIRECTION AND MET BIN NUMBER

BIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.0603	0.0686	0.0915	0.0769	0.0769	0.0437	0.0187	0.0416	0.0437	0.0541	0.0541	0.1040	0.0936	0.0832	0.0437	0.0457
2	0.0217	0.0527	0.0682	0.1225	0.1116	0.0698	0.0481	0.0729	0.0698	0.0357	0.0574	0.0822	0.0915	0.0310	0.0434	0.0217
3	0.0217	0.0652	0.0435	0.0870	0.0870	0.0652	0.0652	0.0000	0.0217	0.0652	0.1304	0.0435	0.0435	0.0652	0.0870	0.1087
4	0.0462	0.0522	0.0582	0.0743	0.0582	0.0663	0.0622	0.0643	0.1044	0.0723	0.0602	0.0884	0.0683	0.0442	0.0382	0.0422
5	0.0482	0.0547	0.0755	0.0755	0.0690	0.0560	0.0664	0.0690	0.1211	0.0885	0.0729	0.0560	0.0573	0.0273	0.0260	0.0365
6	0.0246	0.0615	0.0892	0.0815	0.0877	0.0462	0.0415	0.0831	0.0938	0.0585	0.0969	0.0785	0.0462	0.0292	0.0508	0.0308
7	0.0132	0.0789	0.1184	0.0526	0.1316	0.1447	0.0658	0.0395	0.1053	0.1184	0.0263	0.0395	0.0000	0.0000	0.0395	0.0263
8	0.0000	0.0000	0.2500	0.0000	0.2500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2500	0.0000	0.2500	0.0000
9	0.1242	0.0458	0.0458	0.0654	0.0915	0.0458	0.0458	0.0327	0.0719	0.0523	0.0261	0.0654	0.0654	0.0588	0.0523	0.1111
10	0.0811	0.0723	0.0914	0.0782	0.0737	0.0383	0.0442	0.0295	0.0472	0.0501	0.0723	0.0546	0.0619	0.0649	0.0560	0.0841
11	0.0674	0.0601	0.0924	0.0689	0.0806	0.0499	0.0308	0.0484	0.0411	0.0689	0.0630	0.0616	0.0499	0.0528	0.0850	0.0792
12	0.0192	0.0466	0.0986	0.0301	0.0685	0.0685	0.0575	0.0877	0.0795	0.1178	0.0822	0.0466	0.0247	0.0192	0.1233	0.0301
13	0.0560	0.0560	0.0741	0.0741	0.0708	0.0626	0.0511	0.0362	0.0610	0.0362	0.0807	0.0675	0.0857	0.0774	0.0478	0.0626
14	0.0570	0.0925	0.1214	0.1273	0.0851	0.0600	0.0311	0.0407	0.0437	0.0281	0.0392	0.0637	0.0622	0.0577	0.0392	0.0511
15	0.0681	0.0929	0.0836	0.0372	0.0310	0.0310	0.0310	0.0681	0.0805	0.0464	0.1207	0.1053	0.0681	0.0433	0.0402	0.0526
16	0.0000	0.0968	0.0645	0.0645	0.0323	0.0000	0.0323	0.1613	0.0645	0.0968	0.1935	0.0000	0.0323	0.0000	0.0000	0.1613
17	0.0820	0.0913	0.0656	0.0471	0.0364	0.0178	0.0314	0.0385	0.0777	0.0635	0.0735	0.0913	0.0749	0.0628	0.0756	0.0706
18	0.0820	0.0913	0.0656	0.0471	0.0364	0.0178	0.0314	0.0385	0.0777	0.0635	0.0735	0.0913	0.0749	0.0628	0.0756	0.0706
19	0.0820	0.0913	0.0656	0.0471	0.0364	0.0178	0.0314	0.0385	0.0777	0.0635	0.0735	0.0913	0.0749	0.0628	0.0756	0.0706

0.0628 0.0756 0.0706
 20 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 21 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 22 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 23 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 24 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 25 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 26 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 27 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 28 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 29 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 30 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 31 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 32 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 33 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 34 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 35 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 36 0.0820 0.0913 0.0656 0.0471 0.0364 0.0178 0.0314 0.0385 0.0777 0.0635 0.0735 0.0913 0.0749
 0.0628 0.0756 0.0706
 37 0.0566 0.0705 0.0848 0.0788 0.0716 0.0493 0.0416 0.0522 0.0701 0.0573 0.0680 0.0733 0.0654
 0.0511 0.0547 0.0547
 38 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 0.0000 0.0000 0.0000
 39 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 0.0000 0.0000 0.0000
 40 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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 41 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 0.0000 0.0000 0.0000

Processing a Site Data File with Header: SECPOP2000 V3.12 MACCS2 Site Data File for Vogtle +
 transients projected to ye
 Lat: 33d 8'31" Long: 81d45'45" Population multiplier: 1.0000 10/06/2006

THIS PROGRAM CURRENTLY ALLOWS THE GENERATION OF UP TO 394 RESULTS

YOU HAVE REQUESTED 14 RESULTS FROM "EARLY" COMPOSED OF:

5 RESULTS OF TYPE 1
0 RESULTS OF TYPE 2
0 RESULTS OF TYPE 3
0 RESULTS OF TYPE 4
2 RESULTS OF TYPE 5
0 RESULTS OF TYPE 6
0 RESULTS OF TYPE 7
6 RESULTS OF TYPE 8
1 RESULTS OF TYPE A
0 RESULTS OF TYPE B

YOU HAVE REQUESTED 55 RESULTS FROM "CHRONC" COMPOSED OF:

34 RESULTS OF TYPE 9
13 RESULTS OF TYPE 10
0 RESULTS OF TYPE 11
8 RESULTS OF TYPE 12
0 RESULTS OF TYPE 13

TRIAL	DAY	HOUR	BIN	PRBMET
1	153	16	21	6.31E-03

WARNING!! WARNING!! WARNING!! WARNING!!

THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

WARNING!! WARNING!! WARNING!! WARNING!!

For Julian Day 153, selecting COMIDA2 results # 4 of 9
2 154 4 18 1.68E-03
For Julian Day 154, selecting COMIDA2 results # 4 of 9
3 154 18 24 5.42E-04
For Julian Day 154, selecting COMIDA2 results # 4 of 9
4 160 10 1 1.37E-02
For Julian Day 160, selecting COMIDA2 results # 4 of 9
5 160 15 2 1.84E-02
For Julian Day 160, selecting COMIDA2 results # 4 of 9
6 162 4 25 1.57E-03
For Julian Day 162, selecting COMIDA2 results # 4 of 9
7 162 9 32 1.14E-03
For Julian Day 162, selecting COMIDA2 results # 4 of 9
8 167 3 26 1.46E-03
For Julian Day 167, selecting COMIDA2 results # 5 of 9
9 169 1 6 1.86E-02
For Julian Day 169, selecting COMIDA2 results # 5 of 9
10 173 18 3 1.31E-03
For Julian Day 173, selecting COMIDA2 results # 5 of 9
11 174 8 4 1.42E-02
For Julian Day 174, selecting COMIDA2 results # 5 of 9
12 175 7 9 4.37E-03
For Julian Day 175, selecting COMIDA2 results # 5 of 9
13 179 3 12 1.04E-02
For Julian Day 179, selecting COMIDA2 results # 5 of 9
14 180 12 20 8.22E-03
For Julian Day 180, selecting COMIDA2 results # 5 of 9
15 182 9 19 3.40E-03
For Julian Day 182, selecting COMIDA2 results # 5 of 9
16 182 14 17 1.00E-02
For Julian Day 182, selecting COMIDA2 results # 5 of 9
17 183 6 33 1.43E-04
For Julian Day 183, selecting COMIDA2 results # 5 of 9
18 183 19 10 1.93E-02
For Julian Day 183, selecting COMIDA2 results # 5 of 9
19 186 24 31 2.57E-04
For Julian Day 186, selecting COMIDA2 results # 5 of 9
20 187 2 31 2.57E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9
21 187 4 31 2.57E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9
22 187 6 30 2.57E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9
23 187 8 30 2.57E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9
24 187 10 30 2.57E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9

25	187	12	29	1.43E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9				
26	187	13	29	1.43E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9				
27	187	21	33	1.43E-04
For Julian Day 187, selecting COMIDA2 results # 5 of 9				
28	192	18	22	1.88E-03
For Julian Day 192, selecting COMIDA2 results # 6 of 9				
29	193	4	36	1.11E-03
For Julian Day 193, selecting COMIDA2 results # 6 of 9				
30	193	12	35	1.06E-03
For Julian Day 193, selecting COMIDA2 results # 6 of 9				
31	193	16	34	2.57E-04
For Julian Day 193, selecting COMIDA2 results # 6 of 9				
32	193	17	33	1.43E-04
For Julian Day 193, selecting COMIDA2 results # 6 of 9				
33	193	18	32	1.14E-03
For Julian Day 193, selecting COMIDA2 results # 6 of 9				
34	193	21	27	4.57E-04
For Julian Day 193, selecting COMIDA2 results # 6 of 9				
35	197	7	35	1.06E-03
For Julian Day 197, selecting COMIDA2 results # 6 of 9				
36	197	12	34	2.57E-04
For Julian Day 197, selecting COMIDA2 results # 6 of 9				
37	197	13	33	1.43E-04
For Julian Day 197, selecting COMIDA2 results # 6 of 9				
38	197	17	17	1.00E-02
For Julian Day 197, selecting COMIDA2 results # 6 of 9				
39	200	15	19	3.40E-03
For Julian Day 200, selecting COMIDA2 results # 6 of 9				
40	205	18	21	6.31E-03
For Julian Day 205, selecting COMIDA2 results # 6 of 9				
41	210	20	18	1.68E-03
For Julian Day 210, selecting COMIDA2 results # 6 of 9				
42	213	8	5	2.19E-02
For Julian Day 213, selecting COMIDA2 results # 6 of 9				
43	222	22	11	1.95E-02
For Julian Day 222, selecting COMIDA2 results # 7 of 9				
44	226	3	10	1.93E-02
For Julian Day 226, selecting COMIDA2 results # 7 of 9				
45	226	7	36	1.11E-03
For Julian Day 226, selecting COMIDA2 results # 7 of 9				
46	232	2	27	4.57E-04
For Julian Day 232, selecting COMIDA2 results # 7 of 9				
47	236	10	1	1.37E-02
For Julian Day 236, selecting COMIDA2 results # 7 of 9				
48	239	24	13	1.73E-02
For Julian Day 239, selecting COMIDA2 results # 7 of 9				
49	248	2	14	3.86E-02
For Julian Day 248, selecting COMIDA2 results # 7 of 9				
50	249	3	15	9.22E-03
For Julian Day 249, selecting COMIDA2 results # 7 of 9				

TRIAL	DAY	HOUR	BIN	PRBMET
51	252	5	9	4.37E-03

For Julian Day 252, selecting COMIDA2 results # 7 of 9
52 252 12 36 1.11E-03
For Julian Day 252, selecting COMIDA2 results # 7 of 9
53 252 16 35 1.06E-03
For Julian Day 252, selecting COMIDA2 results # 7 of 9
54 257 6 16 8.85E-04
For Julian Day 257, selecting COMIDA2 results # 8 of 9
55 262 22 18 1.68E-03
For Julian Day 262, selecting COMIDA2 results # 8 of 9
56 264 10 20 8.22E-03
For Julian Day 264, selecting COMIDA2 results # 8 of 9
57 265 1 7 2.17E-03
For Julian Day 265, selecting COMIDA2 results # 8 of 9
58 266 15 5 2.19E-02
For Julian Day 266, selecting COMIDA2 results # 8 of 9
59 271 11 3 1.31E-03
For Julian Day 271, selecting COMIDA2 results # 8 of 9
60 272 9 26 1.46E-03
For Julian Day 272, selecting COMIDA2 results # 8 of 9
61 272 14 24 5.42E-04
For Julian Day 272, selecting COMIDA2 results # 8 of 9
62 276 7 14 3.86E-02
For Julian Day 276, selecting COMIDA2 results # 8 of 9
63 277 13 32 1.14E-03
For Julian Day 277, selecting COMIDA2 results # 8 of 9
64 284 7 9 4.37E-03
For Julian Day 284, selecting COMIDA2 results # 8 of 9
65 297 17 11 1.95E-02
For Julian Day 297, selecting COMIDA2 results # 9 of 9
66 298 12 4 1.42E-02
For Julian Day 298, selecting COMIDA2 results # 9 of 9
67 306 4 22 1.88E-03
For Julian Day 306, selecting COMIDA2 results # 9 of 9
68 307 13 2 1.84E-02
For Julian Day 307, selecting COMIDA2 results # 9 of 9
69 312 4 13 1.73E-02
For Julian Day 312, selecting COMIDA2 results # 9 of 9
70 314 10 15 9.22E-03
For Julian Day 314, selecting COMIDA2 results # 9 of 9
71 314 13 16 8.85E-04
For Julian Day 314, selecting COMIDA2 results # 9 of 9
72 336 9 13 1.73E-02
For Julian Day 336, selecting COMIDA2 results # 1 of 9
73 342 12 4 1.42E-02
For Julian Day 342, selecting COMIDA2 results # 1 of 9
74 344 15 7 2.17E-03
For Julian Day 344, selecting COMIDA2 results # 1 of 9
75 348 16 6 1.86E-02
For Julian Day 348, selecting COMIDA2 results # 1 of 9
76 349 21 16 8.85E-04
For Julian Day 349, selecting COMIDA2 results # 1 of 9
77 354 19 25 1.57E-03
For Julian Day 354, selecting COMIDA2 results # 1 of 9
78 355 9 24 5.42E-04
For Julian Day 355, selecting COMIDA2 results # 1 of 9
79 355 10 23 1.14E-04

For Julian Day 355, selecting COMIDA2 results # 1 of 9
 80 359 16 5 2.19E-02
 For Julian Day 359, selecting COMIDA2 results # 1 of 9
 81 360 5 14 3.86E-02
 For Julian Day 360, selecting COMIDA2 results # 1 of 9
 82 362 9 10 1.93E-02
 For Julian Day 362, selecting COMIDA2 results # 1 of 9
 83 362 23 12 1.04E-02
 For Julian Day 362, selecting COMIDA2 results # 1 of 9
 84 2 19 29 1.43E-04
 For Julian Day 2, selecting COMIDA2 results # 1 of 9
 85 2 22 17 1.00E-02
 For Julian Day 2, selecting COMIDA2 results # 1 of 9
 86 8 10 3 1.31E-03
 For Julian Day 8, selecting COMIDA2 results # 1 of 9
 87 9 7 20 8.22E-03
 For Julian Day 9, selecting COMIDA2 results # 1 of 9
 88 9 13 18 1.68E-03
 For Julian Day 9, selecting COMIDA2 results # 1 of 9
 89 14 14 36 1.11E-03
 For Julian Day 14, selecting COMIDA2 results # 1 of 9
 90 14 19 34 2.57E-04
 For Julian Day 14, selecting COMIDA2 results # 1 of 9
 91 15 1 23 1.14E-04
 For Julian Day 15, selecting COMIDA2 results # 1 of 9
 92 15 2 22 1.88E-03
 For Julian Day 15, selecting COMIDA2 results # 1 of 9
 93 17 9 21 6.31E-03
 For Julian Day 17, selecting COMIDA2 results # 1 of 9
 94 18 3 35 1.06E-03
 For Julian Day 18, selecting COMIDA2 results # 1 of 9
 95 18 6 34 2.57E-04
 For Julian Day 18, selecting COMIDA2 results # 1 of 9
 96 18 7 32 1.14E-03
 For Julian Day 18, selecting COMIDA2 results # 1 of 9
 97 23 12 29 1.43E-04
 For Julian Day 23, selecting COMIDA2 results # 1 of 9
 98 26 4 11 1.95E-02
 For Julian Day 26, selecting COMIDA2 results # 1 of 9
 99 31 14 8 1.14E-04
 For Julian Day 31, selecting COMIDA2 results # 1 of 9
 100 32 11 22 1.88E-03
 For Julian Day 32, selecting COMIDA2 results # 2 of 9

TRIAL	DAY	HOUR	BIN	PRBMET
101	33	6	19	3.40E-03
For Julian Day 33, selecting COMIDA2 results # 2 of 9				
102	38	15	8	1.14E-04
For Julian Day 38, selecting COMIDA2 results # 2 of 9				
103	40	22	25	1.57E-03
For Julian Day 40, selecting COMIDA2 results # 2 of 9				
104	41	5	24	5.42E-04
For Julian Day 41, selecting COMIDA2 results # 2 of 9				
105	41	6	23	1.14E-04
For Julian Day 41, selecting COMIDA2 results # 2 of 9				

106	41	12	4	1.42E-02
For Julian Day 41, selecting COMIDA2 results # 2 of 9				
107	43	10	6	1.86E-02
For Julian Day 43, selecting COMIDA2 results # 2 of 9				
108	43	24	12	1.04E-02
For Julian Day 43, selecting COMIDA2 results # 2 of 9				
109	48	16	21	6.31E-03
For Julian Day 48, selecting COMIDA2 results # 2 of 9				
110	53	16	1	1.37E-02
For Julian Day 53, selecting COMIDA2 results # 2 of 9				
111	59	15	8	1.14E-04
For Julian Day 59, selecting COMIDA2 results # 2 of 9				
112	59	17	7	2.17E-03
For Julian Day 59, selecting COMIDA2 results # 2 of 9				
113	61	13	1	1.37E-02
For Julian Day 61, selecting COMIDA2 results # 2 of 9				
114	72	11	2	1.84E-02
For Julian Day 72, selecting COMIDA2 results # 2 of 9				
115	72	23	31	2.57E-04
For Julian Day 72, selecting COMIDA2 results # 2 of 9				
116	73	2	30	2.57E-04
For Julian Day 73, selecting COMIDA2 results # 2 of 9				
117	73	4	27	4.57E-04
For Julian Day 73, selecting COMIDA2 results # 2 of 9				
118	76	7	15	9.22E-03
For Julian Day 76, selecting COMIDA2 results # 2 of 9				
119	84	1	26	1.46E-03
For Julian Day 84, selecting COMIDA2 results # 2 of 9				
120	84	5	26	1.46E-03
For Julian Day 84, selecting COMIDA2 results # 2 of 9				
121	84	10	25	1.57E-03
For Julian Day 84, selecting COMIDA2 results # 2 of 9				
122	84	17	19	3.40E-03
For Julian Day 84, selecting COMIDA2 results # 2 of 9				
123	92	20	14	3.86E-02
For Julian Day 92, selecting COMIDA2 results # 3 of 9				
124	93	12	6	1.86E-02
For Julian Day 93, selecting COMIDA2 results # 3 of 9				
125	95	18	8	1.14E-04
For Julian Day 95, selecting COMIDA2 results # 3 of 9				
126	99	16	7	2.17E-03
For Julian Day 99, selecting COMIDA2 results # 3 of 9				
127	101	24	15	9.22E-03
For Julian Day 101, selecting COMIDA2 results # 3 of 9				
128	102	2	12	1.04E-02
For Julian Day 102, selecting COMIDA2 results # 3 of 9				
129	103	20	13	1.73E-02
For Julian Day 103, selecting COMIDA2 results # 3 of 9				
130	107	4	11	1.95E-02
For Julian Day 107, selecting COMIDA2 results # 3 of 9				
131	111	23	10	1.93E-02
For Julian Day 111, selecting COMIDA2 results # 3 of 9				
132	120	13	27	4.57E-04
For Julian Day 120, selecting COMIDA2 results # 3 of 9				
133	120	16	17	1.00E-02
For Julian Day 120, selecting COMIDA2 results # 3 of 9				

134	120	20	20	8.22E-03
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For Julian Day 120, selecting COMIDA2 results # 3 of 9

135	124	12	5	2.19E-02
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For Julian Day 124, selecting COMIDA2 results # 3 of 9

136	141	20	16	8.85E-04
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For Julian Day 141, selecting COMIDA2 results # 4 of 9

137	147	6	9	4.37E-03
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For Julian Day 147, selecting COMIDA2 results # 4 of 9

138	148	8	3	1.31E-03
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For Julian Day 148, selecting COMIDA2 results # 4 of 9

139	150	12	2	1.84E-02
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For Julian Day 150, selecting COMIDA2 results # 4 of 9

WARNING!! WARNING!! WARNING!! WARNING!!

THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

WARNING!! WARNING!! WARNING!! WARNING!!

For Julian Day 153, selecting COMIDA2 results # 4 of 9
For Julian Day 154, selecting COMIDA2 results # 4 of 9
For Julian Day 154, selecting COMIDA2 results # 4 of 9
For Julian Day 160, selecting COMIDA2 results # 4 of 9
For Julian Day 160, selecting COMIDA2 results # 4 of 9
For Julian Day 162, selecting COMIDA2 results # 4 of 9
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For Julian Day 205, selecting COMIDA2 results # 6 of 9
For Julian Day 210, selecting COMIDA2 results # 6 of 9
For Julian Day 213, selecting COMIDA2 results # 6 of 9
For Julian Day 222, selecting COMIDA2 results # 7 of 9
For Julian Day 226, selecting COMIDA2 results # 7 of 9
For Julian Day 226, selecting COMIDA2 results # 7 of 9
For Julian Day 232, selecting COMIDA2 results # 7 of 9
For Julian Day 236, selecting COMIDA2 results # 7 of 9

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For Julian Day 41, selecting COMIDA2 results # 2 of 9
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For Julian Day 43, selecting COMIDA2 results # 2 of 9
For Julian Day 43, selecting COMIDA2 results # 2 of 9
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For Julian Day 124, selecting COMIDA2 results # 3 of 9
For Julian Day 141, selecting COMIDA2 results # 4 of 9
For Julian Day 147, selecting COMIDA2 results # 4 of 9
For Julian Day 148, selecting COMIDA2 results # 4 of 9
For Julian Day 150, selecting COMIDA2 results # 4 of 9

WARNING!! WARNING!! WARNING!! WARNING!!

THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

WARNING!! WARNING!! WARNING!! WARNING!!

For Julian Day 153, selecting COMIDA2 results # 4 of 9
For Julian Day 154, selecting COMIDA2 results # 4 of 9
For Julian Day 154, selecting COMIDA2 results # 4 of 9
For Julian Day 160, selecting COMIDA2 results # 4 of 9
For Julian Day 160, selecting COMIDA2 results # 4 of 9
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For Julian Day 41, selecting COMIDA2 results # 2 of 9
For Julian Day 41, selecting COMIDA2 results # 2 of 9
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WARNING!! WARNING!! WARNING!! WARNING!!

THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

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WARNING!! WARNING!! WARNING!! WARNING!!

THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

WARNING!! WARNING!! WARNING!! WARNING!!

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WARNING!! WARNING!! WARNING!! WARNING!!

THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

WARNING!! WARNING!! WARNING!! WARNING!!

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DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 1 OF 6:

CFI

OVERALL RESULTS OBTAINED BY COMBINING 2 EMERGENCY RESPONSE COHORTS FROM "EARLY" WITH THE WEIGHTING FRACTIONS BELOW APPLIED TO THEM:

FRACTION OF THE PEOPLE

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION
0.950

COHORT 2 = NO EVACUATION

0.050

AND THEN MERGING THE 2 RESULTS ABOVE WITH THE SINGLE SET OF RESULTS FROM "CHRONC" DESCRIBED BELOW:

COHORT 3 = SNC AP1000 CHRONC FILE

RESULTS WHICH ARE PRODUCED ONLY BY "EARLY" OR ONLY BY "CHRONC" ARE PRESENTED IN LATER SECTIONS.

14-JUL-07 09:28:11 PAGE 1 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 7.04E+02 2.91E+02 1.99E+03 3.09E+03 4.91E+03
5.65E+03 8.43E+03 2.57E-04 39

CAN FAT/TOTAL 0-16.1 km 1.0000 1.28E+01 8.83E+00 2.64E+01 3.73E+01 6.44E+01
7.33E+01 1.22E+02 2.34E-05 31

ERL FAT/TOTAL 0-80.5 km 0.0046 2.12E-04 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 8.02E-02 1.31E-03 65

ERL FAT/TOTAL 0-3.2 km 0.0046 2.12E-04 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 8.02E-02 1.31E-03 65

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 1.89E+02 1.30E+02 3.75E+02 5.12E+02 9.30E+02
1.06E+03 2.02E+03 2.34E-05 31

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 1.09E+04 4.28E+03 3.23E+04 4.95E+04 7.18E+04
7.54E+04 1.04E+05 8.42E-05 29

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0046 1.67E-10 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 6.30E-08 1.31E-03 65

ERL FAT/TOTAL 0-3.2 km 0.0046 1.68E-06 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 6.36E-04 1.31E-03 65

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0						
CAN FAT/TOTAL	0-80.5 km	1.0000	5.28E-04	2.08E-04	1.43E-03	2.25E-03	3.86E-03	4.69E-03	6.54E-03
2.57E-04	39								
CAN FAT/TOTAL	0-16.1 km	0.9667	1.05E-03	6.42E-04	2.48E-03	3.53E-03	7.59E-03	9.97E-03	1.31E-02
1.66E-03	65								

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	5.40E+00	3.24E+00	1.42E+01	2.03E+01	NOT-FOUND
NOT-FOUND	2.33E+01	1.95E-02	65				

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 1 OF 6:

CFI

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING
FRACTIONS BEING APPLIED

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION

14-JUL-07 09:28:11 PAGE 2 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 5.04E+02 1.89E+02 1.32E+03 2.18E+03 3.95E+03

4.94E+03 7.61E+03 2.57E-04 39

CAN FAT/TOTAL 0-16.1 km 0.8311 1.68E+00 1.84E-01 4.77E+00 8.95E+00 2.11E+01

3.02E+01 4.32E+01 5.71E-04 80

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 0.8311 1.83E+01 2.97E+00 5.24E+01 9.11E+01 1.88E+02

2.36E+02 3.61E+02 5.71E-04 80

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 7.58E+03 2.92E+03 2.16E+04 3.26E+04 5.72E+04

6.95E+04 8.77E+04 5.42E-04 73

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 3.2-4.8 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

CAN FAT/TOTAL 0-80.5 km 1.0000 3.96E-04 1.50E-04 1.06E-03 1.60E-03 2.98E-03 3.63E-

03 5.98E-03 2.57E-04 39

CAN FAT/TOTAL 0-16.1 km 0.8311 3.55E-04 3.88E-05 9.94E-04 1.90E-03 4.62E-03 6.11E-

03 9.13E-03 5.71E-04 80

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY 0-1.6 km 1.0000 3.26E+00 1.66E+00 8.56E+00 1.12E+01 NOT-FOUND

NOT-FOUND 1.46E+01 1.95E-02 65

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 1 OF 6:

CFI

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 2 = NO EVACUATION

14-JUL-07 09:28:11	PAGE 3	PROB	QUANTILES	PEAK
PEAK PEAK				

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL	0-80.5 km	1.0000	5.39E+02	2.18E+02	1.37E+03	2.23E+03	4.16E+03
5.12E+03	7.85E+03	2.57E-04	39				

CAN FAT/TOTAL	0-16.1 km	0.9667	3.71E+01	1.76E+01	9.65E+01	1.33E+02	2.41E+02
2.91E+02	4.41E+02	1.66E-03	65				

ERL FAT/TOTAL	0-80.5 km	0.0046	4.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	1.60E+00	1.31E-03	65				

ERL FAT/TOTAL	0-3.2 km	0.0046	4.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	1.60E+00	1.31E-03	65				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 0.9667 3.25E+02 1.77E+02 8.31E+02 1.17E+03 2.10E+03
2.42E+03 3.73E+03 1.66E-03 65

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 7.88E+03 3.24E+03 2.19E+04 3.29E+04 5.72E+04
6.95E+04 8.86E+04 5.42E-04 73

POPULATION WEIGHTED RISK

ERL FAT/TOTAL	0-80.5 km	0.0046	3.34E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	1.26E-06	1.31E-03	65				

ERL FAT/TOTAL	0-3.2 km	0.0046	3.37E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	1.27E-02	1.31E-03	65				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0					

CAN FAT/TOTAL		0-80.5 km	1.0000	4.24E-04	1.74E-04	1.10E-03	1.70E-03	3.00E-03	3.64E-03
03	6.17E-03 2.57E-04	39							

CAN FAT/TOTAL	0-16.1 km	0.9667	7.83E-03	3.68E-03	2.03E-02	2.98E-02	5.21E-02	5.86E-02
02 9.31E-02 1.66E-03	65							

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	4.43E+01	2.81E+01	1.01E+02	1.12E+02	1.43E+02
1.59E+02	1.89E+02	1.57E-03	77				

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 1 OF 6:

CFI

RESULTS FROM THE "CHRONC" MODULE ALONE

COHORT 3 = SNC AP1000 CHRONC FILE

14-JUL-07 09:28:11 PAGE 4 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 1.99E+02 7.83E+01 5.29E+02 8.46E+02 1.33E+03

1.55E+03 2.41E+03 7.86E-05 29

CAN FAT/TOTAL 0-16.1 km 1.0000 9.30E+00 6.84E+00 1.69E+01 2.41E+01 5.37E+01

6.86E+01 1.21E+02 2.34E-05 31

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 1.55E+02 1.11E+02 2.93E+02 4.09E+02 8.99E+02

1.06E+03 2.01E+03 2.34E-05 31

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 3.32E+03 1.34E+03 8.81E+03 1.36E+04 2.43E+04

2.82E+04 4.02E+04 7.86E-05 29

POPULATION WEIGHTED RISK

CAN FAT/TOTAL 0-80.5 km 1.0000 1.31E-04 4.54E-05 3.66E-04 5.79E-04 1.01E-03 1.08E-03 1.53E-03 7.86E-05 45

CAN FAT/TOTAL 0-16.1 km 0.9346 3.25E-04 2.69E-04 7.17E-04 7.95E-04 1.01E-03 1.05E-03 1.46E-03 4.07E-05 30

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY 0-1.6 km 0.9966 9.35E-02 8.26E-02 1.16E-01 1.26E-01 1.52E-01 1.65E-01 1.97E-01 1.11E-03 52

