```
 MACCS2 04/20/04   16:17:21   VERSION 1.12
 P1:  ATMOS USER INPUT (UNIT 24) = APATMOS.INP

 P2:  EARLY USER INPUT (UNIT 25) = APEARLY.INP

 P3: CHRONC USER INPUT (UNIT 26) = NCHRONC.INP

 P4:  METEOROLOGY DATA (UNIT 28) = NMET98.INP

 P5:   SITE DATA INPUT (UNIT 29) = NSITE.INP

 P6:       LIST OUTPUT (UNIT 06) = AP98OUT.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

        * GENERAL DESCRIPTIVE TITLE DESCRIBING THIS AP1000 "ATMOS" INPUT

        * This is the AP1000 BASE CASE ATMOS input deck

        * The Westinghouse 4 Plumes have been collapsed into 2 Plumes

        * Duration of Plume Segments Set = 36000 seconds max limit

        *     LAST MODIFIED by MGM  04/19/04

     1  RIATNAM1001 'IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input'

 ********************************************************************************

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

        *

        * NUMBER OF RADIAL SPATIAL ELEMENTS

        *

     2  GENUMRAD001  11

        *

        *  AP1000

        *

     3  GESPAEND001     1.61      3.22      4.83      6.44      8.05

     4  GESPAEND002     9.65     16.09     32.18     48.27     64.37

     5  GESPAEND003    80.47
```

```
      *
**********************************************************************************
      * NUCLIDE DATA BLOCK, LOADED BY INPISO, STORED IN /ISOGRP/, /ISONAM/
      *
      * Number of pseudo-stable nuclides (used to truncate the decay chains)
      *
 6    ISNUMSTB001      27
      *
      * List of pseudo-stable nuclides
      *
 7    ISNAMSTB001      I-129     (daughter of Te-129 and Te-129m)
 8    ISNAMSTB002      Xe-131m   (daughter of I-131)
 9    ISNAMSTB003      Xe-133m   (daughter of I-133)
10    ISNAMSTB004      Xe-135m   (daughter of I-135)
11    ISNAMSTB005      Cs-135    (daughter of Xe-135 and Xe-135m)
12    ISNAMSTB006      Sm-147    (daughter of Pm-147)
13    ISNAMSTB007      U-234     (daughter of Pu-238)
14    ISNAMSTB008      U-235     (daughter of Pu-239)
15    ISNAMSTB009      U-236     (daughter of Pu-240)
16    ISNAMSTB010      U-237     (daughter of Pu-241)
17    ISNAMSTB011      Np-237    (daughter of Am-241)
18    ISNAMSTB012      Rb-87     (daughter of Kr-87)
19    ISNAMSTB013      Ba-137m   (daughter of Cs-137)
20    ISNAMSTB014      Rb-88     (daughter of Kr-88)
21    ISNAMSTB015      Y-91m     (daughter of Sr-91)
22    ISNAMSTB016      Zr-93     (daughter of Y-93)
23    ISNAMSTB017      Nb-93m    (daughter of Zr-93)
24    ISNAMSTB018      Nb-95m    (daughter of Zr-95)
25    ISNAMSTB019      Nb-97     (daughter of Zr-97 and Nb-97m)
26    ISNAMSTB020      Nb-97m    (daughter of Zr-97)
27    ISNAMSTB021      Tc-99     (daughter of Mo-99)
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28  ISNAMSTB022     Rh-103m  (daughter of Ru-103)
29  ISNAMSTB023     Rh-106   (daughter of Ru-106)
30  ISNAMSTB024    Te-131    (daughter of Te-131m)
31  ISNAMSTB025     Pr-144   (daughter of Ce-144 and Pr-144m)
32  ISNAMSTB026     Pr-144m  (daughter of Ce-144)
33  ISNAMSTB027     Pm-147   (daughter of Nd-147)
    *
    * Number of radioactive nuclides to be considered
    *
34  ISNUMISO001 60
    *
    * NUMBER OF NUCLIDE GROUPS
    *
35  ISMAXGRP001  9
    *
    * WET AND DRY DEPOSITION FLAGS FOR EACH NUCLIDE GROUP
    *
    *              WETDEP     DRYDEP
    *
36  ISDEPFLA001    .FALSE.    .FALSE.
37  ISDEPFLA002    .TRUE.     .TRUE.
38  ISDEPFLA003    .TRUE.     .TRUE.
39  ISDEPFLA004    .TRUE.     .TRUE.
40  ISDEPFLA005    .TRUE.     .TRUE.
41  ISDEPFLA006    .TRUE.     .TRUE.
42  ISDEPFLA007    .TRUE.     .TRUE.
43  ISDEPFLA008    .TRUE.     .TRUE.
44  ISDEPFLA009    .TRUE.     .TRUE.
    *
    * NUCLIDE GROUP DATA FOR 9 NUCLIDE GROUPS
    *
    *               NUCNAM    IGROUP
```

*

45	ISOTPGRP001	Co-58	6
46	ISOTPGRP002	Co-60	6
47	ISOTPGRP003	Kr-85	1
48	ISOTPGRP004	Kr-85m	1
49	ISOTPGRP005	Kr-87	1
50	ISOTPGRP006	Kr-88	1
51	ISOTPGRP007	Rb-86	3
52	ISOTPGRP008	Sr-89	5
53	ISOTPGRP009	Sr-90	5
54	ISOTPGRP010	Sr-91	5
55	ISOTPGRP011	Sr-92	5
56	ISOTPGRP012	Y-90	7
57	ISOTPGRP013	Y-91	7
58	ISOTPGRP014	Y-92	7
59	ISOTPGRP015	Y-93	7
60	ISOTPGRP016	Zr-95	7
61	ISOTPGRP017	Zr-97	7
62	ISOTPGRP018	Nb-95	7
63	ISOTPGRP019	Mo-99	6
64	ISOTPGRP020	Tc-99m	6
65	ISOTPGRP021	Ru-103	6
66	ISOTPGRP022	Ru-105	6
67	ISOTPGRP023	Ru-106	6
68	ISOTPGRP024	Rh-105	6
69	ISOTPGRP025	Sb-127	4
70	ISOTPGRP026	Sb-129	4
71	ISOTPGRP027	Te-127	4
72	ISOTPGRP028	Te-127m	4
73	ISOTPGRP029	Te-129	4
74	ISOTPGRP030	Te-129m	4

75	ISOTPGRP031	Te-131m	4
76	ISOTPGRP032	Te-132	4
77	ISOTPGRP033	I-131	2
78	ISOTPGRP034	I-132	2
79	ISOTPGRP035	I-133	2
80	ISOTPGRP036	I-134	2
81	ISOTPGRP037	I-135	2
82	ISOTPGRP038	Xe-133	1
83	ISOTPGRP039	Xe-135	1
84	ISOTPGRP040	Cs-134	3
85	ISOTPGRP041	Cs-136	3
86	ISOTPGRP042	Cs-137	3
87	ISOTPGRP043	Ba-139	9
88	ISOTPGRP044	Ba-140	9
89	ISOTPGRP045	La-140	7
90	ISOTPGRP046	La-141	7
91	ISOTPGRP047	La-142	7
92	ISOTPGRP048	Ce-141	8
93	ISOTPGRP049	Ce-143	8
94	ISOTPGRP050	Ce-144	8
95	ISOTPGRP051	Pr-143	7
96	ISOTPGRP052	Nd-147	7
97	ISOTPGRP053	Np-239	8
98	ISOTPGRP054	Pu-238	8
99	ISOTPGRP055	Pu-239	8
100	ISOTPGRP056	Pu-240	8
101	ISOTPGRP057	Pu-241	8
102	ISOTPGRP058	Am-241	7
103	ISOTPGRP059	Cm-242	7
104	ISOTPGRP060	Cm-244	7

****

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      * WET DEPOSITION DATA BLOCK, LOADED BY INPWET, STORED IN /WETCON/
      *
      * WASHOUT COEFFICIENT NUMBER ONE, LINEAR FACTOR
      *
  105 WDCWASH1001  9.5E-5   (JON HELTON AFTER JONES, 1986)
      *
      * WASHOUT COEFFICIENT NUMBER TWO, EXPONENTIAL FACTOR
      *
  106 WDCWASH2001  0.8      (JON HELTON AFTER JONES, 1986)

*******************************************************************************
      * DRY DEPOSITION DATA BLOCK, LOADED BY INPDRY, STORED IN /DRYCON/
      *
      * NUMBER OF PARTICLE SIZE GROUPS
      *
  107 DDNPSGRP001   1
      *
      * DEPOSITION VELOCITY OF EACH PARTICLE SIZE GROUP (M/S)
      *
  108 DDVDEPOS001   0.01   (VALUE SELECTED BY S. ACHARYA, NRC)