L-EDEWBODY POP. DOSE (Sv) 0-16.1 km

TOTAL LONG-TERM PATHWAYS DOSE 1.0000 1.55E+02 1.11E+02 2.93E+02 4.09E+02

8.99E+02 1.06E+03 2.01E+03 2.34E-05 31

LONG-TERM DIRECT EXPOSURE PATHWAYS 0.9346 2.57E+01 2.17E+01 5.51E+01 6.32E+01

7.76E+01 8.29E+01 1.15E+02 4.07E-05 30

TOTAL INGESTION PATHWAYS DOSE 1.0000 1.11E+02 6.70E+01 2.39E+02 3.47E+02

7.92E+02 1.03E+03 1.98E+03 2.34E-05 31

LONG-TERM GROUNDSHINE DOSE 0.9346 1.25E+01 9.06E+00 2.98E+01 3.50E+01

5.03E+01 5.66E+01 8.58E+01 4.07E-05 30

LONG-TERM RESUSPENSION DOSE 0.9346 1.32E+01 1.11E+01 2.89E+01 3.34E+01

4.48E+01 5.02E+01 5.36E+01 1.51E-03 135

WATER INGESTION DOSE 1.0000 1.03E+02 5.41E+01 2.32E+02 3.35E+02 7.78E+02

1.03E+03 1.98E+03 2.34E-05 31

POP.-DEPENDENT DECONTAMINATION DOSE 0.8924 1.76E+01 8.03E+00 4.89E+01 7.07E+01

1.08E+02 1.24E+02 2.24E+02 1.08E-05 26

FARM-DEPENDENT DECONTAMINATION DOSE 0.9293 4.59E-01 8.87E-02 1.36E+00 1.99E+00

4.55E+00 5.12E+00 5.69E+00 4.00E-04 114

INGESTION OF GRAINS	0.9734	3.20E-01	2.64E-01	6.94E-01	8.21E-01	1.08E+00
1.16E+00 1.61E+00 1.79E-04 85						
INGESTION OF LEAF VEG	0.9734	2.06E+00	1.38E+00	4.41E+00	5.79E+00	1.01E+01
1.11E+01 1.70E+01 1.79E-04 85						
INGESTION OF ROOT CROPS	0.9734	1.29E+00	9.38E-01	2.84E+00	3.63E+00	6.38E+00
7.82E+00 1.09E+01 1.79E-04 85						
INGESTION OF FRUITS	0.9734	6.75E-01	5.45E-01	1.33E+00	1.64E+00	2.31E+00
2.57E+00 3.66E+00 1.79E-04 85						
INGESTION OF LEGUMES	0.9734	2.20E+00	1.34E+00	5.16E+00	7.16E+00	1.12E+01
1.33E+01 2.06E+01 1.79E-04 85						
INGESTION OF BEEF	0.9734	5.34E-01	3.02E-01	1.29E+00	2.05E+00	3.03E+00
3.19E+00 3.92E+00 3.14E-04 108						
INGESTION OF MILK	0.9734	1.13E+00	6.66E-01	2.78E+00	3.85E+00	5.49E+00
5.86E+00 7.43E+00 4.45E-04 93						
INGESTION OF POULTRY	0.9734	1.86E-01	1.43E-01	4.13E-01	5.20E-01	6.42E-01
7.03E-01 8.19E-01 1.62E-03 130						
INGESTION OF OTHER MEAT CROPS	0.9734	1.86E-01	1.19E-01	4.44E-01	5.87E-01	8.12E-01
01 8.90E-01 1.07E+00 5.99E-04 73						

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km

TOTAL LONG-TERM PATHWAYS DOSE	1.0000	3.32E+03	1.34E+03	8.81E+03	1.36E+04
2.43E+04 2.82E+04 4.02E+04 7.86E-05 29					
LONG-TERM DIRECT EXPOSURE PATHWAYS	1.0000	2.77E+03	9.47E+02	7.83E+03	1.16E+04
2.05E+04 2.19E+04 3.24E+04 7.86E-05 45					
TOTAL INGESTION PATHWAYS DOSE	1.0000	3.18E+02	2.33E+02	6.43E+02	8.30E+02
1.22E+03 1.39E+03 2.29E+03 9.36E-06 26					
LONG-TERM GROUNDSHINE DOSE	1.0000	1.43E+03	4.71E+02	3.86E+03	6.32E+03
1.16E+04 1.34E+04 2.08E+04 6.28E-04 47					
LONG-TERM RESUSPENSION DOSE	1.0000	1.34E+03	4.74E+02	3.77E+03	5.84E+03
1.01E+04 1.13E+04 1.67E+04 4.85E-04 12					
WATER INGESTION DOSE	1.0000	1.43E+02	8.14E+01	3.36E+02	4.63E+02
1.08E+03 2.02E+03 2.34E-05 31					

14-JUL-07 09:28:11 PAGE 5		PROB	QUANTILES					PEAK	
PEAK PEAK		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km									
POP.-DEPENDENT DECONTAMINATION DOSE		0.9626	2.25E+02	3.88E+01	4.16E+02	9.46E+02	3.53E+03	5.00E+03	1.33E+04
3.53E+03 5.00E+03 1.33E+04 8.42E-05 29									
FARM-DEPENDENT DECONTAMINATION DOSE		0.9865	2.95E+00	1.12E+00	7.91E+00	1.19E+01	2.24E+01	2.67E+01	5.25E+01
2.24E+01 2.67E+01 5.25E+01 1.19E-04 119									
INGESTION OF GRAINS		1.0000	6.62E+00	5.69E+00	1.29E+01	1.68E+01	2.71E+01	3.07E+01	4.59E+01
3.07E+01 4.59E+01 1.94E-05 19									
INGESTION OF LEAF VEG		1.0000	3.63E+01	2.36E+01	8.03E+01	1.09E+02	1.60E+02	1.89E+02	3.07E+02
1.89E+02 3.07E+02 1.03E-04 119									
INGESTION OF ROOT CROPS		1.0000	2.11E+01	1.35E+01	4.66E+01	6.89E+01	1.08E+02	1.19E+02	1.98E+02
1.19E+02 1.98E+02 1.03E-04 119									
INGESTION OF FRUITS		1.0000	1.36E+01	1.09E+01	2.72E+01	3.54E+01	5.50E+01	6.18E+01	9.43E+01
6.18E+01 9.43E+01 1.94E-05 19									
INGESTION OF LEGUMES		1.0000	3.36E+01	2.01E+01	7.51E+01	1.13E+02	2.00E+02	2.23E+02	3.73E+02
2.23E+02 3.73E+02 1.03E-04 119									
INGESTION OF BEEF		1.0000	2.22E+01	1.73E+01	4.41E+01	5.36E+01	7.32E+01	8.35E+01	1.06E+02
8.35E+01 1.06E+02 5.99E-04 4									
INGESTION OF MILK		1.0000	3.35E+01	2.91E+01	6.07E+01	7.44E+01	1.03E+02	1.12E+02	1.77E+02
1.12E+02 1.77E+02 8.42E-05 45									
INGESTION OF POULTRY		1.0000	4.96E+00	4.24E+00	9.05E+00	1.07E+01	1.47E+01	1.68E+01	2.56E+01
1.68E+01 2.56E+01 1.28E-03 13									
INGESTION OF OTHER MEAT CROPS		1.0000	3.60E+00	3.05E+00	6.17E+00	7.98E+00	1.17E+01	1.31E+01	1.67E+01
1.17E+01 1.31E+01 1.67E+01 1.08E-03 72									
ECONOMIC COST MEASURES (\$) 0-80.5 km									
TOTAL ECONOMIC COSTS		1.0000	1.19E+09	3.05E+08	2.87E+09	4.95E+09	1.63E+10	2.05E+10	2.47E+10
2.05E+10 2.47E+10 1.08E-03 44									
POP.-DEPENDENT COSTS		0.9678	1.09E+09	2.21E+08	2.80E+09	4.81E+09	1.62E+10	2.02E+10	2.41E+10
2.02E+10 2.41E+10 1.10E-04 119									
FARM-DEPENDENT COSTS		1.0000	9.91E+07	6.16E+07	2.35E+08	3.32E+08	5.08E+08	5.27E+08	5.95E+08
5.27E+08 5.95E+08 4.85E-04 51									
POP.-DEPENDENT DECONTAMINATION COST		0.9626	3.52E+08	6.78E+07	7.49E+08	1.65E+09	5.23E+09	7.11E+09	9.35E+09
5.23E+09 7.11E+09 9.35E+09 1.10E-04 119									
FARM-DEPENDENT DECONTAMINATION COST		0.9865	1.77E+07	9.28E+06	4.45E+07	5.73E+07	8.28E+07	9.41E+07	1.74E+08
8.28E+07 9.41E+07 1.74E+08 1.03E-04 119									
POP.-DEPENDENT INTERDICTION COST		0.9626	7.31E+08	1.49E+08	2.00E+09	3.47E+09	1.01E+10	1.07E+10	1.48E+10
1.01E+10 1.07E+10 1.48E+10 1.10E-04 119									
FARM-DEPENDENT INTERDICTION COST		0.9993	1.33E+07	6.51E+06	3.38E+07	4.62E+07	7.09E+07	7.57E+07	9.46E+07
7.09E+07 7.57E+07 9.46E+07 4.85E-04 51									
POP.-DEPENDENT CONDEMNATION COST		0.0062	3.42E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E+06
0.00E+00 1.62E+06 1.38E+07 2.33E-04 27									
FARM-DEPENDENT CONDEMNATION COST		0.9840	2.41E+07	8.17E+06	6.28E+07	1.13E+08	2.16E+08	2.35E+08	2.94E+08
2.16E+08 2.35E+08 2.94E+08 7.92E-04 14									
EMERGENCY PHASE COST		0.9441	4.47E+06	1.00E+06	5.74E+06	3.13E+07	5.26E+07	6.73E+07	1.58E+08
6.73E+07 1.58E+08 7.99E-04 68									
INTERMEDIATE PHASE COST		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00 0.00E+00 0.00E+00 0									
MILK DISPOSAL COST		1.0000	6.19E+05	2.91E+05	1.69E+06	2.18E+06	3.03E+06	3.16E+06	3.77E+06
3.16E+06 3.77E+06 2.85E-04 51									
CROP DISPOSAL COST		1.0000	4.34E+07	2.65E+07	1.02E+08	1.09E+08	1.26E+08	1.35E+08	2.12E+08
1.35E+08 2.12E+08 8.18E-05 45									

AFFECTED AREA/POPULATION	0-80.5 km				
FARM DECONTAMINATION (HECTARES)	0.9865	1.47E+04	8.09E+03	3.55E+04	4.76E+04
	6.98E+04	7.52E+04	1.25E+05	1.03E-04	119
POP. DECONTAMINATION (INDIVIDUALS)	0.9626	4.46E+04	9.51E+03	1.17E+05	2.18E+05
	6.16E+05	7.17E+05	9.03E+05	1.73E-03	44
FARM INTERDICTION (HECTARES)	0.9993	3.02E+04	2.03E+04	7.30E+04	9.55E+04
	1.17E+05	1.25E+05	1.60E+05	4.85E-04	51
POP. INTERDICTION (INDIVIDUALS)	0.9626	4.46E+04	9.51E+03	1.17E+05	2.18E+05
	6.16E+05	7.17E+05	9.03E+05	1.73E-03	44
FARM CONDEMNATION (HECTARES)	0.9840	3.34E+03	8.68E+02	8.46E+03	1.74E+04
	3.48E+04	4.12E+04	5.45E+04	6.13E-04	14
POP. CONDEMNATION (INDIVIDUALS)	0.0062	2.76E-01	0.00E+00	0.00E+00	0.00E+00
	0.00E+00	8.98E+00	9.00E+01	2.33E-04	27
MILK DISPOSAL AREA (HECTARES)	1.0000	3.38E+04	2.36E+04	8.20E+04	1.02E+05
	1.29E+05	1.43E+05	2.07E+05	4.85E-04	51
CROP DISPOSAL AREA (HECTARES)	1.0000	3.01E+04	1.47E+04	8.03E+04	1.03E+05
	1.30E+05	1.43E+05	2.07E+05	4.85E-04	51

OVERALL		EMER. RESP. # 1		EMER. RESP. # 2		CHRONC RESULTS	
X	PROB>=X	X	PROB>=X	X	PROB>=X	X	PROB>=X
1.00E-06	1.00E+00	1.00E-06	1.00E+00	1.00E-05	1.00E+00	1.00E-07	9.97E-01
2.00E-06	1.00E+00	2.00E-06	1.00E+00	2.00E-05	1.00E+00	2.00E-07	9.97E-01
3.00E-06	1.00E+00	3.00E-06	1.00E+00	3.00E-05	1.00E+00	3.00E-07	9.97E-01
5.00E-06	1.00E+00	5.00E-06	1.00E+00	5.00E-05	1.00E+00	5.00E-07	9.97E-01
7.00E-06	1.00E+00	7.00E-06	1.00E+00	7.00E-05	1.00E+00	7.00E-07	9.97E-01
1.00E-05	1.00E+00	1.00E-05	1.00E+00	1.00E-04	1.00E+00	1.00E-06	9.97E-01
2.00E-05	1.00E+00	2.00E-05	1.00E+00	2.00E-04	1.00E+00	2.00E-06	9.97E-01
3.00E-05	1.00E+00	3.00E-05	1.00E+00	3.00E-04	1.00E+00	3.00E-06	9.97E-01
5.00E-05	1.00E+00	5.00E-05	1.00E+00	5.00E-04	1.00E+00	5.00E-06	9.97E-01
7.00E-05	1.00E+00	7.00E-05	1.00E+00	7.00E-04	1.00E+00	7.00E-06	9.97E-01
1.00E-04	1.00E+00	1.00E-04	1.00E+00	1.00E-03	1.00E+00	1.00E-05	9.97E-01
2.00E-04	1.00E+00	2.00E-04	1.00E+00	2.00E-03	1.00E+00	2.00E-05	9.97E-01
3.00E-04	1.00E+00	3.00E-04	1.00E+00	3.00E-03	1.00E+00	3.00E-05	9.97E-01
5.00E-04	1.00E+00	5.00E-04	1.00E+00	5.00E-03	1.00E+00	5.00E-05	9.97E-01
7.00E-04	1.00E+00	7.00E-04	1.00E+00	7.00E-03	1.00E+00	7.00E-05	9.97E-01
1.00E-03	1.00E+00	1.00E-03	1.00E+00	1.00E-02	1.00E+00	1.00E-04	9.97E-01
2.00E-03	1.00E+00	2.00E-03	1.00E+00	2.00E-02	1.00E+00	2.00E-04	9.97E-01
3.00E-03	1.00E+00	3.00E-03	1.00E+00	3.00E-02	1.00E+00	3.00E-04	9.97E-01
5.00E-03	1.00E+00	5.00E-03	1.00E+00	5.00E-02	1.00E+00	5.00E-04	9.97E-01
7.00E-03	1.00E+00	7.00E-03	1.00E+00	7.00E-02	1.00E+00	7.00E-04	9.97E-01
1.00E-02	1.00E+00	1.00E-02	1.00E+00	1.00E-01	1.00E+00	1.00E-03	9.97E-01
2.00E-02	1.00E+00	2.00E-02	9.99E-01	2.00E-01	1.00E+00	2.00E-03	9.97E-01
3.00E-02	1.00E+00	3.00E-02	9.79E-01	3.00E-01	1.00E+00	3.00E-03	9.97E-01
5.00E-02	1.00E+00	5.00E-02	9.79E-01	5.00E-01	1.00E+00	5.00E-03	9.97E-01
7.00E-02	1.00E+00	7.00E-02	9.79E-01	7.00E-01	1.00E+00	7.00E-03	9.97E-01
1.00E-01	1.00E+00	1.00E-01	9.60E-01	1.00E+00	1.00E+00	1.00E-02	9.97E-01
2.00E-01	1.00E+00	2.00E-01	9.00E-01	2.00E+00	1.00E+00	2.00E-02	9.95E-01
3.00E-01	1.00E+00	3.00E-01	8.00E-01	3.00E+00	1.00E+00	3.00E-02	9.93E-01
5.00E-01	9.79E-01	5.00E-01	7.48E-01	5.00E+00	9.81E-01	5.00E-02	9.55E-01
7.00E-01	9.05E-01	7.00E-01	7.44E-01	7.00E+00	9.42E-01	7.00E-02	6.65E-01
1.00E+00	8.57E-01	1.00E+00	6.53E-01	1.00E+01	8.48E-01	1.00E-01	3.59E-01
2.00E+00	6.31E-01	2.00E+00	4.52E-01	2.00E+01	6.55E-01	1.97E-01	1.11E-03
3.00E+00	5.30E-01	3.00E+00	3.39E-01	3.00E+01	4.74E-01	N.D.	N.D.
5.00E+00	3.59E-01	5.00E+00	2.43E-01	5.00E+01	2.65E-01	N.D.	N.D.
7.00E+00	2.44E-01	7.00E+00	1.47E-01	7.00E+01	2.05E-01	N.D.	N.D.
1.00E+01	1.82E-01	1.00E+01	7.44E-02	1.00E+02	1.07E-01	N.D.	N.D.
2.00E+01	5.57E-02	1.46E+01	1.95E-02	1.89E+02	1.57E-03	N.D.	N.D.
2.33E+01	1.95E-02	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

[illegible]

[illegible]

[illegible]

[illegible]

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 2 OF 6:

CFE

OVERALL RESULTS OBTAINED BY COMBINING 2 EMERGENCY RESPONSE COHORTS FROM "EARLY" WITH THE WEIGHTING FRACTIONS BELOW APPLIED TO THEM:

FRACTION OF THE PEOPLE

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION
0.950

COHORT 2 = NO EVACUATION

0.050

AND THEN MERGING THE 2 RESULTS ABOVE WITH THE SINGLE SET OF RESULTS FROM "CHRONC" DESCRIBED BELOW:

COHORT 3 = SNC AP1000 CHRONC FILE

RESULTS WHICH ARE PRODUCED ONLY BY "EARLY" OR ONLY BY "CHRONC" ARE PRESENTED IN LATER SECTIONS.

14-JUL-07 09:28:11 PAGE 7 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 4.38E+02 1.70E+02 1.17E+03 1.98E+03 3.48E+03
4.03E+03 6.29E+03 1.94E-05 21

CAN FAT/TOTAL 0-16.1 km 1.0000 1.85E+01 1.16E+01 3.61E+01 4.92E+01 1.22E+02
1.67E+02 3.04E+02 1.30E-05 32

ERL FAT/TOTAL 0-80.5 km 0.0075 8.79E-05 0.00E+00 0.00E+00 0.00E+00 0.00E+00
2.56E-03 1.32E-01 1.29E-04 77

ERL FAT/TOTAL 0-3.2 km 0.0075 8.79E-05 0.00E+00 0.00E+00 0.00E+00 0.00E+00
2.56E-03 1.32E-01 1.29E-04 77

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 2.94E+02 1.90E+02 5.72E+02 7.88E+02 2.19E+03
3.03E+03 5.07E+03 1.30E-05 32

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 7.19E+03 2.75E+03 2.02E+04 3.17E+04 5.56E+04
6.21E+04 1.05E+05 1.94E-05 21

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0075 6.91E-11 0.00E+00 0.00E+00 0.00E+00 0.00E+00
1.52E-09 1.04E-07 1.29E-04 77

ERL FAT/TOTAL 0-3.2 km 0.0075 6.98E-07 0.00E+00 0.00E+00 0.00E+00 0.00E+00
1.52E-05 1.05E-03 1.29E-04 77

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0						
CAN FAT/TOTAL	0-80.5 km	1.0000	3.19E-04	1.17E-04	9.00E-04	1.45E-03	2.45E-03	2.78E-03	4.24E-03
1.94E-05	21								
CAN FAT/TOTAL	0-16.1 km	0.9729	1.07E-03	7.28E-04	2.51E-03	3.29E-03	5.57E-03	6.49E-03	9.14E-03
9.42E-04	75								

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	4.83E+00	3.26E+00	1.09E+01	1.21E+01	1.53E+01
1.69E+01	2.42E+01	1.57E-03	77				

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

CFF

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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HEALTH EFFECTS CASES

CAN FAT/TOTAL	0-16.1 km	0.8236	1.53E+00	2.09E-01	4.67E+00	8.14E+00	1.55E+01
1.93E+01	3.50E+01	9.42E-04	75				

ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

L-EDEWBODY TOT LIF 0-16.1 km 0.8236 1.71E+01 3.31E+00 5.33E+01 8.60E+01 1.73E+02
2.14E+02 3.06E+02 9.42E-04 75

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 2.03E+03 7.39E+02 5.12E+03 9.98E+03 2.02E+04
2.47E+04 3.13E+04 4.77E-04 1

ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0					

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0					

CAN FAT/TOTAL	0-80.5 km	1.0000	1.01E-04	3.54E-05	2.46E-04	4.82E-04	9.89E-04	1.13E-
03	1.53E-03	9.42E-04	75					

CAN FAT/TOTAL	0-16.1 km	0.8236	3.24E-04	4.33E-05	1.01E-03	1.87E-03	3.62E-03	4.60E-03	7.40E-03	9.42E-04	75
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LEDEWBODY 0-1.6 km 1.0000 3.67E+00 2.45E+00 8.62E+00 1.04E+01 1.35E+01
1.50E+01 1.81E+01 1.57E-03 77

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 2 OF 6:

CFF

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 2 = NO EVACUATION

14-JUL-07 09:28:11	PAGE 9	PROB	QUANTILES	PEAK
PEAK PEAK				

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL	0-80.5 km	1.0000	1.45E+02	5.58E+01	3.49E+02	6.42E+02	1.10E+03
1.31E+03	2.06E+03	9.42E-04	75				

CAN FAT/TOTAL	0-16.1 km	0.9729	1.80E+01	6.77E+00	5.01E+01	7.65E+01	1.12E+02
1.22E+02	1.96E+02	1.19E-04	77				

ERL FAT/TOTAL	0-80.5 km	0.0075	1.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.09E-02	2.64E+00	1.29E-04	77				

ERL FAT/TOTAL	0-3.2 km	0.0075	1.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.09E-02	2.64E+00	1.29E-04	77				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 0.9729 1.64E+02 8.09E+01 4.36E+02 6.69E+02 1.03E+03
1.11E+03 1.69E+03 1.19E-04 77

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 2.18E+03 8.57E+02 5.32E+03 1.02E+04 2.09E+04
2.52E+04 3.19E+04 4.77E-04 1

POPULATION WEIGHTED RISK

ERL FAT/TOTAL	0-80.5 km	0.0075	1.38E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.09E-08	2.08E-06	1.29E-04	77				

ERL FAT/TOTAL	0-3.2 km	0.0075	1.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.09E-04	2.10E-02	1.29E-04	77				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0					

CAN FAT/TOTAL	0-80.5 km	1.0000	1.14E-04	4.50E-05	2.75E-04	4.92E-04	1.03E-03	1.17E-
03								
1.62E-03	9.42E-04	75						

CAN FAT/TOTAL	0-16.1 km	0.9729	3.81E-03	1.37E-03	1.03E-02	1.54E-02	2.86E-02	3.12E-02	4.13E-02	1.19E-04	77
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PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	2.48E+01	1.52E+01	6.03E+01	7.15E+01	8.36E+01
			8.94E+01	1.40E+02	1.57E-03	77	

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

CFE

COHORT 3 = SNC AP1000 CHRONC FILE

HEALTH EFFECTS CASES

1.67E+02 3.04E+02 1.30E-05 32

4.96E+04 7.76E+04 1.94E-05 21

03 3.23E-03 6.05E-05 121

NOT-FOUND 1.88E-01 1.00E-02 133

1.81E+00 2.07E+00 3.27E+00 2.85E-05 71

INGESTION OF GRAINS	0.9748	9.45E-02	4.56E-02	2.57E-01	3.26E-01	4.44E-01	5.07E-
01 9.46E-01 2.00E-04 51							
INGESTION OF LEAF VEG	0.9748	4.68E-01	2.30E-01	1.20E+00	1.49E+00	2.08E+00	
2.17E+00 2.95E+00 2.85E-05 71							
INGESTION OF ROOT CROPS	0.9748	2.60E-01	1.46E-01	6.54E-01	7.88E-01	1.04E+00	
1.10E+00 1.67E+00 2.85E-05 71							
INGESTION OF FRUITS	0.9748	3.71E-01	1.83E-01	1.01E+00	1.26E+00	2.03E+00	
2.15E+00 2.86E+00 1.79E-04 85							
INGESTION OF LEGUMES	0.9748	4.71E-01	2.62E-01	1.15E+00	1.54E+00	2.48E+00	
2.88E+00 3.55E+00 2.85E-05 71							
INGESTION OF BEEF	0.9748	5.07E-01	3.02E-01	1.24E+00	1.65E+00	2.66E+00	
3.06E+00 4.31E+00 1.12E-04 109							
INGESTION OF MILK	0.9748	3.80E-01	1.71E-01	1.06E+00	1.31E+00	2.07E+00	
2.30E+00 3.23E+00 2.80E-05 103							
INGESTION OF POULTRY	0.9748	2.00E-01	7.14E-02	5.02E-01	1.00E+00	1.68E+00	
2.04E+00 2.44E+00 1.51E-03 62							
INGESTION OF OTHER MEAT CROPS	0.9748	4.95E-02	2.09E-02	1.20E-01	2.04E-01	5.11E-	
01 5.68E-01 7.02E-01 1.28E-03 68							

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km

TOTAL LONG-TERM PATHWAYS DOSE	1.0000	5.14E+03	1.93E+03	1.31E+04	2.22E+04
4.02E+04 4.96E+04 7.76E+04 1.94E-05 21					
LONG-TERM DIRECT EXPOSURE PATHWAYS	1.0000	4.60E+03	1.52E+03	1.22E+04	2.17E+04
3.67E+04 4.25E+04 6.35E+04 1.10E-04 8					
TOTAL INGESTION PATHWAYS DOSE	1.0000	3.75E+02	2.54E+02	7.00E+02	9.48E+02
2.41E+03 3.12E+03 5.29E+03 2.34E-05 31					
LONG-TERM GROUNDSHINE DOSE	1.0000	4.46E+03	1.48E+03	1.19E+04	2.11E+04
3.56E+04 4.06E+04 6.20E+04 1.10E-04 8					
LONG-TERM RESUSPENSION DOSE	1.0000	1.39E+02	4.68E+01	3.67E+02	6.36E+02
1.05E+03 1.13E+03 3.13E+03 1.94E-05 31					
WATER INGESTION DOSE	1.0000	2.68E+02	1.41E+02	5.80E+02	8.67E+02
3.05E+03 5.09E+03 1.30E-05 32					

14-JUL-07 09:28:11	PAGE 11	PROB	QUANTILES					PEAK	
PEAK	PEAK	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km									
POP.-DEPENDENT DECONTAMINATION DOSE	0.9372	1.72E+02	1.82E+01	3.36E+02	7.01E+02	3.22E+03	4.50E+03	1.38E+04	1.94E-05 21
FARM-DEPENDENT DECONTAMINATION DOSE	0.9601	1.18E+00	2.66E-01	3.46E+00	6.42E+00	1.20E+01	1.57E+01	4.38E+01	2.85E-05 99
INGESTION OF GRAINS	1.0000	5.32E+00	2.99E+00	1.29E+01	1.72E+01	2.80E+01	3.52E+01	9.42E-04 124	
INGESTION OF LEAF VEG	1.0000	1.11E+01	8.44E+00	2.31E+01	2.92E+01	4.31E+01	5.41E+01	2.85E-05 99	
INGESTION OF ROOT CROPS	1.0000	8.51E+00	5.89E+00	1.88E+01	2.36E+01	3.75E+01	4.84E+01	9.42E-04 124	
INGESTION OF FRUITS	1.0000	1.24E+01	8.87E+00	2.77E+01	3.43E+01	5.61E+01	7.07E+01	9.42E-04 124	
INGESTION OF LEGUMES	1.0000	9.87E+00	8.04E+00	1.93E+01	2.35E+01	3.34E+01	6.52E+01	2.85E-05 99	
INGESTION OF BEEF	1.0000	2.35E+01	1.84E+01	4.83E+01	6.01E+01	1.03E+02	1.25E+02	4.00E-04 114	
INGESTION OF MILK	1.0000	2.05E+01	1.42E+01	4.20E+01	5.38E+01	1.00E+02	1.66E+02	4.77E-04 109	
INGESTION OF POULTRY	1.0000	1.18E+01	7.75E+00	2.74E+01	3.25E+01	4.75E+01	5.80E+01	4.85E-04 64	
INGESTION OF OTHER MEAT CROPS	1.0000	4.36E+00	2.91E+00	1.02E+01	1.21E+01	1.81E+01	2.09E+01	2.63E+01 9.42E-04 107	
ECONOMIC COST MEASURES (\$) 0-80.5 km									
TOTAL ECONOMIC COSTS	1.0000	1.10E+09	3.07E+08	2.59E+09	4.58E+09	1.94E+10	3.22E+10	1.94E-05 20	
POP.-DEPENDENT COSTS	0.9378	9.38E+08	1.51E+08	2.39E+09	4.49E+09	1.92E+10	3.16E+10	1.94E-05 20	
FARM-DEPENDENT COSTS	1.0000	1.57E+08	1.25E+08	2.90E+08	3.57E+08	5.65E+08	7.40E+08	1.02E-04 45	
POP.-DEPENDENT DECONTAMINATION COST	0.9372	3.22E+08	4.93E+07	7.38E+08	1.57E+09	5.42E+09	7.49E+09	1.26E+10 7.86E-05 45	
FARM-DEPENDENT DECONTAMINATION COST	0.9601	1.07E+07	5.35E+06	2.99E+07	4.17E+07	7.22E+07	8.23E+07	1.44E+08 1.03E-04 120	
POP.-DEPENDENT INTERDICTION COST	0.9372	6.12E+08	1.04E+08	1.55E+09	2.90E+09	1.00E+10	1.11E+10	2.18E+10 1.94E-05 20	
FARM-DEPENDENT INTERDICTION COST	1.0000	3.05E+07	2.59E+07	5.61E+07	6.58E+07	8.50E+07	9.40E+07	1.18E+08 8.06E-05 7	
POP.-DEPENDENT CONDEMNATION COST	0.1785	3.10E+06	0.00E+00	6.09E+06	1.22E+07	6.38E+07	9.28E+07	1.46E+09 7.98E-05 35	
FARM-DEPENDENT CONDEMNATION COST	0.9806	3.31E+07	4.44E+06	1.01E+08	1.67E+08	3.23E+08	3.62E+08	5.23E+08 5.99E-04 47	
EMERGENCY PHASE COST	0.7788	2.52E+05	3.51E+04	4.58E+05	1.36E+06	3.63E+06	4.20E+06	1.66E-03 65	
INTERMEDIATE PHASE COST	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00 0	
MILK DISPOSAL COST	1.0000	1.22E+06	1.06E+06	2.38E+06	2.89E+06	3.31E+06	3.77E+06	2.85E-04 51	
CROP DISPOSAL COST	1.0000	8.18E+07	7.33E+07	1.27E+08	1.44E+08	2.03E+08	2.25E+08	1.14E-04 51	