*******************************************************************************
      * 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)
      *
  109 NUM_DIST001   50
      *
      * A-stability      Distance (m)  Sigma-y (m)    Sigma-z (m)
  110 A-STB/DIS01        1.000E+00     3.6580E-01     2.5000E-04  Tadmor/Gur (0.5-5
km)
  111 A-STB/DIS02        1.400E+00     4.9569E-01     5.1105E-04  Tadmor/Gur (0.5-5
km)
  112 A-STB/DIS03        2.000E+00     6.8408E-01     1.0905E-03  Tadmor/Gur (0.5-5
```

km)					
113	A-STB/DIS04	3.000E+00	9.8658E-01	2.5812E-03	Tadmor/Gur (0.5-5
km)					
114	A-STB/DIS05	4.000E+00	1.2793E+00	4.7568E-03	Tadmor/Gur (0.5-5
km)					
115	A-STB/DIS06	5.000E+00	1.5649E+00	7.6428E-03	Tadmor/Gur (0.5-5
km)					
116	A-STB/DIS07	6.000E+00	1.8450E+00	1.1259E-02	Tadmor/Gur (0.5-5
km)					
117	A-STB/DIS08	8.000E+00	2.3923E+00	2.0749E-02	Tadmor/Gur (0.5-5
km)					
118	A-STB/DIS09	1.000E+01	2.9265E+00	3.3338E-02	Tadmor/Gur (0.5-5
km)					
119	A-STB/DIS10	1.000E+02	2.3412E+01	4.4457E+00	Tadmor/Gur (0.5-5
km)					
120	A-STB/DIS11	1.400E+02	3.1726E+01	9.0879E+00	Tadmor/Gur (0.5-5
km)					
121	A-STB/DIS12	2.000E+02	4.3783E+01	1.9392E+01	Tadmor/Gur (0.5-5
km)					
122	A-STB/DIS13	3.000E+02	6.3144E+01	4.5901E+01	Tadmor/Gur (0.5-5
km)					
123	A-STB/DIS14	4.000E+02	8.1877E+01	8.4590E+01	Tadmor/Gur (0.5-5
km)					
124	A-STB/DIS15	5.000E+02	1.0016E+02	1.3591E+02	Tadmor/Gur (0.5-5
km)					
125	A-STB/DIS16	6.000E+02	1.1808E+02	2.0022E+02	Tadmor/Gur (0.5-5
km)					
126	A-STB/DIS17	8.000E+02	1.5312E+02	3.6898E+02	Tadmor/Gur (0.5-5
km)					
127	A-STB/DIS18	1.000E+03	1.8730E+02	5.9284E+02	Tadmor/Gur (0.5-5
km)					
128	A-STB/DIS19	1.400E+03	2.5381E+02	1.2119E+03	Tadmor/Gur (0.5-5
km)					
129	A-STB/DIS20	2.000E+03	3.5027E+02	2.5860E+03	Tadmor/Gur (0.5-5
km)					
130	A-STB/DIS21	3.000E+03	5.0516E+02	6.1210E+03	Tadmor/Gur (0.5-5
km)					
131	A-STB/DIS22	4.000E+03	6.5503E+02	1.1280E+04	Tadmor/Gur (0.5-5
km)					
132	A-STB/DIS23	5.000E+03	8.0128E+02	1.8124E+04	Tadmor/Gur (0.5-5
km)					
133	A-STB/DIS24	6.000E+03	9.4470E+02	2.6700E+04	Tadmor/Gur (0.5-5
km)					
134	A-STB/DIS25	8.000E+03	1.2250E+03	4.9205E+04	Tadmor/Gur (0.5-5
km)					
135	A-STB/DIS26	1.000E+04	1.4985E+03	7.9057E+04	Tadmor/Gur (0.5-5
km)					
136	A-STB/DIS27	1.400E+04	2.0305E+03	1.6161E+05	Tadmor/Gur (0.5-5
km)					
137	A-STB/DIS28	2.000E+04	2.8022E+03	3.4485E+05	Tadmor/Gur (0.5-5
km)					
138	A-STB/DIS29	3.000E+04	4.0414E+03	8.1625E+05	Tadmor/Gur (0.5-5
km)					
139	A-STB/DIS30	4.000E+04	5.2404E+03	1.5042E+06	Tadmor/Gur (0.5-5
km)					
140	A-STB/DIS31	5.000E+04	6.4104E+03	2.4169E+06	Tadmor/Gur (0.5-5
km)					
141	A-STB/DIS32	6.000E+04	7.5577E+03	3.5605E+06	Tadmor/Gur (0.5-5
km)					
142	A-STB/DIS33	8.000E+04	9.8000E+03	6.5615E+06	Tadmor/Gur (0.5-5
km)					
143	A-STB/DIS34	1.000E+05	1.1988E+04	1.0542E+07	Tadmor/Gur (0.5-5
km)					

144	A-STB/DIS35	1.400E+05	1.6245E+04	2.1551E+07	Tadmor/Gur (0.5-5 km)
145	A-STB/DIS36	2.000E+05	2.2418E+04	4.5986E+07	Tadmor/Gur (0.5-5 km)
146	A-STB/DIS37	3.000E+05	3.2332E+04	1.0885E+08	Tadmor/Gur (0.5-5 km)
147	A-STB/DIS38	4.000E+05	4.1924E+04	2.0059E+08	Tadmor/Gur (0.5-5 km)
148	A-STB/DIS39	5.000E+05	5.1284E+04	3.2229E+08	Tadmor/Gur (0.5-5 km)
149	A-STB/DIS40	6.000E+05	6.0463E+04	4.7480E+08	Tadmor/Gur (0.5-5 km)
150	A-STB/DIS41	8.000E+05	7.8401E+04	8.7500E+08	Tadmor/Gur (0.5-5 km)
151	A-STB/DIS42	1.000E+06	9.5906E+04	1.4059E+09	Tadmor/Gur (0.5-5 km)
152	A-STB/DIS43	1.400E+06	1.2996E+05	2.8738E+09	Tadmor/Gur (0.5-5 km)
153	A-STB/DIS44	2.000E+06	1.7935E+05	6.1324E+09	Tadmor/Gur (0.5-5 km)
154	A-STB/DIS45	3.000E+06	2.5866E+05	1.4515E+10	Tadmor/Gur (0.5-5 km)
155	A-STB/DIS46	4.000E+06	3.3540E+05	2.6750E+10	Tadmor/Gur (0.5-5 km)
156	A-STB/DIS47	5.000E+06	4.1028E+05	4.2979E+10	Tadmor/Gur (0.5-5 km)
157	A-STB/DIS48	6.000E+06	4.8372E+05	6.3316E+10	Tadmor/Gur (0.5-5 km)
158	A-STB/DIS49	8.000E+06	6.2723E+05	1.1668E+11	Tadmor/Gur (0.5-5 km)
159	A-STB/DIS50	1.000E+07	7.6726E+05	1.8747E+11	Tadmor/Gur (0.5-5 km)
	*				
	* B-stability	Distance (m)	Sigma-y (m)	Sigma-z (m)	
160	B-STB/DIS01	1.000E+00	2.7510E-01	1.9000E-03	Tadmor/Gur (0.5-5 km)
161	B-STB/DIS02	1.400E+00	3.7279E-01	3.2574E-03	Tadmor/Gur (0.5-5 km)
162	B-STB/DIS03	2.000E+00	5.1446E-01	5.7681E-03	Tadmor/Gur (0.5-5 km)
163	B-STB/DIS04	3.000E+00	7.4196E-01	1.1045E-02	Tadmor/Gur (0.5-5 km)
164	B-STB/DIS05	4.000E+00	9.6208E-01	1.7511E-02	Tadmor/Gur (0.5-5 km)
165	B-STB/DIS06	5.000E+00	1.1769E+00	2.5036E-02	Tadmor/Gur (0.5-5 km)
166	B-STB/DIS07	6.000E+00	1.3875E+00	3.3530E-02	Tadmor/Gur (0.5-5 km)
167	B-STB/DIS08	8.000E+00	1.7992E+00	5.3161E-02	Tadmor/Gur (0.5-5 km)
168	B-STB/DIS09	1.000E+01	2.2009E+00	7.6007E-02	Tadmor/Gur (0.5-5 km)
169	B-STB/DIS10	1.000E+02	1.7607E+01	3.0406E+00	Tadmor/Gur (0.5-5 km)
170	B-STB/DIS11	1.400E+02	2.3859E+01	5.2127E+00	Tadmor/Gur (0.5-5 km)
171	B-STB/DIS12	2.000E+02	3.2927E+01	9.2307E+00	Tadmor/Gur (0.5-5 km)
172	B-STB/DIS13	3.000E+02	4.7487E+01	1.7675E+01	Tadmor/Gur (0.5-5 km)
173	B-STB/DIS14	4.000E+02	6.1576E+01	2.8023E+01	Tadmor/Gur (0.5-5

km)					
174	B-STB/DIS15	5.000E+02	7.5323E+01	4.0066E+01	Tadmor/Gur (0.5-5
km)					
175	B-STB/DIS16	6.000E+02	8.8805E+01	5.3657E+01	Tadmor/Gur (0.5-5
km)					
176	B-STB/DIS17	8.000E+02	1.1515E+02	8.5073E+01	Tadmor/Gur (0.5-5
km)					
177	B-STB/DIS18	1.000E+03	1.4086E+02	1.2163E+02	Tadmor/Gur (0.5-5
km)					
178	B-STB/DIS19	1.400E+03	1.9088E+02	2.0853E+02	Tadmor/Gur (0.5-5
km)					
179	B-STB/DIS20	2.000E+03	2.6342E+02	3.6926E+02	Tadmor/Gur (0.5-5
km)					
180	B-STB/DIS21	3.000E+03	3.7991E+02	7.0705E+02	Tadmor/Gur (0.5-5
km)					
181	B-STB/DIS22	4.000E+03	4.9262E+02	1.1210E+03	Tadmor/Gur (0.5-5
km)					
182	B-STB/DIS23	5.000E+03	6.0260E+02	1.6028E+03	Tadmor/Gur (0.5-5
km)					
183	B-STB/DIS24	6.000E+03	7.1046E+02	2.1465E+03	Tadmor/Gur (0.5-5
km)					
184	B-STB/DIS25	8.000E+03	9.2124E+02	3.4033E+03	Tadmor/Gur (0.5-5
km)					
185	B-STB/DIS26	1.000E+04	1.1269E+03	4.8658E+03	Tadmor/Gur (0.5-5
km)					
186	B-STB/DIS27	1.400E+04	1.5271E+03	8.3419E+03	Tadmor/Gur (0.5-5
km)					
187	B-STB/DIS28	2.000E+04	2.1074E+03	1.4772E+04	Tadmor/Gur (0.5-5
km)					
188	B-STB/DIS29	3.000E+04	3.0393E+03	2.8285E+04	Tadmor/Gur (0.5-5
km)					
189	B-STB/DIS30	4.000E+04	3.9410E+03	4.4845E+04	Tadmor/Gur (0.5-5
km)					
190	B-STB/DIS31	5.000E+04	4.8209E+03	6.4117E+04	Tadmor/Gur (0.5-5
km)					
191	B-STB/DIS32	6.000E+04	5.6838E+03	8.5868E+04	Tadmor/Gur (0.5-5
km)					
192	B-STB/DIS33	8.000E+04	7.3701E+03	1.3614E+05	Tadmor/Gur (0.5-5
km)					
193	B-STB/DIS34	1.000E+05	9.0155E+03	1.9465E+05	Tadmor/Gur (0.5-5
km)					
194	B-STB/DIS35	1.400E+05	1.2217E+04	3.3371E+05	Tadmor/Gur (0.5-5
km)					
195	B-STB/DIS36	2.000E+05	1.6860E+04	5.9093E+05	Tadmor/Gur (0.5-5
km)					
196	B-STB/DIS37	3.000E+05	2.4315E+04	1.1315E+06	Tadmor/Gur (0.5-5
km)					
197	B-STB/DIS38	4.000E+05	3.1529E+04	1.7940E+06	Tadmor/Gur (0.5-5
km)					
198	B-STB/DIS39	5.000E+05	3.8568E+04	2.5649E+06	Tadmor/Gur (0.5-5
km)					
199	B-STB/DIS40	6.000E+05	4.5471E+04	3.4350E+06	Tadmor/Gur (0.5-5
km)					
200	B-STB/DIS41	8.000E+05	5.8962E+04	5.4462E+06	Tadmor/Gur (0.5-5
km)					
201	B-STB/DIS42	1.000E+06	7.2126E+04	7.7867E+06	Tadmor/Gur (0.5-5
km)					
202	B-STB/DIS43	1.400E+06	9.7737E+04	1.3350E+07	Tadmor/Gur (0.5-5
km)					
203	B-STB/DIS44	2.000E+06	1.3488E+05	2.3639E+07	Tadmor/Gur (0.5-5
km)					
204	B-STB/DIS45	3.000E+06	1.9453E+05	4.5264E+07	Tadmor/Gur (0.5-5
km)					

205	B-STB/DIS46	4.000E+06	2.5224E+05	7.1765E+07	Tadmor/Gur (0.5-5 km)
206	B-STB/DIS47	5.000E+06	3.0855E+05	1.0261E+08	Tadmor/Gur (0.5-5 km)
207	B-STB/DIS48	6.000E+06	3.6378E+05	1.3741E+08	Tadmor/Gur (0.5-5 km)
208	B-STB/DIS49	8.000E+06	4.7171E+05	2.1787E+08	Tadmor/Gur (0.5-5 km)
209	B-STB/DIS50	1.000E+07	5.7702E+05	3.1150E+08	Tadmor/Gur (0.5-5 km)
	*				
	* C-stability	Distance (m)	Sigma-y (m)	Sigma-z (m)	
210	C-STB/DIS01	1.000E+00	2.0890E-01	2.0000E-01	Tadmor/Gur (0.5-5 km)
211	C-STB/DIS02	1.400E+00	2.8308E-01	2.6660E-01	Tadmor/Gur (0.5-5 km)
212	C-STB/DIS03	2.000E+00	3.9066E-01	3.6158E-01	Tadmor/Gur (0.5-5 km)
213	C-STB/DIS04	3.000E+00	5.6341E-01	5.1125E-01	Tadmor/Gur (0.5-5 km)
214	C-STB/DIS05	4.000E+00	7.3056E-01	6.5369E-01	Tadmor/Gur (0.5-5 km)
215	C-STB/DIS06	5.000E+00	8.9367E-01	7.9097E-01	Tadmor/Gur (0.5-5 km)
216	C-STB/DIS07	6.000E+00	1.0536E+00	9.2428E-01	Tadmor/Gur (0.5-5 km)
217	C-STB/DIS08	8.000E+00	1.3662E+00	1.1818E+00	Tadmor/Gur (0.5-5 km)
218	C-STB/DIS09	1.000E+01	1.6712E+00	1.4300E+00	Tadmor/Gur (0.5-5 km)
219	C-STB/DIS10	1.000E+02	1.3370E+01	1.0224E+01	Tadmor/Gur (0.5-5 km)
220	C-STB/DIS11	1.400E+02	1.8118E+01	1.3629E+01	Tadmor/Gur (0.5-5 km)
221	C-STB/DIS12	2.000E+02	2.5003E+01	1.8484E+01	Tadmor/Gur (0.5-5 km)
222	C-STB/DIS13	3.000E+02	3.6060E+01	2.6136E+01	Tadmor/Gur (0.5-5 km)
223	C-STB/DIS14	4.000E+02	4.6758E+01	3.3417E+01	Tadmor/Gur (0.5-5 km)
224	C-STB/DIS15	5.000E+02	5.7198E+01	4.0435E+01	Tadmor/Gur (0.5-5 km)
225	C-STB/DIS16	6.000E+02	6.7435E+01	4.7250E+01	Tadmor/Gur (0.5-5 km)
226	C-STB/DIS17	8.000E+02	8.7442E+01	6.0414E+01	Tadmor/Gur (0.5-5 km)
227	C-STB/DIS18	1.000E+03	1.0696E+02	7.3102E+01	Tadmor/Gur (0.5-5 km)
228	C-STB/DIS19	1.400E+03	1.4495E+02	9.7447E+01	Tadmor/Gur (0.5-5 km)
229	C-STB/DIS20	2.000E+03	2.0003E+02	1.3216E+02	Tadmor/Gur (0.5-5 km)
230	C-STB/DIS21	3.000E+03	2.8849E+02	1.8687E+02	Tadmor/Gur (0.5-5 km)
231	C-STB/DIS22	4.000E+03	3.7408E+02	2.3893E+02	Tadmor/Gur (0.5-5 km)
232	C-STB/DIS23	5.000E+03	4.5759E+02	2.8911E+02	Tadmor/Gur (0.5-5 km)
233	C-STB/DIS24	6.000E+03	5.3949E+02	3.3784E+02	Tadmor/Gur (0.5-5 km)
234	C-STB/DIS25	8.000E+03	6.9955E+02	4.3196E+02	Tadmor/Gur (0.5-5

km)					
235	C-STB/DIS26	1.000E+04	8.5573E+02	5.2267E+02	Tadmor/Gur (0.5-5
km)					
236	C-STB/DIS27	1.400E+04	1.1596E+03	6.9673E+02	Tadmor/Gur (0.5-5
km)					
237	C-STB/DIS28	2.000E+04	1.6003E+03	9.4493E+02	Tadmor/Gur (0.5-5
km)					
238	C-STB/DIS29	3.000E+04	2.3080E+03	1.3361E+03	Tadmor/Gur (0.5-5
km)					
239	C-STB/DIS30	4.000E+04	2.9927E+03	1.7083E+03	Tadmor/Gur (0.5-5
km)					
240	C-STB/DIS31	5.000E+04	3.6608E+03	2.0671E+03	Tadmor/Gur (0.5-5
km)					
241	C-STB/DIS32	6.000E+04	4.3161E+03	2.4155E+03	Tadmor/Gur (0.5-5
km)					
242	C-STB/DIS33	8.000E+04	5.5965E+03	3.0884E+03	Tadmor/Gur (0.5-5
km)					
243	C-STB/DIS34	1.000E+05	6.8460E+03	3.7371E+03	Tadmor/Gur (0.5-5
km)					
244	C-STB/DIS35	1.400E+05	9.2770E+03	4.9816E+03	Tadmor/Gur (0.5-5
km)					
245	C-STB/DIS36	2.000E+05	1.2803E+04	6.7562E+03	Tadmor/Gur (0.5-5
km)					
246	C-STB/DIS37	3.000E+05	1.8464E+04	9.5529E+03	Tadmor/Gur (0.5-5
km)					
247	C-STB/DIS38	4.000E+05	2.3942E+04	1.2214E+04	Tadmor/Gur (0.5-5
km)					
248	C-STB/DIS39	5.000E+05	2.9287E+04	1.4780E+04	Tadmor/Gur (0.5-5
km)					
249	C-STB/DIS40	6.000E+05	3.4529E+04	1.7270E+04	Tadmor/Gur (0.5-5
km)					
250	C-STB/DIS41	8.000E+05	4.4773E+04	2.2082E+04	Tadmor/Gur (0.5-5
km)					
251	C-STB/DIS42	1.000E+06	5.4769E+04	2.6720E+04	Tadmor/Gur (0.5-5
km)					
252	C-STB/DIS43	1.400E+06	7.4218E+04	3.5618E+04	Tadmor/Gur (0.5-5
km)					
253	C-STB/DIS44	2.000E+06	1.0242E+05	4.8306E+04	Tadmor/Gur (0.5-5
km)					
254	C-STB/DIS45	3.000E+06	1.4772E+05	6.8302E+04	Tadmor/Gur (0.5-5
km)					
255	C-STB/DIS46	4.000E+06	1.9154E+05	8.7331E+04	Tadmor/Gur (0.5-5
km)					
256	C-STB/DIS47	5.000E+06	2.3430E+05	1.0567E+05	Tadmor/Gur (0.5-5
km)					
257	C-STB/DIS48	6.000E+06	2.7624E+05	1.2348E+05	Tadmor/Gur (0.5-5