AFFECTED AREA/POPULATION	0-80.5 km					
FARM DECONTAMINATION (HECTARES)	0.9601	9.07E+03	4.15E+03	2.48E+04	3.36E+04	
	5.59E+04	6.45E+04	9.14E+04	1.03E-04	120	
POP. DECONTAMINATION (INDIVIDUALS)	0.9372	3.48E+04	6.03E+03	9.73E+04	1.72E+05	
	5.33E+05	5.76E+05	9.03E+05	7.86E-05	45	
FARM INTERDICTION (HECTARES)	1.0000	5.99E+04	5.15E+04	1.04E+05	1.13E+05	
	1.38E+05	1.50E+05	2.01E+05	4.85E-04	51	
POP. INTERDICTION (INDIVIDUALS)	0.9372	3.48E+04	6.03E+03	9.73E+04	1.72E+05	
	5.33E+05	5.76E+05	9.03E+05	7.86E-05	45	
FARM CONDEMNATION (HECTARES)	0.9806	5.26E+03	2.99E+02	1.42E+04	2.87E+04	
	6.41E+04	7.90E+04	1.23E+05	5.99E-04	47	
POP. CONDEMNATION (INDIVIDUALS)	0.1785	2.23E+01	0.00E+00	5.47E+01	7.81E+01	
	3.97E+02	6.27E+02	1.24E+04	7.98E-05	35	
MILK DISPOSAL AREA (HECTARES)	1.0000	6.68E+04	5.94E+04	1.12E+05	1.27E+05	
	1.70E+05	1.93E+05	2.25E+05	4.85E-04	51	
CROP DISPOSAL AREA (HECTARES)	1.0000	6.51E+04	5.70E+04	1.07E+05	1.16E+05	
	1.40E+05	1.52E+05	2.03E+05	4.85E-04	51	

OVERALL		EMER. RESP. # 1		EMER. RESP. # 2		CHRONC RESULTS	
X	PROB>=X	X	PROB>=X	X	PROB>=X	X	PROB>=X
1.00E-06	1.00E+00	1.00E-06	1.00E+00	1.00E-05	1.00E+00	1.00E-07	8.16E-01
2.00E-06	1.00E+00	2.00E-06	1.00E+00	2.00E-05	1.00E+00	2.00E-07	8.05E-01
3.00E-06	1.00E+00	3.00E-06	1.00E+00	3.00E-05	1.00E+00	3.00E-07	8.05E-01
5.00E-06	1.00E+00	5.00E-06	1.00E+00	5.00E-05	1.00E+00	5.00E-07	8.05E-01
7.00E-06	1.00E+00	7.00E-06	1.00E+00	7.00E-05	1.00E+00	7.00E-07	8.05E-01
1.00E-05	1.00E+00	1.00E-05	1.00E+00	1.00E-04	1.00E+00	1.00E-06	8.05E-01
2.00E-05	1.00E+00	2.00E-05	1.00E+00	2.00E-04	1.00E+00	2.00E-06	8.05E-01
3.00E-05	1.00E+00	3.00E-05	1.00E+00	3.00E-04	1.00E+00	3.00E-06	8.05E-01
5.00E-05	1.00E+00	5.00E-05	1.00E+00	5.00E-04	1.00E+00	5.00E-06	8.05E-01
7.00E-05	1.00E+00	7.00E-05	1.00E+00	7.00E-04	1.00E+00	7.00E-06	8.05E-01
1.00E-04	1.00E+00	1.00E-04	1.00E+00	1.00E-03	1.00E+00	1.00E-05	8.05E-01
2.00E-04	1.00E+00	2.00E-04	1.00E+00	2.00E-03	1.00E+00	2.00E-05	8.05E-01
3.00E-04	1.00E+00	3.00E-04	1.00E+00	3.00E-03	1.00E+00	3.00E-05	8.05E-01
5.00E-04	1.00E+00	5.00E-04	1.00E+00	5.00E-03	1.00E+00	5.00E-05	8.05E-01
7.00E-04	1.00E+00	7.00E-04	1.00E+00	7.00E-03	1.00E+00	7.00E-05	8.05E-01
1.00E-03	1.00E+00	1.00E-03	1.00E+00	1.00E-02	1.00E+00	1.00E-04	8.05E-01
2.00E-03	1.00E+00	2.00E-03	1.00E+00	2.00E-02	1.00E+00	2.00E-04	8.05E-01
3.00E-03	1.00E+00	3.00E-03	1.00E+00	3.00E-02	1.00E+00	3.00E-04	8.05E-01
5.00E-03	1.00E+00	5.00E-03	1.00E+00	5.00E-02	1.00E+00	5.00E-04	8.05E-01
7.00E-03	1.00E+00	7.00E-03	1.00E+00	7.00E-02	1.00E+00	7.00E-04	8.05E-01
1.00E-02	1.00E+00	1.00E-02	1.00E+00	1.00E-01	1.00E+00	1.00E-03	8.05E-01
2.00E-02	1.00E+00	2.00E-02	1.00E+00	2.00E-01	1.00E+00	2.00E-03	8.05E-01
3.00E-02	1.00E+00	3.00E-02	9.82E-01	3.00E-01	1.00E+00	3.00E-03	8.05E-01
5.00E-02	1.00E+00	5.00E-02	9.54E-01	5.00E-01	1.00E+00	5.00E-03	8.05E-01
7.00E-02	1.00E+00	7.00E-02	9.28E-01	7.00E-01	1.00E+00	7.00E-03	8.05E-01
1.00E-01	1.00E+00	1.00E-01	9.27E-01	1.00E+00	1.00E+00	1.00E-02	8.03E-01
2.00E-01	9.68E-01	2.00E-01	8.90E-01	2.00E+00	9.27E-01	2.00E-02	7.84E-01
3.00E-01	9.27E-01	3.00E-01	8.57E-01	3.00E+00	8.75E-01	3.00E-02	7.35E-01
5.00E-01	9.08E-01	5.00E-01	7.77E-01	5.00E+00	8.10E-01	5.00E-02	6.90E-01
7.00E-01	8.39E-01	7.00E-01	7.39E-01	7.00E+00	7.49E-01	7.00E-02	6.66E-01
1.00E+00	7.81E-01	1.00E+00	7.20E-01	1.00E+01	7.24E-01	1.00E-01	6.11E-01
2.00E+00	6.89E-01	2.00E+00	5.82E-01	2.00E+01	3.93E-01	1.88E-01	1.00E-02
3.00E+00	5.46E-01	3.00E+00	4.30E-01	3.00E+01	2.76E-01	N.D.	N.D.
5.00E+00	3.20E-01	5.00E+00	2.71E-01	5.00E+01	1.81E-01	N.D.	N.D.
7.00E+00	2.41E-01	7.00E+00	1.87E-01	7.00E+01	6.20E-02	N.D.	N.D.
1.00E+01	1.80E-01	1.00E+01	6.38E-02	1.00E+02	1.57E-03	N.D.	N.D.
2.00E+01	1.57E-03	1.81E+01	1.57E-03	1.40E+02	1.57E-03	N.D.	N.D.
2.42E+01	1.57E-03	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

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[illegible]

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DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 3 OF 6:

IC

OVERALL RESULTS OBTAINED BY COMBINING 2 EMERGENCY RESPONSE COHORTS FROM "EARLY" WITH THE WEIGHTING FRACTIONS BELOW APPLIED TO THEM:

FRACTION OF THE PEOPLE

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION
0.950

COHORT 2 = NO EVACUATION

0.050

AND THEN MERGING THE 2 RESULTS ABOVE WITH THE SINGLE SET OF RESULTS FROM "CHRONC" DESCRIBED BELOW:

COHORT 3 = SNC AP1000 CHRONC FILE

RESULTS WHICH ARE PRODUCED ONLY BY "EARLY" OR ONLY BY "CHRONC" ARE PRESENTED IN LATER SECTIONS.

14-JUL-07 09:28:11	PAGE 13	PROB	QUANTILES						PEAK
PEAK	PEAK								
		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
HEALTH EFFECTS CASES									
CAN FAT/TOTAL	0-80.5 km	1.0000	8.05E-01	2.55E-01	1.72E+00	3.08E+00	1.06E+01		
1.22E+01	2.78E+01	8.42E-05	29						
CAN FAT/TOTAL	0-16.1 km	1.0000	7.62E-02	4.41E-02	1.74E-01	2.45E-01	5.05E-01	5.53E-	
01	9.06E-01	1.94E-05	31						
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF	0-16.1 km	1.0000	1.27E+00	7.57E-01	2.97E+00	4.08E+00	7.63E+00		
8.67E+00	1.51E+01	1.94E-05	31						
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	1.34E+01	4.24E+00	3.08E+01	5.13E+01	1.66E+02		
2.32E+02	4.63E+02	8.42E-05	29						

POPULATION WEIGHTED RISK

ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0						
CAN FAT/TOTAL	0-80.5 km	1.0000	4.39E-07	1.02E-07	8.37E-07	1.73E-06	7.05E-06	1.01E-05	2.07E-05
8.42E-05	29								
CAN FAT/TOTAL	0-16.1 km	0.9652	5.00E-06	1.47E-06	1.31E-05	2.11E-05	4.50E-05	5.57E-05	1.26E-04
1.94E-05	31								

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	2.42E-02	2.18E-02	4.62E-02	5.77E-02	7.21E-02	7.35E-02	8.14E-02
1.43E-04	27								

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 3 OF 6:

IC

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION

14-JUL-07 09:28:11	PAGE 14	PROB	QUANTILES	PEAK
PEAK PEAK				

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL	0-80.5 km	1.0000	1.20E-01	4.32E-02	2.63E-01	5.14E-01	1.23E+00
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1.69E+00 2.63E+00 7.99E-04 68

CAN FAT/TOTAL	0-16.1 km	0.8087	7.02E-04	1.04E-04	2.11E-03	3.29E-03	7.60E-03	8.67E-03
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03 1.39E-02 1.43E-04 136

ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF	0-16.1 km	0.8087	1.17E-02	1.73E-03	3.43E-02	5.49E-02	1.28E-01
--------------------	-----------	--------	----------	----------	----------	----------	----------

1.58E-01 2.32E-01 1.43E-04 136

L-EDEWBODY TOT LIF	0-80.5 km	1.0000	2.01E+00	7.16E-01	4.37E+00	8.62E+00	1.98E+01
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2.85E+01 4.39E+01 7.99E-04 68

POPULATION WEIGHTED RISK

ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
---------------	-----------	--------	----------	----------	----------	----------	----------

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
---------------	----------	--------	----------	----------	----------	----------	----------

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00 0.00E+00 0.00E+00 0

CAN FAT/TOTAL	0-80.5 km	1.0000	9.46E-08	3.34E-08	2.11E-07	4.09E-07	9.54E-07	1.19E-
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06 2.07E-06 7.99E-04 68

CAN FAT/TOTAL	0-16.1 km	0.8087	1.48E-07	2.25E-08	4.47E-07	6.90E-07	1.44E-06	1.81E-
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06 2.94E-06 1.43E-04 136

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	1.80E-03	1.04E-03	4.00E-03	4.89E-03	NOT-FOUND
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NOT-FOUND 9.81E-03 1.95E-02 65

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

IC

COHORT 2 = NO EVACUATION

14-JUL-07 09:28:11	PAGE 15	PROB	QUANTILES					PEAK	
PEAK	PEAK								
		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
HEALTH EFFECTS CASES									
CAN FAT/TOTAL	0-80.5 km	1.0000	1.32E-01	5.23E-02	2.84E-01	5.47E-01	1.30E+00		
1.80E+00 2.69E+00 7.99E-04	68								
CAN FAT/TOTAL	0-16.1 km	0.9652	1.25E-02	4.99E-03	3.39E-02	4.76E-02	7.86E-02	8.91E-	
02 1.50E-01 1.66E-03	65								
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
POPULATION DOSE (Sv)									
L-EDEWBODY TOT LIF	0-16.1 km	0.9652	2.08E-01	8.33E-02	5.80E-01	8.11E-01	1.31E+00		
1.55E+00 2.50E+00 1.66E-03	65								
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	2.20E+00	8.50E-01	4.71E+00	9.06E+00	2.05E+01		
2.87E+01 4.48E+01 7.99E-04	68								
POPULATION WEIGHTED RISK									
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 0.00E+00	0								
CAN FAT/TOTAL	0-80.5 km	1.0000	1.04E-07	4.02E-08	2.35E-07	4.33E-07	9.66E-07	1.19E-	
06 2.11E-06 7.99E-04	68								
CAN FAT/TOTAL	0-16.1 km	0.9652	2.63E-06	1.03E-06	7.38E-06	1.04E-05	1.67E-05	2.05E-	
05 3.16E-05 1.66E-03	65								
PEAK DOSE FOUND ON SPATIAL GRID (Sv)									
L-EDEWBODY	0-1.6 km	1.0000	2.42E-02	1.57E-02	5.27E-02	7.46E-02	NOT-FOUND		
NOT-FOUND 1.30E-01 1.95E-02	65								

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

IC

COHORT 3 = SNC AP1000 CHRONC FILE

14-JUL-07 09:28:11	PAGE 16	PROB	QUANTILES						PEAK
PEAK	PEAK								
		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
HEALTH EFFECTS CASES									
CAN FAT/TOTAL	0-80.5 km	1.0000	6.84E-01	1.96E-01	1.42E+00	2.56E+00	1.00E+01		
1.12E+01 2.62E+01 8.42E-05	29								
CAN FAT/TOTAL	0-16.1 km	1.0000	7.49E-02	4.30E-02	1.68E-01	2.38E-01	5.05E-01	5.51E-01	
01 9.00E-01 1.94E-05	31								
POPULATION DOSE (Sv)									
L-EDEWBODY TOT LIF	0-16.1 km	1.0000	1.25E+00	7.32E-01	2.95E+00	4.01E+00	7.62E+00		
8.63E+00 1.50E+01 1.94E-05	31								
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	1.14E+01	3.30E+00	2.47E+01	4.25E+01	1.48E+02		
2.06E+02 4.37E+02 8.42E-05	29								
POPULATION WEIGHTED RISK									
CAN FAT/TOTAL	0-80.5 km	1.0000	3.44E-07	5.80E-08	6.11E-07	1.21E-06	6.69E-06	9.70E-06	
06 1.94E-05 8.42E-05	29								
CAN FAT/TOTAL	0-16.1 km	0.9369	4.73E-06	1.34E-06	1.23E-05	2.01E-05	4.44E-05	5.55E-05	
05 1.24E-04 1.94E-05	31								
PEAK DOSE FOUND ON SPATIAL GRID (Sv)									
L-EDEWBODY	0-1.6 km	1.0000	2.13E-02	1.85E-02	4.33E-02	5.06E-02	5.53E-02	5.75E-02	
02 7.62E-02 1.43E-04	27								
L-EDEWBODY POP. DOSE (Sv) 0-16.1 km									
TOTAL LONG-TERM PATHWAYS DOSE			1.0000	1.25E+00	7.32E-01	2.95E+00	4.01E+00		
7.62E+00 8.63E+00 1.50E+01 1.94E-05	31								
LONG-TERM DIRECT EXPOSURE PATHWAYS			0.9369	3.73E-01	1.10E-01	9.99E-01	1.48E+00		
3.56E+00 4.39E+00 9.82E+00 1.94E-05	31								
TOTAL INGESTION PATHWAYS DOSE			1.0000	8.75E-01	4.47E-01	2.11E+00	2.92E+00		
5.21E+00 5.70E+00 8.73E+00 8.42E-05	45								
LONG-TERM GROUNDSHINE DOSE			0.9369	3.27E-01	9.83E-02	8.49E-01	1.31E+00		
3.31E+00 3.86E+00 8.61E+00 1.94E-05	31								
LONG-TERM RESUSPENSION DOSE			0.9369	4.61E-02	1.32E-02	1.22E-01	1.98E-01	4.40E-01	
01 5.46E-01 1.21E+00 1.94E-05	31								
WATER INGESTION DOSE			1.0000	9.13E-02	5.24E-02	2.04E-01	3.02E-01	7.09E-01	
8.38E-01 1.71E+00 2.34E-05	31								
POP.-DEPENDENT DECONTAMINATION DOSE			0.0000	1.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00 0.00E+00 9.56E-02 1.17E-05	27								
FARM-DEPENDENT DECONTAMINATION DOSE			0.0344	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4.20E-04 5.17E-04 2.21E-03 3.77E-05	27								

INGESTION OF GRAINS	1.0000	2.45E-02	4.93E-03	7.12E-02	9.84E-02	2.06E-01	2.29E-
01 3.53E-01 8.42E-05 45							
INGESTION OF LEAF VEG	1.0000	5.75E-02	1.81E-02	1.40E-01	2.50E-01	5.28E-01	
5.73E-01 8.90E-01 8.42E-05 45							
INGESTION OF ROOT CROPS	1.0000	3.66E-02	1.22E-02	1.02E-01	1.39E-01	2.89E-01	
3.19E-01 4.84E-01 8.42E-05 45							
INGESTION OF FRUITS	1.0000	4.81E-02	1.05E-02	1.34E-01	1.88E-01	3.46E-01	4.05E-
01 6.81E-01 8.42E-05 45							
INGESTION OF LEGUMES	1.0000	3.69E-02	1.68E-02	9.37E-02	1.32E-01	2.50E-01	
3.02E-01 4.41E-01 8.42E-05 45							
INGESTION OF BEEF	1.0000	2.37E-01	9.53E-02	6.93E-01	8.15E-01	1.12E+00	
1.25E+00 2.41E+00 1.81E-05 24							
INGESTION OF MILK	1.0000	2.74E-01	1.16E-01	7.30E-01	9.74E-01	2.04E+00	
2.17E+00 3.45E+00 7.46E-05 35							
INGESTION OF POULTRY	1.0000	5.00E-02	1.95E-02	1.29E-01	2.07E-01	3.49E-01	
4.03E-01 7.33E-01 8.42E-05 45							
INGESTION OF OTHER MEAT CROPS	1.0000	1.88E-02	1.46E-02	3.89E-02	4.97E-02	8.09E-	
02 9.20E-02 1.44E-01 8.42E-05 45							

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km

TOTAL LONG-TERM PATHWAYS DOSE	1.0000	1.14E+01	3.30E+00	2.47E+01	4.25E+01		
1.48E+02 2.06E+02 4.37E+02 8.42E-05 29							
LONG-TERM DIRECT EXPOSURE PATHWAYS	1.0000	7.30E+00	1.26E+00	1.28E+01	2.58E+01		
1.35E+02 2.01E+02 4.12E+02 8.42E-05 29							
TOTAL INGESTION PATHWAYS DOSE	1.0000	4.09E+00	1.57E+00	1.06E+01	2.12E+01		
3.31E+01 3.63E+01 5.16E+01 4.85E-04 51							
LONG-TERM GROUNDSHINE DOSE	1.0000	6.40E+00	1.10E+00	1.12E+01	2.22E+01		
1.17E+02 1.54E+02 3.61E+02 8.42E-05 29							
LONG-TERM RESUSPENSION DOSE	1.0000	9.04E-01	1.52E-01	1.61E+00	3.15E+00		
1.54E+01 2.24E+01 5.10E+01 8.42E-05 29							
WATER INGESTION DOSE	1.0000	1.21E-01	6.94E-02	2.85E-01	3.87E-01	7.89E-01	
1.00E+00 1.78E+00 9.36E-06 26							

14-JUL-07 09:28:11 PAGE 17		PROB	QUANTILES					PEAK	
PEAK PEAK		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km									
POP.-DEPENDENT DECONTAMINATION DOSE		0.0000	1.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	9.56E-02	1.17E-05	27					
FARM-DEPENDENT DECONTAMINATION DOSE		0.0344	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
4.20E-04	5.17E-04	2.21E-03	3.77E-05	27					
INGESTION OF GRAINS		1.0000	1.42E-01	3.23E-02	3.83E-01	8.62E-01	1.32E+00		
1.51E+00	2.36E+00	4.85E-04	51						
INGESTION OF LEAF VEG		1.0000	3.32E-01	5.89E-02	1.00E+00	2.09E+00	3.59E+00		
4.17E+00	7.64E+00	1.19E-04	60						
INGESTION OF ROOT CROPS		1.0000	2.00E-01	5.04E-02	5.17E-01	1.11E+00	1.90E+00		
2.18E+00	3.22E+00	4.85E-04	51						
INGESTION OF FRUITS		1.0000	2.76E-01	6.24E-02	7.26E-01	1.58E+00	2.85E+00		
3.23E+00	4.55E+00	4.85E-04	51						
INGESTION OF LEGUMES		1.0000	1.88E-01	5.11E-02	4.56E-01	1.08E+00	1.85E+00		
2.13E+00	2.89E+00	4.85E-04	51						
INGESTION OF BEEF		1.0000	1.14E+00	4.48E-01	2.67E+00	5.81E+00	9.18E+00		
1.03E+01	1.35E+01	4.85E-04	51						
INGESTION OF MILK		1.0000	1.33E+00	6.98E-01	3.19E+00	5.95E+00	8.93E+00		
1.01E+01	1.31E+01	4.85E-04	51						
INGESTION OF POULTRY		1.0000	2.91E-01	6.55E-02	9.29E-01	1.55E+00	3.05E+00		
3.41E+00	4.93E+00	4.85E-04	51						
INGESTION OF OTHER MEAT CROPS		1.0000	7.61E-02	3.74E-02	2.05E-01	3.36E-01	6.08E-01		
7.10E-01	1.02E+00	1.19E-04	60						
ECONOMIC COST MEASURES (\$) 0-80.5 km									
TOTAL ECONOMIC COSTS		0.7495	3.21E+05	6.71E+04	8.60E+05	1.27E+06	5.22E+06		
5.64E+06	7.55E+06	7.91E-05	30						
POP.-DEPENDENT COSTS		0.0000	2.93E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	1.42E+06	1.17E-05	27						
FARM-DEPENDENT COSTS		0.7495	3.21E+05	6.71E+04	8.60E+05	1.27E+06	5.22E+06		
5.64E+06	7.55E+06	7.91E-05	30						
POP.-DEPENDENT DECONTAMINATION COST		0.0000	7.83E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	3.81E+05	1.17E-05	27					
FARM-DEPENDENT DECONTAMINATION COST		0.0344	3.54E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
1.14E+04	1.23E+04	4.10E+04	3.77E-05	27					
POP.-DEPENDENT INTERDICTION COST		0.0000	2.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	1.04E+06	1.17E-05	27					
FARM-DEPENDENT INTERDICTION COST		0.7006	2.90E+04	4.69E+03	7.33E+04	1.09E+05			
5.06E+05	5.30E+05	7.29E+05	7.68E-05	30					
POP.-DEPENDENT CONDEMNATION COST		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0					
FARM-DEPENDENT CONDEMNATION COST		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0					
EMERGENCY PHASE COST		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
INTERMEDIATE PHASE COST		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
MILK DISPOSAL COST		0.7489	1.33E+03	2.47E+01	1.33E+03	6.12E+03	1.79E+04		
7.11E+04	8.41E+04	3.84E-05	30						
CROP DISPOSAL COST		0.7006	2.90E+05	4.69E+04	8.05E+05	1.21E+06	5.05E+06		
5.32E+06	6.93E+06	1.58E-04	30						

AFFECTED AREA/POPULATION 0-80.5 km										
FARM DECONTAMINATION (HECTARES)		0.0344	3.42E-01	0.00E+00	0.00E+00	0.00E+00				
7.49E+00	7.77E+00	3.96E+01	3.77E-05	27						
POP. DECONTAMINATION (INDIVIDUALS)		0.0000	1.42E-03	0.00E+00	0.00E+00	0.00E+00				
0.00E+00	0.00E+00	6.90E+01	1.17E-05	27						
FARM INTERDICTION (HECTARES)		0.7006	6.71E+01	9.56E+00	1.57E+02	2.30E+02				
1.06E+03	1.13E+03	1.69E+03	7.68E-05	30						
POP. INTERDICTION (INDIVIDUALS)		0.0000	1.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00			
0.00E+00	6.90E+01	1.17E-05	27							
FARM CONDEMNATION (HECTARES)		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0						
POP. CONDEMNATION (INDIVIDUALS)		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00				
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0						
MILK DISPOSAL AREA (HECTARES)		0.7489	1.39E+02	1.44E+01	2.73E+02	8.70E+02				
1.07E+03	1.12E+03	1.45E+03	3.84E-05	30						
CROP DISPOSAL AREA (HECTARES)		0.7006	6.71E+01	9.56E+00	1.57E+02	2.30E+02				
1.06E+03	1.13E+03	1.69E+03	7.68E-05	30						

OVERALL		EMER. RESP. # 1		EMER. RESP. # 2		CHRONC RESULTS	
X	PROB>=X	X	PROB>=X	X	PROB>=X	X	PROB>=X
1.00E-08	1.00E+00	1.00E-09	1.00E+00	1.00E-08	1.00E+00	1.00E-08	1.00E+00
2.00E-08	1.00E+00	2.00E-09	1.00E+00	2.00E-08	1.00E+00	2.00E-08	1.00E+00
3.00E-08	1.00E+00	3.00E-09	1.00E+00	3.00E-08	1.00E+00	3.00E-08	1.00E+00
5.00E-08	1.00E+00	5.00E-09	1.00E+00	5.00E-08	1.00E+00	5.00E-08	1.00E+00
7.00E-08	1.00E+00	7.00E-09	1.00E+00	7.00E-08	1.00E+00	7.00E-08	1.00E+00
1.00E-07	1.00E+00	1.00E-08	1.00E+00	1.00E-07	1.00E+00	1.00E-07	1.00E+00
2.00E-07	1.00E+00	2.00E-08	1.00E+00	2.00E-07	1.00E+00	2.00E-07	1.00E+00
3.00E-07	1.00E+00	3.00E-08	1.00E+00	3.00E-07	1.00E+00	3.00E-07	1.00E+00
5.00E-07	1.00E+00	5.00E-08	1.00E+00	5.00E-07	1.00E+00	5.00E-07	1.00E+00
7.00E-07	1.00E+00	7.00E-08	1.00E+00	7.00E-07	1.00E+00	7.00E-07	1.00E+00
1.00E-06	1.00E+00	1.00E-07	1.00E+00	1.00E-06	1.00E+00	1.00E-06	1.00E+00
2.00E-06	1.00E+00	2.00E-07	1.00E+00	2.00E-06	1.00E+00	2.00E-06	1.00E+00
3.00E-06	1.00E+00	3.00E-07	1.00E+00	3.00E-06	1.00E+00	3.00E-06	1.00E+00
5.00E-06	1.00E+00	5.00E-07	1.00E+00	5.00E-06	1.00E+00	5.00E-06	1.00E+00
7.00E-06	1.00E+00	7.00E-07	1.00E+00	7.00E-06	1.00E+00	7.00E-06	1.00E+00
1.00E-05	1.00E+00	1.00E-06	1.00E+00	1.00E-05	1.00E+00	1.00E-05	1.00E+00
2.00E-05	1.00E+00	2.00E-06	1.00E+00	2.00E-05	1.00E+00	2.00E-05	1.00E+00
3.00E-05	1.00E+00	3.00E-06	1.00E+00	3.00E-05	1.00E+00	3.00E-05	1.00E+00
5.00E-05	1.00E+00	5.00E-06	1.00E+00	5.00E-05	1.00E+00	5.00E-05	1.00E+00
7.00E-05	1.00E+00	7.00E-06	1.00E+00	7.00E-05	1.00E+00	7.00E-05	1.00E+00
1.00E-04	1.00E+00	1.00E-05	9.98E-01	1.00E-04	1.00E+00	1.00E-04	9.99E-01
2.00E-04	9.76E-01	2.00E-05	9.62E-01	2.00E-04	9.85E-01	2.00E-04	9.75E-01
3.00E-04	9.70E-01	3.00E-05	9.62E-01	3.00E-04	9.75E-01	3.00E-04	9.70E-01
5.00E-04	9.70E-01	5.00E-05	9.62E-01	5.00E-04	9.64E-01	5.00E-04	9.70E-01
7.00E-04	9.70E-01	7.00E-05	9.22E-01	7.00E-04	9.64E-01	7.00E-04	9.70E-01
1.00E-03	9.52E-01	1.00E-04	9.21E-01	1.00E-03	9.45E-01	1.00E-03	9.33E-01
2.00E-03	8.94E-01	2.00E-04	8.45E-01	2.00E-03	8.90E-01	2.00E-03	8.72E-01
3.00E-03	8.67E-01	3.00E-04	8.07E-01	3.00E-03	8.60E-01	3.00E-03	8.48E-01
5.00E-03	8.48E-01	5.00E-04	7.26E-01	5.00E-03	8.25E-01	5.00E-03	8.48E-01
7.00E-03	7.55E-01	7.00E-04	6.65E-01	7.00E-03	7.32E-01	7.00E-03	7.55E-01
1.00E-02	7.06E-01	1.00E-03	5.12E-01	1.00E-02	6.39E-01	1.00E-02	6.78E-01
2.00E-02	5.37E-01	2.00E-03	3.31E-01	2.00E-02	4.38E-01	2.00E-02	4.81E-01
3.00E-02	3.82E-01	3.00E-03	2.68E-01	3.00E-02	3.33E-01	3.00E-02	3.32E-01
5.00E-02	7.81E-02	5.00E-03	4.63E-02	5.00E-02	1.10E-01	5.00E-02	6.23E-02
7.00E-02	2.75E-02	7.00E-03	2.10E-02	7.00E-02	6.03E-02	7.00E-02	1.43E-04
8.14E-02	1.43E-04	9.81E-03	1.95E-02	1.00E-01	2.10E-02	7.62E-02	1.43E-04
N.D.	N.D.	N.D.	N.D.	1.30E-01	1.95E-02	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

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[illegible]

[illegible]

[illegible]

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 4 OF 6:

BP

OVERALL RESULTS OBTAINED BY COMBINING 2 EMERGENCY RESPONSE COHORTS FROM "EARLY" WITH THE WEIGHTING FRACTIONS BELOW APPLIED TO THEM:

FRACTION OF THE PEOPLE

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION
0.950

COHORT 2 = NO EVACUATION 0.050

AND THEN MERGING THE 2 RESULTS ABOVE WITH THE SINGLE SET OF RESULTS FROM "CHRONC" DESCRIBED BELOW:

COHORT 3 = SNC AP1000 CHRONC FILE

RESULTS WHICH ARE PRODUCED ONLY BY "EARLY" OR ONLY BY "CHRONC" ARE PRESENTED IN LATER SECTIONS.