km)					
258	C-STB/DIS49	8.000E+06	3.5819E+05	1.5788E+05	Tadmor/Gur (0.5-5
km)					
259	C-STB/DIS50	1.000E+07	4.3817E+05	1.9104E+05	Tadmor/Gur (0.5-5
km)					
	*				
	* D-stability	Distance (m)	Sigma-y (m)	Sigma-z (m)	
260	D-STB/DIS01	1.000E+00	1.4740E-01	3.0000E-01	Tadmor/Gur (0.5-5
km)					
261	D-STB/DIS02	1.400E+00	1.9974E-01	3.7374E-01	Tadmor/Gur (0.5-5
km)					
262	D-STB/DIS03	2.000E+00	2.7565E-01	4.7180E-01	Tadmor/Gur (0.5-5
km)					
263	D-STB/DIS04	3.000E+00	3.9754E-01	6.1486E-01	Tadmor/Gur (0.5-5
km)					

264	D-STB/DIS05	4.000E+00	5.1549E-01	7.4197E-01	Tadmor/Gur (0.5-5 km)
265	D-STB/DIS06	5.000E+00	6.3058E-01	8.5840E-01	Tadmor/Gur (0.5-5 km)
266	D-STB/DIS07	6.000E+00	7.4344E-01	9.6696E-01	Tadmor/Gur (0.5-5 km)
267	D-STB/DIS08	8.000E+00	9.6400E-01	1.1669E+00	Tadmor/Gur (0.5-5 km)
268	D-STB/DIS09	1.000E+01	1.1792E+00	1.3500E+00	Tadmor/Gur (0.5-5 km)
269	D-STB/DIS10	1.000E+02	9.4340E+00	6.0746E+00	Tadmor/Gur (0.5-5 km)
270	D-STB/DIS11	1.400E+02	1.2784E+01	7.5678E+00	Tadmor/Gur (0.5-5 km)
271	D-STB/DIS12	2.000E+02	1.7642E+01	9.5533E+00	Tadmor/Gur (0.5-5 km)
272	D-STB/DIS13	3.000E+02	2.5444E+01	1.2450E+01	Tadmor/Gur (0.5-5 km)
273	D-STB/DIS14	4.000E+02	3.2993E+01	1.5024E+01	Tadmor/Gur (0.5-5 km)
274	D-STB/DIS15	5.000E+02	4.0359E+01	1.7382E+01	Tadmor/Gur (0.5-5 km)
275	D-STB/DIS16	6.000E+02	4.7582E+01	1.9580E+01	Tadmor/Gur (0.5-5 km)
276	D-STB/DIS17	8.000E+02	6.1699E+01	2.3628E+01	Tadmor/Gur (0.5-5 km)
277	D-STB/DIS18	1.000E+03	7.5474E+01	2.7335E+01	Tadmor/Gur (0.5-5 km)
278	D-STB/DIS19	1.400E+03	1.0227E+02	3.4054E+01	Tadmor/Gur (0.5-5 km)
279	D-STB/DIS20	2.000E+03	1.4114E+02	4.2989E+01	Tadmor/Gur (0.5-5 km)
280	D-STB/DIS21	3.000E+03	2.0356E+02	5.6024E+01	Tadmor/Gur (0.5-5 km)
281	D-STB/DIS22	4.000E+03	2.6395E+02	6.7606E+01	Tadmor/Gur (0.5-5 km)
282	D-STB/DIS23	5.000E+03	3.2288E+02	7.8215E+01	Tadmor/Gur (0.5-5 km)
283	D-STB/DIS24	6.000E+03	3.8067E+02	8.8107E+01	Tadmor/Gur (0.5-5 km)
284	D-STB/DIS25	8.000E+03	4.9360E+02	1.0632E+02	Tadmor/Gur (0.5-5 km)
285	D-STB/DIS26	1.000E+04	6.0381E+02	1.2300E+02	Tadmor/Gur (0.5-5 km)
286	D-STB/DIS27	1.400E+04	8.1821E+02	1.5324E+02	Tadmor/Gur (0.5-5 km)
287	D-STB/DIS28	2.000E+04	1.1292E+03	1.9344E+02	Tadmor/Gur (0.5-5 km)
288	D-STB/DIS29	3.000E+04	1.6285E+03	2.5210E+02	Tadmor/Gur (0.5-5 km)
289	D-STB/DIS30	4.000E+04	2.1116E+03	3.0422E+02	Tadmor/Gur (0.5-5 km)
290	D-STB/DIS31	5.000E+04	2.5831E+03	3.5196E+02	Tadmor/Gur (0.5-5 km)
291	D-STB/DIS32	6.000E+04	3.0454E+03	3.9647E+02	Tadmor/Gur (0.5-5 km)
292	D-STB/DIS33	8.000E+04	3.9489E+03	4.7843E+02	Tadmor/Gur (0.5-5 km)
293	D-STB/DIS34	1.000E+05	4.8306E+03	5.5350E+02	Tadmor/Gur (0.5-5 km)
294	D-STB/DIS35	1.400E+05	6.5458E+03	6.8956E+02	Tadmor/Gur (0.5-5 km)
295	D-STB/DIS36	2.000E+05	9.0335E+03	8.7047E+02	Tadmor/Gur (0.5-5

km)					
296	D-STB/DIS37	3.000E+05	1.3028E+04	1.1344E+03	Tadmor/Gur (0.5-5
km)					
297	D-STB/DIS38	4.000E+05	1.6893E+04	1.3689E+03	Tadmor/Gur (0.5-5
km)					
298	D-STB/DIS39	5.000E+05	2.0665E+04	1.5838E+03	Tadmor/Gur (0.5-5
km)					
299	D-STB/DIS40	6.000E+05	2.4364E+04	1.7841E+03	Tadmor/Gur (0.5-5
km)					
300	D-STB/DIS41	8.000E+05	3.1592E+04	2.1529E+03	Tadmor/Gur (0.5-5
km)					
301	D-STB/DIS42	1.000E+06	3.8645E+04	2.4907E+03	Tadmor/Gur (0.5-5
km)					
302	D-STB/DIS43	1.400E+06	5.2368E+04	3.1029E+03	Tadmor/Gur (0.5-5
km)					
303	D-STB/DIS44	2.000E+06	7.2270E+04	3.9170E+03	Tadmor/Gur (0.5-5
km)					
304	D-STB/DIS45	3.000E+06	1.0423E+05	5.1048E+03	Tadmor/Gur (0.5-5
km)					
305	D-STB/DIS46	4.000E+06	1.3515E+05	6.1601E+03	Tadmor/Gur (0.5-5
km)					
306	D-STB/DIS47	5.000E+06	1.6532E+05	7.1267E+03	Tadmor/Gur (0.5-5
km)					
307	D-STB/DIS48	6.000E+06	1.9492E+05	8.0280E+03	Tadmor/Gur (0.5-5
km)					
308	D-STB/DIS49	8.000E+06	2.5274E+05	9.6877E+03	Tadmor/Gur (0.5-5
km)					
309	D-STB/DIS50	1.000E+07	3.0917E+05	1.1208E+04	Tadmor/Gur (0.5-5
km)					
	*				
	* E-stability	Distance (m)	Sigma-y (m)	Sigma-z (m)	
310	E-STB/DIS01	1.000E+00	1.0460E-01	4.0000E-01	Tadmor/Gur (0.5-5
km)					
311	E-STB/DIS02	1.400E+00	1.4174E-01	4.8983E-01	Tadmor/Gur (0.5-5
km)					
312	E-STB/DIS03	2.000E+00	1.9561E-01	6.0717E-01	Tadmor/Gur (0.5-5
km)					
313	E-STB/DIS04	3.000E+00	2.8211E-01	7.7506E-01	Tadmor/Gur (0.5-5
km)					
314	E-STB/DIS05	4.000E+00	3.6581E-01	9.2164E-01	Tadmor/Gur (0.5-5
km)					
315	E-STB/DIS06	5.000E+00	4.4748E-01	1.0542E+00	Tadmor/Gur (0.5-5
km)					
316	E-STB/DIS07	6.000E+00	5.2757E-01	1.1765E+00	Tadmor/Gur (0.5-5
km)					
317	E-STB/DIS08	8.000E+00	6.8409E-01	1.3990E+00	Tadmor/Gur (0.5-5
km)					
318	E-STB/DIS09	1.000E+01	8.3682E-01	1.6001E+00	Tadmor/Gur (0.5-5
km)					
319	E-STB/DIS10	1.000E+02	6.6947E+00	6.4012E+00	Tadmor/Gur (0.5-5
km)					
320	E-STB/DIS11	1.400E+02	9.0719E+00	7.8387E+00	Tadmor/Gur (0.5-5
km)					
321	E-STB/DIS12	2.000E+02	1.2520E+01	9.7165E+00	Tadmor/Gur (0.5-5
km)					
322	E-STB/DIS13	3.000E+02	1.8056E+01	1.2403E+01	Tadmor/Gur (0.5-5
km)					
323	E-STB/DIS14	4.000E+02	2.3413E+01	1.4749E+01	Tadmor/Gur (0.5-5
km)					
324	E-STB/DIS15	5.000E+02	2.8640E+01	1.6870E+01	Tadmor/Gur (0.5-5
km)					

325	E-STB/DIS16	6.000E+02	3.3766E+01	1.8827E+01	Tadmor/Gur (0.5-5 km)
326	E-STB/DIS17	8.000E+02	4.3784E+01	2.2388E+01	Tadmor/Gur (0.5-5 km)
327	E-STB/DIS18	1.000E+03	5.3559E+01	2.5607E+01	Tadmor/Gur (0.5-5 km)
328	E-STB/DIS19	1.400E+03	7.2577E+01	3.1358E+01	Tadmor/Gur (0.5-5 km)
329	E-STB/DIS20	2.000E+03	1.0016E+02	3.8870E+01	Tadmor/Gur (0.5-5 km)
330	E-STB/DIS21	3.000E+03	1.4445E+02	4.9617E+01	Tadmor/Gur (0.5-5 km)
331	E-STB/DIS22	4.000E+03	1.8731E+02	5.9001E+01	Tadmor/Gur (0.5-5 km)
332	E-STB/DIS23	5.000E+03	2.2912E+02	6.7485E+01	Tadmor/Gur (0.5-5 km)
333	E-STB/DIS24	6.000E+03	2.7013E+02	7.5316E+01	Tadmor/Gur (0.5-5 km)
334	E-STB/DIS25	8.000E+03	3.5028E+02	8.9559E+01	Tadmor/Gur (0.5-5 km)
335	E-STB/DIS26	1.000E+04	4.2848E+02	1.0244E+02	Tadmor/Gur (0.5-5 km)
336	E-STB/DIS27	1.400E+04	5.8063E+02	1.2544E+02	Tadmor/Gur (0.5-5 km)
337	E-STB/DIS28	2.000E+04	8.0129E+02	1.5549E+02	Tadmor/Gur (0.5-5 km)
338	E-STB/DIS29	3.000E+04	1.1556E+03	1.9849E+02	Tadmor/Gur (0.5-5 km)
339	E-STB/DIS30	4.000E+04	1.4985E+03	2.3603E+02	Tadmor/Gur (0.5-5 km)
340	E-STB/DIS31	5.000E+04	1.8330E+03	2.6997E+02	Tadmor/Gur (0.5-5 km)
341	E-STB/DIS32	6.000E+04	2.1611E+03	3.0129E+02	Tadmor/Gur (0.5-5 km)
342	E-STB/DIS33	8.000E+04	2.8023E+03	3.5827E+02	Tadmor/Gur (0.5-5 km)
343	E-STB/DIS34	1.000E+05	3.4279E+03	4.0979E+02	Tadmor/Gur (0.5-5 km)
344	E-STB/DIS35	1.400E+05	4.6452E+03	5.0182E+02	Tadmor/Gur (0.5-5 km)
345	E-STB/DIS36	2.000E+05	6.4105E+03	6.2203E+02	Tadmor/Gur (0.5-5 km)
346	E-STB/DIS37	3.000E+05	9.2453E+03	7.9403E+02	Tadmor/Gur (0.5-5 km)
347	E-STB/DIS38	4.000E+05	1.1988E+04	9.4419E+02	Tadmor/Gur (0.5-5 km)
348	E-STB/DIS39	5.000E+05	1.4665E+04	1.0800E+03	Tadmor/Gur (0.5-5 km)
349	E-STB/DIS40	6.000E+05	1.7289E+04	1.2053E+03	Tadmor/Gur (0.5-5 km)
350	E-STB/DIS41	8.000E+05	2.2419E+04	1.4332E+03	Tadmor/Gur (0.5-5 km)
351	E-STB/DIS42	1.000E+06	2.7424E+04	1.6393E+03	Tadmor/Gur (0.5-5 km)
352	E-STB/DIS43	1.400E+06	3.7162E+04	2.0074E+03	Tadmor/Gur (0.5-5 km)
353	E-STB/DIS44	2.000E+06	5.1285E+04	2.4883E+03	Tadmor/Gur (0.5-5 km)
354	E-STB/DIS45	3.000E+06	7.3964E+04	3.1764E+03	Tadmor/Gur (0.5-5 km)
355	E-STB/DIS46	4.000E+06	9.5907E+04	3.7771E+03	Tadmor/Gur (0.5-5 km)
356	E-STB/DIS47	5.000E+06	1.1732E+05	4.3203E+03	Tadmor/Gur (0.5-5

km)					
357	E-STB/DIS48	6.000E+06	1.3832E+05	4.8215E+03	Tadmor/Gur (0.5-5
km)					
358	E-STB/DIS49	8.000E+06	1.7935E+05	5.7334E+03	Tadmor/Gur (0.5-5
km)					
359	E-STB/DIS50	1.000E+07	2.1940E+05	6.5578E+03	Tadmor/Gur (0.5-5
km)					
	*				
	* F-stability	Distance (m)	Sigma-y (m)	Sigma-z (m)	
360	F-STB/DIS01	1.000E+00	7.2200E-02	2.0000E-01	Tadmor/Gur (0.5-5
km)					
361	F-STB/DIS02	1.400E+00	9.7838E-02	2.4491E-01	Tadmor/Gur (0.5-5
km)					
362	F-STB/DIS03	2.000E+00	1.3502E-01	3.0356E-01	Tadmor/Gur (0.5-5
km)					
363	F-STB/DIS04	3.000E+00	1.9473E-01	3.8749E-01	Tadmor/Gur (0.5-5
km)					
364	F-STB/DIS05	4.000E+00	2.5250E-01	4.6076E-01	Tadmor/Gur (0.5-5
km)					
365	F-STB/DIS06	5.000E+00	3.0887E-01	5.2700E-01	Tadmor/Gur (0.5-5
km)					
366	F-STB/DIS07	6.000E+00	3.6415E-01	5.8814E-01	Tadmor/Gur (0.5-5
km)					
367	F-STB/DIS08	8.000E+00	4.7219E-01	6.9934E-01	Tadmor/Gur (0.5-5
km)					
368	F-STB/DIS09	1.000E+01	5.7761E-01	7.9989E-01	Tadmor/Gur (0.5-5
km)					
369	F-STB/DIS10	1.000E+02	4.6210E+00	3.1991E+00	Tadmor/Gur (0.5-5
km)					
370	F-STB/DIS11	1.400E+02	6.2619E+00	3.9174E+00	Tadmor/Gur (0.5-5
km)					
371	F-STB/DIS12	2.000E+02	8.6417E+00	4.8557E+00	Tadmor/Gur (0.5-5
km)					
372	F-STB/DIS13	3.000E+02	1.2463E+01	6.1981E+00	Tadmor/Gur (0.5-5
km)					
373	F-STB/DIS14	4.000E+02	1.6161E+01	7.3700E+00	Tadmor/Gur (0.5-5
km)					
374	F-STB/DIS15	5.000E+02	1.9769E+01	8.4297E+00	Tadmor/Gur (0.5-5
km)					
375	F-STB/DIS16	6.000E+02	2.3307E+01	9.4076E+00	Tadmor/Gur (0.5-5
km)					
376	F-STB/DIS17	8.000E+02	3.0222E+01	1.1186E+01	Tadmor/Gur (0.5-5
km)					
377	F-STB/DIS18	1.000E+03	3.6969E+01	1.2795E+01	Tadmor/Gur (0.5-5
km)					
378	F-STB/DIS19	1.400E+03	5.0096E+01	1.5667E+01	Tadmor/Gur (0.5-5
km)					
379	F-STB/DIS20	2.000E+03	6.9135E+01	1.9420E+01	Tadmor/Gur (0.5-5
km)					
380	F-STB/DIS21	3.000E+03	9.9707E+01	2.4789E+01	Tadmor/Gur (0.5-5
km)					
381	F-STB/DIS22	4.000E+03	1.2929E+02	2.9476E+01	Tadmor/Gur (0.5-5
km)					
382	F-STB/DIS23	5.000E+03	1.5815E+02	3.3714E+01	Tadmor/Gur (0.5-5
km)					
383	F-STB/DIS24	6.000E+03	1.8646E+02	3.7625E+01	Tadmor/Gur (0.5-5
km)					
384	F-STB/DIS25	8.000E+03	2.4178E+02	4.4739E+01	Tadmor/Gur (0.5-5
km)					
385	F-STB/DIS26	1.000E+04	2.9576E+02	5.1172E+01	Tadmor/Gur (0.5-5
km)					

386	F-STB/DIS27	1.400E+04	4.0078E+02	6.2661E+01	Tadmor/Gur (0.5-5 km)
387	F-STB/DIS28	2.000E+04	5.5309E+02	7.7669E+01	Tadmor/Gur (0.5-5 km)
388	F-STB/DIS29	3.000E+04	7.9767E+02	9.9142E+01	Tadmor/Gur (0.5-5 km)
389	F-STB/DIS30	4.000E+04	1.0343E+03	1.1789E+02	Tadmor/Gur (0.5-5 km)
390	F-STB/DIS31	5.000E+04	1.2653E+03	1.3484E+02	Tadmor/Gur (0.5-5 km)
391	F-STB/DIS32	6.000E+04	1.4917E+03	1.5048E+02	Tadmor/Gur (0.5-5 km)
392	F-STB/DIS33	8.000E+04	1.9343E+03	1.7893E+02	Tadmor/Gur (0.5-5 km)
393	F-STB/DIS34	1.000E+05	2.3661E+03	2.0466E+02	Tadmor/Gur (0.5-5 km)
394	F-STB/DIS35	1.400E+05	3.2063E+03	2.5061E+02	Tadmor/Gur (0.5-5 km)
395	F-STB/DIS36	2.000E+05	4.4248E+03	3.1063E+02	Tadmor/Gur (0.5-5 km)
396	F-STB/DIS37	3.000E+05	6.3815E+03	3.9651E+02	Tadmor/Gur (0.5-5 km)
397	F-STB/DIS38	4.000E+05	8.2748E+03	4.7149E+02	Tadmor/Gur (0.5-5 km)
398	F-STB/DIS39	5.000E+05	1.0122E+04	5.3927E+02	Tadmor/Gur (0.5-5 km)
399	F-STB/DIS40	6.000E+05	1.1934E+04	6.0183E+02	Tadmor/Gur (0.5-5 km)
400	F-STB/DIS41	8.000E+05	1.5475E+04	7.1563E+02	Tadmor/Gur (0.5-5 km)
401	F-STB/DIS42	1.000E+06	1.8929E+04	8.1852E+02	Tadmor/Gur (0.5-5 km)
402	F-STB/DIS43	1.400E+06	2.5651E+04	1.0023E+03	Tadmor/Gur (0.5-5 km)
403	F-STB/DIS44	2.000E+06	3.5400E+04	1.2424E+03	Tadmor/Gur (0.5-5 km)
404	F-STB/DIS45	3.000E+06	5.1053E+04	1.5858E+03	Tadmor/Gur (0.5-5 km)
405	F-STB/DIS46	4.000E+06	6.6200E+04	1.8857E+03	Tadmor/Gur (0.5-5 km)
406	F-STB/DIS47	5.000E+06	8.0980E+04	2.1568E+03	Tadmor/Gur (0.5-5 km)
407	F-STB/DIS48	6.000E+06	9.5474E+04	2.4070E+03	Tadmor/Gur (0.5-5 km)
408	F-STB/DIS49	8.000E+06	1.2380E+05	2.8621E+03	Tadmor/Gur (0.5-5 km)
409	F-STB/DIS50	1.000E+07	1.5144E+05	3.2736E+03	Tadmor/Gur (0.5-5 km)

```
      *
      *  LINEAR SCALING FACTOR FOR SIGMA-Y FUNCTION, NORMALLY 1
      *
 410  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
```

```
      *
  411 DPZSCALE001    1.27
*********************************************************************************** *
      * EXPANSION FACTOR DATA BLOCK, LOADED BY INPEXP, STORED IN /EXPAND/
      *
      * TIME BASE FOR EXPANSION FACTOR (SECONDS)
      *
  412 PMTIMBAS001    600.   (10 MINUTES)
      *
      * BREAK POINT FOR FORMULA CHANGE (SECONDS)
      *
  413 PMBRKPNT001    3600.   (1 HOUR)
      *
      * EXPONENTIAL EXPANSION FACTOR NUMBER 1
      *
  414 PMXPFAC1001      0.2
      *
      * EXPONENTIAL EXPANSION FACTOR NUMBER 2
      *
  415 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)
      *
  416 PRSCLCRW001   1.
      *
      * SCALING FACTOR FOR THE A-D STABILITY PLUME RISE FORMULA
      * (USED BY FUNCTION PLMRIS)
```

```
      *
  417 PRSCLADP001   1.
      *
      * SCALING FACTOR FOR THE E-F STABILITY PLUME RISE FORMULA
      * (USED BY FUNCTION PLMRIS)
      *
  418 PRSCLEFP001   1.
*************************************************************************************
      * RELEASE DATA BLOCK, LOADED BY INPREL, STORED IN /ATNAM2/, /MULREL/
      *
  419 RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFI'
      *
      * TIME AFTER ACCIDENT INITIATION WHEN THE ACCIDENT REACHES GENERAL EMERGENCY
      * CONDITIONS (AS DEFINED IN NUREG-0654), OR WHEN PLANT PERSONNEL CAN RELIABLY
      * PREDICT THAT GENERAL EMERGENCY CONDITIONS WILL BE ATTAINED
      *
  420 RDOALARM001      2924.
      *
      * NUMBER OF PLUME SEGMENTS THAT ARE RELEASED
      *
  421 RDNUMREL001          2
      *
      * SELECTION OF RISK DOMINANT PLUME
      *
  422 RDMAXRIS001          1
      *
      * REFERENCE TIME FOR DISPERSION AND RADIOACTIVE DECAY
      *
  423 RDREFTIM001       0.0   0.5
      *
      * HEAT CONTENT OF THE RELEASE SEGMENTS (W)
```

```
      * A VALUE SPECIFIED FOR EACH OF THE RELEASE SEGMENTS
      *
  424 RDPLHEAT001        3.0E+6   2.0E+6
      *
      * HEIGHT OF THE PLUME SEGMENTS AT RELEASE (M)
      * A VALUE SPECIFIED FOR EACH OF THE RELEASE SEGMENTS
      *
  425 RDPLHITE001        30.   30.
      *
      * DURATION OF THE PLUME SEGMENTS (S)
      * A VALUE SPECIFIED FOR EACH OF THE RELEASE SEGMENTS
      *
      *RDPLUDUR001     53830.  86400.
  426 RDPLUDUR001     36000.  36000.
      *
      * TIME OF RELEASE FOR EACH PLUME (S AFTER SCRAM)
      * A VALUE SPECIFIED FOR EACH OF THE RELEASE SEGMENTS
      *
  427 RDPDELAY001     2924.   32590.
      *
      * Initial value of sigma-y for each plume--Note: values required for each
plume
      *
  428 SIGYINIT001  9.302  9.302   (initial sigma-y, for 40 meter wide bldg.)
      *
      * Initial value of sigma-z for each plume--Note: values required for each
plume
      *
  429 SIGZINIT001  23.26  23.26   (initial sigma-z, for 50 meter high bldg.)
      *
      * Building height (meters)--Note: values required for each plume
      *
  430 WEBUILDH001   50.0  50.0    (Surry)
      *
```

```
      * PARTICLE SIZE DISTRIBUTION OF EACH NUCLIDE GROUP
      * YOU MUST SPECIFY A COLUMN OF DATA FOR EACH OF THE PARTICLE SIZE GROUPS
      *
  431 RDPSDIST001      1.
  432 RDPSDIST002      1.
  433 RDPSDIST003      1.
  434 RDPSDIST004      1.
  435 RDPSDIST005      1.
  436 RDPSDIST006      1.
  437 RDPSDIST007      1.
  438 RDPSDIST008      1.
  439 RDPSDIST009      1.
      *
      *AP1000 CORE ORIGEN RUN, 07/05/01 at 17:45:07
      *WESTINGHOUSE - R. Les Bencini
      *  CO58 AND CO60 NOT Provided and Replaced by Generic Data From SPS/NAPS
Model
      *
      *               NUCNAM      CORINV(BQ)
      *
  440 RDCORINV001     Co-58       3.22E+16
  441 RDCORINV002     Co-60       2.47E+16
  442 RDCORINV003     Kr-85       3.93E+16
  443 RDCORINV004     Kr-85m      8.87E+17
  444 RDCORINV005     Kr-87       1.70E+18
  445 RDCORINV006     Kr-88       2.39E+18
  446 RDCORINV007     Rb-86       9.04E+15
  447 RDCORINV008     Sr-89       3.17E+18
  448 RDCORINV009     Sr-90       3.11E+17
  449 RDCORINV010     Sr-91       4.04E+18
  450 RDCORINV011     Sr-92       4.38E+18
  451 RDCORINV012     Y-90        3.25E+17
```

452	RDCORINV013	Y-91	4.10E+18
453	RDCORINV014	Y-92	4.40E+18
454	RDCORINV015	Y-93	5.09E+18
455	RDCORINV016	Zr-95	5.59E+18
456	RDCORINV017	Zr-97	5.69E+18
457	RDCORINV018	Nb-95	5.66E+18
458	RDCORINV019	Mo-99	6.44E+18
459	RDCORINV020	Tc-99m	5.64E+18
460	RDCORINV021	Ru-103	5.10E+18
461	RDCORINV022	Ru-105	3.59E+18
462	RDCORINV023	Ru-106	1.82E+18
463	RDCORINV024	Rh-105	3.27E+18
464	RDCORINV025	Sb-127	3.68E+17
465	RDCORINV026	Sb-129	1.10E+18
466	RDCORINV027	Te-127	3.65E+17
467	RDCORINV028	Te-127m	4.71E+16
468	RDCORINV029	Te-129	1.08E+18
469	RDCORINV030	Te-129m	1.57E+17
470	RDCORINV031	Te-131m	4.92E+17
471	RDCORINV032	Te-132	4.81E+18
472	RDCORINV033	I-131	3.35E+18
473	RDCORINV034	I-132	4.89E+18
474	RDCORINV035	I-133	6.91E+18
475	RDCORINV036	I-134	7.57E+18
476	RDCORINV037	I-135	6.46E+18
477	RDCORINV038	Xe-133	6.60E+18
478	RDCORINV039	Xe-135	1.63E+18
479	RDCORINV040	Cs-134	7.96E+17
480	RDCORINV041	Cs-136	2.17E+17
481	RDCORINV042	Cs-137	4.30E+17
482	RDCORINV043	Ba-139	6.16E+18
483	RDCORINV044	Ba-140	5.84E+18

```
484  RDCORINV045     La-140     6.33E+18
485  RDCORINV046     La-141     5.61E+18
486  RDCORINV047     La-142     5.43E+18
487  RDCORINV048     Ce-141     5.48E+18
488  RDCORINV049     Ce-143     5.21E+18
489  RDCORINV050     Ce-144     4.32E+18
490  RDCORINV051     Pr-143     4.98E+18
491  RDCORINV052     Nd-147     2.22E+18
492  RDCORINV053     Np-239     2.91E+19
493  RDCORINV054     Pu-238     1.61E+15
494  RDCORINV055     Pu-239     4.18E+14
495  RDCORINV056     Pu-240     4.38E+14
496  RDCORINV057     Pu-241     1.19E+17
497  RDCORINV058     Am-241     7.47E+13
498  RDCORINV059     Cm-242     1.52E+16
499  RDCORINV060     Cm-244     4.45E+14
     *
     *  SCALING FACTOR TO ADJUST THE CORE INVENTORY FOR POWER LEVEL
     *
500  RDCORSCA001   1.0009  *  AP1000 scaling factor = 3415/3412
     *
     *
501  RDAPLFRC001   PARENT      (apply rel fracs the same as prior versions)
     *
     * SOURCE TERM NUMBER (CFI) FROM AP1000
     * RELEASE FRACTIONS FOR ISOTOPE GROUPS IN RELEASE 1 of 9  (CFI)
     *
     *  ISOTOPE GROUPS:
     *
     *             XE/KR       I        CS        TE        SR        RU        LA
CE        BA
     *
```

```
  502  RDRELFRC001 7.98E-01 3.33E-03 3.32E-03 4.35E-04 2.18E-02 9.28E-03 8.06E-03
4.32E-05 1.65E-02
  503  RDRELFRC002 1.22E-01 0.00E+00 0.00E+00 6.04E-06 0.00E+00 0.00E+00 1.12E-02
4.06E-05 0.00E+00

*******************************************************************************

      * 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

      *

  504  OCENDAT1001   .FALSE. (SET THIS VALUE TO .TRUE. TO SKIP EARLY AND CHRONC)

      *

  505  OCIDEBUG001   0

      *

      * NAME OF THE NUCLIDE TO BE LISTED ON THE DISPERSION LISTINGS

      *

  506  OCNUCOUT001   Cs-137

      *

      *                NUM0

  507  TYPE0NUMBER       2

      *

      *               INDREL    INDRAD

  508  TYPE0OUT001       1         9

  509  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.
```

```
     *
510  M1METCOD001  2
     *
     * LAST SPATIAL INTERVAL FOR MEASURED WEATHER
     *
511  M2LIMSPA001  11
     *
     * BOUNDARY WEATHER MIXING LAYER HEIGHT
     *
512  M2BNDMXH001  1000.  (METERS)
     *
     * BOUNDARY WEATHER STABILITY CLASS INDEX
     *
513  M2IBDSTB001  4       (D-STABILITY)
     *
     * BOUNDARY WEATHER RAIN RATE
     *
514  M2BNDRAN001  5.      (MM/HR)
     *
     * BOUNDARY WEATHER WIND SPEED
     *
515  M2BNDWND001  5.      (M/S)
     *
     * NUMBER OF RAIN DISTANCE INTERVALS FOR BINNING
     *
516  M4NRNINT001  5
     *
     * ENDPOINTS OF THE RAIN DISTANCE INTERVALS (KILOMETERS)
     *
     * NOTE: THESE MUST BE CHOSEN TO MATCH THE SPATIAL ENDPOINT DISTANCES
     *       SPECIFIED FOR THE ARRAY SPAEND (10 % ERROR IS ALLOWED).
```