14-JUL-07 09:28:11 PAGE 19 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 1.30E+03 5.50E+02 3.54E+03 5.32E+03 8.56E+03
9.92E+03 1.62E+04 1.94E-05 20

CAN FAT/TOTAL 0-16.1 km 1.0000 7.66E+01 5.68E+01 1.38E+02 1.85E+02 4.73E+02
5.90E+02 1.09E+03 1.30E-05 32

ERL FAT/TOTAL 0-80.5 km 0.0618 1.62E-02 0.00E+00 0.00E+00 9.50E-03 5.99E-01
1.01E+00 2.35E+00 1.29E-04 77

ERL FAT/TOTAL 0-3.2 km 0.0493 1.56E-02 0.00E+00 0.00E+00 0.00E+00 5.99E-01
1.01E+00 2.35E+00 1.29E-04 77

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 1.20E+03 8.60E+02 2.12E+03 2.89E+03 7.47E+03
9.67E+03 1.82E+04 1.30E-05 32

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 1.96E+04 8.35E+03 5.59E+04 7.96E+04 1.15E+05
1.26E+05 2.47E+05 1.94E-05 21

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0618 1.28E-08 0.00E+00 0.00E+00 7.46E-09 4.28E-07
7.86E-07 1.85E-06 1.29E-04 77

ERL FAT/TOTAL 0-3.2 km 0.0493 1.24E-04 0.00E+00 0.00E+00 0.00E+00 4.27E-03
7.86E-03 1.86E-02 1.29E-04 77

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	3.2-4.8 km	0.0106	2.97E-06	0.00E+00	0.00E+00	0.00E+00	2.16E-05
1.56E-04	2.19E-03	9.85E-05	77				
CAN FAT/TOTAL	0-80.5 km	1.0000	9.15E-04	3.52E-04	2.67E-03	3.83E-03	6.42E-03
03	1.04E-02	1.94E-05	20				
CAN FAT/TOTAL	0-16.1 km	0.9779	2.80E-03	1.41E-03	7.10E-03	1.05E-02	1.83E-02
02	3.54E-02	9.42E-04	75				

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	1.75E+01	1.11E+01	4.00E+01	5.09E+01	5.90E+01
6.29E+01	8.90E+01	1.57E-03	77				

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 4 OF 6:

BP

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING
FRACTIONS BEING APPLIED

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION

14-JUL-07 09:28:11 PAGE 20 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 5.79E+02 1.97E+02 1.41E+03 2.64E+03 5.67E+03

6.87E+03 9.96E+03 1.08E-03 18

CAN FAT/TOTAL 0-16.1 km 0.8159 7.17E+00 8.77E-01 2.32E+01 3.94E+01 7.09E+01

9.41E+01 1.50E+02 9.42E-04 75

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 0.8159 6.39E+01 1.16E+01 1.96E+02 3.18E+02 6.36E+02

7.61E+02 1.25E+03 9.42E-04 75

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 7.67E+03 2.83E+03 2.17E+04 3.40E+04 6.46E+04

7.57E+04 9.81E+04 1.08E-03 18

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 3.2-4.8 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

CAN FAT/TOTAL 0-80.5 km 1.0000 4.55E-04 1.55E-04 1.08E-03 2.13E-03 4.60E-03 5.62E-

03 7.83E-03 1.08E-03 18

CAN FAT/TOTAL 0-16.1 km 0.8159 1.51E-03 1.84E-04 4.76E-03 8.05E-03 1.64E-02 2.08E-

02 3.16E-02 9.42E-04 75

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY 0-1.6 km 1.0000 1.41E+01 9.79E+00 3.58E+01 4.61E+01 5.74E+01

6.14E+01 6.89E+01 1.57E-03 77

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 4 OF 6:

BP

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 2 = NO EVACUATION

14-JUL-07 09:28:11	PAGE 21	PROB	QUANTILES	PEAK
PEAK PEAK				

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL	0-80.5 km	1.0000	6.29E+02	2.33E+02	1.50E+03	2.67E+03	5.84E+03
7.14E+03	1.02E+04	9.42E-04	75				

CAN FAT/TOTAL	0-16.1 km	0.9779	5.72E+01	2.18E+01	1.51E+02	2.30E+02	3.85E+02
4.49E+02	5.89E+02	9.42E-04	65				

ERL FAT/TOTAL	0-80.5 km	0.0618	3.25E-01	0.00E+00	0.00E+00	1.89E-01	1.20E+01
2.01E+01	4.70E+01	1.29E-04	77				

ERL FAT/TOTAL	0-3.2 km	0.0493	3.12E-01	0.00E+00	0.00E+00	0.00E+00	1.20E+01
2.01E+01	4.70E+01	1.29E-04	77				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 0.9779 5.09E+02 2.19E+02 1.34E+03 2.08E+03 3.29E+03
3.72E+03 6.00E+03 1.19E-04 77

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 8.11E+03 3.16E+03 2.20E+04 3.50E+04 6.97E+04
7.80E+04 9.96E+04 1.08E-03 18

POPULATION WEIGHTED RISK

ERL FAT/TOTAL	0-80.5 km	0.0618	2.55E-07	0.00E+00	0.00E+00	1.31E-07	8.63E-06
1.50E-05	3.69E-05	1.29E-04	77				

ERL FAT/TOTAL	0-3.2 km	0.0493	2.48E-03	0.00E+00	0.00E+00	0.00E+00	8.61E-02
1.50E-01	3.73E-01	1.29E-04	77				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

ERL FAT/TOTAL	3.2-4.8 km	0.0106	5.94E-05	0.00E+00	0.00E+00	0.00E+00	5.34E-04
2.59E-03	4.39E-02	9.85E-05	77				

CAN FAT/TOTAL	0-80.5 km	1.0000	4.95E-04	1.80E-04	1.13E-03	2.18E-03	4.61E-03	5.63E-03	8.05E-03	9.42E-04	75
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CAN FAT/TOTAL	0-16.1 km	0.9779	1.21E-02	4.55E-03	3.32E-02	4.91E-02	8.35E-02	9.71E-02	1.24E-01	9.42E-04	65
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PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	8.02E+01	4.99E+01	2.00E+02	2.72E+02	3.63E+02
4.00E+02	4.69E+02	1.57E-03	77				

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

BP

COHORT 3 = SNC AP1000 CHRONC FILE

HEALTH EFFECTS CASES

5.90E+02 1.09E+03 1.30E-05 32

8.50E+04 1.59E+05 1.94E-05 21

CAN FAT/TOTAL		0-16.1 km	0.9191	7.56E-04	6.32E-04	1.61E-03	2.02E-03	2.23E-03	2.32E-03
03	3.03E-03 8.06E-06	24							

L-EDEWBODY	0-1.6 km	0.4224	3.29E-02	0.00E+00	1.01E-01	1.07E-01	1.23E-01	1.31E-01	1.78E-01	1.43E-04	32
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2.34E+00 2.68E+00 4.16E+00 2.05E-03 68

INGESTION OF GRAINS	0.6732	7.13E-02	2.43E-02	1.91E-01	3.23E-01	7.27E-01	8.75E-
01 1.19E+00 1.77E-03 18							
INGESTION OF LEAF VEG	0.6732	1.90E-01	9.43E-02	4.85E-01	7.02E-01	1.11E+00	
1.17E+00 1.75E+00 3.36E-05 92							
INGESTION OF ROOT CROPS	0.6732	1.27E-01	5.83E-02	3.31E-01	5.38E-01	1.03E+00	
1.22E+00 1.57E+00 1.77E-03 18							
INGESTION OF FRUITS	0.6732	3.69E-01	1.92E-01	8.72E-01	1.33E+00	2.59E+00	
3.06E+00 4.22E+00 4.00E-04 68							
INGESTION OF LEGUMES	0.6732	2.10E-01	1.07E-01	5.29E-01	8.36E-01	1.21E+00	
1.34E+00 2.10E+00 3.36E-05 92							
INGESTION OF BEEF	0.6732	4.49E-01	1.33E-01	1.21E+00	2.02E+00	3.07E+00	
3.18E+00 4.46E+00 4.58E-06 115							
INGESTION OF MILK	0.6732	2.97E-01	8.67E-02	7.79E-01	1.19E+00	2.05E+00	
2.12E+00 2.95E+00 4.58E-06 115							
INGESTION OF POULTRY	0.6732	1.31E-01	4.24E-02	3.82E-01	5.70E-01	1.10E+00	
1.37E+00 1.90E+00 1.77E-03 18							
INGESTION OF OTHER MEAT CROPS	0.6732	2.06E-02	6.41E-03	6.17E-02	8.45E-02	1.71E-	
01 2.19E-01 1.04E+00 2.85E-05 111							

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km

TOTAL LONG-TERM PATHWAYS DOSE	1.0000	1.19E+04	5.44E+03	3.22E+04	4.50E+04
7.46E+04 8.50E+04 1.59E+05 1.94E-05 21					
LONG-TERM DIRECT EXPOSURE PATHWAYS	1.0000	9.70E+03	3.86E+03	2.84E+04	3.85E+04
6.37E+04 7.20E+04 1.07E+05 1.94E-05 21					
TOTAL INGESTION PATHWAYS DOSE	1.0000	1.40E+03	9.87E+02	2.72E+03	3.75E+03
8.16E+03 1.03E+04 1.86E+04 2.34E-05 31					
LONG-TERM GROUNDSHINE DOSE	1.0000	9.57E+03	3.78E+03	2.81E+04	3.82E+04
6.34E+04 7.19E+04 1.07E+05 1.94E-05 21					
LONG-TERM RESUSPENSION DOSE	1.0000	1.32E+02	5.31E+01	3.60E+02	5.35E+02
8.12E+02 9.13E+02 1.38E+03 1.01E-05 25					
WATER INGESTION DOSE	1.0000	1.30E+03	8.46E+02	2.55E+03	3.61E+03
1.03E+04 1.86E+04 2.34E-05 31					

NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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POP.-DEPENDENT DECONTAMINATION DOSE	0.9983	8.09E+02	1.91E+02	1.81E+03	3.36E+03
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1.02E+04 1.39E+04 4.51E+04 1.94E-05 21

2.79E+01 3.18E+01 5.33E+01 1.10E-04 119

2.79E+01 3.11E+01 1.08E-05 27

3.58E+01 5.41E+01 8.63E-05 63

3.70E+01 4.23E+01 1.66E-03 130

5.24E+01 6.39E+01 1.08E-05 27

3.36E+01 4.06E+01 4.77E-04 93

9.08E+01 1.61E+02 1.10E-04 119

8.45E+01 1.31E+02 2.57E-04 101

3.95E+01 7.39E+01 8.63E-05 63

2.36E+01 2.73E+01 3.24E+01 1.66E-03 98

ECONOMIC COST MEASURES (\$)	9 33.9 km					
TOTAL ECONOMIC COSTS	1.0000	3.43E+09	1.21E+09	8.88E+09	1.43E+10	3.08E+10

POP.-DEPENDENT COSTS

FARM-DEPENDENT COSTS

POP.-DEPENDENT DECONTAMIN

FARM-DEPENDENT DECONTAMINATION C

POP.-DEPENDENT INTERDICTION COST

FARM-DEPENDENT INTERDICTION COST

POP-DEPENDENT CONDEMNATION COST

FARM-DEPENDENT CONDEMNATION COS

0.20E+00	0.10E+00	7.10E+00	2.01E+00	20
EMERGENCY PHASE COST				0.93

INTERMEDIATE PHASE COST

MILK DISPOSAL COST

CROP DISPOSAL COST

2.14E+00 2.50E+00 4.00E+00 0

AFFECTED AREA/POPULATION	0-80.5 km					
FARM DECONTAMINATION (HECTARES)	0.9949	2.55E+04	2.25E+04	4.49E+04	5.42E+04	
	7.47E+04	8.29E+04	1.19E+05	4.77E-04	93	
POP. DECONTAMINATION (INDIVIDUALS)	0.9983	1.01E+05	3.17E+04	2.78E+05	5.49E+05	
	7.53E+05	8.09E+05	9.03E+05	1.73E-03	1	
FARM INTERDICTION (HECTARES)	0.9997	7.61E+04	7.26E+04	1.12E+05	1.24E+05	
	1.58E+05	1.75E+05	2.19E+05	4.00E-04	139	
POP. INTERDICTION (INDIVIDUALS)	0.9983	1.01E+05	3.17E+04	2.78E+05	5.49E+05	
	7.53E+05	8.09E+05	9.03E+05	1.73E-03	1	
FARM CONDEMNATION (HECTARES)	1.0000	1.63E+04	6.62E+03	5.02E+04	6.38E+04	
	1.01E+05	1.05E+05	1.45E+05	1.81E-05	20	
POP. CONDEMNATION (INDIVIDUALS)	0.6197	3.87E+02	2.40E+01	4.11E+02	7.42E+02	
	3.16E+03	9.71E+03	1.55E+05	8.42E-05	89	
MILK DISPOSAL AREA (HECTARES)	1.0000	9.31E+04	8.30E+04	1.26E+05	1.45E+05	
	1.99E+05	2.03E+05	2.29E+05	3.83E-05	3	
CROP DISPOSAL AREA (HECTARES)	1.0000	9.24E+04	8.23E+04	1.25E+05	1.42E+05	
	1.94E+05	2.03E+05	2.29E+05	3.83E-05	3	

OVERALL		EMER. RESP. # 1		EMER. RESP. # 2		CHRONC RESULTS	
X	PROB>=X	X	PROB>=X	X	PROB>=X	X	PROB>=X
1.00E-05	1.00E+00	1.00E-06	1.00E+00	1.00E-05	1.00E+00	1.00E-08	4.22E-01
2.00E-05	1.00E+00	2.00E-06	1.00E+00	2.00E-05	1.00E+00	2.00E-08	4.22E-01
3.00E-05	1.00E+00	3.00E-06	1.00E+00	3.00E-05	1.00E+00	3.00E-08	4.22E-01
5.00E-05	1.00E+00	5.00E-06	1.00E+00	5.00E-05	1.00E+00	5.00E-08	4.22E-01
7.00E-05	1.00E+00	7.00E-06	1.00E+00	7.00E-05	1.00E+00	7.00E-08	4.22E-01
1.00E-04	1.00E+00	1.00E-05	1.00E+00	1.00E-04	1.00E+00	1.00E-07	4.22E-01
2.00E-04	1.00E+00	2.00E-05	1.00E+00	2.00E-04	1.00E+00	2.00E-07	4.22E-01
3.00E-04	1.00E+00	3.00E-05	1.00E+00	3.00E-04	1.00E+00	3.00E-07	4.22E-01
5.00E-04	1.00E+00	5.00E-05	1.00E+00	5.00E-04	1.00E+00	5.00E-07	4.22E-01
7.00E-04	1.00E+00	7.00E-05	1.00E+00	7.00E-04	1.00E+00	7.00E-07	4.22E-01
1.00E-03	1.00E+00	1.00E-04	1.00E+00	1.00E-03	1.00E+00	1.00E-06	4.22E-01
2.00E-03	1.00E+00	2.00E-04	1.00E+00	2.00E-03	1.00E+00	2.00E-06	4.22E-01
3.00E-03	1.00E+00	3.00E-04	1.00E+00	3.00E-03	1.00E+00	3.00E-06	4.22E-01
5.00E-03	1.00E+00	5.00E-04	1.00E+00	5.00E-03	1.00E+00	5.00E-06	4.22E-01
7.00E-03	1.00E+00	7.00E-04	1.00E+00	7.00E-03	1.00E+00	7.00E-06	4.22E-01
1.00E-02	1.00E+00	1.00E-03	1.00E+00	1.00E-02	1.00E+00	1.00E-05	4.22E-01
2.00E-02	1.00E+00	2.00E-03	1.00E+00	2.00E-02	1.00E+00	2.00E-05	4.22E-01
3.00E-02	1.00E+00	3.00E-03	1.00E+00	3.00E-02	1.00E+00	3.00E-05	4.22E-01
5.00E-02	1.00E+00	5.00E-03	1.00E+00	5.00E-02	1.00E+00	5.00E-05	4.22E-01
7.00E-02	1.00E+00	7.00E-03	1.00E+00	7.00E-02	1.00E+00	7.00E-05	4.22E-01
1.00E-01	1.00E+00	1.00E-02	1.00E+00	1.00E-01	1.00E+00	1.00E-04	4.22E-01
2.00E-01	1.00E+00	2.00E-02	1.00E+00	2.00E-01	1.00E+00	2.00E-04	4.22E-01
3.00E-01	1.00E+00	3.00E-02	1.00E+00	3.00E-01	1.00E+00	3.00E-04	4.22E-01
5.00E-01	9.32E-01	5.00E-02	1.00E+00	5.00E-01	1.00E+00	5.00E-04	4.22E-01
7.00E-01	9.09E-01	7.00E-02	1.00E+00	7.00E-01	1.00E+00	7.00E-04	4.22E-01
1.00E+00	9.08E-01	1.00E-01	1.00E+00	1.00E+00	1.00E+00	1.00E-03	4.22E-01
2.00E+00	8.39E-01	2.00E-01	9.32E-01	2.00E+00	1.00E+00	2.00E-03	4.22E-01
3.00E+00	7.84E-01	3.00E-01	9.27E-01	3.00E+00	1.00E+00	3.00E-03	4.22E-01
5.00E+00	7.20E-01	5.00E-01	9.08E-01	5.00E+00	9.27E-01	5.00E-03	4.22E-01
7.00E+00	6.89E-01	7.00E-01	8.90E-01	7.00E+00	9.10E-01	7.00E-03	4.22E-01
1.00E+01	5.53E-01	1.00E+00	8.57E-01	1.00E+01	8.77E-01	1.00E-02	4.22E-01
2.00E+01	2.87E-01	2.00E+00	7.77E-01	2.00E+01	7.67E-01	2.00E-02	4.22E-01
3.00E+01	1.90E-01	3.00E+00	7.32E-01	3.00E+01	7.27E-01	3.00E-02	3.83E-01
5.00E+01	6.06E-02	5.00E+00	7.00E-01	5.00E+01	4.99E-01	5.00E-02	3.11E-01
7.00E+01	1.57E-03	7.00E+00	6.83E-01	7.00E+01	3.71E-01	7.00E-02	2.55E-01
8.90E+01	1.57E-03	1.00E+01	4.90E-01	1.00E+02	2.76E-01	1.00E-01	1.07E-01
N.D.	N.D.	2.00E+01	2.41E-01	2.00E+02	1.00E-01	1.78E-01	1.43E-04
N.D.	N.D.	3.00E+01	1.63E-01	3.00E+02	4.01E-02	N.D.	N.D.
N.D.	N.D.	5.00E+01	4.01E-02	4.69E+02	1.57E-03	N.D.	N.D.
N.D.	N.D.	6.89E+01	1.57E-03	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

[illegible]

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DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 5 OF 6:

CI

OVERALL RESULTS OBTAINED BY COMBINING 2 EMERGENCY RESPONSE COHORTS FROM "EARLY" WITH THE WEIGHTING FRACTIONS BELOW APPLIED TO THEM:

FRACTION OF THE PEOPLE

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION
0.950

COHORT 2 = NO EVACUATION

0.050

AND THEN MERGING THE 2 RESULTS ABOVE WITH THE SINGLE SET OF RESULTS FROM "CHRONC" DESCRIBED BELOW:

COHORT 3 = SNC AP1000 CHRONC FILE

RESULTS WHICH ARE PRODUCED ONLY BY "EARLY" OR ONLY BY "CHRONC" ARE PRESENTED IN LATER SECTIONS.

14-JUL-07 09:28:11 PAGE 25 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 5.05E+02 2.03E+02 1.14E+03 2.19E+03 4.54E+03
5.46E+03 8.26E+03 7.99E-04 68

CAN FAT/TOTAL 0-16.1 km 1.0000 1.76E+01 1.17E+01 3.84E+01 5.27E+01 8.98E+01
1.04E+02 1.93E+02 2.34E-05 31

ERL FAT/TOTAL 0-80.5 km 0.0241 5.12E-03 0.00E+00 0.00E+00 0.00E+00 1.67E-02
1.36E-01 1.71E+00 1.31E-03 65

ERL FAT/TOTAL 0-3.2 km 0.0237 5.12E-03 0.00E+00 0.00E+00 0.00E+00 1.67E-02
1.36E-01 1.71E+00 1.31E-03 65

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 2.63E+02 1.78E+02 5.47E+02 7.51E+02 1.29E+03
1.56E+03 3.22E+03 2.34E-05 31

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 7.61E+03 3.13E+03 1.78E+04 3.36E+04 7.09E+04
7.83E+04 1.12E+05 8.42E-05 29

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0241 4.03E-09 0.00E+00 0.00E+00 0.00E+00 1.55E-08
1.23E-07 1.34E-06 1.31E-03 65

ERL FAT/TOTAL 0-3.2 km 0.0237 4.06E-05 0.00E+00 0.00E+00 0.00E+00 1.55E-04
1.23E-03 1.36E-02 1.31E-03 65

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	3.2-4.8 km	0.0004	7.15E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	2.94E-05	9.85E-05	77					
CAN FAT/TOTAL	0-80.5 km	1.0000	3.68E-04	1.34E-04	8.78E-04	1.62E-03	3.41E-03	4.09E-
03	6.36E-03	7.99E-04	68					
CAN FAT/TOTAL	0-16.1 km	0.9606	1.37E-03	6.99E-04	3.48E-03	4.86E-03	1.01E-02	1.09E-
02	1.65E-02	1.43E-04	136					

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	5.81E+00	3.87E+00	1.22E+01	1.52E+01	NOT-FOUND
NOT-FOUND	3.08E+01	1.95E-02	65				

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 5 OF 6:

CI

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION

14-JUL-07 09:28:11 PAGE 26 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 2.86E+02 9.75E+01 6.35E+02 1.13E+03 3.13E+03

4.12E+03 7.21E+03 7.99E-04 68

CAN FAT/TOTAL 0-16.1 km 0.8087 2.27E+00 2.31E-01 6.94E+00 1.17E+01 3.20E+01

3.60E+01 5.46E+01 1.43E-04 136

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 0.8087 2.32E+01 3.67E+00 7.08E+01 1.10E+02 2.39E+02

2.79E+02 4.55E+02 1.43E-04 136

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 3.98E+03 1.45E+03 8.90E+03 1.70E+04 4.11E+04

5.20E+04 8.11E+04 7.99E-04 68

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 3.2-4.8 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

0.00E+00 0.00E+00 0.00E+00 0

CAN FAT/TOTAL 0-80.5 km 1.0000 2.25E-04 7.61E-05 4.76E-04 8.95E-04 2.29E-03 3.05E-

03 5.67E-03 7.99E-04 68

CAN FAT/TOTAL 0-16.1 km 0.8087 4.79E-04 4.70E-05 1.37E-03 2.46E-03 6.18E-03 7.79E-

03 1.15E-02 1.43E-04 136

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY 0-1.6 km 1.0000 3.67E+00 2.34E+00 7.84E+00 1.15E+01 NOT-FOUND

NOT-FOUND 1.98E+01 1.95E-02 65

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000
 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

Cl

COHORT 2 = NO EVACUATION

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
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HEALTH EFFECTS CASES

CAN FAT/TOTAL	0-16.1 km	0.9606	4.17E+01	1.45E+01	1.16E+02	1.70E+02	2.78E+02
3.15E+02	5.09E+02	1.19E-04	77				

ERL FAT/TOTAL	0-3.2 km	0.0237	1.02E-01	0.00E+00	0.00E+00	0.00E+00	3.42E-01
3.13E+00	3.42E+01	1.31E-03	65				

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 4.32E+03 1.69E+03 9.30E+03 1.88E+04 4.11E+04
5.20E+04 8.28E+04 7.99E-04 68

ERL FAT/TOTAL	0-80.5 km	0.0241	8.05E-08	0.00E+00	0.00E+00	0.00E+00	2.62E-07
2.25E-06	2.69E-05	1.31E-03	65				

ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0				

CAN FAT/TOTAL		0-80.5 km	1.0000	2.56E-04	9.90E-05	5.65E-04	9.69E-04	2.42E-03	3.27E-
03	5.83E-03	7.99E-04	68						

CAN FAT/TOTAL	0-16.1 km	0.9606	8.80E-03	3.05E-03	2.52E-02	3.61E-02	5.93E-02	6.86E-02
02 1.08E-01 1.19E-04	77							

L-EDEWBODY	0-1.6 km	1.0000	4.41E+01	2.92E+01	8.98E+01	1.19E+02	NOT-FOUND
NOT-FOUND	2.40E+02	1.95E-02	65				

DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 5 OF 6:

CI

RESULTS FROM THE "CHRONC" MODULE ALONE

COHORT 3 = SNC AP1000 CHRONC FILE

14-JUL-07 09:28:11 PAGE 28 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 2.17E+02 8.18E+01 5.23E+02 9.46E+02 2.02E+03
2.15E+03 3.16E+03 8.42E-05 29

CAN FAT/TOTAL 0-16.1 km 1.0000 1.34E+01 9.26E+00 2.67E+01 3.79E+01 7.61E+01
1.00E+02 1.92E+02 2.34E-05 31

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 2.23E+02 1.49E+02 4.45E+02 6.43E+02 1.23E+03
1.51E+03 3.21E+03 2.34E-05 31

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 3.62E+03 1.38E+03 8.51E+03 1.55E+04 3.13E+04
3.36E+04 5.26E+04 8.42E-05 29

POPULATION WEIGHTED RISK

CAN FAT/TOTAL 0-80.5 km 1.0000 1.42E-04 4.65E-05 3.62E-04 6.75E-04 1.15E-03 1.28E-
03 2.03E-03 1.81E-05 23

CAN FAT/TOTAL 0-16.1 km 0.9329 4.75E-04 3.52E-04 1.04E-03 1.17E-03 1.51E-03 1.68E-
03 2.70E-03 5.50E-06 25

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY 0-1.6 km 0.9297 1.19E-01 1.04E-01 1.24E-01 1.33E-01 1.59E-01 1.71E-
01 1.88E-01 2.17E-03 57

L-EDEWBODY POP. DOSE (Sv) 0-16.1 km

TOTAL LONG-TERM PATHWAYS DOSE 1.0000 2.23E+02 1.49E+02 4.45E+02 6.43E+02
1.23E+03 1.51E+03 3.21E+03 2.34E-05 31

LONG-TERM DIRECT EXPOSURE PATHWAYS 0.9329 3.75E+01 2.79E+01 8.60E+01 1.02E+02
1.16E+02 1.23E+02 2.14E+02 5.50E-06 25

TOTAL INGESTION PATHWAYS DOSE 1.0000 1.70E+02 9.89E+01 3.74E+02 5.55E+02
1.15E+03 1.45E+03 3.21E+03 2.34E-05 31

LONG-TERM GROUNDSHINE DOSE 0.9329 3.42E+01 2.50E+01 7.92E+01 9.99E+01
1.14E+02 1.21E+02 2.10E+02 5.50E-06 25

LONG-TERM RESUSPENSION DOSE 0.9329 3.29E+00 2.72E+00 7.52E+00 8.67E+00
1.04E+01 1.07E+01 1.23E+01 1.98E-04 1

WATER INGESTION DOSE 1.0000 1.65E+02 9.15E+01 3.70E+02 5.46E+02 1.15E+03
1.45E+03 3.21E+03 2.34E-05 31

POP.-DEPENDENT DECONTAMINATION DOSE 0.8127 1.50E+01 3.97E+00 4.28E+01 6.36E+01
1.13E+02 1.30E+02 3.33E+02 5.50E-06 25

FARM-DEPENDENT DECONTAMINATION DOSE 0.8323 1.48E-01 7.45E-02 3.13E-01 4.50E-01
1.94E+00 2.30E+00 3.41E+00 2.85E-04 70

INGESTION OF GRAINS	0.9484	1.75E-01	1.16E-01	4.25E-01	6.08E-01	8.18E-01	8.91E-
01 1.02E+00 1.97E-03 49							
INGESTION OF LEAF VEG	0.9484	1.37E+00	1.08E+00	2.81E+00	3.47E+00	5.34E+00	
6.05E+00 1.00E+01 9.67E-06 78							
INGESTION OF ROOT CROPS	0.9484	8.21E-01	7.00E-01	1.70E+00	2.19E+00	3.27E+00	
3.86E+00 6.08E+00 9.67E-06 78							
INGESTION OF FRUITS	0.9484	4.29E-01	3.23E-01	1.01E+00	1.20E+00	1.79E+00	
2.02E+00 2.71E+00 9.67E-06 78							
INGESTION OF LEGUMES	0.9484	1.53E+00	1.13E+00	3.26E+00	4.00E+00	6.87E+00	
8.00E+00 1.22E+01 9.67E-06 78							
INGESTION OF BEEF	0.9484	2.80E-01	1.48E-01	7.29E-01	9.09E-01	1.15E+00	
1.24E+00 2.08E+00 2.85E-05 111							
INGESTION OF MILK	0.9484	5.19E-01	4.15E-01	1.05E+00	1.24E+00	1.81E+00	
2.08E+00 3.64E+00 9.67E-06 78							
INGESTION OF POULTRY	0.9484	1.49E-01	2.22E-02	6.38E-01	9.05E-01	1.19E+00	
1.30E+00 1.74E+00 4.85E-04 64							
INGESTION OF OTHER MEAT CROPS	0.9484	7.32E-02	3.56E-02	1.99E-01	3.01E-01	4.22E-	
01 4.88E-01 6.30E-01 9.70E-04 98							

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km

TOTAL LONG-TERM PATHWAYS DOSE	1.0000	3.62E+03	1.38E+03	8.51E+03	1.55E+04
3.13E+04 3.36E+04 5.26E+04 8.42E-05 29					
LONG-TERM DIRECT EXPOSURE PATHWAYS	1.0000	3.01E+03	9.80E+02	7.61E+03	1.36E+04
2.84E+04 3.09E+04 4.31E+04 1.81E-05 23					
TOTAL INGESTION PATHWAYS DOSE	1.0000	3.56E+02	2.54E+02	7.16E+02	9.32E+02
1.76E+03 2.12E+03 3.55E+03 2.34E-05 31					
LONG-TERM GROUND SHINE DOSE	1.0000	2.69E+03	8.75E+02	6.90E+03	1.23E+04
2.58E+04 3.03E+04 3.86E+04 1.81E-05 23					
LONG-TERM RESUSPENSION DOSE	1.0000	3.21E+02	1.06E+02	8.31E+02	1.43E+03
3.02E+03 3.28E+03 4.65E+03 2.40E-04 15					
WATER INGESTION DOSE	1.0000	2.16E+02	1.20E+02	5.12E+02	6.90E+02
1.73E+03 3.28E+03 2.34E-05 31					