```
      *
  517 M4RNDSTS001  3.22  6.44  8.05  16.09  32.18
      *
      * NUMBER OF RAIN INTENSITIY BREAKPOINTS
      *
  518 M4NRINTN001   3
      *
      * RAIN INTENSITY BREAKPOINTS FOR WEATHER BINNING (MILLIMETERS PER HOUR)
      *
  519 M4RNRATE001   2.  4.  6.
      *
      * NUMBER OF SAMPLES PER BIN
      *
  520 M4NSMPLS001  4  (THIS NUMBER SHOULD BE SET TO 4 FOR RISK ASSESSMENT)
      *
      * INITIAL SEED FOR RANDOM NUMBER GENERATOR
      *
  521 M4IRSEED001   79

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

USER INPUT PROCESSING SUMMARY - BASE CASE

NUMBER OF RECORDS READ                          =  758
NUMBER OF BLANK OR COMMENT RECORDS READ         =  236
NUMBER OF TERMINATOR RECORDS                    =    1
NUMBER OF RECORDS PROCESSED                     =  521
     NUMBER OF PROCESSED RECORDS DUPLICATED     =    0
     NUMBER OF PROCESSED RECORDS SORTED         =  521
********************************************************************************
****************


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

Using new table-lookup scheme for sigma-y/sigma-z


WARNING: plume # 2 overlaps preceding plume


RELEASED INVENTORY OF ALL PLUMES
Co-58       2.99E+14   0.00E+00
Co-60       2.29E+14   0.00E+00
Kr-85       3.14E+16   4.80E+15
Kr-85m      6.25E+17   1.23E+16
Kr-87       8.72E+17   9.79E+13
Kr-88       1.57E+18   9.45E+15
Rb-86       3.00E+13   0.00E+00
Sr-89       6.91E+16   0.00E+00
Sr-90       6.79E+15   0.00E+00
Sr-91       8.31E+16   0.00E+00
Sr-92       7.76E+16   0.00E+00
Y-90        2.66E+15   3.13E+15
Y-91        3.31E+16   4.56E+16
Y-92        4.29E+16   3.15E+15
Y-93        3.88E+16   2.18E+16
Zr-95       4.51E+16   6.23E+16
Zr-97       4.44E+16   3.58E+16
Nb-95       4.57E+16   6.34E+16
```

Mo-99	5.93E+16	0.00E+00
Tc-99m	5.24E+16	0.00E+00
Ru-103	4.73E+16	0.00E+00
Ru-105	2.94E+16	0.00E+00
Ru-106	1.69E+16	0.00E+00
Rh-105	3.04E+16	0.00E+00
Sb-127	1.59E+14	2.00E+12
Sb-129	4.20E+14	6.98E+11
Te-127	1.58E+14	2.07E+12
Te-127m	2.05E+13	2.85E+11
Te-129	4.40E+14	1.35E+12
Te-129m	6.84E+13	9.45E+11
Te-131m	2.10E+14	2.15E+12
Te-132	2.08E+15	2.57E+13
I-131	1.11E+16	9.71E+10
I-132	1.32E+16	2.60E+13
I-133	2.24E+16	0.00E+00
I-134	1.33E+16	0.00E+00
I-135	1.98E+16	0.00E+00
Xe-133	5.25E+18	7.46E+17
Xe-135	1.22E+18	6.82E+16
Cs-134	2.65E+15	0.00E+00
Cs-136	7.20E+14	0.00E+00
Cs-137	1.43E+15	0.00E+00
Ba-139	6.76E+16	0.00E+00
Ba-140	9.63E+16	0.00E+00
La-140	5.17E+16	5.57E+16
La-141	3.92E+16	5.27E+15
La-142	3.04E+16	1.10E+14
Ce-141	2.67E+14	5.08E+14
Ce-143	2.21E+14	1.58E+14
Ce-144	1.87E+14	1.75E+14
Pr-143	4.01E+16	5.42E+16
Nd-147	1.79E+16	2.40E+16
Np-239	1.25E+15	9.95E+14
Pu-238	6.97E+10	6.76E+10
Pu-239	1.81E+10	1.70E+10
Pu-240	1.89E+10	1.78E+10
Pu-241	5.15E+12	4.84E+12
Am-241	6.03E+11	8.37E+11
Cm-242	1.23E+14	1.70E+14
Cm-244	3.59E+12	4.99E+12

READING FROM A WEATHER FILE WITH THE FOLLOWING HEADER:

METEOROLOGICAL DATA FILE CONTAINS 593 HOURS OF OBSERVED RAIN DATA.
ACCUMULATED RAIN MEASUREMENTS TOTALED 35.33 INCHES FOR THE YEAR.
CONSTANT LID HEIGHTS (M) FOR 4 SEASONS = 1000 1600 1700 1100
NON-ZERO WINDSPEEDS LESS THAN 0.5 M/S ARE SET TO 0.5 M/S

* * * * 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 6 8 16 32
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	0.112	0.056	0.015	0.010	0.026	0.071	0.235	0.061	0.020	0.000	0.015	0.015	0.122	0.117	0.046	0.077	196	2.2374
2	B	4	0.098	0.165	0.084	0.053	0.074	0.115	0.184	0.139	0.017	0.005	0.005	0.010	0.014	0.000	0.007	0.031	418	4.7717
3	D	1	0.000	0.038	0.038	0.019	0.077	0.038	0.077	0.135	0.077	0.077	0.115	0.115	0.058	0.038	0.038	0.058	52	0.5936
4	D	2	0.038	0.055	0.044	0.023	0.040	0.034	0.070	0.061	0.131	0.078	0.091	0.080	0.101	0.080	0.051	0.021	473	5.3995
5	D	3	0.050	0.067	0.067	0.024	0.023	0.038	0.066	0.111	0.130	0.075	0.070	0.051	0.060	0.080	0.050	0.038	702	8.0137
6	D	4	0.043	0.093	0.062	0.035	0.030	0.037	0.065	0.087	0.163	0.093	0.068	0.049	0.057	0.045	0.046	0.026	1481	16.9064
7	D	5	0.019	0.084	0.095	0.062	0.061	0.057	0.084	0.144	0.191	0.085	0.019	0.019	0.023	0.022	0.031	0.005	644	7.3516
8	D	6	0.016	0.142	0.146	0.061	0.073	0.073	0.167	0.154	0.081	0.033	0.004	0.004	0.037	0.004	0.000	0.004	246	2.8082
9	E	1	0.012	0.049	0.024	0.037	0.098	0.085	0.012	0.098	0.098	0.134	0.110	0.085	0.061	0.049	0.049	0.000	82	0.9361
10	E	2	0.024	0.071	0.051	0.073	0.073	0.051	0.085	0.109	0.095	0.046	0.049	0.071	0.078	0.061	0.036	0.027	411	4.6918
11	E	3	0.038	0.106	0.122	0.077	0.048	0.053	0.099	0.101	0.060	0.038	0.024	0.038	0.038	0.070	0.039	0.050	584	6.6667
12	E	4	0.115	0.195	0.180	0.074	0.059	0.053	0.053	0.043	0.044	0.034	0.015	0.016	0.012	0.019	0.041	0.046	1292	14.7489
13	F	1	0.061	0.081	0.091	0.061	0.071	0.051	0.051	0.071	0.081	0.040	0.040	0.040	0.101	0.030	0.030	0.101	99	1.1301
14	F	2	0.090	0.054	0.087	0.054	0.097	0.078	0.109	0.073	0.076	0.047	0.024	0.028	0.043	0.038	0.057	0.045	423	4.8288
15	F	3	0.052	0.044	0.073	0.068	0.081	0.122	0.169	0.104	0.070	0.039	0.042	0.018	0.016	0.021	0.023	0.057	384	4.3836
16	F	4	0.084	0.126	0.147	0.078	0.081	0.129	0.162	0.066	0.027	0.015	0.012	0.003	0.006	0.006	0.021	0.039	334	3.8128
17	R1	3	0.055	0.044	0.029	0.022	0.033	0.020	0.055	0.066	0.211	0.129	0.096	0.039	0.066	0.050	0.037	0.048	456	5.2055
18	R1	6	0.100	0.050	0.150	0.100	0.100	0.000	0.050	0.050	0.000	0.050	0.200	0.000	0.100	0.050	0.000	0.000	20	0.2283
19	R1	8	0.071	0.071	0.071	0.000	0.000	0.000	0.071	0.071	0.071	0.071	0.214	0.071	0.071	0.071	0.071	0.000	14	0.1598
20	R1	16	0.092	0.041	0.000	0.041	0.071	0.051	0.061	0.092	0.082	0.112	0.061	0.082	0.061	0.051	0.041	0.061	98	1.1187
21	R1	32	0.075	0.038	0.025	0.038	0.050	0.031	0.031	0.063	0.138	0.138	0.063	0.063	0.050	0.081	0.056	0.063	160	1.8265
22	R2	3	0.042	0.053	0.042	0.000	0.011	0.032	0.053	0.053	0.168	0.116	0.168	0.021	0.105	0.063	0.063	0.011	95	1.0845
23	R2	6	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1	0.0114
25	R2	16	0.000	0.000	0.000	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.200	0.000	0.200	5	0.0571
26	R2	32	0.000	0.214	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.071	0.143	0.143	0.143	0.143	0.000	14	0.1598
27	R3	3	0.105	0.000	0.105	0.000	0.053	0.000	0.000	0.105	0.053	0.105	0.158	0.053	0.158	0.105	0.000	0.000	19	0.2169
30	R3	16	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	2	0.0228
31	R3	32	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	4	0.0457
32	R4	3	0.000	0.000	0.174	0.043	0.043	0.130	0.087	0.043	0.130	0.000	0.043	0.087						

```
0.000 0.130 0.087 0.000   23     0.2626
33 R4  6  0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000
0.000 0.000 0.000 0.000    1     0.0114
34 R4  8  0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000    1     0.0114
35 R4 16  0.000 0.182 0.091 0.000 0.000 0.000 0.091 0.000 0.000 0.000 0.000 0.091
0.273 0.091 0.091 0.091   11     0.1256
36 R4 32  0.200 0.133 0.133 0.067 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
0.133 0.133 0.200 0.000   15     0.1712
37 ALL    0.060 0.099 0.089 0.050 0.053 0.057 0.089 0.088 0.104 0.062 0.046 0.037
0.047 0.044 0.039 0.036 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 6 8 16 32
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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)

METBIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL	PER CENT
							WIND DIRECTION											
1 B 3	22	11	3	2	5	14	46	12	4	0	3	3	24	23	9	15	196	2.2374
2 B 4	41	69	35	22	31	48	77	58	7	2	2	4	6	0	3	13	418	4.7717
3 D 1	0	2	2	1	4	2	4	7	4	4	6	6	3	2	2	3	52	0.5936
4 D 2	18	26	21	11	19	16	33	29	62	37	43	38	48	38	24	10	473	5.3995
5 D 3	35	47	47	17	16	27	46	78	91	53	49	36	42	56	35	27	702	8.0137
6 D 4	64	137	92	52	45	55	97	129	241	138	101	73	84	66	68	39	1481	16.9064
7 D 5	12	54	61	40	39	37	54	93	123	55	12	12	15	14	20	3	644	7.3516
8 D 6	4	35	36	15	18	18	41	38	20	8	1	1	9	1	0	1	246	2.8082
9 E 1	1	4	2	3	8	7	1	8	8	11	9	7	5	4	4	0	82	0.9361
10 E 2	10	29	21	30	30	21	35	45	39	19	20	29	32	25	15	11	411	4.6918
11 E 3	22	62	71	45	28	31	58	59	35	22	14	22	22	41	23	29	584	6.6667
12 E 4	149	252	232	96	76	68	68	56	57	44	20	21	15	25	53	60	1292	14.7489
13 F 1	6	8	9	6	7	5	5	7	8	4	4	4	10	3	3	10	99	1.1301
14 F 2	38	23	37	23	41	33	46	31	32	20	10	12	18	16	24	19	423	4.8288
15 F 3	20	17	28	26	31	47	65	40	27	15	16	7	6	8	9	22	384	4.3836
16 F 4	28	42	49	26	27	43	54	22	9	5	4	1	2	2	7	13	334	3.8128
17 R1 3	25	20	13	10	15	9	25	30	96	59	44	18	30	23	17	22	456	5.2055

```
18 R1  6     2    1    3    2    2    0    1    1    0    1    4    0    2    1    0
   0   20     0.2283
19 R1  8     1    1    1    0    0    0    1    1    1    1    3    1    1    1    1
   0   14     0.1598
20 R1 16     9    4    0    4    7    5    6    9    8   11    6    8    6    5    4
   6   98     1.1187
21 R1 32    12    6    4    6    8    5    5   10   22   22   10   10    8   13    9
  10  160     1.8265
22 R2  3     4    5    4    0    1    3    5    5   16   11   16    2   10    6    6
   1   95     1.0845
23 R2  6     0    0    0    0    0    0    1    0    0    0    0    0    0    0    0
   0    1     0.0114
24 R2  8     0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
   0    0     0.0000
25 R2 16     0    0    0    2    0    0    0    0    0    0    1    0    0    1    0
   1    5     0.0571
26 R2 32     0    3    1    0    0    0    0    0    0    1    1    2    2    2    2
   0   14     0.1598
27 R3  3     2    0    2    0    1    0    0    2    1    2    3    1    3    2    0
   0   19     0.2169
28 R3  6     0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
   0    0     0.0000
29 R3  8     0    0    0    0    0    0    0    0    0    0    0    0    0    0    0
   0    0     0.0000
30 R3 16     0    1    0    0    0    0    0    0    0    0    0    0    0    0    1
   0    2     0.0228
31 R3 32     1    1    0    0    0    0    0    0    0    0    0    0    0    1    1
   0    4     0.0457
32 R4  3     0    0    4    1    1    3    2    1    3    0    1    2    0    3    2
   0   23     0.2626
33 R4  6     0    0    0    0    0    0    0    0    0    0    1    0    0    0    0
   0    1     0.0114
34 R4  8     0    0    1    0    0    0    0    0    0    0    0    0    0    0    0
   0    1     0.0114
35 R4 16     0    2    1    0    0    0    1    0    0    0    0    1    3    1    1
   1   11     0.1256
36 R4 32     3    2    2    1    0    0    0    0    0    0    0    0    0    2    2    3
   0   15     0.1712
```

* * * * SUMMARIES * * * *

```
   R        59   46   36   26   35   25   47   59  147  108   90   45   67   61   47
41  939    10.7192
   B        63   80   38   24   36   62  123   70   11    2    5    7   30   23   12
28  614     7.0091
   D       133  301  259  136  141  155  275  374  541  295  212  166  201  177  149
83 3598    41.0731
   E       182  347  326  174  142  127  162  168  139   96   63   79   74   95   95
100 2369    27.0434
   F        92   90  123   81  106  128  170  100   76   44   34   24   36   29   43
64 1240    14.1553
      1      7   14   13   10   19   14   10   22   20   19   19   17   18    9    9
13  233     2.6598
      2     68   81   80   64   92   73  133  112  137   76   75   80  108   89   66
45 1379    15.7420
      3     97  134  148   90   78  116  196  182  153   90   80   67   84  118   73
88 1794    20.4795
      4    246  373  263  146  134  162  217  199  292  173  121   98  106   88  126
123 2867    32.7283
      5     35  164  185   82   83   82   96  132  142   70   18   13   16   19   25
 5 1167    13.3219
      6     17   52   57   23   19   25   78   65   23    9    1    1    9    1    0
```