14-JUL-07 09:28:11 PAGE 29 PROB QUANTILES PEAK
 PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS
 PROB TRIAL

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km
 POP.-DEPENDENT DECONTAMINATION DOSE 0.8789 2.50E+02 2.31E+01 4.26E+02 8.90E+02
 4.93E+03 6.80E+03 1.84E+04 8.42E-05 29
 FARM-DEPENDENT DECONTAMINATION DOSE 0.9447 1.62E+00 3.43E-01 4.90E+00 7.37E+00
 1.42E+01 1.77E+01 5.81E+01 2.85E-05 99
 INGESTION OF GRAINS 1.0000 6.06E+00 4.52E+00 1.22E+01 1.45E+01 2.08E+01
 2.25E+01 3.57E+01 3.45E-05 132
 INGESTION OF LEAF VEG 1.0000 2.49E+01 2.04E+01 4.94E+01 6.20E+01 9.35E+01
 1.05E+02 2.15E+02 2.85E-05 99
 INGESTION OF ROOT CROPS 1.0000 1.66E+01 1.27E+01 3.19E+01 3.88E+01 5.86E+01
 6.85E+01 1.30E+02 2.85E-05 99
 INGESTION OF FRUITS 1.0000 1.31E+01 1.04E+01 2.71E+01 3.19E+01 4.07E+01
 4.52E+01 7.53E+01 3.45E-05 132
 INGESTION OF LEGUMES 1.0000 2.62E+01 1.95E+01 5.49E+01 7.32E+01 1.10E+02
 1.25E+02 2.61E+02 2.85E-05 99
 INGESTION OF BEEF 1.0000 1.94E+01 1.31E+01 4.03E+01 5.31E+01 7.69E+01
 8.37E+01 1.39E+02 1.43E-04 136
 INGESTION OF MILK 1.0000 1.98E+01 1.36E+01 4.00E+01 5.22E+01 9.06E+01
 1.05E+02 1.91E+02 2.85E-05 99
 INGESTION OF POULTRY 1.0000 8.58E+00 7.19E+00 1.68E+01 2.08E+01 2.70E+01
 3.02E+01 4.57E+01 1.14E-04 59
 INGESTION OF OTHER MEAT CROPS 1.0000 4.74E+00 3.18E+00 1.04E+01 1.29E+01
 2.05E+01 2.24E+01 2.61E+01 1.51E-03 81

ECONOMIC COST MEASURES (\$) 0-80.5 km
 TOTAL ECONOMIC COSTS 1.0000 1.02E+09 2.29E+08 2.17E+09 4.20E+09 1.88E+10
 2.08E+10 2.69E+10 8.42E-05 29
 POP.-DEPENDENT COSTS 0.8805 8.78E+08 7.81E+07 1.98E+09 4.10E+09 1.87E+10
 2.07E+10 2.65E+10 8.42E-05 29
 FARM-DEPENDENT COSTS 1.0000 1.42E+08 1.13E+08 2.63E+08 3.23E+08 4.70E+08
 5.09E+08 6.38E+08 2.34E-05 19
 POP.-DEPENDENT DECONTAMINATION COST 0.8789 2.88E+08 2.51E+07 5.89E+08 1.20E+09
 5.21E+09 7.18E+09 1.07E+10 1.94E-05 19
 FARM-DEPENDENT DECONTAMINATION COST 0.9447 1.13E+07 3.74E+06 3.38E+07 4.87E+07
 7.18E+07 7.69E+07 1.14E+08 1.19E-04 119
 POP.-DEPENDENT INTERDICTION COST 0.8789 5.89E+08 5.61E+07 1.31E+09 2.80E+09
 1.01E+10 1.08E+10 1.64E+10 7.86E-05 29
 FARM-DEPENDENT INTERDICTION COST 0.9999 2.79E+07 2.45E+07 5.23E+07 6.02E+07
 7.33E+07 7.60E+07 9.26E+07 1.19E-04 2
 POP.-DEPENDENT CONDEMNATION COST 0.0744 5.43E+05 0.00E+00 0.00E+00 4.04E+06
 1.19E+07 1.70E+07 5.02E+07 9.49E-04 25
 FARM-DEPENDENT CONDEMNATION COST 0.9505 2.50E+07 4.94E+06 6.61E+07 1.25E+08
 2.27E+08 2.52E+08 4.01E+08 2.34E-05 19
 EMERGENCY PHASE COST 0.8026 1.32E+06 1.82E+05 2.58E+06 3.73E+06 3.13E+07
 3.33E+07 4.68E+07 1.19E-04 77
 INTERMEDIATE PHASE COST 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
 0.00E+00 0.00E+00 0.00E+00 0
 MILK DISPOSAL COST 1.0000 1.20E+06 1.05E+06 2.33E+06 2.83E+06 3.10E+06 NOT-
 FOUND 3.13E+06 5.73E-03 9
 CROP DISPOSAL COST 1.0000 7.64E+07 6.90E+07 1.14E+08 1.23E+08 1.46E+08
 NOT-FOUND 1.54E+08 6.04E-03 9

AFFECTED AREA/POPULATION											0-80.5 km				
FARM DECONTAMINATION (HECTARES)											0.9447	1.00E+04	3.34E+03	2.92E+04	4.35E+04
6.72E+04	7.52E+04	9.37E+04	1.08E-03	44											
POP. DECONTAMINATION (INDIVIDUALS)											0.8789	3.55E+04	3.09E+03	8.59E+04	1.79E+05
6.21E+05	7.35E+05	9.03E+05	1.64E-03	19											
FARM INTERDICTION (HECTARES)											0.9999	5.77E+04	5.22E+04	1.02E+05	1.10E+05
1.30E+05	1.40E+05	1.45E+05	3.68E-03	4											
POP. INTERDICTION (INDIVIDUALS)											0.8789	3.55E+04	3.09E+03	8.59E+04	1.79E+05
6.21E+05	7.35E+05	9.03E+05	1.64E-03	19											
FARM CONDEMNATION (HECTARES)											0.9505	3.57E+03	7.11E+02	7.94E+03	2.25E+04
3.80E+04	4.46E+04	6.11E+04	2.11E-05	19											
POP. CONDEMNATION (INDIVIDUALS)											0.0744	4.11E+00	0.00E+00	0.00E+00	2.53E+01
8.37E+01	1.27E+02	3.28E+02	9.49E-04	25											
MILK DISPOSAL AREA (HECTARES)											1.0000	6.50E+04	6.31E+04	1.13E+05	1.32E+05
FOUND	NOT-FOUND	1.45E+05	3.25E-02	1											
CROP DISPOSAL AREA (HECTARES)											1.0000	6.12E+04	5.50E+04	1.08E+05	1.26E+05
FOUND	NOT-FOUND	1.45E+05	2.67E-02	1											

OVERALL		EMER. RESP. # 1		EMER. RESP. # 2		CHRONC RESULTS	
X	PROB>=X	X	PROB>=X	X	PROB>=X	X	PROB>=X
1.00E-06	1.00E+00	1.00E-06	1.00E+00	1.00E-05	1.00E+00	1.00E-07	9.30E-01
2.00E-06	1.00E+00	2.00E-06	1.00E+00	2.00E-05	1.00E+00	2.00E-07	9.30E-01
3.00E-06	1.00E+00	3.00E-06	1.00E+00	3.00E-05	1.00E+00	3.00E-07	9.30E-01
5.00E-06	1.00E+00	5.00E-06	1.00E+00	5.00E-05	1.00E+00	5.00E-07	9.30E-01
7.00E-06	1.00E+00	7.00E-06	1.00E+00	7.00E-05	1.00E+00	7.00E-07	9.29E-01
1.00E-05	1.00E+00	1.00E-05	1.00E+00	1.00E-04	1.00E+00	1.00E-06	9.29E-01
2.00E-05	1.00E+00	2.00E-05	1.00E+00	2.00E-04	1.00E+00	2.00E-06	9.28E-01
3.00E-05	1.00E+00	3.00E-05	1.00E+00	3.00E-04	1.00E+00	3.00E-06	9.28E-01
5.00E-05	1.00E+00	5.00E-05	1.00E+00	5.00E-04	1.00E+00	5.00E-06	9.28E-01
7.00E-05	1.00E+00	7.00E-05	1.00E+00	7.00E-04	1.00E+00	7.00E-06	9.28E-01
1.00E-04	1.00E+00	1.00E-04	1.00E+00	1.00E-03	1.00E+00	1.00E-05	9.28E-01
2.00E-04	1.00E+00	2.00E-04	1.00E+00	2.00E-03	1.00E+00	2.00E-05	9.16E-01
3.00E-04	1.00E+00	3.00E-04	1.00E+00	3.00E-03	1.00E+00	3.00E-05	9.16E-01
5.00E-04	1.00E+00	5.00E-04	1.00E+00	5.00E-03	1.00E+00	5.00E-05	9.13E-01
7.00E-04	1.00E+00	7.00E-04	1.00E+00	7.00E-03	1.00E+00	7.00E-05	9.13E-01
1.00E-03	1.00E+00	1.00E-03	1.00E+00	1.00E-02	1.00E+00	1.00E-04	9.13E-01
2.00E-03	1.00E+00	2.00E-03	1.00E+00	2.00E-02	1.00E+00	2.00E-04	9.13E-01
3.00E-03	1.00E+00	3.00E-03	1.00E+00	3.00E-02	1.00E+00	3.00E-04	9.13E-01
5.00E-03	1.00E+00	5.00E-03	1.00E+00	5.00E-02	1.00E+00	5.00E-04	9.13E-01
7.00E-03	1.00E+00	7.00E-03	1.00E+00	7.00E-02	1.00E+00	7.00E-04	9.13E-01
1.00E-02	1.00E+00	1.00E-02	1.00E+00	1.00E-01	1.00E+00	1.00E-03	9.13E-01
2.00E-02	1.00E+00	2.00E-02	9.98E-01	2.00E-01	1.00E+00	2.00E-03	9.13E-01
3.00E-02	9.99E-01	3.00E-02	9.73E-01	3.00E-01	9.89E-01	3.00E-03	9.13E-01
5.00E-02	9.98E-01	5.00E-02	9.62E-01	5.00E-01	9.62E-01	5.00E-03	9.13E-01
7.00E-02	9.98E-01	7.00E-02	9.62E-01	7.00E-01	9.62E-01	7.00E-03	9.13E-01
1.00E-01	9.96E-01	1.00E-01	9.62E-01	1.00E+00	9.62E-01	1.00E-02	9.13E-01
2.00E-01	9.62E-01	2.00E-01	9.21E-01	2.00E+00	9.24E-01	2.00E-02	9.13E-01
3.00E-01	9.24E-01	3.00E-01	8.59E-01	3.00E+00	9.07E-01	3.00E-02	9.12E-01
5.00E-01	8.88E-01	5.00E-01	8.25E-01	5.00E+00	8.45E-01	5.00E-02	9.12E-01
7.00E-01	8.45E-01	7.00E-01	8.06E-01	7.00E+00	8.25E-01	7.00E-02	8.78E-01
1.00E+00	8.25E-01	1.00E+00	7.26E-01	1.00E+01	7.49E-01	1.00E-01	7.16E-01
2.00E+00	7.25E-01	2.00E+00	5.26E-01	2.00E+01	6.01E-01	1.88E-01	2.17E-03
3.00E+00	5.51E-01	3.00E+00	4.61E-01	3.00E+01	4.93E-01	N.D.	N.D.
5.00E+00	4.53E-01	5.00E+00	3.11E-01	5.00E+01	3.31E-01	N.D.	N.D.
7.00E+00	3.29E-01	7.00E+00	1.23E-01	7.00E+01	2.53E-01	N.D.	N.D.
1.00E+01	1.90E-01	1.00E+01	6.37E-02	1.00E+02	6.69E-02	N.D.	N.D.
2.00E+01	2.10E-02	1.98E+01	1.95E-02	2.00E+02	2.10E-02	N.D.	N.D.
3.00E+01	1.95E-02	N.D.	N.D.	2.40E+02	1.95E-02	N.D.	N.D.
3.08E+01	1.95E-02	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

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DATE AND TIME OF RUN = MACCS2 14-JUL-07 09:28:11 VERSION 1.13.1: last revised 1/8/04, K. McFadden

"ATMOS" DESCRIPTION = ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS – AP1000

"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

"CHRONC" DESCRIPTION = SNC AP1000 CHRONC FILE

SOURCE TERM 6 OF 6:

CFL

OVERALL RESULTS OBTAINED BY COMBINING 2 EMERGENCY RESPONSE COHORTS FROM "EARLY" WITH THE WEIGHTING FRACTIONS BELOW APPLIED TO THEM:

FRACTION OF THE PEOPLE

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION
0.950

COHORT 2 = NO EVACUATION

0.050

AND THEN MERGING THE 2 RESULTS ABOVE WITH THE SINGLE SET OF RESULTS FROM "CHRONC" DESCRIBED BELOW:

COHORT 3 = SNC AP1000 CHRONC FILE

RESULTS WHICH ARE PRODUCED ONLY BY "EARLY" OR ONLY BY "CHRONC" ARE PRESENTED IN LATER SECTIONS.

14-JUL-07 09:28:11 PAGE 31 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 1.05E+03 4.20E+02 2.68E+03 4.23E+03 7.72E+03
9.32E+03 1.53E+04 2.28E-04 137

CAN FAT/TOTAL 0-16.1 km 1.0000 8.45E+00 4.81E+00 1.99E+01 2.81E+01 4.98E+01
5.89E+01 1.09E+02 1.08E-05 97

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 1.41E+02 8.02E+01 3.26E+02 4.67E+02 8.52E+02
1.00E+03 1.82E+03 1.08E-05 97

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 1.59E+04 6.63E+03 4.13E+04 6.93E+04 1.05E+05
1.13E+05 1.57E+05 2.28E-04 137

POPULATION WEIGHTED RISK

ERL FAT/TOTAL 0-80.5 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-3.2 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL 0-1.6 km 0.0000 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 0

ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0						
CAN FAT/TOTAL	0-80.5 km	1.0000	7.44E-04	3.10E-04	1.83E-03	3.05E-03	6.18E-03	7.31E-03	1.20E-02
2.28E-04	137								
CAN FAT/TOTAL	0-16.1 km	0.9681	3.18E-04	2.83E-04	7.00E-04	7.75E-04	9.82E-04	1.05E-03	1.36E-03
2.28E-04	137								

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	5.42E-02	5.16E-02	5.97E-02	6.36E-02	NOT-FOUND
NOT-FOUND	7.23E-02	1.73E-02	69				

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 "EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

CFI

COHORT 1 = 95% EVACUATION WITHIN 10 MILES– 24-HOUR RELOCATION

14-JUL-07	09:28:11	PAGE 32	PROB		QUANTILES		PEAK		
PEAK	PEAK								
		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
HEALTH EFFECTS CASES									
CAN FAT/TOTAL	0-80.5 km	1.0000	6.79E+02	2.54E+02	1.62E+03	3.01E+03	7.08E+03		
7.86E+03	1.42E+04	2.28E-04	137						
CAN FAT/TOTAL	0-16.1 km	0.7982	9.91E-04	1.55E-04	2.99E-03	5.35E-03	9.68E-03	1.10E-	
02	1.95E-02	1.27E-04	2						
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
POPULATION DOSE (Sv)									
L-EDEWBODY TOT LIF	0-16.1 km	0.7982	1.65E-02	2.57E-03	4.98E-02	8.89E-02	1.36E-01		
1.57E-01	3.24E-01	1.27E-04	2						
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	9.81E+03	3.68E+03	2.38E+04	4.68E+04	8.35E+04		
9.48E+04	1.39E+05	2.28E-04	137						
POPULATION WEIGHTED RISK									
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
CAN FAT/TOTAL	0-80.5 km	1.0000	5.34E-04	2.02E-04	1.28E-03	2.38E-03	5.16E-03	6.16E-	
03	1.12E-02	2.28E-04	137						
CAN FAT/TOTAL	0-16.1 km	0.7982	2.09E-07	3.25E-08	6.53E-07	1.13E-06	2.12E-06	2.42E-	
06	4.11E-06	1.27E-04	2						
PEAK DOSE FOUND ON SPATIAL GRID (Sv)									
L-EDEWBODY	0-1.6 km	1.0000	3.88E-03	2.29E-03	9.00E-03	1.11E-02	NOT-FOUND		
NOT-FOUND	1.48E-02	1.73E-02	69						

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"EARLY" DESCRIPTION = SNC AP1000 EARLY FILE – 95% Evacuation

SOURCE TERM 6 OF 6:

CFL

RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 2 = NO EVACUATION

14-JUL-07 09:28:11	PAGE 33	PROB	QUANTILES						PEAK
PEAK PEAK		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL									
HEALTH EFFECTS CASES									
CAN FAT/TOTAL	0-80.5 km	1.0000	6.79E+02	2.54E+02	1.62E+03	3.01E+03	7.08E+03		
7.86E+03	1.43E+04	2.28E-04	137						
CAN FAT/TOTAL	0-16.1 km	0.9669	6.04E-01	3.07E-02	1.62E+00	3.25E+00	9.26E+00		
1.32E+01	2.32E+01	1.94E-03	42						
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
POPULATION DOSE (Sv)									
L-EDEWBODY TOT LIF	0-16.1 km	0.9669	9.10E+00	5.10E-01	2.65E+01	5.20E+01	1.29E+02		
1.72E+02	2.79E+02	1.94E-03	42						
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	9.82E+03	3.69E+03	2.38E+04	4.68E+04	8.35E+04		
9.48E+04	1.39E+05	2.28E-04	137						
POPULATION WEIGHTED RISK									
ERL FAT/TOTAL	0-80.5 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-3.2 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	0-1.6 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
ERL FAT/TOTAL	3.2-4.8 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	0.00E+00	0.00E+00	0						
CAN FAT/TOTAL	0-80.5 km	1.0000	5.34E-04	2.02E-04	1.28E-03	2.38E-03	5.16E-03	6.16E-03	
1.12E-02	2.28E-04	137							
CAN FAT/TOTAL	0-16.1 km	0.9669	1.27E-04	6.36E-06	3.59E-04	7.03E-04	1.96E-03	2.57E-03	
4.91E-03	1.94E-03	42							
PEAK DOSE FOUND ON SPATIAL GRID (Sv)									
L-EDEWBODY	0-1.6 km	1.0000	5.86E-02	4.74E-02	1.03E-01	1.36E-01	NOT-FOUND		
NOT-FOUND	2.27E-01	1.86E-02	107						

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SOURCE TERM 6 OF 6:

CFL

RESULTS FROM THE "CHRONC" MODULE ALONE

COHORT 3 = SNC AP1000 CHRONC FILE

14-JUL-07 09:28:11 PAGE 34 PROB QUANTILES PEAK
PEAK PEAK

NON-ZERO MEAN 50TH 90TH 95TH 99TH 99.5TH CONS

PROB TRIAL

HEALTH EFFECTS CASES

CAN FAT/TOTAL 0-80.5 km 1.0000 3.67E+02 1.43E+02 1.01E+03 1.35E+03 2.96E+03

3.32E+03 7.06E+03 8.42E-05 29

CAN FAT/TOTAL 0-16.1 km 1.0000 8.42E+00 4.75E+00 1.99E+01 2.81E+01 4.98E+01

5.89E+01 1.09E+02 1.08E-05 97

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF 0-16.1 km 1.0000 1.40E+02 7.94E+01 3.26E+02 4.67E+02 8.52E+02

1.00E+03 1.82E+03 1.08E-05 97

L-EDEWBODY TOT LIF 0-80.5 km 1.0000 6.11E+03 2.32E+03 1.49E+04 2.22E+04 4.94E+04

6.78E+04 1.18E+05 8.42E-05 29

POPULATION WEIGHTED RISK

CAN FAT/TOTAL 0-80.5 km 1.0000 2.11E-04 8.18E-05 6.20E-04 8.05E-04 1.12E-03 1.22E-03 1.65E-03 4.85E-04 51

CAN FAT/TOTAL 0-16.1 km 0.9324 3.11E-04 2.78E-04 6.70E-04 7.63E-04 9.78E-04 1.05E-03 1.20E-03 1.28E-03 47

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY 0-1.6 km 0.9977 4.75E-02 4.20E-02 5.13E-02 5.21E-02 5.39E-02 5.47E-02 5.61E-02 1.46E-03 60

L-EDEWBODY POP. DOSE (Sv) 0-16.1 km

TOTAL LONG-TERM PATHWAYS DOSE 1.0000 1.40E+02 7.94E+01 3.26E+02 4.67E+02

8.52E+02 1.00E+03 1.82E+03 1.08E-05 97

LONG-TERM DIRECT EXPOSURE PATHWAYS 0.9324 2.46E+01 2.15E+01 5.25E+01 6.01E+01

7.65E+01 8.23E+01 9.51E+01 1.28E-03 47

TOTAL INGESTION PATHWAYS DOSE 1.0000 1.57E+01 1.16E+01 2.93E+01 4.02E+01

8.03E+01 9.78E+01 1.92E+02 2.34E-05 31

LONG-TERM GROUNDSHINE DOSE 0.9324 3.72E+00 2.80E+00 8.31E+00 1.07E+01

1.54E+01 1.80E+01 3.07E+01 2.28E-04 137

LONG-TERM RESUSPENSION DOSE 0.9324 2.08E+01 1.75E+01 4.39E+01 5.26E+01

6.75E+01 7.17E+01 8.92E+01 8.34E-05 45

WATER INGESTION DOSE 1.0000 1.24E+01 7.97E+00 2.72E+01 3.79E+01 7.73E+01

9.23E+01 1.92E+02 2.34E-05 31

POP.-DEPENDENT DECONTAMINATION DOSE 0.9322 9.68E+01 3.50E+01 2.59E+02 3.97E+02

7.55E+02 9.03E+02 1.69E+03 1.08E-05 97

FARM-DEPENDENT DECONTAMINATION DOSE 0.8947 3.13E+00 2.15E+00 7.45E+00 1.00E+01

1.45E+01 1.70E+01 2.57E+01 1.79E-04 85

INGESTION OF GRAINS	0.8968	1.43E-01	6.01E-02	3.57E-01	4.30E-01	5.42E-01	5.73E-
01 1.11E+00 1.08E-05 17							
INGESTION OF LEAF VEG	0.8968	1.16E+00	6.22E-01	3.04E+00	3.45E+00	4.63E+00	
5.13E+00 8.68E+00 1.08E-05 17							
INGESTION OF ROOT CROPS	0.8968	3.13E-01	2.49E-01	6.99E-01	7.86E-01	1.02E+00	
1.08E+00 1.88E+00 1.08E-05 17							
INGESTION OF FRUITS	0.8968	2.86E-01	1.25E-01	7.57E-01	8.74E-01	1.10E+00	
1.18E+00 2.18E+00 1.08E-05 17							
INGESTION OF LEGUMES	0.8968	4.19E-01	3.31E-01	8.56E-01	1.05E+00	1.96E+00	
2.09E+00 2.80E+00 6.06E-05 122							
INGESTION OF BEEF	0.8968	1.44E-01	6.27E-02	3.66E-01	4.63E-01	7.35E-01	9.22E-
01 1.39E+00 6.06E-05 122							
INGESTION OF MILK	0.8968	7.88E-01	4.68E-01	2.02E+00	2.34E+00	3.11E+00	
3.30E+00 3.98E+00 5.71E-04 9							
INGESTION OF POULTRY	0.8968	1.69E-02	1.11E-02	3.61E-02	4.97E-02	1.01E-01	
1.08E-01 1.35E-01 5.71E-04 9							
INGESTION OF OTHER MEAT CROPS	0.8968	3.80E-02	2.69E-02	8.72E-02	1.18E-01	2.05E-	
01 2.30E-01 3.07E-01 1.79E-04 85							

L-EDEWBODY POP. DOSE (Sv) 0-80.5 km

TOTAL LONG-TERM PATHWAYS DOSE	1.0000	6.11E+03	2.32E+03	1.49E+04	2.22E+04
4.94E+04 6.78E+04 1.18E+05 8.42E-05 29					
LONG-TERM DIRECT EXPOSURE PATHWAYS	1.0000	4.47E+03	1.72E+03	1.18E+04	1.56E+04
2.43E+04 2.79E+04 3.50E+04 4.85E-04 51					
TOTAL INGESTION PATHWAYS DOSE	1.0000	8.43E+01	5.42E+01	1.84E+02	2.37E+02
3.56E+02 4.07E+02 6.36E+02 8.06E-05 33					
LONG-TERM GROUNDSHINE DOSE	1.0000	1.34E+03	5.46E+02	3.71E+03	5.09E+03
7.03E+03 7.84E+03 9.95E+03 1.08E-03 69					
LONG-TERM RESUSPENSION DOSE	1.0000	3.13E+03	1.24E+03	9.09E+03	1.19E+04
1.97E+04 2.16E+04 2.87E+04 4.85E-04 51					
WATER INGESTION DOSE	1.0000	1.70E+01	1.13E+01	3.68E+01	4.89E+01
1.10E+02 2.02E+02 6.93E-05 30					

14-JUL-07 09:28:11 PAGE 35 PROB QUANTILES PEAK
 PEAK PEAK

	NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
PROB TRIAL								
L-EDEWBODY POP. DOSE (Sv)	0-80.5 km							
POP.-DEPENDENT DECONTAMINATION DOSE	1.0000	1.53E+03	2.85E+02	2.94E+03	5.84E+03	2.61E+04	3.40E+04	8.74E+04
	8.42E-05	29						
FARM-DEPENDENT DECONTAMINATION DOSE	1.0000	2.98E+01	1.49E+01	7.12E+01	1.04E+02	1.90E+02	2.26E+02	6.12E+02
	1.03E-04	119						
INGESTION OF GRAINS	1.0000	3.43E+00	1.58E+00	9.00E+00	1.10E+01	1.60E+01	1.88E+01	2.82E+01
	2.40E-04	15						
INGESTION OF LEAF VEG	1.0000	2.98E+01	1.14E+01	8.12E+01	1.02E+02	1.35E+02	1.52E+02	2.48E+02
	8.63E-05	33						
INGESTION OF ROOT CROPS	1.0000	6.02E+00	3.71E+00	1.30E+01	1.67E+01	2.96E+01	3.28E+01	4.92E+01
	2.40E-04	15						
INGESTION OF FRUITS	1.0000	6.75E+00	3.35E+00	1.69E+01	2.21E+01	3.32E+01	3.74E+01	5.57E+01
	2.40E-04	15						
INGESTION OF LEGUMES	1.0000	6.90E+00	5.13E+00	1.39E+01	1.92E+01	3.25E+01	3.80E+01	6.38E+01
	1.03E-04	119						
INGESTION OF BEEF	1.0000	2.20E+00	1.34E+00	4.93E+00	6.89E+00	1.17E+01	1.40E+01	3.15E+01
	1.03E-04	119						
INGESTION OF MILK	1.0000	1.15E+01	6.67E+00	2.60E+01	3.80E+01	7.83E+01	9.25E+01	1.54E+02
	1.81E-05	19						
INGESTION OF POULTRY	1.0000	2.37E-01	1.67E-01	4.27E-01	6.31E-01	1.26E+00	1.66E+00	2.47E+00
	1.03E-04	119						
INGESTION OF OTHER MEAT CROPS	1.0000	4.93E-01	3.65E-01	9.05E-01	1.21E+00	2.20E+00	2.59E+00	6.89E+00
	1.03E-04	119						
ECONOMIC COST MEASURES (\$)								
0-80.5 km								
TOTAL ECONOMIC COSTS	1.0000	3.09E+09	1.00E+09	8.48E+09	1.46E+10	2.96E+10	3.11E+10	3.91E+10
	8.42E-05	29						
POP.-DEPENDENT COSTS	1.0000	2.97E+09	9.30E+08	8.34E+09	1.46E+10	2.96E+10	3.11E+10	3.87E+10
	8.42E-05	29						
FARM-DEPENDENT COSTS	1.0000	1.23E+08	7.53E+07	2.89E+08	4.08E+08	7.07E+08	7.59E+08	8.87E+08
	1.06E-03	44						
POP.-DEPENDENT DECONTAMINATION COST	1.0000	1.02E+09	3.08E+08	2.70E+09	4.97E+09	1.03E+10	1.09E+10	1.35E+10
	4.85E-04	51						
FARM-DEPENDENT DECONTAMINATION COST	1.0000	5.75E+07	4.92E+07	1.09E+08	1.35E+08	2.11E+08	2.37E+08	3.30E+08
	1.03E-04	119						
POP.-DEPENDENT INTERDICTION COST	1.0000	1.92E+09	6.11E+08	4.90E+09	9.45E+09	1.68E+10	2.03E+10	2.70E+10
	8.42E-05	29						
FARM-DEPENDENT INTERDICTION COST	1.0000	8.13E+06	4.76E+06	2.06E+07	2.66E+07	3.93E+07	4.54E+07	6.11E+07
	5.71E-05	57						
POP.-DEPENDENT CONDEMNATION COST	0.0009	4.45E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	2.89E-04	27						
FARM-DEPENDENT CONDEMNATION COST	0.9672	3.36E+07	5.80E+06	8.40E+07	1.56E+08	4.04E+08	5.04E+08	6.21E+08
	1.06E-03	44						
EMERGENCY PHASE COST	0.9990	2.90E+07	8.75E+06	7.97E+07	1.55E+08	2.11E+08	2.17E+08	2.81E+08
	8.06E-06	79						
INTERMEDIATE PHASE COST	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	0.00E+00	0						
MILK DISPOSAL COST	0.9889	8.43E+04	1.59E+03	1.66E+05	5.33E+05	1.52E+06	2.04E+06	3.12E+06
	2.85E-04	51						
CROP DISPOSAL COST	0.9887	2.39E+07	5.49E+06	8.15E+07	1.04E+08	1.23E+08	1.32E+08	2.11E+08
	8.18E-05	45						

AFFECTED AREA/POPULATION 0-80.5 km									
FARM DECONTAMINATION (HECTARES) 1.0000 3.82E+04 3.33E+04 6.59E+04 8.09E+04									
1.10E+05	1.19E+05	1.77E+05	1.19E-04	2					
POP. DECONTAMINATION (INDIVIDUALS) 1.0000 1.05E+05 3.44E+04 2.89E+05 5.58E+05									
7.53E+05	7.94E+05	9.48E+05	4.85E-04	51					
FARM INTERDICTION (HECTARES) 1.0000 4.00E+04 3.47E+04 7.05E+04 8.56E+04									
1.12E+05	1.20E+05	1.77E+05	1.19E-04	2					
POP. INTERDICTION (INDIVIDUALS) 1.0000 1.05E+05 3.44E+04 2.89E+05 5.58E+05									
7.53E+05	7.94E+05	9.48E+05	4.85E-04	51					
FARM CONDEMNATION (HECTARES) 0.9672 4.96E+03 7.99E+02 1.28E+04 2.41E+04									
7.49E+04	8.88E+04	1.32E+05	4.85E-04	51					
POP. CONDEMNATION (INDIVIDUALS) 0.0009 3.81E-02 0.00E+00 0.00E+00 0.00E+00									
0.00E+00	0.00E+00	6.90E+01	3.14E-04	27					
MILK DISPOSAL AREA (HECTARES) 0.9889 5.12E+03 9.03E+02 1.32E+04 2.48E+04									
7.49E+04	8.88E+04	1.32E+05	4.85E-04	51					
CROP DISPOSAL AREA (HECTARES) 0.9887 1.67E+04 1.56E+03 6.53E+04 8.87E+04									
1.19E+05	1.30E+05	1.77E+05	4.85E-04	51					

OVERALL		EMER. RESP. # 1		EMER. RESP. # 2		CHRONC RESULTS	
X	PROB>=X	X	PROB>=X	X	PROB>=X	X	PROB>=X
1.00E-08	1.00E+00	1.00E-10	1.00E+00	1.00E-08	1.00E+00	1.00E-08	9.98E-01
2.00E-08	1.00E+00	2.00E-10	1.00E+00	2.00E-08	1.00E+00	2.00E-08	9.98E-01
3.00E-08	1.00E+00	3.00E-10	1.00E+00	3.00E-08	1.00E+00	3.00E-08	9.98E-01
5.00E-08	1.00E+00	5.00E-10	1.00E+00	5.00E-08	1.00E+00	5.00E-08	9.98E-01
7.00E-08	1.00E+00	7.00E-10	1.00E+00	7.00E-08	1.00E+00	7.00E-08	9.98E-01
1.00E-07	1.00E+00	1.00E-09	1.00E+00	1.00E-07	1.00E+00	1.00E-07	9.98E-01
2.00E-07	1.00E+00	2.00E-09	1.00E+00	2.00E-07	1.00E+00	2.00E-07	9.98E-01
3.00E-07	1.00E+00	3.00E-09	1.00E+00	3.00E-07	1.00E+00	3.00E-07	9.98E-01
5.00E-07	1.00E+00	5.00E-09	1.00E+00	5.00E-07	1.00E+00	5.00E-07	9.98E-01
7.00E-07	1.00E+00	7.00E-09	1.00E+00	7.00E-07	1.00E+00	7.00E-07	9.98E-01
1.00E-06	1.00E+00	1.00E-08	1.00E+00	1.00E-06	1.00E+00	1.00E-06	9.98E-01
2.00E-06	1.00E+00	2.00E-08	1.00E+00	2.00E-06	1.00E+00	2.00E-06	9.98E-01
3.00E-06	1.00E+00	3.00E-08	1.00E+00	3.00E-06	1.00E+00	3.00E-06	9.98E-01
5.00E-06	1.00E+00	5.00E-08	1.00E+00	5.00E-06	1.00E+00	5.00E-06	9.98E-01
7.00E-06	1.00E+00	7.00E-08	1.00E+00	7.00E-06	1.00E+00	7.00E-06	9.98E-01
1.00E-05	1.00E+00	1.00E-07	1.00E+00	1.00E-05	1.00E+00	1.00E-05	9.98E-01
2.00E-05	1.00E+00	2.00E-07	1.00E+00	2.00E-05	1.00E+00	2.00E-05	9.98E-01
3.00E-05	1.00E+00	3.00E-07	1.00E+00	3.00E-05	1.00E+00	3.00E-05	9.98E-01
5.00E-05	1.00E+00	5.00E-07	1.00E+00	5.00E-05	1.00E+00	5.00E-05	9.98E-01
7.00E-05	1.00E+00	7.00E-07	1.00E+00	7.00E-05	1.00E+00	7.00E-05	9.98E-01
1.00E-04	1.00E+00	1.00E-06	1.00E+00	1.00E-04	1.00E+00	1.00E-04	9.98E-01
2.00E-04	1.00E+00	2.00E-06	1.00E+00	2.00E-04	1.00E+00	2.00E-04	9.98E-01
3.00E-04	1.00E+00	3.00E-06	1.00E+00	3.00E-04	1.00E+00	3.00E-04	9.98E-01
5.00E-04	1.00E+00	5.00E-06	1.00E+00	5.00E-04	1.00E+00	5.00E-04	9.98E-01
7.00E-04	1.00E+00	7.00E-06	1.00E+00	7.00E-04	1.00E+00	7.00E-04	9.98E-01
1.00E-03	1.00E+00	1.00E-05	1.00E+00	1.00E-03	1.00E+00	1.00E-03	9.98E-01
2.00E-03	1.00E+00	2.00E-05	9.86E-01	2.00E-03	1.00E+00	2.00E-03	9.98E-01
3.00E-03	9.98E-01	3.00E-05	9.31E-01	3.00E-03	1.00E+00	3.00E-03	9.98E-01
5.00E-03	9.98E-01	5.00E-05	9.29E-01	5.00E-03	9.86E-01	5.00E-03	9.98E-01
7.00E-03	9.98E-01	7.00E-05	9.29E-01	7.00E-03	9.86E-01	7.00E-03	9.98E-01
1.00E-02	9.98E-01	1.00E-04	9.29E-01	1.00E-02	9.48E-01	1.00E-02	9.98E-01
2.00E-02	9.98E-01	2.00E-04	8.54E-01	2.00E-02	8.12E-01	2.00E-02	9.98E-01
3.00E-02	9.98E-01	3.00E-04	8.13E-01	3.00E-02	7.22E-01	3.00E-02	9.98E-01
5.00E-02	7.04E-01	5.00E-04	7.98E-01	5.00E-02	4.79E-01	5.00E-02	3.51E-01
7.00E-02	1.76E-02	7.00E-04	7.56E-01	7.00E-02	3.37E-01	5.61E-02	1.46E-03
7.23E-02	1.73E-02	1.00E-03	7.49E-01	1.00E-01	1.09E-01	N.D.	N.D.
N.D.	N.D.	2.00E-03	5.40E-01	2.00E-01	1.86E-02	N.D.	N.D.
N.D.	N.D.	3.00E-03	4.29E-01	2.27E-01	1.86E-02	N.D.	N.D.
N.D.	N.D.	5.00E-03	3.88E-01	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	7.00E-03	2.05E-01	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	1.00E-02	7.42E-02	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	1.48E-02	1.73E-02	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Successful completion of MACCS2 was achieved!
This job required a total of 37.750 CPU seconds

Input processing required 0.109 CPU seconds
Simulation required 36.930 CPU seconds
Output processing required 0.711 CPU seconds

DAY HR DR SPS RN (Julian Date, Hour, Direction, Speed, Stability, Precipitation)

BLANK LINE

1	1	6	147	0
1	2	5	137	0
1	3	3	177	0
1	4	4	157	0
1	5	3	167	0
1	6	6	177	0
1	7	6	127	0
1	8	8	87	0
1	9	8	205	0
1	10	9	234	0
1	11	12	173	0
1	12	14	174	0
1	13	11	132	0
1	14	13	251	0
1	15	13	213	0
1	16	14	214	0
1	17	12	185	0
1	18	12	216	0
1	19	12	256	0
1	20	12	276	0
1	21	12	285	0
1	22	12	315	0
1	23	13	385	0
1	24	13	335	0
2	1	12	385	0
2	2	12	355	0
2	3	12	464	0
2	4	12	494	0
2	5	12	494	0
2	6	12	524	0
2	7	12	494	0
2	8	12	474	0
2	9	12	454	0
2	10	12	464	0
2	11	12	454	0
2	12	12	424	2
2	13	12	534	0
2	14	12	424	1
2	15	13	304	1
2	16	12	374	1
2	17	12	344	1
2	18	13	335	0
2	19	13	325	0
2	20	13	265	17
2	21	14	265	0
2	22	15	246	3
2	23	3	326	55
2	24	8	94	13
3	1	7	295	4
3	2	7	285	0
3	3	7	254	0
3	4	6	214	0
3	5	6	294	0
3	6	5	214	0
3	7	5	304	0
3	8	4	284	0
3	9	4	384	0
3	10	5	424	0

3	11	5	513	0
3	12	5	423	0
3	13	4	481	0
3	14	4	471	0
3	15	4	442	0
3	16	5	384	0
3	17	4	304	0
3	18	5	175	0
3	19	5	255	0
3	20	5	255	0
3	21	5	265	0
3	22	5	285	0
3	23	6	275	0
3	24	5	345	0
4	1	6	325	0
4	2	5	255	0
4	3	5	265	0
4	4	5	325	0
4	5	5	215	0
4	6	5	225	0
4	7	6	315	0
4	8	6	314	0
4	9	7	494	0
4	10	7	413	0
4	11	7	361	0
4	12	6	401	0
4	13	5	401	0
4	14	5	371	0
4	15	6	342	0
4	16	7	344	0
4	17	6	284	0
4	18	6	205	0
4	19	6	225	0
4	20	5	155	0
4	21	4	165	0
4	22	5	205	0
4	23	5	155	0
4	24	5	175	0
5	1	5	155	0
5	2	5	155	0
5	3	6	265	0
5	4	5	225	0
5	5	5	175	0
5	6	5	215	0
5	7	6	195	0
5	8	6	204	0
5	9	6	254	0
5	10	8	294	0
5	11	8	174	0
5	12	8	173	0
5	13	4	211	0
5	14	6	282	0
5	15	6	223	0
5	16	7	234	0
5	17	6	174	0
5	18	4	145	0
5	19	4	126	0
5	20	3	137	0
5	21	4	57	0
5	22	4	117	0

5	23	3	107	0
5	24	3	107	0
6	1	4	147	0
6	2	1	87	0
6	3	3	137	0
6	4	7	57	0
6	5	4	77	0
6	6	5	147	0
6	7	3	107	0
6	8	2	87	0
6	9	3	77	0
6	10	5	155	0
6	11	2	174	0
6	12	2	231	0
6	13	2	293	0
6	14	2	342	0
6	15	1	322	0
6	16	1	213	0
6	17	1	154	0
6	18	2	116	0
6	19	13	76	0
6	20	1	87	0
6	21	1	137	0
6	22	1	217	0
6	23	1	217	0
6	24	1	146	0
7	1	1	86	0
7	2	5	56	0
7	3	1	176	0
7	4	6	56	0
7	5	16	76	0
7	6	2	86	0
7	7	1	86	0
7	8	2	186	0
7	9	5	174	0
7	10	3	264	0
7	11	3	313	0
7	12	3	274	0
7	13	4	244	0
7	14	3	244	0
7	15	3	214	0
7	16	2	254	0
7	17	4	84	0
7	18	2	196	0
7	19	2	126	0
7	20	16	197	0
7	21	16	97	0
7	22	1	187	0
7	23	16	317	0
7	24	16	176	0
8	1	1	215	0
8	2	15	147	0
8	3	14	227	0
8	4	1	146	0
8	5	13	97	0
8	6	16	87	0
8	7	10	97	0
8	8	9	67	0
8	9	11	116	0
8	10	16	54	0

8	11	15	74	0
8	12	15	153	0
8	13	15	222	0
8	14	16	294	0
8	15	16	324	0
8	16	1	374	0
8	17	1	195	0
8	18	16	166	0
8	19	15	206	0
8	20	16	146	0
8	21	15	286	0
8	22	16	176	0
8	23	16	216	0
8	24	16	176	0
9	1	1	147	0
9	2	1	227	0
9	3	16	256	0
9	4	1	176	0
9	5	2	206	0
9	6	2	266	0
9	7	3	335	0
9	8	2	305	0
9	9	1	245	0
9	10	3	224	1
9	11	5	215	3
9	12	5	245	1
9	13	5	184	0
9	14	1	255	2
9	15	1	245	2
9	16	3	214	0
9	17	6	155	0
9	18	4	245	0
9	19	6	305	0
9	20	6	355	0
9	21	6	295	0
9	22	6	344	0
9	23	6	295	0
9	24	6	225	0
10	1	6	245	0
10	2	7	305	0
10	3	7	255	0
10	4	8	375	0
10	5	8	345	0
10	6	9	345	0
10	7	9	345	0
10	8	10	254	0
10	9	10	354	0
10	10	10	503	0
10	11	10	352	0
10	12	9	282	0
10	13	8	372	0
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350	15	6	344	0
350	16	5	234	0
350	17	4	145	0
350	18	5	86	0
350	19	4	107	0
350	20	4	137	0
350	21	4	147	0
350	22	4	157	0

350	23	3	97	0
350	24	4	107	0
351	1	5	107	0
351	2	3	137	0
351	3	5	167	0
351	4	6	127	0
351	5	6	97	0
351	6	3	77	0
351	7	5	87	0
351	8	6	67	0
351	9	11	37	0
351	10	15	134	0
351	11	15	184	0
351	12	15	174	0
351	13	15	154	0
351	14	8	114	0
351	15	14	144	0
351	16	14	115	0
351	17	16	95	0
351	18	1	116	0
351	19	12	46	0
351	20	12	36	0
351	21	3	47	0
351	22	12	107	0
351	23	13	77	0
351	24	9	97	0
352	1	8	87	0
352	2	9	167	0
352	3	9	187	0
352	4	8	127	0
352	5	9	177	0
352	6	9	247	0
352	7	10	217	0
352	8	9	216	0
352	9	9	215	0
352	10	9	175	0
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352	12	11	324	0
352	13	12	314	0
352	14	12	234	0
352	15	12	334	0
352	16	12	214	0
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352	18	11	185	0
352	19	11	185	0
352	20	12	195	0
352	21	12	275	0
352	22	11	304	0
352	23	12	385	0
352	24	10	284	0
353	1	10	325	0
353	2	10	335	1
353	3	9	315	16
353	4	11	555	11
353	5	11	385	3
353	6	11	465	7
353	7	11	595	3
353	8	12	405	7
353	9	11	545	0
353	10	11	505	0

353	11	11	475	0
353	12	12	445	0
353	13	11	455	0
353	14	11	425	0
353	15	11	294	0
353	16	11	375	0
353	17	10	335	0
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354	6	7	114	0
354	7	7	145	0
354	8	7	114	0
354	9	9	194	1
354	10	6	54	0
354	11	7	94	0
354	12	3	194	0
354	13	5	204	0
354	14	4	234	0
354	15	4	204	0
354	16	4	224	0
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354	19	3	105	0
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354	21	15	46	0
354	22	2	47	0
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354	24	2	117	0
355	1	3	57	0
355	2	5	27	0
355	3	14	107	0
355	4	4	57	0
355	5	5	65	0
355	6	7	116	0
355	7	9	145	0
355	8	12	75	0
355	9	10	115	0
355	10	2	125	0
355	11	5	214	10
355	12	13	135	2
355	13	14	325	4
355	14	14	484	2
355	15	14	464	0
355	16	14	505	1
355	17	5	185	0
355	18	7	145	0
355	19	9	145	0
355	20	9	145	0
355	21	10	85	0
355	22	13	95	0

355	23	14	135	0
355	24	14	125	0
356	1	6	95	0
356	2	5	95	0
356	3	6	85	0
356	4	7	85	0
356	5	7	205	0
356	6	6	185	0
356	7	7	225	0
356	8	7	194	0
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356	10	9	224	0
356	11	10	194	0
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356	22	5	47	0
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357	1	4	67	0
357	2	6	117	0
357	3	4	46	0
357	4	6	115	0
357	5	5	135	0
357	6	5	155	0
357	7	9	85	0
357	8	5	95	0
357	9	6	105	0
357	10	10	114	0
357	11	16	154	0
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357	14	7	264	0
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357	16	7	214	0
357	17	6	145	0
357	18	4	105	0
357	19	4	107	0
357	20	4	137	0
357	21	6	266	0
357	22	6	285	0
357	23	4	166	0
357	24	4	176	0
358	1	5	215	0
358	2	5	205	0
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358	5	4	147	0
358	6	3	196	0
358	7	4	176	0
358	8	4	196	0
358	9	4	214	0
358	10	4	323	0

358	11	4	423	0
358	12	6	523	0
358	13	5	362	0
358	14	5	432	0
358	15	5	394	0
358	16	6	334	0
358	17	7	315	0
358	18	7	485	0
358	19	7	405	0
358	20	7	305	0
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358	22	7	305	0
358	23	7	255	0
358	24	8	315	0
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359	2	11	135	0
359	3	11	255	0
359	4	10	275	0
359	5	10	295	0
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359	8	10	304	0
359	9	11	463	0
359	10	10	372	0
359	11	9	362	0
359	12	9	293	0
359	13	9	361	0
359	14	8	382	0
359	15	8	393	0
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359	17	9	214	0
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360	17	3	345	0
360	18	3	305	0
360	19	3	355	0
360	20	3	435	0
360	21	4	385	0
360	22	4	265	0

360	23	3	245	0
360	24	3	215	0
361	1	4	206	0
361	2	3	176	0
361	3	4	147	0
361	4	4	137	0
361	5	4	147	0
361	6	4	136	0
361	7	4	127	0
361	8	4	116	0
361	9	6	204	0
361	10	6	284	0
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361	14	4	273	0
361	15	3	293	0
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361	18	3	186	0
361	19	3	186	0
361	20	4	186	0
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361	22	4	147	0
361	23	3	167	0
361	24	5	97	0
362	1	4	137	0
362	2	5	126	0
362	3	4	157	0
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362	5	4	127	0
362	6	4	177	0
362	7	3	167	0
362	8	5	187	0
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363	5	4	126	0
363	6	5	126	0
363	7	3	176	0
363	8	5	136	0
363	9	6	174	0
363	10	8	184	0

363	11	8	244	0
363	12	9	204	0
363	13	4	193	0
363	14	5	182	0
363	15	5	164	0
363	16	3	224	0
363	17	2	155	0
363	18	2	176	0
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363	23	15	297	0
363	24	1	146	0
364	1	1	227	0
364	2	1	127	0
364	3	2	187	0
364	4	2	167	0
364	5	3	127	0
364	6	5	97	0
364	7	3	177	0
364	8	3	187	0
364	9	3	166	0
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364	11	2	263	0
364	12	3	312	0
364	13	4	353	0
364	14	3	382	0
364	15	3	313	0
364	16	2	374	0
364	17	2	195	0
364	18	2	186	0
364	19	2	217	0
364	20	2	177	0
364	21	2	177	0
364	22	2	177	0
364	23	1	166	0
364	24	2	127	0
365	1	2	136	0
365	2	2	97	0
365	3	3	136	0
365	4	3	146	0
365	5	3	166	0
365	6	3	196	0
365	7	3	215	0
365	8	3	245	0
365	9	3	225	0
365	10	3	204	0
365	11	4	164	0
365	12	4	264	0
365	13	4	94	0
365	14	3	144	0
365	15	3	244	0
365	16	3	214	0
365	17	2	145	0
365	18	16	105	0
365	19	2	176	0
365	20	2	136	0
365	21	12	67	0
365	22	11	47	0

365 23 13 87 0
365 24 13 87 0

4. 4. 4. 4. 15. 15. 15. 15.

□

SECPop2000 V3.12 MACCS2 Site Data File for Vogtle + transients projected to year 2040. INCLUD
 Lat: 33d 8'31'' Long: 81d45'45'' Population multiplier: 1.0000 10/06/2006

10 SPATIAL INTERVALS

16 WIND DIRECTIONS

7 CROP CATEGORIES

4 WATER PATHWAY ISOTOPES

1 WATERSHEDS

97 ECONOMIC REGIONS

SPATIAL DISTANCES

KILOMETERS

1.6093	3.2187	4.8280	6.4374	8.0467	16.0935	32.1869	48.2804
64.3739	80.4674						

POPULATION

0.	69.	0.	0.	0.	0.	8727.	92192.
28873.	22032.						
0.	0.	0.	0.	0.	0.	4594.	14508.
7731.	13488.						
0.	0.	0.	0.	0.	0.	0.	9309.
5508.	10769.						
0.	0.	0.	0.	0.	0.	774.	13423.
12596.	11961.						
0.	0.	0.	0.	0.	13.	735.	3547.
1805.	3263.						
0.	0.	0.	22.	1.	346.	249.	6077.
7848.	12492.						
0.	0.	0.	19.	17.	281.	336.	344.
869.	11149.						
0.	0.	34.	0.	0.	991.	881.	7749.
3263.	7071.						
0.	0.	0.	0.	25.	315.	2322.	1938.
4168.	69610.						
0.	0.	0.	0.	3.	58.	609.	5337.
2694.	9893.						
0.	7.	0.	7.	1.	193.	859.	737.
2006.	7607.						
0.	0.	19.	79.	22.	763.	9211.	797.
5609.	5525.						
0.	0.	70.	9.	4.	392.	4333.	1613.
4660.	3290.						
0.	0.	90.	0.	86.	226.	4262.	10681.
12014.	22397.						
0.	50.	0.	156.	122.	156.	12373.	142545.
353009.	27595.						
0.	0.	0.	0.	0.	91.	4875.	140058.
60057.	10509.						

LAND FRACTION

0.00	0.00	0.99	0.00	0.00	0.98	0.98	0.98	0.98	0.98
0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.98
0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.98	0.99
0.91	0.00	0.00	0.00	0.99	0.00	0.99	0.99	0.99	0.99
0.91	0.00	0.00	0.00	0.00	0.99	1.00	0.99	0.99	0.98
0.91	0.91	0.91	0.91	0.91	0.92	0.99	1.00	0.91	0.85
0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.89	0.82
0.91	0.00	0.91	0.00	0.00	0.91	0.91	0.91	0.91	0.93
0.91	0.91	0.00	0.00	0.91	0.91	0.93	0.92	0.94	0.99
0.91	0.91	0.00	0.00	0.91	0.91	0.96	1.00	0.99	0.99
0.91	0.91	0.00	0.91	0.91	0.91	0.92	0.97	0.96	0.98
0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.98
0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.92	0.99	0.99
0.00	0.00	0.91	0.91	0.91	0.91	0.85	0.80	0.92	0.96
0.00	0.91	0.00	0.91	0.91	0.90	0.76	0.74	0.97	0.98

0.00 0.00 0.00 0.00 0.00 0.97 0.95 0.89 0.98 0.99

REGION INDEX

1 2 2 2 2 3 4 5 6 7
1 8 8 8 8 9 10 11 12 13
11 14 14 14 14 15 16 17 18 19
12 0 20 20 20 20 21 22 23 24 25
12 6 26 26 26 26 27 28 29 30 31
13 2 32 32 32 32 33 34 35 36 37
13 8 38 38 38 38 39 40 41 42 43
14 4 44 44 44 44 45 46 47 48 49
15 0 50 50 50 50 51 52 53 54 55
15 6 56 56 56 56 57 58 59 60 61
16 2 62 62 62 62 63 64 65 66 67
16 8 68 68 68 68 69 70 71 72 73
17 4 74 74 74 74 75 76 77 78 79
18 0 80 80 80 80 81 82 83 84 85
18 6 86 86 86 86 87 88 89 90 91
19 2 92 92 92 92 93 94 95 96 97

WATERSHED INDEX

[illegible]

CROP SEASON AND SHARE

1	PASTURE	90.	270.	0.4100
2	STORED FORAGE	150.	240.	0.1300
3	GRAINS	150.	240.	0.2100
4	GRN LEAFY VEGETABLES	150.	240.	0.0020
5	OTHER FOOD CROPS	150.	240.	0.0040
6	LEGUMES AND SEEDS	150.	240.	0.1500
7	ROOTS AND TUBERS	150.	240.	0.0030

WATERSHED DEFINITION -- INITIAL AND ANNUAL WASHOFF AND INGESTION FACTORS

1	Sr-89	5.00E-06	0.0
2	Sr-90	5.00E-06	0.0
3	Cs-134	5.00E-06	0.0
4	Cs-137	5.00E-06	0.0

REGIONAL ECONOMIC DATA

1	EXCLUSION	.214	0.001	4971.0	14888.0	143897.0
2	REGION_02	.331	0.252	1065.0	3848.0	80147.0
3	REGION_03	.327	0.002	1067.0	3003.0	86571.0
4	REGION_04	.327	0.002	1067.0	3003.0	86571.0
5	REGION_05	.327	0.002	1067.0	3003.0	86571.2
6	REGION_06	.364	0.017	1027.3	3086.3	85815.6
7	REGION_07	.468	0.097	763.3	4024.3	86190.3
8	REGION_08	.000	0.000	0.0	0.0	0.0
9	REGION_09	.000	0.000	0.0	0.0	0.0
10	REGION_10	.327	0.002	1067.0	3003.0	86571.0
11	REGION_11	.327	0.002	1067.0	3003.0	86571.0

12	REGION_12	.327	0.002	1067.0	3003.0	86571.0
13	REGION_13	.315	0.005	858.5	3170.5	85006.6
14	REGION_14	.000	0.000	0.0	0.0	0.0
15	REGION_15	.000	0.000	0.0	0.0	0.0
16	REGION_16	.000	0.000	0.0	0.0	0.0
17	REGION_17	.329	0.159	1065.7	3534.0	82534.3
18	REGION_18	.243	0.074	1119.9	6538.0	104101.4
19	REGION_19	.164	0.003	1046.3	9118.2	121204.5
20	REGION_20	.331	0.252	1065.0	3848.0	80147.0
21	REGION_21	.000	0.000	0.0	0.0	0.0
22	REGION_22	.331	0.252	1065.0	3848.0	80147.0
23	REGION_23	.331	0.252	1065.0	3848.0	80147.0
24	REGION_24	.277	0.131	981.5	5407.5	100054.8
25	REGION_25	.109	0.015	1139.1	11472.1	138770.2
26	REGION_26	.000	0.000	0.0	0.0	0.0
27	REGION_27	.331	0.252	1065.0	3848.0	80147.0
28	REGION_28	.231	0.149	485.0	2877.2	83330.2
29	REGION_29	.283	0.203	787.0	3382.7	81672.6
30	REGION_30	.247	0.078	716.8	4608.5	100922.2
31	REGION_31	.302	0.048	853.0	5113.6	104661.1
32	REGION_32	.214	0.001	4971.0	14888.0	143897.0
33	REGION_33	.222	0.019	4689.9	14094.3	139324.5
34	REGION_34	.163	0.075	275.8	2704.7	87813.1
35	REGION_35	.162	0.078	84.0	2206.0	85531.0
36	REGION_36	.107	0.041	84.5	2789.9	83824.1
37	REGION_37	.145	0.007	243.6	3442.7	83083.6
38	REGION_38	.214	0.001	4971.0	14888.0	143897.0
39	REGION_39	.214	0.001	4971.0	14888.0	143897.0
40	REGION_40	.077	0.028	4095.0	12799.2	131784.3
41	REGION_41	.105	0.057	1871.6	6954.9	105898.1
42	REGION_42	.097	0.034	86.6	2912.1	83506.2
43	REGION_43	.059	0.000	252.6	3687.0	82558.9
44	REGION_44	.214	0.001	4971.0	14888.0	143897.0
45	REGION_45	.214	0.001	4971.0	14888.0	143897.0
46	REGION_46	.075	0.027	4130.2	12894.8	132165.3
47	REGION_47	.040	0.034	3921.0	12399.0	129247.0
48	REGION_48	.040	0.034	3919.1	12394.5	129223.2
49	REGION_49	.140	0.013	1659.3	6804.9	104062.8
50	REGION_50	.214	0.001	4971.0	14888.0	143897.0
51	REGION_51	.214	0.001	4971.0	14888.0	143897.0
52	REGION_52	.193	0.011	3746.7	11842.2	127607.4
53	REGION_53	.080	0.030	3545.0	11426.9	124445.9
54	REGION_54	.108	0.031	2984.3	10214.6	121352.5
55	REGION_55	.243	0.027	1071.2	5772.9	105572.3
56	REGION_56	.214	0.001	4971.0	14888.0	143897.0
57	REGION_57	.214	0.001	4971.0	14888.0	143897.0
58	REGION_58	.308	0.000	2579.7	8833.1	112664.4
59	REGION_59	.381	0.000	727.0	4142.0	88467.0
60	REGION_60	.347	0.034	784.4	4286.9	91108.1
61	REGION_61	.240	0.107	692.0	3950.5	95403.3
62	REGION_62	.214	0.001	4971.0	14888.0	143897.0
63	REGION_63	.214	0.001	4971.0	14888.0	143897.0
64	REGION_64	.222	0.001	4778.3	14400.1	141380.3
65	REGION_65	.327	0.000	2092.0	7598.3	106295.1
66	REGION_66	.257	0.141	2006.6	6914.3	105976.2
67	REGION_67	.250	0.233	969.1	3969.4	92895.2
68	REGION_68	.214	0.001	4971.0	14888.0	143897.0
69	REGION_69	.214	0.001	4971.0	14888.0	143897.0
70	REGION_70	.214	0.001	4971.0	14888.0	143897.0
71	REGION_71	.214	0.001	4971.0	14888.0	143897.0

72	REGION_72	.166	0.333	1593.4	10683.1	122616.1
73	REGION_73	.219	0.359	342.5	7373.4	104993.8
74	REGION_74	.214	0.001	4971.0	14888.0	143897.0
75	REGION_75	.214	0.001	4971.0	14888.0	143897.0
76	REGION_76	.214	0.001	4971.0	14888.0	143897.0
77	REGION_77	.205	0.064	4336.7	14130.8	140041.0
78	REGION_78	.145	0.462	343.4	9363.9	115765.8
79	REGION_79	.247	0.343	272.7	7345.8	103055.8
80	REGION_80	.214	0.001	4971.0	14888.0	143897.0
81	REGION_81	.214	0.001	4971.0	14888.0	143897.0
82	REGION_82	.141	0.001	3521.8	11365.6	129080.4
83	REGION_83	.088	0.001	2452.0	8770.0	118158.2
84	REGION_84	.329	0.140	630.7	5364.1	97969.9
85	REGION_85	.595	0.027	645.2	3859.5	92133.0
86	REGION_86	.214	0.001	4971.0	14888.0	143897.0
87	REGION_87	.203	0.001	4667.1	14115.3	140542.7
88	REGION_88	.039	0.000	1469.0	6372.9	108068.8
89	REGION_89	.014	0.000	981.0	5190.0	103103.1
90	REGION_90	.523	0.013	890.5	3564.9	88208.1
91	REGION_91	.556	0.030	879.3	3475.5	86076.3
92	REGION_92	.000	0.000	0.0	0.0	0.0
93	REGION_93	.325	0.002	1066.2	3022.3	86717.2
94	REGION_94	.288	0.002	1056.3	3275.5	88631.1
95	REGION_95	.218	0.002	1036.9	3767.8	92352.3
96	REGION_96	.526	0.084	936.4	3909.6	83919.0
97	REGION_97	.522	0.098	1324.4	5422.0	86588.9