1 381 4.3493

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

BIN	DIRECTION											
	1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	TOTAL								
1	0.112	0.056	0.015	0.010	0.026	0.071	0.235	0.061	0.020	0.000	0.015	0.015
0.122	0.117	0.046	0.077	1.000000								
2	0.098	0.165	0.084	0.053	0.074	0.115	0.184	0.139	0.017	0.005	0.005	0.010
0.014	0.000	0.007	0.031	1.000000								
3	0.000	0.038	0.038	0.019	0.077	0.038	0.077	0.135	0.077	0.077	0.115	0.115
0.058	0.038	0.038	0.058	1.000000								
4	0.038	0.055	0.044	0.023	0.040	0.034	0.070	0.061	0.131	0.078	0.091	0.080
0.101	0.080	0.051	0.021	1.000000								
5	0.050	0.067	0.067	0.024	0.023	0.038	0.066	0.111	0.130	0.075	0.070	0.051
0.060	0.080	0.050	0.038	1.000000								
6	0.043	0.093	0.062	0.035	0.030	0.037	0.065	0.087	0.163	0.093	0.068	0.049
0.057	0.045	0.046	0.026	1.000000								
7	0.019	0.084	0.095	0.062	0.061	0.057	0.084	0.144	0.191	0.085	0.019	0.019
0.023	0.022	0.031	0.005	1.000000								
8	0.016	0.142	0.146	0.061	0.073	0.073	0.167	0.154	0.081	0.033	0.004	0.004
0.037	0.004	0.000	0.004	1.000000								
9	0.012	0.049	0.024	0.037	0.098	0.085	0.012	0.098	0.098	0.134	0.110	0.085
0.061	0.049	0.049	0.000	1.000000								
10	0.024	0.071	0.051	0.073	0.073	0.051	0.085	0.109	0.095	0.046	0.049	0.071
0.078	0.061	0.036	0.027	1.000000								
11	0.038	0.106	0.122	0.077	0.048	0.053	0.099	0.101	0.060	0.038	0.024	0.038
0.038	0.070	0.039	0.050	1.000000								
12	0.115	0.195	0.180	0.074	0.059	0.053	0.053	0.043	0.044	0.034	0.015	0.016
0.012	0.019	0.041	0.046	1.000000								
13	0.061	0.081	0.091	0.061	0.071	0.051	0.051	0.071	0.081	0.040	0.040	0.040
0.101	0.030	0.030	0.101	1.000000								
14	0.090	0.054	0.087	0.054	0.097	0.078	0.109	0.073	0.076	0.047	0.024	0.028
0.043	0.038	0.057	0.045	1.000000								
15	0.052	0.044	0.073	0.068	0.081	0.122	0.169	0.104	0.070	0.039	0.042	0.018
0.016	0.021	0.023	0.057	1.000000								
16	0.084	0.126	0.147	0.078	0.081	0.129	0.162	0.066	0.027	0.015	0.012	0.003
0.006	0.006	0.021	0.039	1.000000								
17	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
18	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
19	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
20	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
21	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
22	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
23	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
24	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
25	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
26	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
27	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	0.048
0.071	0.065	0.050	0.044	1.000000								
28	0.063	0.049	0.038	0.028	0.037	0.027	0.050	0.063	0.157	0.115	0.096	

```
0.048  0.071  0.065  0.050  0.044  1.000000
   29  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   30  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   31  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   32  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   33  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   34  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   35  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   36  0.063  0.049  0.038  0.028  0.037  0.027  0.050  0.063  0.157  0.115  0.096
0.048  0.071  0.065  0.050  0.044  1.000000
   37  0.060  0.099  0.089  0.050  0.053  0.057  0.089  0.088  0.104  0.062  0.046
0.037  0.047  0.044  0.039  0.036  1.000000


******** BEGINNING OF CHANGE CASE   1 USER INPUT ********
       ******************************AP1000 ST STACKED CASES BEGIN
HERE**************************

*************************************************************************************
********
       *

       * SOURCE TERM NUMBER 2 OF 7  (CFE)

  522  RIATNAM1001 'CFE'

********   RECORD NUMBER   522 REPLACES RECORD NUMBER     1   ********
       *

  523  RDOALARM001     3004.

********   RECORD NUMBER   523 REPLACES RECORD NUMBER   420   ********
       *

  524  RDNUMREL001          2

********   RECORD NUMBER   524 REPLACES RECORD NUMBER   421   ********
       *

  525  RDMAXRIS001          1

********   RECORD NUMBER   525 REPLACES RECORD NUMBER   422   ********
       *

  526  RDREFTIM001        0.0   0.5

********   RECORD NUMBER   526 REPLACES RECORD NUMBER   423   ********
       *

  527  RDPLHEAT001        3.0E+6   2.0E+6

********   RECORD NUMBER   527 REPLACES RECORD NUMBER   424   ********
       *

  528  RDPLHITE001        30.   30.
```

```
********    RECORD NUMBER    528 REPLACES RECORD NUMBER    425    ********
        *

        *RDPLUDUR001      70160.    86400.

  529   RDPLUDUR001       36000.   36000.

********    RECORD NUMBER    529 REPLACES RECORD NUMBER    426    ********
        *

  530   RDPDELAY001       3004.    19810.

********    RECORD NUMBER    530 REPLACES RECORD NUMBER    427    ********
        *

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

        * SOURCE TERM NUMBER 2 OF 7  (CFE)

        *

  531   RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFE'

********    RECORD NUMBER    531 REPLACES RECORD NUMBER    419    ********
        *

        *              XE/KR       I        CS        TE        SR        RU        LA
CE        BA
        *

  532   RDRELFRC001 8.21E-01 5.66E-02 5.49E-02 1.39E-03 3.48E-03 1.42E-02 6.54E-05
1.00E-06 5.28E-03
********    RECORD NUMBER    532 REPLACES RECORD NUMBER    502    ********
  533   RDRELFRC002 1.42E-01 0.00E+00 0.00E+00 6.04E-07 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00
********    RECORD NUMBER    533 REPLACES RECORD NUMBER    503    ********

********************************************************************************
********

        .

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

USER INPUT PROCESSING SUMMARY - CHANGE CASE    1
NUMBER OF RECORDS CHANGED              =    12
NUMBER OF RECORDS ADDED                =     0
********************************************************************************
****************


WARNING: plume # 2 overlaps preceding plume


RELEASED INVENTORY OF ALL PLUMES
Co-58       4.57E+14   0.00E+00
Co-60       3.51E+14   0.00E+00
Kr-85       3.23E+16   5.59E+15
Kr-85m      6.41E+17   2.48E+16
Kr-87       8.86E+17   7.89E+14
Kr-88       1.60E+18   2.62E+16
Rb-86       4.96E+14   0.00E+00
```

Sr-89	1.10E+16	0.00E+00
Sr-90	1.08E+15	0.00E+00
Sr-91	1.32E+16	0.00E+00
Sr-92	1.23E+16	0.00E+00
Y-90	3.08E+13	0.00E+00
Y-91	2.71E+14	0.00E+00
Y-92	2.31E+15	0.00E+00
Y-93	3.15E+14	0.00E+00
Zr-95	3.66E+14	0.00E+00
Zr-97	3.60E+14	0.00E+00
Nb-95	3.70E+14	0.00E+00
Mo-99	9.07E+16	0.00E+00
Tc-99m	8.01E+16	0.00E+00
Ru-103	7.24E+16	0.00E+00
Ru-105	4.48E+16	0.00E+00
Ru-106	2.59E+16	0.00E+00
Rh-105	4.65E+16	0.00E+00
Sb-127	5.09E+14	2.06E+11
Sb-129	1.34E+15	1.23E+11
Te-127	5.06E+14	2.11E+11
Te-127m	6.55E+13	2.85E+10
Te-129	1.40E+15	1.92E+11
Te-129m	2.19E+14	9.47E+10
Te-131m	6.71E+14	2.33E+11
Te-132	6.64E+15	2.65E+12
I-131	1.89E+17	7.60E+09
I-132	2.17E+17	2.60E+12
I-133	3.81E+17	0.00E+00
I-134	2.22E+17	0.00E+00
I-135	3.35E+17	0.00E+00
Xe-133	5.40E+18	8.85E+17
Xe-135	1.28E+18	1.04E+17
Cs-134	4.37E+16	0.00E+00
Cs-136	1.19E+16	0.00E+00
Cs-137	2.36E+16	0.00E+00
Ba-139	2.14E+16	0.00E+00
Ba-140	3.08E+16	0.00E+00
La-140	8.48E+14	0.00E+00
La-141	3.17E+14	0.00E+00
La-142	2.44E+14	0.00E+00
Ce-141	5.73E+12	0.00E+00
Ce-143	5.12E+12	0.00E+00
Ce-144	4.32E+12	0.00E+00
Pr-143	3.25E+14	0.00E+00
Nd-147	1.45E+14	0.00E+00
Np-239	2.88E+13	0.00E+00
Pu-238	1.61E+09	0.00E+00
Pu-239	4.18E+08	0.00E+00
Pu-240	4.38E+08	0.00E+00
Pu-241	1.19E+11	0.00E+00
Am-241	4.89E+09	0.00E+00
Cm-242	9.95E+11	0.00E+00
Cm-244	2.91E+10	0.00E+00

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

****
****

* SOURCE TERM NUMBER 3 OF 7 (DIRECT)

534 RIATNAM1001 'DIRECT'

```
********    RECORD NUMBER    534 REPLACES RECORD NUMBER      1    ********
        *

  535  RDOALARM001       4378.

********    RECORD NUMBER    535 REPLACES RECORD NUMBER    420    ********
        *

  536  RDNUMREL001          2

********    RECORD NUMBER    536 REPLACES RECORD NUMBER    421    ********
        *

  537  RDMAXRIS001          1

********    RECORD NUMBER    537 REPLACES RECORD NUMBER    422    ********
        *

  538  RDREFTIM001        0.0    0.5

********    RECORD NUMBER    538 REPLACES RECORD NUMBER    423    ********
        *

  539  RDPLHEAT001     3.0E+6   2.0E+6

********    RECORD NUMBER    539 REPLACES RECORD NUMBER    424    ********
        *

  540  RDPLHITE001        30.    30.

********    RECORD NUMBER    540 REPLACES RECORD NUMBER    425    ********
        *

        *RDPLUDUR001     80432.   86400.

  541  RDPLUDUR001     36000.  36000.

********    RECORD NUMBER    541 REPLACES RECORD NUMBER    426    ********
        *

  542  RDPDELAY001     4378.   84810.

********    RECORD NUMBER    542 REPLACES RECORD NUMBER    427    ********
        *

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

        * SOURCE TERM NUMBER 3 OF 7  (DIRECT)

        *

  543  RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case DIRECT'

********    RECORD NUMBER    543 REPLACES RECORD NUMBER    419    ********
        *

        *             XE/KR      I       CS       TE       SR       RU       LA
CE       BA
        *

  544  RDRELFRC001 4.43E-03 3.61E-05 3.46E-05 2.42E-06 3.22E-05 3.94E-05 4.06E-06
1.76E-08 3.61E-05
********    RECORD NUMBER    544 REPLACES RECORD NUMBER    502    ********
```

```
  545  RDRELFRC002 3.50E-03 0.00E+00 0.00E+00 5.44E-09 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00
********    RECORD NUMBER    545 REPLACES RECORD NUMBER    503    ********

********************************************************************************
********

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

USER INPUT PROCESSING SUMMARY - CHANGE CASE    2
NUMBER OF RECORDS CHANGED              =    12
NUMBER OF RECORDS ADDED                =     0
********************************************************************************
****************
```

RELEASED INVENTORY OF ALL PLUMES

Co-58	1.27E+12	0.00E+00
Co-60	9.74E+11	0.00E+00
Kr-85	1.74E+14	1.38E+14
Kr-85m	3.26E+15	3.74E+13
Kr-87	3.88E+15	1.03E+09
Kr-88	7.88E+15	7.87E+12
Rb-86	3.12E+11	0.00E+00
Sr-89	1.02E+14	0.00E+00
Sr-90	1.00E+13	0.00E+00
Sr-91	1.19E+14	0.00E+00
Sr-92	1.03E+14	0.00E+00
Y-90	1.43E+12	0.00E+00
Y-91	1.67E+13	0.00E+00
Y-92	3.96E+13	0.00E+00
Y-93	1.90E+13	0.00E+00
Zr-95	2.27E+13	0.00E+00
Zr-97	2.20E+13	0.00E+00
Nb-95	2.30E+13	0.00E+00
Mo-99	2.51E+14	0.00E+00
Tc-99m	2.22E+14	0.00E+00
Ru-103	2.01E+14	0.00E+00
Ru-105	1.17E+14	0.00E+00
Ru-106	7.18E+13	0.00E+00
Rh-105	1.29E+14	0.00E+00
Sb-127	8.83E+11	1.62E+09
Sb-129	2.19E+12	6.13E+07
Te-127	8.81E+11	1.72E+09
Te-127m	1.14E+11	2.57E+08
Te-129	2.35E+12	6.12E+08
Te-129m	3.80E+11	8.41E+08
Te-131m	1.16E+12	1.38E+09
Te-132	1.15E+13	2.03E+10
I-131	1.21E+14	1.48E+08
I-132	1.26E+14	2.09E+10
I-133	2.40E+14	0.00E+00
I-134	1.05E+14	0.00E+00
I-135	2.05E+14	0.00E+00
Xe-133	2.91E+16	1.98E+16
Xe-135	6.60E+15	6.47E+14
Cs-134	2.76E+13	0.00E+00
Cs-136	7.49E+12	0.00E+00
Cs-137	1.49E+13	0.00E+00
Ba-139	1.21E+14	0.00E+00