□

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*****
*****
* FILE NAME Vchronc.inp
*
* DESCRIPTIVE TITLE DESCRIBING THIS "CHRONC" INPUT FILE
*
CHCHNAME001  'SNC AP1000 CHRONC FILE'
*****
* EMERGENCY RESPONSE COST DATA BLOCK
*
* DAILY COST FOR A PERSON WHO IS EVACUATED (DOLLARS/PERSON-DAY)
* ESCALATED FROM $27/DAY IN 1986 TO
*   ESCALATED FROM $27/DAY IN 1986 TO 49.64 in 2006 {FACTOR OF 1.8385036} FROM
*   WWW.BLS.GOV/CPI/HOME.HTM, INFLATION CALCULATOR
CHEVACST001  49.64    (INCLUDES FOOD AND HOUSING COSTS BUT NOT LOST INCOME)
*
* DAILY COST FOR A PERSON WHO IS RELOCATED (DOLLARS/PERSON-DAY)
*   ESCALATED '86 TO '06, FACTOR = 1.8385036
CHRELCST001  49.64    (INCLUDES FOOD AND HOUSING COSTS BUT NOT LOST INCOME)
*****
* LONG TERM PROTECTIVE ACTION DATA BLOCK
*
* Duration of the intermediate phase period--at version 1.11c TMIPND is no
* longer processed.  The new input variable DUR_INTPHAS is the period's
* duration, not the time after plume arrival at which the period ends.
*
DUR_INTPHAS   0.0      (in seconds)      (no intermediate phase)
*
* LONG-TERM PHASE DOSE PROJECTION PERIOD, THE DURATION OF THE EXPOSURE
* PERIOD OVER WHICH THE LONG-TERM DOSE CRITERION IS EVALUATED (SECONDS)
*
CHTMPACT001   1.58E8      (5 YEARS)
*
* DOSE CRITERION FOR INTERMEDIATE PHASE RELOCATION (Sv)
*
CHDSCRTI001   1.0E5      (NO INTERMEDIATE PHASE RELOCATION)
*
* DOSE CRITERION FOR LONG-TERM PHASE RELOCATION (Sv)
*
CHDSCRLT001   0.04
*
* CRITICAL ORGAN NAME FOR LONG-TERM ACTIONS
*
CHCRTOCR001  'L-EDEWBODY'
*
* Long Term Exposure Period  Previously permanently set to:
*   one million years = 3.15 E13 seconds
*   MACCS2 allowable range is 3.15E7 to 1.E10
*
CHEXPTIM001   1.E10
*****
* DECONTAMINATION PLAN DATA BLOCK
*
* NUMBER OF LEVELS OF DECONTAMINATION
*
CHLVLDEC001   2
*
* DECONTAMINATION TIMES CORRESPONDING TO THE LVLDEC LEVELS OF DECONTAMINATION
* (SECONDS)
*

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CHTIMDEC001    5.184E6    1.0368E7    (60, 120 DAYS)
*
* DOSE REDUCTION FACTORS CORRESPONDING TO THE LVLDEC LEVELS OF DECONTAMINATION
*
CHDSRFCT001    3.        15.
*
* COST OF FARM DECONTAMINATION PER FARMLAND UNIT AREA (DOLLARS/HECTARE)
* FOR THE VARIOUS LEVELS OF DECONTAMINATION
*
*CHCDFRM0001    562.5    1250. ESCALATED '86 TO '06
*          FACTOR = 1.8385036
CHCDFRM0001    1034.16    2298.13
*
* COST OF NONFARM DECONTAMINATION PER RESIDENT PERSON (DOLLARS/PERSON)
* FOR THE VARIOUS LEVELS OF DECONTAMINATION
*
*CHCDNFRM001    3000.    8000. ESCALATED '86 TO '06
*          FACTOR = 1.8385036
CHCDNFRM001    5515.51    14708.03
*
* FRACTION OF FARMLAND DECONTAMINATION COST DUE TO LABOR
* FOR THE VARIOUS DECONTAMINATION LEVELS
*
CHFRFDL0001    .3        .35
*
* FRACTION OF NON-FARM DECONTAMINATION COST DUE TO LABOR
* FOR THE VARIOUS DECONTAMINATION LEVELS
*
CHFRNFDL001    .7        .5
*
* FRACTION OF TIME WORKERS IN FARM AREAS SPEND IN CONTAMINATED AREAS
* FOR THE VARIOUS DECONTAMINATION LEVELS
*
CHTFWK0001    .10        .33
*
* FRACTION OF TIME WORKERS IN NON-FARM AREAS SPEND IN CONTAMINATED AREAS
* FOR THE VARIOUS DECONTAMINATION LEVELS
*
CHTFWKNF001    .33        .33
*
* AVERAGE COST OF DECONTAMINATION LABOR (DOLLARS/MAN-YEAR)
*
*CHDLBCST001    35000.    ESCALATED '86 TO '06
*          FACTOR = 1.8385036
CHDLBCST001    64347.63
*****
* INTERDICTION COST DATA BLOCK
*
* DEPRECIATION (DETERIORATION) RATE DURING INTERDICTION PERIOD (PER YEAR)
*
CHDPRATE001    .20    (VALUE OBTAINED FROM WASH-1400, APPENDIX 6)
*
* INVESTMENT INCOME RETURN (DISCOUNT RATE) DURING INTERDICTION PERIOD (PER YEAR)
* THIS VALUE SHOULD BE DERIVED AS A REAL RETURN RATE ADJUSTED FOR INFLATION
*
CHDSRATE001    .12    (VALUE OBTAINED FROM WASH-1400, APPENDIX 6)
*
* POPULATION RELOCATION COST (DOLLARS/PERSON) :
* ALTERNATIVE HOUSING, MOVING COSTS, AND LOST INCOME FOR PEOPLE IN
* AREAS WHICH REQUIRE DECONTAMINATION, INTERDICTION, OR CONDEMNATION

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*
*CHPOPCST001    5000.  ESCALATED '86 TO '06
*              FACTOR = 1.8385036
CHPOPCST001    9192.52
*****
* GROUNDSHINE WEATHERING DEFINITION DATA BLOCK
*
* NUMBER OF TERMS IN THE GROUNDSHINE WEATHERING RELATIONSHIP (EITHER 1 OR 2)
*
CHNGWTRM001    2
*
* GROUNDSHINE WEATHERING COEFFICIENTS
*
CHGWCOEF001    0.5      0.5              (JON HELTON)
*
* HALF LIVES CORRESPONDING TO THE GROUNDSHINE WEATHERING COEFFICIENTS (S)
*
CHTGWHLF001    1.6E7    2.8E9              (JON HELTON)
*****
* RESUSPENSION WEATHERING DEFINITION DATA BLOCK
*
* NUMBER OF TERMS IN THE RESUSPENSION WEATHERING RELATIONSHIP
*
CHNRWTRM001    3
*
* RESUSPENSION CONCENTRATION COEFFICIENTS      (/ METER)
* RELATIONSHIP BETWEEN GROUND CONCENTRATION AND INSTANTANEOUS AIR CONC.
*
CHRWCOEF001    1.0E-5    1.0E-7    1.0E-9    (VALUES HERE SELECTED BY JON HELTON)
*
* HALF-LIVES CORRESPONDING TO THE RESUSPENSION CONCENTRATION COEFFICIENTS (S)
*
CHTRWHLF001    1.6E7      1.6E8      1.6E9    (6 MONTHS, 5 YEARS, 50 YEARS)
*****
* SITE REGION DESCRIPTION DATA BLOCK
*
* FRACTION OF AREA THAT IS LAND IN THE REGION
*
CHFRACLD001    0.95      (ROUGH GUESS VALUE, SITE FILE OVERRIDES THIS VALUE)
*
* FRACTION OF LAND DEVOTED TO FARMING IN THE REGION
*
CHFRCFRM001    0.382    (VIRGINIA STATE VALUE, SITE FILE OVERRIDES THIS VALUE)
*
* AVERAGE VALUE OF ANNUAL FARM PRODUCTION IN THE REGION (DOLLARS/HECTARE)
* (CASH RECEIPTS FROM FARMING PLUS VALUE OF HOME CONSUMPTION) / (LAND IN FARMS)
*
CHFRMPRD001    371.0    (VIRGINIA STATE VALUE, SITE FILE OVERRIDES THIS VALUE)
*
* FRACTION OF FARM PRODUCTION RESULTING FROM DAIRY PRODUCTION IN THE REGION
* (VALUE OF MILK PRODUCED) / (CASH RECEIPTS FROM FARMING PLUS HOME CONSUMPTION)
*
CHDPFRCT001    0.198    (VIRGINIA STATE VALUE, SITE FILE OVERRIDES THIS VALUE)
*
* VALUE OF FARM WEALTH (DOLLARS/HECTARE)
* (AVERAGE VALUE PER HECTARE OF FARM LAND AND BUILDINGS TO 50 MILES)
*
*CHVALWF0001    2541.  ESCALATED '03 TO '06
*              FACTOR = 1.0951087
CHVALWF0001    2782.67  * FARM SIZE/AREA WEIGHTED AVERAGE FOR GA/SC

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*
*          COUNTIES WITHIN 50 MILE RADIUS TAKING SRS INTO ACCOUNT
*
* FRACTION OF FARM WEALTH IN IMPROVEMENTS FOR THE REGION
*
CHFRFIM0001    0.25  * SURRY
*
* NON-FARM WEALTH, PROPERTY AND IMPROVEMENTS FOR THE REGION (DOLLARS/PERSON)
* THE VALUE OF ALL RESIDENTIAL, BUSINESS, AND PUBLIC ASSETS WHICH WOULD BE
* LOST IN THE EVENT OF PERMANENT INTERDICTION (CONDEMNATION) OF THE AREA
*
*CHVALWNF001  107602.  ESCALATED 2003 TO 2006
*          FACTOR = 1.0951087
CHVALWNF001  117836.  * POPULATION/AREA WEIGHTED AVERAGE FOR GA/SC
*          COUNTIES WITHIN 50 MILE RADIUS
*
* FRACTION OF NON-FARM WEALTH IN IMPROVEMENTS FOR THE REGION
*
CHFRNFIM001    0.8
*****
CHFDPATH001 'NEW'
*
* name of the COMIDA2 binary output file
*
BIN_FILE001 'C:\MACCS2\SAMP_A.BIN'    (binary data file of 1/04)
*
* Dose limits triggering first year crop disposal of the separate
* milk and non-milk components of the diet, corresponding in purpose,
* more or less, to the MACCS 1.5 input variables PSCMLK and PSCOTH
*
* For NUREG-1150 calculations, the maximum allowable ground concentrations for
* production of milk and non-milk crops contaminated by an accident occurring
* in the growing season were derived based on an assumed maximum allowable
* dose of 5 rem effective or 15 rem thyroid, per the 1982 FDA guidance that's
* reprinted in the 1992 EPA PAG Manual. For purposes of comparison against
* the prior results, it is being assumed, for simplicity, that milk and
* non-milk crops contribute equally to the first year dose. Thus, the 5 rem
* effective dose limit used in NUREG-1150 is equally split between milk and
* non-milk crops, with 2.5 rem allowed for each. Similarly, the 15 rem
* thyroid limit is split into 7.5 and 7.5 rem for the milk and non-milk
* portions of the diet.
*
* SUPPORTING DOCUMENT FOR GUIDANCE LEVELS FOR RADIONUCLIDES IN DOMESTIC AND
* DOMESTIC FOODS, July, 2004, FDA (www.cfsan.fda.gov/~dms/nucleve2.html, see
* especially Section II) revises limits from 5/15 rem (effective/thyroid) to
* 0.5/5 rem. The latter is incorporated below.
*
*          effective      thyroid  (doses in sieverts)
DOSEMILK001    0.0025      0.025
DOSEOTHR001    0.0025      0.025
*
* Annual dose limits for the subsequent year's (i.e., after the first year)
* interdiction of BOTH the milk and non-milk (combined) components of the diet
*
* Note: the long-term food criteria, GCMAXR, used for NUREG-1150 were based on
* an ingestion dose integrated from zero to infinity. It is not possible to
* translate those parameter values into corresponding annual dose limits, as is
* required by the COMIDA2-based food model. The "total" dose limits used in
* NUREG-1150 for "root uptake", 0.5 rem effective and 1.5 rem thyroid, are used
* here as annual dose limits for interdiction of food production in years the
* years subsequent to the accident.

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*
*           effective      thyroid  (doses in sieverts)
DOSELONG001    0.005          0.015
*
*****
*
*  NUMBER OF NUCLIDES IN THE WATER INGESTION PATHWAY MODEL
*
CHNUMWPI001    4
*
*  TABLE OF NUCLIDE DEFINITIONS IN THE WATER INGESTION PATHWAY MODEL
*
*  IF A SITE DATA FILE IS DEFINED, THE DATA DEFINING THE WATERSHED INGESTION
*  FACTOR IS SUPERSEDED BY THE CORRESPONDING DATA IN THE SITE DATA FILE
*
*
*           WATER          INITIAL      ANNUAL      INGESTION FACTOR
*           NUCLIDE        WASHOFF      WASHOFF      ((Bq INGESTED) /
*                               FRACTION    RATE        (Bq IN WATER))
*
*           NAMWPI         WSHFRI       WSHRTA       WINGF
CHWTRISO001   Sr-89        0.01         0.004        5.0E-6
CHWTRISO002   Sr-90        0.01         0.004        5.0E-6
CHWTRISO003   Cs-134       0.005        0.001        5.0E-6
CHWTRISO004   Cs-137       0.005        0.001        5.0E-6
*****
*  SPECIAL OPTIONS DATA BLOCK
*
*  DETAILED PRINT OPTION CONTROL SWITCHES, LOOK AT THE CODE BEFORE TURNING ON!!
*  KSWDSC
*
CHKSWTCH001    0
*****
*  DEFINE THE TYPE 9 RESULTS
*
*  LONG-TERM POPULATION DOSE IN A GIVEN REGION BROKEN DOWN BY THE 12 PATHWAYS
*
*  NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
*  FOR EACH RESULT YOU REQUEST, THE CODE WILL PRODUCE A SET OF 12
*
TYPE9NUMBER    2          (UP TO 10 ALLOWED)
*
*           ORGNAM          INNER      OUTER
*
TYPE9OUT001    'L-EDEWBODY'      1          6      (0-10 MILES)
TYPE9OUT002    'L-EDEWBODY'      1         10      (0-50 MILES)
*****
*  ECONOMIC COST RESULTS IN A REGION BROKEN DOWN BY 12 TYPES OF COSTS
*
*  NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
*  FOR EACH RESULT YOU REQUEST, THE CODE WILL PRODUCE A SET OF 12
*
TYP10NUMBER    1          (UP TO 10 ALLOWED)
*
*           INNER          OUTER
*
TYP10OUT001    1           10      (0-50 MILES)
*****
*  DEFINE A FLAG THAT CONTROLS THE PRODUCTION OF THE ACTION DISTANCE RESULTS
*
*  SPECIFYING A VALUE OF .TRUE. TURNS ON ALL 8 OF THE ACTION DISTANCE RESULTS,

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* A VALUE OF .FALSE. WILL ELIMINATE THE ACTION DISTANCE RESULTS FROM THE OUTPUT.
*
TYP11FLAG11 .FALSE.
*****
* IMPACTED AREA/POPULATION RESULTS IN A REGION BROKEN DOWN BY 6 TYPES OF IMPACTS
*
* NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
* FOR EACH RESULT YOU REQUEST, THE CODE WILL PRODUCE A SET OF 8
*
TYP12NUMBER 1 (UP TO 10 ALLOWED)
*
* INNER OUTER
*
TYP12OUT001 1 10 (0-50 MILES)
*****
* Maximal annual food ingestion dose to an individual, requested by IXOT13
*
* This result is calculated after accounting for temporary or
* permanent interdiction. It is only available for the "new" food model.
*
* NUMBER OF RESULTS OF THIS TYPE THAT ARE BEING REQUESTED
*
TYP13NUMBER 0 (UP TO 10 ALLOWED)
*
* IRAD13 is the radial spatial interval at which results are requested
*
* ORGN13 is the name of the organ for which results are requested
* (allowable values for ORGN13 are 'EFFECTIVE' or 'THYROID')
*
* IRAD13 ORGN13
*
*TYP13OUT001 2 EFFECTIVE
*TYP13OUT002 4 EFFECTIVE
*TYP13OUT003 6 EFFECTIVE
*TYP13OUT004 9 EFFECTIVE

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*****
* FILE NAME:   VEARLY.INP
*
* DESCRIPTIVE TITLE DESCRIBING THIS "EARLY" INPUT FILE
*
MIEANAM1001  'SNC AP1000 EARLY FILE - 95% Evacuation'
DCF_FILE001  'C:\MACCS2\DOSDATA.INP' (DCF file of MACCS 1.5.11.1)
*
*              ORGNAM              ORGFLG
*
MIORGDEF001  'A-SKIN'              .TRUE.
MIORGDEF002  'A-RED MARR'          .TRUE.
MIORGDEF003  'A-LUNGS'             .TRUE.
MIORGDEF004  'A-THYROIDH'          .TRUE.
MIORGDEF005  'A-STOMACH'           .TRUE.
MIORGDEF006  'A-LOWER LI'          .FALSE.  (does not contribute to early fatalities)
MIORGDEF007  'L-EDEWBODY'          .TRUE.
MIORGDEF008  'L-RED MARR'          .TRUE.
MIORGDEF009  'L-BONE SUR'          .TRUE.
MIORGDEF010  'L-BREAST'            .TRUE.
MIORGDEF011  'L-LUNGS'             .TRUE.
MIORGDEF012  'L-THYROID'           .TRUE.
MIORGDEF013  'L-LOWER LI'          .TRUE.
MIORGDEF014  'L-BLAD WAL'          .TRUE.
MIORGDEF015  'L-LIVER'             .FALSE.
MIORGDEF016  'L-THYROIDH'          .TRUE.
*
* FLAG TO INDICATE THAT THIS IS THE LAST PROGRAM IN THE SERIES TO BE RUN
*
MIENDAT2001  .FALSE.      (SET THIS VALUE TO .TRUE. TO SKIP CHRONC)
*
* DISPERSION MODEL OPTION CODE:  1 *  STRAIGHT LINE
*                                2 *  WIND-SHIFT WITH ROTATION
*                                3 *  WIND-SHIFT WITHOUT ROTATION
*
MIIPLUME001  1 * URD used 1
*
* NUMBER OF FINE GRID SUBDIVISIONS USED BY THE MODEL
*
MINUMFIN001  7      (3, 5 OR 7 ALLOWED)
*
* LEVEL OF DEBUG OUTPUT REQUIRED, NORMAL RUNS SHOULD SPECIFY ZERO
*
MIIPRINT001  0
*
* LOGICAL FLAG SIGNIFYING THAT THE BREAKDOWN OF RISK BY WEATHER CATEGORY
* BIN ARE TO BE PRESENTED TO SHOW THEIR RELATIVE CONTRIBUTION TO THE MEAN
*
*              RISBIN
*
MIRISCAT001  .FALSE.
*
* FLAG INDICATING IF WIND-ROSES FROM ATMOS ARE TO BE OVERRIDDEN
*
MIOVRRID001  .FALSE.  (USE THE WIND ROSE CALCULATED FOR EACH WEATHER BIN)
*****
* POPULATION DISTRIBUTION DATA BLOCK, LOADED BY INPOPU, STORED IN /POPDAT/
*
PDPOPFLG001  FILE
*

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*****
* SHIELDING AND EXPOSURE FACTORS, LOADED BY INDFAC, STORED IN /EADFAC/
*
* THREE VALUES OF EACH PROTECTION FACTOR ARE SUPPLIED,
* ONE FOR EACH TYPE OF ACTIVITY:
*
* ACTIVITY TYPE:
*   1 - EVACUEES WHILE MOVING
*   2 - NORMAL ACTIVITY IN SHELTERING AND EVACUATION ZONE
*   3 - SHELTERED ACTIVITY
*
* CLOUD SHIELDING FACTOR
*
*   SITE      GG    PB    SEQ  SUR  ZION
*   SHELTERING 0.7   0.5   0.65 0.6   0.5
*
*           EVACUEES   NORMAL   SHELTER
*
SECSFACT001      0.75      0.75      0.75  * use URD values
*
* PROTECTION FACTOR FOR INHALATION
*
SEPROTIN001      0.4      0.4      0.4  * URD Values*
*
* BREATHING RATE (CUBIC METERS PER SECOND)
*
SEBRRATE001  3.3E-4  3.3E-4  3.3E-4 *URD values
*
* SKIN PROTECTION FACTOR
*
SESKPFAC001  1.0      0.41      0.33  * VALUES FOR NORMAL ACTIVITY AND
*                               SHELTERING SELECTED BY NRC STAFF
*
* GROUND SHIELDING FACTOR
*
*   SITE      GG    PB    SEQ  SUR  ZION
*   SHELTERING 0.25 0.1   0.2   0.2   0.1
*
SEGSHFAC001      0.33      0.33      0.33  * URD values
*
* RESUSPENSION INHALATION MODEL CONCENTRATION COEFFICIENT (/METER)
*
*   RESCON = 1.E-4 IS APPROPRIATE FOR MECHANICAL RESUSPENSION BY VEHICLES.
*   RESHAF = 2.11 DAYS CAUSES 1.E-4 TO DECAY IN ONE WEEK TO 1.E-5, THE VALUE
*   OF RESCON USED IN THE FIRST TERM OF THE LONG-TERM RESUSPENSION EQUATION
*   USED IN CHRONC.
*
SERESCON001  1.E-4      (RESUSPENSION IS TURNED ON)
*
* RESUSPENSION CONCENTRATION COEFFICIENT HALF-LIFE (SEC)
*
SERESHAF001  1.82E5      (2.11 DAYS)
*****
* EVACUATION ZONE DATA BLOCK, LOADED BY EVNETW, STORED IN /NETWOR/, /EOPTIO/
*
* SPECIFIC DESCRIPTION OF THE EMERGENCY RESPONSE SCENARIO BEING USED
*
EZEANAM2001  '95% EVACUATION WITHIN 10 MILES- 24-HOUR RELOCATION'
*

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* THE TYPE OF WEIGHTING TO BE APPLIED TO THE EMERGENCY RESPONSE SCENARIOS
* YOU MUST SUPPLY A VALUE OF 'TIME' OR 'PEOPLE'
*
EZWTNAME001  'PEOPLE'
*
* WEIGHTING FRACTION APPLICABLE TO THIS SCENARIO
*
EZWTFRAC001  0.95 *95% of people evacuated
*
* LAST RING IN THE MOVEMENT ZONE
*
EZLASMOV001      6      (10 miles)
*
* Flag defining the time at which evacuees "enter" the destination element
*
TRAVELPOINT  'CENTERPOINT' (new option implemented at MACCS2 v. 1.11f)
*TRAVELPOINT  'BOUNDARY'    (Westinghouse used BOUNDARY)
*
* RADIAL EVACUATION SPEED (M/S) = speed to exit EPZ, 30 min after alarm
*
EZESPEED001    2.20 2.20 2.20 *(based on 125-42 min for all zones to clear EPZ,
*                               in 2010, extrapolated for 2040 population)
EZEVATYP001    'RADIAL'
EZDURBEG001    86400.0
EZDURMID001    0.0
EZREFPNT001    'ALARM'
EZNUMEVA001    6
EZDLTSHL001    2520. 2520. 2520. 2520. 2520. 2520. (42 MINUTES DELAY, 95% MOBILIZATION)
EZDLTEVA001    0.    0.    0.    0.    0.    0.

*****
* SHELTER AND RELOCATION ZONE DATA BLOCK, LOADED BY INPEMR,
*                               STORED IN /INPSRZ/, /RELOCA/
*
* DURATION OF THE EMERGENCY PHASE (SECONDS FROM PLUME ARRIVAL)
*
SRENDEMP001    604800.    (ONE WEEK)
*
* CRITICAL ORGAN FOR RELOCATION DECISIONS
*
SRCRIORG001    'L-EDEWBODY'
*
* HOT SPOT RELOCATION TIME (SECONDS FROM PLUME ARRIVAL)
*
SRTIMHOT001    43200.    (ONE HALF DAY)
*
* NORMAL RELOCATION TIME (SECONDS FROM PLUME ARRIVAL)
*
SRTIMNRM001    86400.    (ONE DAY)
*
* HOT SPOT RELOCATION DOSE CRITERION THRESHOLD (SIEVERTS)
*
SRDOSHOT001    0.5      (50 REM DOSE TO WHOLE BODY IN 1 WEEK TRIGGERS RELOCATION)
*
* NORMAL RELOCATION DOSE CRITERION THRESHOLD (SIEVERTS)
*
SRDOSNRM001    0.25     (25 REM DOSE TO WHOLE BODY IN 1 WEEK TRIGGERS RELOCATION)
*****
* EARLY FATALITY MODEL PARAMETERS, LOADED BY INEFAT, STORED IN /EFATAL/
*

```

* NUMBER OF EARLY FATALITY EFFECTS

*

EFNUMEFA001 2

*

* ORGNAM EFFACA EFFACB EFFTHR

*

EFATAGRP001 'A-RED MARR' 3.8 5.0 1.5

EFATAGRP002 'A-LUNGS' 10.0 7.0 5.0

* EARLY INJURY MODEL PARAMETERS, LOADED BY INEINJ, STORED IN /EINJUR/

*

* NUMBER OF EARLY INJURY EFFECTS

*

EINUMEIN001 0

*

* EINAME ORGNAM EISUSC EITHRE EIFACA EIFACB

*

*EINJUGRP001 'PRODROMAL VOMIT' 'A-STOMACH' 1. .5 2. 3.

*EINJUGRP002 'DIARRHEA' 'A-STOMACH' 1. 1. 3. 2.5

*EINJUGRP003 'PNEUMONITIS' 'A-LUNGS' 1. 5. 10. 7.

*EINJUGRP004 'SKIN ERYTHEMA' 'A-SKIN' 1. 3. 6. 5.

*EINJUGRP005 'TRANSEPIDERMAL' 'A-SKIN' 1. 10. 20. 5.

*EINJUGRP006 'THYROIDITIS' 'A-THYROIDH' 1. 40. 240. 2.

*EINJUGRP007 'HYPOTHYROIDISM' 'A-THYROIDH' 1. 2. 60. 1.3

* ACUTE EXPOSURE CANCER PARAMETERS, LOADED BY INACAN STORED IN /ACANCR/.

*

* NUMBER OF ACUTE EXPOSURE CANCER EFFECTS

*

LCNUMACA001 1

*

* THRESHOLD DOSE FOR APPLYING THE DOSE DEPENDENT REDUCTION FACTOR

*

LCDDTHRE001 0.2 (LOWEST DOSE FOR WHICH DDREFA WILL BE APPLIED)

*

* DOSE THRESHOLD FOR LINEAR DOSE RESPONSE (Sv)

*

LCACTHRE001 0.0 (LINEAR-QUADRATIC MODEL IS NOT BEING USED)

*

* ACNAME ORGNAM ACSUSC DOSEFA DOSEFB CFRISK CIRISK DDREFA

*

LCANCERS001 'OTHER' 'L-EDEWBODY' 1.0 1.0 0.0 0.12 0.16 2.0

* RESULT 1 OPTIONS BLOCK, LOADED BY INOUT1, STORED IN /INOUT1/

* TOTAL NUMBER OF A GIVEN EFFECT (LATENT CANCER, EARLY DEATH, EARLY INJURY)

*

* NUMBER OF DESIRED RESULTS OF THIS TYPE

*

TYPE1NUMBER 5

*

TYPE1OUT001 'CAN FAT/TOTAL' 1 10 (0 to 50 miles)

TYPE1OUT002 'CAN FAT/TOTAL' 1 6 (0 to 10 miles)

TYPE1OUT003 'ERL FAT/TOTAL' 1 10 (0 to 50 miles)

TYPE1OUT004 'ERL FAT/TOTAL' 1 2 (0 to 2 miles)

TYPE1OUT005 'ERL FAT/TOTAL' 1 1 (0 to 1 miles)

* RESULT 2 OPTIONS BLOCK, LOADED BY INOUT2, STORED IN /INOUT2/

* FURTHEST DISTANCE AT WHICH A GIVEN RISK OF EARLY DEATH IS EXCEEDED.

*

* NUMBER OF DESIRED RESULTS OF THIS TYPE

```

*
TYPE2NUMBER  0
*
*          FATALITY RISK THRESHOLD
*
*TYPE2OUT001  0.
*****
* RESULT 3 OPTIONS BLOCK, LOADED BY INOUT3, STORED IN /INOUT3/
* NUMBER OF PEOPLE WHOSE DOSE TO A GIVEN ORGAN EXCEEDS A GIVEN THRESHOLD.
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
TYPE3NUMBER  0
*
*          ORGAN NAME      DOSE THRESHOLD (Sv)
*
*TYPE3OUT001   'A-RED MARR'          1.5
*TYPE3OUT002   'A-LUNGS'             5.0
*TYPE3OUT003   'L-EDEWBODY'          0.05
*****
* RESULT 4 OPTIONS BLOCK, LOADED BY INOUT4, STORED IN /INOUT4/
* 360 DEGREE AVERAGE RISK OF A GIVEN EFFECT AT A GIVEN DISTANCE.
*
* POSSIBLE TYPES OF EFFECTS ARE:
*
*   'ERL FAT/TOTAL'
*   'ERL INJ/INJURY NAME'
*   'CAN FAT/CANCER NAME'
*   'CAN FAT/TOTAL'
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
TYPE4NUMBER  0
*
*          RADIAL INDEX    TYPE OF EFFECT
*
*TYPE4OUT001    1          'ERL FAT/TOTAL'
*TYPE4OUT002    2          'ERL FAT/TOTAL'
*TYPE4OUT003    3          'ERL FAT/TOTAL'
*TYPE4OUT004    5          'ERL FAT/TOTAL'
*TYPE4OUT005    6          'ERL FAT/TOTAL'
*****
* RESULT 5 OPTIONS BLOCK, LOADED BY INOUT5, STORED IN /INOUT5/
*
* TOTAL POPULATION DOSE TO A GIVEN ORGAN BETWEEN TWO DISTANCES.
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
TYPE5NUMBER    2
*
*          ORGAN      I1DIS5      I2DIS5
*
TYPE5OUT001 'L-EDEWBODY'      1          6          (0-10 MILES)
TYPE5OUT002 'L-EDEWBODY'      1          10         (0-50 MILES)
*****
* RESULT 6 OPTIONS BLOCK, LOADED BY INOUT6, STORED IN /INOUT6/
*
* CENTERLINE DOSE TO AN ORGAN VS DIST BY PATHWAY, PATHWAY NAMES ARE AS FOLLOWS:
*
*   PATHWAY NAME:

```

```

*      'CLD'      - CLOUDSHINE
*      'GRD'      - GROUNDSHINE
*      'INH ACU' - "ACUTE DOSE EQUIVALENT" FROM DIRECT INHALATION OF THE CLOUD
*      'INH LIF' - "LIFETIME DOSE COMMITMENT" FROM DIRECT INHALATION OF THE CLOUD
*      'RES ACU' - "ACUTE DOSE EQUIVALENT" FROM RESUSPENSION INHALATION
*      'RES LIF' - "LIFETIME DOSE COMMITMENT" FROM RESUSPENSION INHALATION
*      'TOT ACU' - "ACUTE DOSE EQUIVALENT" FROM ALL PATHWAYS
*      'TOT LIF' - "LIFETIME DOSE COMMITMENT" FROM ALL PATHWAYS
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
TYPE6NUMBER      0
*
*              ORGNAM          PATHNM          I1DIS6      I2DIS6
*
*TYPE6OUT001  'A-RED MARR'      'TOT ACU'          1          19      (0-50 MILES)
*TYPE6OUT002  'A-LUNGS'         'TOT ACU'          1          19      (0-50 MILES)
*TYPE6OUT003  'L-EDEWBODY'      'TOT LIF'          1          26      (0-1000 MILES)
*****
* RESULT 7 OPTIONS BLOCK, LOADED BY INOUT7, STORED IN /INOUT7/
*
* CENTERLINE RISK OF A GIVEN EFFECT VS DISTANCE
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
TYPE7NUMBER      0
*
*              NAME              I1DIS7          I2DIS7
*
*TYPE7OUT001  'ERL FAT/TOTAL'    1          10      (0-50 MILES)
*TYPE7OUT002  'CAN FAT/TOTAL'    1          10      (0-50 MILES)
*****
* RESULT 8 OPTIONS BLOCK, LOADED BY INOUT8, STORED IN /INOUT8/
*
* POPULATION WEIGHTED FATALITY RISK BETWEEN 2 DISTANCES
*
* NUMBER OF DESIRED RESULTS OF THIS TYPE
*
TYPE8NUMBER      6
*
*              NAME              I1DIS8      I2DIS8
*
TYPE8OUT001  'ERL FAT/TOTAL'    1          10      NOCCDF (0-50 MILES)
TYPE8OUT002  'ERL FAT/TOTAL'    1           2      NOCCDF (0- 2 MILES)
TYPE8OUT003  'ERL FAT/TOTAL'    1           1      NOCCDF (0- 1 MILES)
TYPE8OUT004  'ERL FAT/TOTAL'    3           3      NOCCDF (2- 3 MILES)
TYPE8OUT005  'CAN FAT/TOTAL'    1          10      NOCCDF (0-50 MILES)
TYPE8OUT006  'CAN FAT/TOTAL'    1           6      NOCCDF (0-10 MILES)
*****
* RESULT A OPTIONS BLOCK, LOADED BY INOUTA, STORED IN /INOUTA/
*
* peak dose to a given organ
*
*              NUMA
TYPEANUMBER      1
*
*              ORGNAM      I1DISA      I2DISA
TYPEAOUT001  'L-EDEWBODY'  1           1      CCDF
*
*              NUMB

```

TYPEBNUMBER 0

.

* EMERGENCY RESPONSE SCENARIO NUMBER 2

* EVACUATION ZONE DATA BLOCK, LOADED BY EVNETW, STORED IN /NETWOR/, /EOPTIO/
*
* SPECIFIC DESCRIPTION OF THE EMERGENCY RESPONSE SCENARIO BEING USED
*
EZEANAM2001 'NO EVACUATION'
*
* WEIGHTING FRACTION APPLICABLE TO THIS SCENARIO
*
EZWTFRAC001 0.05 *5% of people relocated but not evacuated
*
* LAST RING IN THE MOVEMENT ZONE
*
EZLASMOV001 0 (A ZERO TURNS OFF THE EVACUATION MODEL)
.

□

```

*****
* FILE NAME:      VATMOS.INP
*
* GENERAL DESCRIPTIVE TITLE DESCRIBING THIS "ATMOS" INPUT
*
RIATNAM1001 'ATMOS INPUT FOR VOGTLE ESP SAMA CALCULATIONS - AP1000'
*
*****
* GEOMETRY DATA BLOCK, LOADED BY INPGEO, STORED IN /GEOM/
*
* NUMBER OF RADIAL SPATIAL ELEMENTS
*
GENUMRAD001 10
*
* SPATIAL ENDPOINT DISTANCES IN MILES      [SEE SIT FILE]
*
*           END001    1        2        3        4        5
*           END002   10       20       30       40       50
*
* SPATIAL ENDPOINT DISTANCES IN KILOMETERS
*
GESPAEND001  1.6093    3.2187    4.8280    6.4374    8.0467
GESPAEND002 16.0935   32.1869   48.2804   64.3739   80.4674
*****
* NUCLIDE DATA BLOCK, LOADED BY INPISO, STORED IN /ISOGRP/, /ISONAM/
*
* Number of pseudo-stable nuclides (used to truncate the decay chains)
*                                     [1:page 5-7]
ISNUMSTB001      27
*
* List of pseudo-stable nuclides
*                                     [1:page 5-7]
ISNAMSTB001      I-129      (daughter of Te-129 and Te-129m)
ISNAMSTB002      Xe-131m    (daughter of I-131)
ISNAMSTB003      Xe-133m    (daughter of I-133)
ISNAMSTB004      Xe-135m    (daughter of I-135)
ISNAMSTB005      Cs-135     (daughter of Xe-135 and Xe-135m)
ISNAMSTB006      Sm-147     (daughter of Pm-147)
ISNAMSTB007      U-234      (daughter of Pu-238)
ISNAMSTB008      U-235      (daughter of Pu-239)
ISNAMSTB009      U-236      (daughter of Pu-240)
ISNAMSTB010      U-237      (daughter of Pu-241)
ISNAMSTB011      Np-237     (daughter of Am-241)
ISNAMSTB012      Rb-87      (daughter of Kr-87)
ISNAMSTB013      Ba-137m    (daughter of Cs-137)
ISNAMSTB014      Rb-88      (daughter of Kr-88)
ISNAMSTB015      Y-91m      (daughter of Sr-91)
ISNAMSTB016      Zr-93      (daughter of Y-93)
ISNAMSTB017      Nb-93m     (daughter of Zr-93)
ISNAMSTB018      Nb-95m     (daughter of Zr-95)
ISNAMSTB019      Nb-97      (daughter of Zr-97 and Nb-97m)
ISNAMSTB020      Nb-97m     (daughter of Zr-97)
ISNAMSTB021      Tc-99      (daughter of Mo-99)
ISNAMSTB022      Rh-103m    (daughter of Ru-103)
ISNAMSTB023      Rh-106     (daughter of Ru-106)
ISNAMSTB024      Te-131     (daughter of I-131)
ISNAMSTB025      Pr-144     (daughter of Ce-144 and Pr-144m)
ISNAMSTB026      Pr-144m    (daughter of Ce-144)
ISNAMSTB027      Pm-147     (daughter of Nd-147)
*

```

* Number of radioactive nuclides to be considered

*

ISNUMISO001 60

*

* NUMBER OF NUCLIDE GROUPS

*

ISMAXGRP001 9

*

* WET AND DRY DEPOSITION FLAGS FOR EACH NUCLIDE GROUP

*

	WETDEP	DRYDEP
ISDEPFLA001	.FALSE.	.FALSE.
ISDEPFLA002	.TRUE.	.TRUE.
ISDEPFLA003	.TRUE.	.TRUE.
ISDEPFLA004	.TRUE.	.TRUE.
ISDEPFLA005	.TRUE.	.TRUE.
ISDEPFLA006	.TRUE.	.TRUE.
ISDEPFLA007	.TRUE.	.TRUE.
ISDEPFLA008	.TRUE.	.TRUE.
ISDEPFLA009	.TRUE.	.TRUE.

*

*

* NUCLIDE GROUP DATA FOR 9 NUCLIDE GROUPS

* (SAME AS 1150 EXCEPT LOWER CASE NUCNAM, NO PARENT OR HALFLIFE [1:page 5-7])

*

	NUCNAM	IGROUP
ISOTPGRP001	Co-58	6
ISOTPGRP002	Co-60	6
ISOTPGRP003	Kr-85	1
ISOTPGRP004	Kr-85m	1
ISOTPGRP005	Kr-87	1
ISOTPGRP006	Kr-88	1
ISOTPGRP007	Rb-86	3
ISOTPGRP008	Sr-89	5
ISOTPGRP009	Sr-90	5
ISOTPGRP010	Sr-91	5
ISOTPGRP011	Sr-92	5
ISOTPGRP012	Y-90	7
ISOTPGRP013	Y-91	7
ISOTPGRP014	Y-92	7
ISOTPGRP015	Y-93	7
ISOTPGRP016	Zr-95	7
ISOTPGRP017	Zr-97	7
ISOTPGRP018	Nb-95	7
ISOTPGRP019	Mo-99	6
ISOTPGRP020	Tc-99m	6
ISOTPGRP021	Ru-103	6
ISOTPGRP022	Ru-105	6
ISOTPGRP023	Ru-106	6
ISOTPGRP024	Rh-105	6
ISOTPGRP025	Sb-127	4
ISOTPGRP026	Sb-129	4
ISOTPGRP027	Te-127	4
ISOTPGRP028	Te-127m	4
ISOTPGRP029	Te-129	4
ISOTPGRP030	Te-129m	4
ISOTPGRP031	Te-131m	4
ISOTPGRP032	Te-132	4
ISOTPGRP033	I-131	2
ISOTPGRP034	I-132	2

*

ISOTPGRP035	I-133	2
ISOTPGRP036	I-134	2
ISOTPGRP037	I-135	2
ISOTPGRP038	Xe-133	1
ISOTPGRP039	Xe-135	1
ISOTPGRP040	Cs-134	3
ISOTPGRP041	Cs-136	3
ISOTPGRP042	Cs-137	3
ISOTPGRP043	Ba-139	9
ISOTPGRP044	Ba-140	9
ISOTPGRP045	La-140	7
ISOTPGRP046	La-141	7
ISOTPGRP047	La-142	7
ISOTPGRP048	Ce-141	8
ISOTPGRP049	Ce-143	8
ISOTPGRP050	Ce-144	8
ISOTPGRP051	Pr-143	7
ISOTPGRP052	Nd-147	7
ISOTPGRP053	Np-239	8
ISOTPGRP054	Pu-238	8
ISOTPGRP055	Pu-239	8
ISOTPGRP056	Pu-240	8
ISOTPGRP057	Pu-241	8
ISOTPGRP058	Am-241	7
ISOTPGRP059	Cm-242	7
ISOTPGRP060	Cm-244	7

* WET DEPOSITION DATA BLOCK, LOADED BY INPWET, STORED IN /WETCON/

*

* WASHOUT COEFFICIENT NUMBER ONE, LINEAR FACTOR

*

WDCWASH1001 9.5E-5 (JON HELTON AFTER JONES, 1986)

*

* WASHOUT COEFFICIENT NUMBER TWO, EXPONENTIAL FACTOR

*

WDCWASH2001 0.8 (JON HELTON AFTER JONES, 1986)

* DRY DEPOSITION DATA BLOCK, LOADED BY INPDY, STORED IN /DRYCON/

*

* NUMBER OF PARTICLE SIZE GROUPS

*

DDNPSGRP001 3

*

* DEPOSITION VELOCITY OF EACH PARTICLE SIZE GROUP (M/S)

*

DDVDEPOS001 0.0 0.01 0.001 (values from URD)

* First value is for volatile iodine (5% of total; see PSDIST002)

* Second value is for particulate iodine (95% ; see PSDIST002)

* Third value is for all other particulates except iodine (see PSDIST 3-9)

* DISPERSION PARAMETER DATA BLOCK, LOADED BY INPDIS, STORED IN /DISPY/, /DISPZ/

*

* # of distances in plume-size tables--which can be used as an alternative to the power-law mode

* (to utilize the power-law model, set NUM_DIST to zero or delete the following data card)

*

NUM_DIST001 0

*

* SIGMA = A * X ** B

*

* Taken from URD

```

* P-G CLASS:           A           B           C           D           E           F
DPCYSIGA001           0.3658       0.2751       0.2089       0.1474       0.1046       0.0722
DPCYSIGB001           0.9031       0.9031       0.9031       0.9031       0.9031       0.9031
DPCZSIGA001           2.47E-4       0.078        0.144        0.368        0.2517       0.184
DPCZSIGB001           2.118        1.085        0.911        0.6764       0.6720       0.6546
*
*   LINEAR SCALING FACTOR FOR SIGMA-Y FUNCTION, NORMALLY 1
*
DPYSCALE001           1.
*
*   LINEAR SCALING FACTOR FOR SIGMA-Z FUNCTION,
*   NORMALLY USED FOR SURFACE ROUGHNESS LENGTH CORRECTION.
*   (Z1 / Z0) ** 0.2,   FROM CRAC2 WE HAVE   (10 CM / 3 CM) ** 0.2 = 1.27
*
DPZSCALE001           1.27
*****
* EXPANSION FACTOR DATA BLOCK, LOADED BY INPEXP, STORED IN /EXPAND/
*
* TIME BASE FOR EXPANSION FACTOR (SECONDS)
*
PMTIMBAS001           180.   (from Westinghouse ATMOS file)
*
* BREAK POINT FOR FORMULA CHANGE (SECONDS)
*
PMBRKPNT001           3600.   (1 HOUR)
*
* EXPONENTIAL EXPANSION FACTOR NUMBER 1
*
PMXPFAC1001           0.2
*
* EXPONENTIAL EXPANSION FACTOR NUMBER 2
*
PMXPFAC2001           0.25
*****
* PLUME RISE DATA BLOCK, LOADED BY INPLRS, STORED IN /PLUMRS/
*
* SCALING FACTOR FOR THE CRITICAL WIND SPEED FOR ENTRAINMENT OF A BOUYANT PLUME
* (USED BY FUNCTION CAUGHT)
*
PRSCLCRW001           1.
*
* SCALING FACTOR FOR THE A-D STABILITY PLUME RISE FORMULA
* (USED BY FUNCTION PLMRIS)
*
PRSCLDAP001           1.
*
* SCALING FACTOR FOR THE E-F STABILITY PLUME RISE FORMULA
* (USED BY FUNCTION PLMRIS)
*
PRSCLEFP001           1.
*****
* RELEASE DATA BLOCK, LOADED BY INPREL, STORED IN /ATNAM2/, /MULREL/
*****
*
*   Vogtle ESP CONTAINMENT VESSEL (DCD REV16 P.3.8-1)
*   height 215'4" (65.63 meters) X width 130' (39.62 meters)
*
* Initial value of sigma-y for each plume
*
SIGYINIT001           9.21   9.21   9.21   9.21   *(initial sigma-y = W/4.3)

```

```

*
* Initial value of sigma-z for each plume
*
SIGZINIT001  30.53  30.53  30.53  30.53  *(initial sigma-z = H/2.15)
*
* Building height (meters)
*
WEBUILDH001  65.63  65.63  65.63  65.63  *(Height of Vogtle ESP containment)
*
* PARTICLE SIZE DISTRIBUTION OF EACH NUCLIDE GROUP
* YOU MUST SPECIFY A COLUMN OF DATA FOR EACH OF THE PARTICLE SIZE GROUPS
*
RDPSDIST001      0.0      0.0      1.0
RDPSDIST002      0.05     0.95     0.0
RDPSDIST003      0.0      0.0      1.0
RDPSDIST004      0.0      0.0      1.0
RDPSDIST005      0.0      0.0      1.0
RDPSDIST006      0.0      0.0      1.0
RDPSDIST007      0.0      0.0      1.0
RDPSDIST008      0.0      0.0      1.0
RDPSDIST009      0.0      0.0      1.0
*
* AP1000 CORE INVENTORY, END-OF-CYCLE from AP1000 DCD, Rev 12 (in Rev 14)
*
*
*
*          NUCNAM          CORINV (Bq)
*
RDCORINV001      Co-58          0.0
RDCORINV002      Co-60          0.0
RDCORINV003      Kr-85        3.92E+16
RDCORINV004      Kr-85m       9.73E+17
RDCORINV005      Kr-87        1.88E+18
RDCORINV006      Kr-88        2.64E+18
RDCORINV007      Rb-86        8.47E+15
RDCORINV008      Sr-89        3.57E+18
RDCORINV009      Sr-90        3.07E+17
RDCORINV010      Sr-91        4.44E+18
RDCORINV011      Sr-92        4.77E+18
RDCORINV012      Y-90         3.20E+17
RDCORINV013      Y-91         4.59E+18
RDCORINV014      Y-92         4.81E+18
RDCORINV015      Y-93         5.51E+18
RDCORINV016      Zr-95        6.14E+18
RDCORINV017      Zr-97        6.07E+18
RDCORINV018      Nb-95        6.18E+18
RDCORINV019      Mo-99        6.81E+18
RDCORINV020      Tc-99m       5.96E+18
RDCORINV021      Ru-103       5.37E+18
RDCORINV022      Ru-105       3.64E+18
RDCORINV023      Ru-106       1.76E+18
RDCORINV024      Rh-105       3.33E+18
RDCORINV025      Sb-127       3.81E+17
RDCORINV026      Sb-129       1.15E+18
RDCORINV027      Te-127       3.77E+17
RDCORINV028      Te-127m      4.88E+16
RDCORINV029      Te-129       1.12E+18
RDCORINV030      Te-129m      1.67E+17
RDCORINV031      Te-131m      5.18E+17
RDCORINV032      Te-132       5.11E+18
RDCORINV033      I-131        3.56E+18

```

RDCORINV034	I-132	5.18E+18
RDCORINV035	I-133	7.36E+18
RDCORINV036	I-134	8.07E+18
RDCORINV037	I-135	6.88E+18
RDCORINV038	Xe-133	7.03E+18
RDCORINV039	Xe-135	1.79E+18
RDCORINV040	Cs-134	7.18E+17
RDCORINV041	Cs-136	2.05E+17
RDCORINV042	Cs-137	4.18E+17
RDCORINV043	Ba-139	6.59E+18
RDCORINV044	Ba-140	6.33E+18
RDCORINV045	La-140	6.73E+18
RDCORINV046	La-141	5.99E+18
RDCORINV047	La-142	5.81E+18
RDCORINV048	Ce-141	6.03E+18
RDCORINV049	Ce-143	5.62E+18
RDCORINV050	Ce-144	4.55E+18
RDCORINV051	Pr-143	5.40E+18
RDCORINV052	Nd-147	2.40E+18
RDCORINV053	Np-239	7.14E+19
RDCORINV054	Pu-238	1.42E+16
RDCORINV055	Pu-239	1.25E+15
RDCORINV056	Pu-240	1.83E+15
RDCORINV057	Pu-241	4.11E+17
RDCORINV058	Am-241	4.63E+14
RDCORINV059	Cm-242	1.09E+17
RDCORINV060	Cm-244	1.346E+16

*

*

RDCORSCA001 1.000

*

RDAPLFR001 PARENT (apply rel fracs the same as prior versions)

*

* OUTPUT CONTROL DATA BLOCK, LOADED BY INPOPT, STORED IN /STOPME/, /ATMOPT/

*

* FLAG TO INDICATE THAT THIS IS THE LAST PROGRAM IN THE SERIES TO BE RUN

*

OCENDAT1001 .FALSE. (SET THIS VALUE TO .TRUE. TO SKIP EARLY AND CHRONC)

*

OCIDEBUG001 0

*

* NAME OF THE NUCLIDE TO BE LISTED ON THE DISPERSION LISTINGS

*

*OCNUCOUT001 Cs-137

*

* NUM0 NO TABLES OUTPUT=0

TYPE0NUMBER 0

*

* INDREL INDRAD

*TYPE0OUT001 1 4

*TYPE0OUT002 1 10 XCCDF

* METEOROLOGICAL SAMPLING DATA BLOCK

*

* METEOROLOGICAL SAMPLING OPTION CODE:

*

* METCOD = 1, USER SPECIFIED DAY AND HOUR IN THE YEAR (FROM MET FILE),

*

2, WEATHER CATEGORY BIN SAMPLING,

```

*          3, 120 HOURS OF WEATHER SPECIFIED ON THE ATMOS USER INPUT FILE,
*          4, CONSTANT MET (BOUNDARY WEATHER USED FROM THE START),
*          5, STRATIFIED RANDOM SAMPLES FOR EACH DAY OF THE YEAR.
*
M1METCOD001  2
*
* LAST SPATIAL INTERVAL FOR MEASURED WEATHER
*
M2LIMSPA001  10                      (ADJUSTED FOR RADIAL INTVL)
*
* BOUNDARY WEATHER MIXING LAYER HEIGHT
*
M2BNDMXH001  1500.  (METERS; used by Westinghouse)
*
* BOUNDARY WEATHER STABILITY CLASS INDEX
*
M2IBDSTB001  4          (D-STABILITY; Westinghouse used 6 for F class)
*
* BOUNDARY WEATHER RAIN RATE
*
M2BNDRAN001  0.          (MM/HR)
*
* BOUNDARY WEATHER WIND SPEED
*
M2BNDWND001  2.0        (M/S; used by Westinghouse)
*
* NUMBER OF RAIN DISTANCE INTERVALS FOR BINNING
*
M4NRNINT001   5
*
*                                     nureg 4551 [4:page a-9]
* ENDPOINTS OF THE RAIN DISTANCE INTERVALS (KILOMETERS)
*
* NOTE:  THESE MUST BE CHOSEN TO MATCH THE SPATIAL ENDPOINT DISTANCES
* SPECIFIED FOR ARRAY SPAEND (10 % ERROR IS ALLOWED).
*
M4RNDSTS001  3.22  8.05  16.09  48.28  80.47  KM
*
* NUMBER OF RAIN INTENSITIY BREAKPOINTS
*
M4NRINTN001   3
*
* RAIN INTENSITY BREAKPOINTS FOR WEATHER BINNING (MILLIMETERS PER HOUR)
*
M4RNRATE001   2.   4.   6.
*
* NUMBER OF SAMPLES PER BIN
*
M4NSMPLS001  4  (THIS NUMBER SHOULD BE SET TO AT LEAST 4 WHEN METCOD=2)
*
* INITIAL SEED FOR RANDOM NUMBER GENERATOR
*
M4IRSEED001   79
***** RELEASE DATA BLOCK *****
* SOURCE TERM NUMBER 1 OF 6
*
RDATNAM2001  'CFI'
RDOALARM001  2924. * value provided by Westinghouse for all source terms
RDNUMREL001  4 *four plume segments
RDMAXRIS001  1 *first plume segment carries greatest risk
RDREFTIM001  0.5 0.5 0.5 0.5

```

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RDPLHEAT001 0.0 0.0 0.0 0.0 *neglects buoyant plume rise
RDPLHITE001 0. 0. 0. 0. *Release height of each plume (meters above grade)
RDPLUDUR001 29666. 36000. 36000. 36000. *Pl dur=Tbl49-2 values But lim to 10 hrs
RDPDELAY001 2924. 32590. 86420. 172800. *start at Table 49-2 values
* XE/KR I CS TE(SB) SR RU(MO) LA CE BA
RDRELFR001 5.40E-1 3.19E-3 3.18E-3 4.18E-4 2.11E-2 9.11E-3 3.53E-3 2.64E-5 1.62E-2
RDRELFR002 2.58E-1 1.35E-4 1.35E-4 1.67E-5 6.50E-4 1.68E-4 4.53E-3 1.68E-5 3.40E-4
RDRELFR003 8.40E-2 0.00E0 0.00E0 4.47E-6 0.00E0 0.00E0 6.00E-3 2.17E-5 0.00E0
RDRELFR004 3.83E-2 0.00E0 0.00E0 1.57E-6 0.00E0 0.00E0 5.22E-3 1.89E-5 0.00E0
.
***** RELEASE DATA BLOCK *****
* SOURCE TERM NUMBER 2 OF 6
*
RDATNAM2001 'CFE'
RDOALARM001 3004.
RDNUMREL001 4 *four plume segments
RDMAXRIS001 1 *first plume segment carries greatest risk
*RDREFTIM001 *defined in source term 1
*RDPLHEAT001 *defined in source term 1
*RDPLHITE001 *defined in source term 1
RDPLUDUR001 16806. 36000. 36000. 36000. *Pl dur=Tbl49-2 values But lim to 10 hrs
RDPDELAY001 3004. 19810. 89970. 176300. *start at Table 49-2 seconds after scram
* XE/KR I CS TE(SB) SR RU(MO) LA CE BA
RDRELFR001 4.16E-1 5.53E-2 5.37E-2 1.23E-3 3.14E-3 1.16E-2 5.57E-5 9.54E-7 4.63E-3
RDRELFR002 4.05E-1 1.26E-3 1.21E-3 1.61E-4 3.43E-4 2.58E-3 9.66E-6 4.56E-8 6.45E-4
RDRELFR003 1.08E-1 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
RDRELFR004 3.43E-2 0.00E0 0.00E0 6.04E-7 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
.
***** RELEASE DATA BLOCK *****
* SOURCE TERM NUMBER 3 OF 6
*
RDATNAM2001 'IC'
RDOALARM001 4378.
RDNUMREL001 4 *four plume segments
RDMAXRIS001 1 *first plume segment carries greatest risk
*RDREFTIM001 *defined in source term 1
*RDPLHEAT001 *defined in source term 1
*RDPLHITE001 *defined in source term 1
RDPLUDUR001 36000. 36000. 36000. 36000. *Pl dur=Tbl49-2 values But lim to 10 hrs
RDPDELAY001 4378. 84810. 134400. 177600. *start at Table 49-2 seconds after scram
* XE/KR I CS TE(SB) SR RU(MO) LA CE BA
RDRELFR001 9.83E-4 1.20E-5 1.15E-5 8.04E-7 1.07E-5 1.31E-5 1.35E-6 5.85E-9 1.20E-5
RDRELFR002 4.93E-4 0.00E0 0.00E0 4.83E-9 0.00E0 0.00E0 6.00E-9 3.20E-11 0.00E0
RDRELFR003 3.94E-4 0.00E0 0.00E0 1.21E-9 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
RDRELFR004 7.72E-4 0.00E0 0.00E0 6.04E-10 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
.
***** RELEASE DATA BLOCK *****
* SOURCE TERM NUMBER 4 OF 6
*
RDATNAM2001 'BP'
RDOALARM001 31890.
RDNUMREL001 4 *four plume segments
RDMAXRIS001 1 *first plume segment carries greatest risk
*RDREFTIM001 *defined in source term 1
*RDPLHEAT001 *defined in source term 1
*RDPLHITE001 *defined in source term 1
RDPLUDUR001 14550. 36000. 36000. 36000. *Pl dur=Tbl49-2 values But lim to 10 hrs
RDPDELAY001 31890. 46440. 86490. 172800. *start at Table 49-2 seconds after scram
* XE/KR I CS TE(SB) SR RU(MO) LA CE BA
RDRELFR001 1.00E0 1.69E-1 1.62E-1 6.27E-3 3.57E-3 4.48E-2 1.30E-4 3.19E-6 8.93E-3

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RDRELFRC002 0.00E0 4.64E-2 3.38E-2 3.12E-3 0.00E0 0.00E0 0.00E0 0.00E0 2.00E-6
RDRELFRC003 0.00E0 2.31E-1 6.60E-2 5.32E-3 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
RDRELFRC004 0.00E0 2.80E-3 9.96E-3 1.57E-3 0.00E0 0.00E0 0.00E0 1.00E-6 0.00E0
.
***** RELEASE DATA BLOCK *****
* SOURCE TERM NUMBER 5 OF 6
*
RDATNAM2001 'CI'
RDOALARM001 101.
RDNUMREL001 4 *four plume segments
RDMAXRIS001 1 *first plume segment carries greatest risk
*RDREFTIM001 *defined in source term 1
*RDPLHEAT001 *defined in source term 1
*RDPLHITE001 *defined in source term 1
RDPLUDUR001 36000. 36000. 36000. 36000. *Pl dur=Tbl49-2 values But lim to 10 hrs
RDPDELAY001 101. 50020. 136400. 211700. *start at Table 49-2 seconds after scram
* XE/KR I CS TE(SB) SR RU(MO) LA CE BA
RDRELFRC001 5.73E-1 4.56E-2 2.10E-2 1.64E-3 2.03E-2 4.04E-2 2.39E-4 2.97E-6 3.16E-2
RDRELFRC002 1.13E-1 0.00E0 0.00E0 1.15E-5 0.00E0 0.00E0 1.00E-7 0.00E0 0.00E0
RDRELFRC003 5.66E-2 0.00E0 0.00E0 8.10E-5 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
RDRELFRC004 2.74E-2 0.00E0 0.00E0 1.27E-5 0.00E0 0.00E0 0.00E0 0.00E0 0.00E0
.
***** RELEASE DATA BLOCK *****
* SOURCE TERM NUMBER 6 OF 6
*
RDATNAM2001 'CFL'
RDOALARM001 2922.
RDNUMREL001 4 *four plume segments
RDMAXRIS001 3 *third segment is largest noble gas/i/cs release
*RDREFTIM001 *defined in source term 1
*RDPLHEAT001 *defined in source term 1
*RDPLHITE001 *defined in source term 1
RDPLUDUR001 23438. 36000. 36000. 36000. *Pl dur=Tbl49-2 values But lim to 10 hrs
RDPDELAY001 2922. 26360. 108000. 194400. *start at Table 49-2 seconds after scram
* XE/KR I CS TE(SB) SR RU(MO) LA CE BA
RDRELFRC001 3.36E-4 1.20E-5 1.15E-5 1.00E-6 1.57E-5 1.68E-5 9.96E-7 7.41E-9 1.61E-5
RDRELFRC002 1.19E-3 5.00E-8 3.23E-8 1.75E-8 1.04E-6 2.90E-7 1.07E-5 4.05E-8 6.60E-7
RDRELFRC003 9.79E-1 2.13E-5 1.16E-5 2.47E-5 2.39E-3 1.26E-3 9.75E-2 3.68E-4 2.25E-3
RDRELFRC004 0.00E0 0.00E0 2.56E-7 1.20E-5 4.42E-4 1.55E-4 4.39E-2 1.66E-4 3.46E-4
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