Ba-140	2.10E+14	0.00E+00
La-140	2.96E+13	0.00E+00
La-141	1.84E+13	0.00E+00
La-142	1.28E+13	0.00E+00
Ce-141	1.19E+11	0.00E+00
Ce-143	8.95E+10	0.00E+00
Ce-144	7.61E+10	0.00E+00
Pr-143	2.02E+13	0.00E+00
Nd-147	8.99E+12	0.00E+00
Np-239	5.05E+11	0.00E+00
Pu-238	2.84E+07	0.00E+00
Pu-239	7.37E+06	0.00E+00
Pu-240	7.72E+06	0.00E+00
Pu-241	2.10E+09	0.00E+00
Am-241	3.04E+08	0.00E+00
Cm-242	6.18E+10	0.00E+00
Cm-244	1.81E+09	0.00E+00

```
******** BEGINNING OF CHANGE CASE   3 USER INPUT ********
       * SOURCE TERM NUMBER 4 OF 7  (IC)

  546  RIATNAM1001 'IC'

********    RECORD NUMBER   546 REPLACES RECORD NUMBER     1    ********
       *

  547  RDOALARM001      4378.

********    RECORD NUMBER   547 REPLACES RECORD NUMBER   420    ********
       *

  548  RDNUMREL001       2

********    RECORD NUMBER   548 REPLACES RECORD NUMBER   421    ********
       *

  549  RDMAXRIS001       1

********    RECORD NUMBER   549 REPLACES RECORD NUMBER   422    ********
       *

  550  RDREFTIM001      0.0    0.5

********    RECORD NUMBER   550 REPLACES RECORD NUMBER   423    ********
       *

  551  RDPLHEAT001    3.0E+6   2.0E+6

********    RECORD NUMBER   551 REPLACES RECORD NUMBER   424    ********
       *

  552  RDPLHITE001       30.   30.

********    RECORD NUMBER   552 REPLACES RECORD NUMBER   425    ********
       *

       *RDPLUDUR001      80432.    86400.

  553  RDPLUDUR001     36000.  36000.

********    RECORD NUMBER   553 REPLACES RECORD NUMBER   426    ********
       *
```

```
  554  RDPDELAY001     4378.    84810.

********    RECORD NUMBER    554 REPLACES RECORD NUMBER    427    ********
        *

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

        * SOURCE TERM NUMBER 4 OF 7  (IC)

        *

  555  RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case IC'

********    RECORD NUMBER    555 REPLACES RECORD NUMBER    419    ********
        *

        *              XE/KR       I        CS        TE        SR        RU        LA
CE        BA
        *

  556  RDRELFRC001 1.48E-03 1.20E-05 1.15E-05 8.09E-07 1.07E-05 1.31E-05 1.36E-06
5.88E-09 1.20E-05
********    RECORD NUMBER    556 REPLACES RECORD NUMBER    502    ********
  557  RDRELFRC002 1.17E-03 0.00E+00 0.00E+00 1.81E-09 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00
********    RECORD NUMBER    557 REPLACES RECORD NUMBER    503    ********

********************************************************************************
********

        .

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

USER INPUT PROCESSING SUMMARY - CHANGE CASE    3
NUMBER OF RECORDS CHANGED              =    12
NUMBER OF RECORDS ADDED                =     0
********************************************************************************
****************



RELEASED INVENTORY OF ALL PLUMES
Co-58       4.22E+11   0.00E+00
Co-60       3.24E+11   0.00E+00
Kr-85       5.82E+13   4.60E+13
Kr-85m      1.09E+15   1.25E+13
Kr-87       1.30E+15   3.46E+08
Kr-88       2.63E+15   2.63E+12
Rb-86       1.04E+11   0.00E+00
Sr-89       3.39E+13   0.00E+00
Sr-90       3.33E+12   0.00E+00
Sr-91       3.96E+13   0.00E+00
Sr-92       3.44E+13   0.00E+00
Y-90        4.80E+11   0.00E+00
Y-91        5.59E+12   0.00E+00
Y-92        1.32E+13   0.00E+00
Y-93        6.37E+12   0.00E+00
Zr-95       7.61E+12   0.00E+00
Zr-97       7.37E+12   0.00E+00
Nb-95       7.70E+12   0.00E+00
Mo-99       8.34E+13   0.00E+00
```

Tc-99m	7.39E+13	0.00E+00
Ru-103	6.68E+13	0.00E+00
Ru-105	3.89E+13	0.00E+00
Ru-106	2.39E+13	0.00E+00
Rh-105	4.29E+13	0.00E+00
Sb-127	2.95E+11	5.38E+08
Sb-129	7.33E+11	2.04E+07
Te-127	2.94E+11	5.73E+08
Te-127m	3.81E+10	8.55E+07
Te-129	7.86E+11	2.04E+08
Te-129m	1.27E+11	2.80E+08
Te-131m	3.87E+11	4.61E+08
Te-132	3.85E+12	6.77E+09
I-131	4.01E+13	4.92E+07
I-132	4.19E+13	6.97E+09
I-133	7.97E+13	0.00E+00
I-134	3.48E+13	0.00E+00
I-135	6.83E+13	0.00E+00
Xe-133	9.71E+15	6.60E+15
Xe-135	2.21E+15	2.16E+14
Cs-134	9.16E+12	0.00E+00
Cs-136	2.49E+12	0.00E+00
Cs-137	4.95E+12	0.00E+00
Ba-139	4.01E+13	0.00E+00
Ba-140	6.99E+13	0.00E+00
La-140	9.89E+12	0.00E+00
La-141	6.16E+12	0.00E+00
La-142	4.28E+12	0.00E+00
Ce-141	3.96E+10	0.00E+00
Ce-143	2.99E+10	0.00E+00
Ce-144	2.54E+10	0.00E+00
Pr-143	6.76E+12	0.00E+00
Nd-147	3.01E+12	0.00E+00
Np-239	1.69E+11	0.00E+00
Pu-238	9.50E+06	0.00E+00
Pu-239	2.46E+06	0.00E+00
Pu-240	2.58E+06	0.00E+00
Pu-241	7.00E+08	0.00E+00
Am-241	1.02E+08	0.00E+00
Cm-242	2.07E+10	0.00E+00
Cm-244	6.06E+08	0.00E+00

```
******** BEGINNING OF CHANGE CASE   4 USER INPUT ********
       * SOURCE TERM NUMBER 5 OF 7  (BP)

  558  RIATNAM1001 'BP'

********    RECORD NUMBER   558 REPLACES RECORD NUMBER     1   ********
       *

  559  RDOALARM001      31890.

********    RECORD NUMBER   559 REPLACES RECORD NUMBER   420   ********
       *

  560  RDNUMREL001          2

********    RECORD NUMBER   560 REPLACES RECORD NUMBER   421   ********
       *

  561  RDMAXRIS001          1
```

```
********    RECORD NUMBER    561 REPLACES RECORD NUMBER    422    ********
        *

  562  RDREFTIM001         0.5    0.0

********    RECORD NUMBER    562 REPLACES RECORD NUMBER    423    ********
        *

  563  RDPLHEAT001      3.0E+6    3.0E+6

********    RECORD NUMBER    563 REPLACES RECORD NUMBER    424    ********
        *

  564  RDPLHITE001         30.    30.

********    RECORD NUMBER    564 REPLACES RECORD NUMBER    425    ********
        *

        *RDPLUDUR001       40050.  86400.

  565  RDPLUDUR001      36000.  36000.

********    RECORD NUMBER    565 REPLACES RECORD NUMBER    426    ********
        *

  566  RDPDELAY001       31890.   46440.

********    RECORD NUMBER    566 REPLACES RECORD NUMBER    427    ********
        *

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

        * SOURCE TERM NUMBER 5 OF 7  (BP)

        *

  567  RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case BP'

********    RECORD NUMBER    567 REPLACES RECORD NUMBER    419    ********
        *

        *             XE/KR       I        CS        TE        SR        RU        LA
CE        BA
        *

  568  RDRELFRC001 1.00E+00 2.15E-01 1.96E-01 9.84E-03 3.57E-03 4.48E-02 1.30E-04
3.19E-06 8.93E-03
********    RECORD NUMBER    568 REPLACES RECORD NUMBER    502    ********
  569  RDRELFRC002 0.00E+00 2.34E-01 7.60E-02 6.89E-03 0.00E+00 0.00E+00 0.00E+00
0.00E+00 1.00E-06
********    RECORD NUMBER    569 REPLACES RECORD NUMBER    503    ********

********************************************************************************
********

        .

******** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE    4 USER INPUT ********

USER INPUT PROCESSING SUMMARY - CHANGE CASE    4
NUMBER OF RECORDS CHANGED              =    12
NUMBER OF RECORDS ADDED                =     0
********************************************************************************
***************
```

WARNING: plume # 2 overlaps preceding plume

RELEASED	INVENTORY	OF ALL PLUMES
Co-58	1.44E+15	0.00E+00
Co-60	1.11E+15	0.00E+00
Kr-85	3.93E+16	0.00E+00
Kr-85m	1.04E+17	0.00E+00
Kr-87	8.92E+14	0.00E+00
Kr-88	8.13E+16	0.00E+00
Rb-86	1.74E+15	6.74E+14
Sr-89	1.12E+16	0.00E+00
Sr-90	1.11E+15	0.00E+00
Sr-91	5.25E+15	0.00E+00
Sr-92	4.52E+14	0.00E+00
Y-90	1.91E+14	0.00E+00
Y-91	5.56E+14	0.00E+00
Y-92	1.95E+15	0.00E+00
Y-93	2.56E+14	0.00E+00
Zr-95	7.23E+14	0.00E+00
Zr-97	4.19E+14	0.00E+00
Nb-95	7.36E+14	0.00E+00
Mo-99	2.50E+17	0.00E+00
Tc-99m	2.35E+17	0.00E+00
Ru-103	2.26E+17	0.00E+00
Ru-105	1.85E+16	0.00E+00
Ru-106	8.15E+16	0.00E+00
Rh-105	1.27E+17	0.00E+00
Sb-127	3.27E+15	2.30E+15
Sb-129	1.17E+15	9.57E+14
Te-127	3.38E+15	2.38E+15
Te-127m	4.64E+14	3.25E+14
Te-129	2.24E+15	1.72E+15
Te-129m	1.54E+15	1.08E+15
Te-131m	3.52E+15	2.52E+15
Te-132	4.19E+16	2.96E+16
I-131	6.86E+17	7.49E+17
I-132	5.86E+16	5.33E+16
I-133	9.37E+17	1.05E+18
I-134	2.84E+13	6.59E+13
I-135	3.25E+17	3.91E+17
Xe-133	6.21E+18	8.74E+16
Xe-135	9.24E+17	3.94E+17
Cs-134	1.56E+17	6.05E+16
Cs-136	4.13E+16	1.60E+16
Cs-137	8.44E+16	3.27E+16
Ba-139	5.18E+13	9.39E+09
Ba-140	5.06E+16	5.68E+12
La-140	1.15E+16	1.15E+12
La-141	6.34E+13	0.00E+00
La-142	1.39E+12	0.00E+00
Ce-141	2.06E+13	0.00E+00
Ce-143	1.24E+13	0.00E+00
Ce-144	1.38E+13	0.00E+00
Pr-143	6.30E+14	0.00E+00
Nd-147	2.79E+14	0.00E+00
Np-239	7.84E+13	0.00E+00
Pu-238	5.17E+09	0.00E+00
Pu-239	1.34E+09	0.00E+00

```
Pu-240      1.40E+09   0.00E+00
Pu-241      3.80E+11   0.00E+00
Am-241      9.72E+09   0.00E+00
Cm-242      1.97E+12   0.00E+00
Cm-244      5.79E+10   0.00E+00


******** BEGINNING OF CHANGE CASE   5 USER INPUT ********
       * SOURCE TERM NUMBER 6 OF 7  (CI)

  570  RIATNAM1001 'CI'

********    RECORD NUMBER   570 REPLACES RECORD NUMBER     1    ********
       *

  571  RDOALARM001     100.8

********    RECORD NUMBER   571 REPLACES RECORD NUMBER   420    ********
       *

  572  RDNUMREL001          2

********    RECORD NUMBER   572 REPLACES RECORD NUMBER   421    ********
       *

  573  RDMAXRIS001          1

********    RECORD NUMBER   573 REPLACES RECORD NUMBER   422    ********
       *

  574  RDREFTIM001        0.5   0.5

********    RECORD NUMBER   574 REPLACES RECORD NUMBER   423    ********
       *

  575  RDPLHEAT001        3.0E+6   2.0E+6

********    RECORD NUMBER   575 REPLACES RECORD NUMBER   424    ********
       *

  576  RDPLHITE001        30.   30.

********    RECORD NUMBER   576 REPLACES RECORD NUMBER   425    ********
       *

       *RDPLUDUR001      86380.   75300.

  577  RDPLUDUR001     36000.  36000.

********    RECORD NUMBER   577 REPLACES RECORD NUMBER   426    ********
       *

  578  RDPDELAY001       100.8   50020.

********    RECORD NUMBER   578 REPLACES RECORD NUMBER   427    ********
       *

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

       * SOURCE TERM NUMBER 6 OF 7  (CI)

       *
```

```
  579  RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CI'

********    RECORD NUMBER    579 REPLACES RECORD NUMBER    419    ********
        *

        *              XE/KR       I        CS        TE        SR        RU        LA
CE        BA



        *

  580  RDRELFRC001 6.86E-01 4.56E-02 2.10E-02 1.65E-03 2.03E-02 4.04E-02 2.39E-04
2.97E-06 3.16E-02
********    RECORD NUMBER    580 REPLACES RECORD NUMBER    502    ********
  581  RDRELFRC002 8.40E-02 0.00E+00 0.00E+00 9.37E-05 0.00E+00 0.00E+00 0.00E+00
0.00E+00 0.00E+00
********    RECORD NUMBER    581 REPLACES RECORD NUMBER    503    ********

********************************************************************************
********

        .

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

USER INPUT PROCESSING SUMMARY - CHANGE CASE    5
NUMBER OF RECORDS CHANGED                =    12
NUMBER OF RECORDS ADDED                  =     0
********************************************************************************
****************



RELEASED INVENTORY OF ALL PLUMES
Co-58       1.30E+15   0.00E+00
Co-60       9.99E+14   0.00E+00
Kr-85       2.70E+16   3.30E+15
Kr-85m      2.80E+17   4.01E+15
Kr-87       7.53E+16   4.81E+12
Kr-88       4.81E+17   2.00E+15
Rb-86       1.89E+14   0.00E+00
Sr-89       6.42E+16   0.00E+00
Sr-90       6.32E+15   0.00E+00
Sr-91       5.69E+16   0.00E+00
Sr-92       2.46E+16   0.00E+00
Y-90        4.09E+14   0.00E+00
Y-91        1.05E+15   0.00E+00
Y-92        2.87E+16   0.00E+00
Y-93        8.62E+14   0.00E+00
Zr-95       1.33E+15   0.00E+00
Zr-97       1.11E+15   0.00E+00
Nb-95       1.35E+15   0.00E+00
Mo-99       2.47E+17   0.00E+00
Tc-99m      2.25E+17   0.00E+00
Ru-103      2.05E+17   0.00E+00
Ru-105      6.62E+16   0.00E+00
Ru-106      7.36E+16   0.00E+00
Rh-105      1.29E+17   0.00E+00
Sb-127      5.85E+14   3.00E+13
Sb-129      8.11E+14   4.98E+12
Te-127      5.92E+14   3.13E+13
```

Te-127m	7.78E+13	4.42E+12
Te-129	1.01E+15	1.48E+13
Te-129m	2.59E+14	1.46E+13
Te-131m	7.23E+14	2.98E+13
Te-132	7.60E+15	3.82E+14
I-131	1.50E+17	1.90E+12
I-132	5.51E+16	3.92E+14
I-133	2.67E+17	0.00E+00
I-134	6.49E+15	0.00E+00
I-135	1.74E+17	0.00E+00
Xe-133	4.42E+18	5.00E+17
Xe-135	8.23E+17	3.24E+16
Cs-134	1.67E+16	0.00E+00
Cs-136	4.51E+15	0.00E+00
Cs-137	9.04E+15	0.00E+00
Ba-139	1.55E+16	0.00E+00
Ba-140	1.83E+17	0.00E+00
La-140	1.66E+16	0.00E+00
La-141	5.53E+14	0.00E+00
La-142	1.35E+14	0.00E+00
Ce-141	2.02E+13	0.00E+00
Ce-143	1.39E+13	0.00E+00
Ce-144	1.28E+13	0.00E+00
Pr-143	1.18E+15	0.00E+00
Nd-147	5.24E+14	0.00E+00
Np-239	8.13E+13	0.00E+00
Pu-238	4.80E+09	0.00E+00
Pu-239	1.24E+09	0.00E+00
Pu-240	1.30E+09	0.00E+00
Pu-241	3.54E+11	0.00E+00
Am-241	1.79E+10	0.00E+00
Cm-242	3.63E+12	0.00E+00
Cm-244	1.06E+11	0.00E+00

```
******** BEGINNING OF CHANGE CASE   6 USER INPUT ********
       * SOURCE TERM NUMBER 7 OF 7  (CFL)

  582  RIATNAM1001 'CFL'

********   RECORD NUMBER   582 REPLACES RECORD NUMBER     1   ********
       *

  583  RDOALARM001     2922.

********   RECORD NUMBER   583 REPLACES RECORD NUMBER   420   ********
       *

  584  RDNUMREL001          2

********   RECORD NUMBER   584 REPLACES RECORD NUMBER   421   ********
       *

  585  RDMAXRIS001          1

********   RECORD NUMBER   585 REPLACES RECORD NUMBER   422   ********
       *

  586  RDREFTIM001        0.5   0.5

********   RECORD NUMBER   586 REPLACES RECORD NUMBER   423   ********
       *
```

```
  587  RDPLHEAT001      3.0E+6    2.0E+6
********    RECORD NUMBER    587 REPLACES RECORD NUMBER    424    ********
        *
  588  RDPLHITE001         30.    30.
********    RECORD NUMBER    588 REPLACES RECORD NUMBER    425    ********
        *
       *RDPLUDUR001       81640.    86400.
  589  RDPLUDUR001      36000.  36000.
********    RECORD NUMBER    589 REPLACES RECORD NUMBER    426    ********
        *
  590  RDPDELAY001        2922.   26360.
********    RECORD NUMBER    590 REPLACES RECORD NUMBER    427    ********
        *
       ********************** RELEASE DATA BLOCK *************
       * SOURCE TERM NUMBER 7 OF 7  (CFL)
       *
  591  RDATNAM2001 'RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFL'
********    RECORD NUMBER    591 REPLACES RECORD NUMBER    419    ********
        *
        *              XE/KR       I        CS        TE        SR        RU        LA
CE        BA
        *
  592  RDRELFRC001 1.53E-03 1.21E-05 1.15E-05 1.02E-06 1.67E-05 1.71E-05 1.17E-05
4.79E-08 1.68E-05
********    RECORD NUMBER    592 REPLACES RECORD NUMBER    502    ********
  593  RDRELFRC002 9.79E-01 2.13E-05 1.19E-05 3.67E-05 2.83E-03 1.42E-03 1.41E-01
5.34E-04 2.60E-03
********    RECORD NUMBER    593 REPLACES RECORD NUMBER    503    ********
********************************************************************************
********
        .
******** TERMINATOR RECORD ENCOUNTERED -- END OF CHANGE CASE    6 USER INPUT ********

USER INPUT PROCESSING SUMMARY - CHANGE CASE    6
NUMBER OF RECORDS CHANGED              =    12
NUMBER OF RECORDS ADDED                =     0
********************************************************************************
****************


WARNING: plume # 2 overlaps preceding plume


RELEASED INVENTORY OF ALL PLUMES
```

Co-58	5.50E+11	4.55E+13
Co-60	4.23E+11	3.51E+13
Kr-85	6.02E+13	3.85E+16
Kr-85m	5.53E+14	1.29E+17
Kr-87	1.10E+14	2.02E+15
Kr-88	8.86E+14	1.16E+17
Rb-86	1.03E+11	1.06E+11
Sr-89	5.28E+13	8.92E+15
Sr-90	5.20E+12	8.81E+14
Sr-91	4.42E+13	4.66E+15
Sr-92	1.66E+13	5.31E+14
Y-90	3.89E+12	4.02E+16
Y-91	4.79E+13	5.75E+17
Y-92	3.91E+13	5.75E+16
Y-93	4.00E+13	3.08E+17
Zr-95	6.53E+13	7.85E+17
Zr-97	5.25E+13	4.84E+17
Nb-95	6.63E+13	7.99E+17
Mo-99	1.04E+14	8.04E+15
Tc-99m	9.50E+13	7.56E+15
Ru-103	8.69E+13	7.18E+15
Ru-105	2.48E+13	7.45E+14
Ru-106	3.11E+13	2.58E+15
Rh-105	5.43E+13	4.12E+15
Sb-127	3.60E+11	1.23E+13
Sb-129	4.42E+11	5.60E+12
Te-127	3.65E+11	1.27E+13
Te-127m	4.81E+10	1.73E+12
Te-129	5.67E+11	9.66E+12
Te-129m	1.60E+11	5.75E+12
Te-131m	4.39E+11	1.36E+13
Te-132	4.66E+12	1.58E+14
I-131	3.97E+13	6.89E+13
I-132	1.42E+13	1.61E+14
I-133	6.90E+13	9.77E+13
I-134	9.26E+11	9.48E+09
I-135	4.25E+13	3.78E+13
Xe-133	9.79E+15	6.04E+18
Xe-135	1.62E+15	6.24E+17
Cs-134	9.16E+12	9.48E+12
Cs-136	2.47E+12	2.52E+12
Cs-137	4.95E+12	5.12E+12
Ba-139	5.57E+12	3.26E+13
Ba-140	9.69E+13	1.48E+16
La-140	7.64E+13	7.25E+17
La-141	2.36E+13	9.01E+16
La-142	4.66E+12	3.01E+15
Ce-141	4.73E+11	6.41E+15
Ce-143	2.21E+11	2.15E+15
Ce-144	2.07E+11	2.31E+15
Pr-143	5.76E+13	6.85E+17
Nd-147	2.56E+13	3.03E+17
Np-239	1.30E+12	1.34E+16
Pu-238	7.81E+07	8.84E+11
Pu-239	2.01E+07	2.24E+11
Pu-240	2.10E+07	2.34E+11
Pu-241	5.71E+09	6.36E+13
Am-241	8.75E+08	1.05E+13
Cm-242	1.78E+11	2.14E+15
Cm-244	5.21E+09	6.28E+13

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

RIATNAM1001 'CFL'

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

* GENERAL DESCRIPTIVE TITLE DESCRIBING THIS NAPS AP1000 "EARLY" INPUT FILE

* BASE CASE using EZDLTSHL = 7200 seconds and 95% Evacuation

* Last Modified by MGM 04/16/04

1 MIEANAM1001 'NAPS APEARLY.INP, For AP1000 Design'

2 DCF_FILE001 '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.

```
     *
     * 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  2
     *
     * 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
     *
     *PDPOPFLG001  UNIFORM
     *PDIBEGIN001  1   (SPATIAL INTERVAL AT WHICH POPULATION BEGINS)
     *PDPOPDEN001  50. (POPULATION DENSITY (PEOPLE PER SQUARE KILOMETER))
*****************************************************************************
     * SHIELDING AND EXPOSURE FACTORS, LOADED BY INDFAC, STORED IN /EADFAC/
     *
     * THREE VALUES OF EACH PROTECTION FACTOR ARE SUPPLIED,
     * ONE FOR EACH TYPE OF ACTIVTY:
     *
     * 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       1.      0.75      0.6    *  SURRY SHELTERING VALUE
     *
     * PROTECTION FACTOR FOR INHALATION
     *
27   SEPROTIN001       1.      0.41      0.33   * VALUES FOR NORMAL ACTIVITY AND
     *                                             SHELTERING SELECTED BY NRC STAFF
     *
```

```
     * BREATHING RATE (CUBIC METERS PER SECOND)
     *
28   SEBRRATE001  2.66E-4  2.66E-4  2.66E-4
     *
     * 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      0.5    0.33    0.2   * VALUE FOR NORMAL ACTIVITY SELECTED BY
     *                                        NRC STAFF
     *
     * 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 /NETWOR/, /EOPTIO/
```

```
    *
    * SPECIFIC DESCRIPTION OF THE EMERGENCY RESPONSE SCENARIO BEING USED
    *
33  EZEANAM2001  'EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE'
    *
    * 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 the people withiin 10 miles evacuate)
    *
    * LAST RING IN THE MOVEMENT ZONE
    *
36  EZLASMOV001     8    (EVACUEES DISAPPEAR AFTER TRAVELING TO 20 MILES)
    *
    *  Flag defining the time at which evacuees "enter" the destination element
    *
   *TRAVELPOINT   'CENTERPOINT' (new option implemented at MACCS2 v. 1.11f)
37  TRAVELPOINT   'BOUNDARY'    (functionality derived from MACCS circa 1984)
    *
    * RADIAL EVACUATION SPEED (M/S) or (4 mph)
    *  3 Phases:  (Initial)  (Middle)   (Late)
38  EZESPEED001      1.8        1.8       1.8          (NAPS)
39  EZEVATYP001     'RADIAL'
40  EZDURBEG001    86400.0
41  EZDURMID001    0.0
42  EZREFPNT001     'ALARM'
43  EZNUMEVA001      7
44  EZDLTSHL001   7200.  7200.  7200.  7200.  7200.  7200.
```

```
45  EZDLTSHL002   7200.  7200.  7200.  7200.  7200.  7200.
46  EZDLTEVA001      0.     0.     0.     0.     0.     0.
47  EZDLTEVA002      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)
    *
48  SRENDEMP001  604800.   (ONE WEEK)
    *
    * CRITICAL ORGAN FOR RELOCATION DECISIONS
    *
49  SRCRIORG001 'L-EDEWBODY'
    *
    * HOT SPOT RELOCATION TIME (SECONDS FROM PLUME ARRIVAL)
    *
50  SRTIMHOT001  43200.    (ONE-HALF DAY)
    *
    * NORMAL RELOCATION TIME (SECONDS FROM PLUME ARRIVAL)
    *
51  SRTIMNRM001  86400.    (ONE DAY)
    *
    * HOT SPOT RELOCATION DOSE CRITERION THRESHOLD (SIEVERTS)
    *
52  SRDOSHOT001  0.5    (50 REM DOSE TO WHOLE BODY IN 1 WEEK TRIGGERS RELOCATION)
    *
    * NORMAL RELOCATION DOSE CRITERION THRESHOLD (SIEVERTS)
    *
53  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
      *
   54 EFNUMEFA001   2
      *
      *            ORGNAM        EFFACA    EFFACB    EFFTHR
      *
   55 EFATAGRP001 'A-RED MARR'      3.8       5.0     1.5
   56 EFATAGRP002 'A-LUNGS'        10.0       7.0     5.0
*******************************************************************************
      * EARLY INJURY MODEL PARAMETERS, LOADED BY INEINJ, STORED IN /EINJUR/
      *
      * NUMBER OF EARLY INJURY EFFECTS
      *
   57 EINUMEIN001  7
      *
      *            EINAME            ORGNAM    EISUSC EITHRE EIFACA EIFACB
      *
   58 EINJUGRP001 'PRODROMAL VOMIT' 'A-STOMACH' 1.      .5     2.     3.
   59 EINJUGRP002 'DIARRHEA'        'A-STOMACH' 1.      1.     3.     2.5
   60 EINJUGRP003 'PNEUMONITIS'     'A-LUNGS'   1.      5.    10.     7.
   61 EINJUGRP004 'SKIN ERYTHEMA'   'A-SKIN'    1.      3.     6.     5.
   62 EINJUGRP005 'TRANSEPIDERMAL'  'A-SKIN'    1.     10.    20.     5.
   63 EINJUGRP006 'THYROIDITIS'     'A-THYROIDH' 1.     40.   240.     2.
   64 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
```

```
    *
65  LCNUMACA001   7
    *
    * THRESHOLD DOSE FOR APPLYING THE DOSE DEPENDENT REDUCTION FACTOR
    *
66  LCDDTHRE001   0.2  (LOWEST DOSE FOR WHICH DDREFA WILL BE APPLIED)
    *
    * DOSE THRESHOLD FOR LINEAR DOSE RESPONSE (Sv)
    *
67  LCACTHRE001   0.0  (LINEAR-QUADRATIC MODEL IS NOT BEING USED)
    *
    *            ACNAME     ORGNAM  ACSUSC DOSEFA DOSEFB CFRISK   CIRISK  DDREFA
    *
68  LCANCERS001 'LEUKEMIA' 'L-RED MARR' 1.0   1.0   0.0   9.70E-3  0.0     2.0
69  LCANCERS002 'BONE'     'L-BONE SUR' 1.0   1.0   0.0   9.00E-4  0.0     2.0
70  LCANCERS003 'BREAST'   'L-BREAST'   1.0   1.0   0.0   5.40E-3  1.7E-2  1.0
71  LCANCERS004 'LUNG'     'L-LUNGS'    1.0   1.0   0.0   1.55E-2  0.0     2.0
72  LCANCERS005 'THYROID'  'L-THYROIDH' 1.0   1.0   0.0   7.20E-4  7.2E-3  1.0
73  LCANCERS006 'GI'       'L-LOWER LI' 1.0   1.0   0.0   3.36E-2  0.0     2.0
74  LCANCERS007 'OTHER'    'L-EDEWBODY' 1.0   1.0   0.0   2.76E-2  0.0     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
    *
75  TYPE1NUMBER    27
    *
76  TYPE1OUT001    'ERL FAT/TOTAL'                1  7   NOCCDF (0 TO 10 MILES)
77  TYPE1OUT002    'ERL INJ/PRODROMAL VOMIT'      1  7   NOCCDF
78  TYPE1OUT003    'ERL INJ/DIARRHEA'             1  7
```

```
 79  TYPE1OUT004    'ERL INJ/PNEUMONITIS'          1  7
 80  TYPE1OUT005    'ERL INJ/THYROIDITIS'          1  7
 81  TYPE1OUT006    'ERL INJ/HYPOTHYROIDISM'       1  7
 82  TYPE1OUT007    'ERL INJ/SKIN ERYTHEMA'        1  7
 83  TYPE1OUT008    'ERL INJ/TRANSEPIDERMAL'       1  7
 84  TYPE1OUT009    'CAN FAT/TOTAL'                1  7   NOCCDF
 85  TYPE1OUT010    'CAN FAT/LUNG'                 1  11  (0 TO 50 MILES)
 86  TYPE1OUT011    'CAN FAT/THYROID'              1  11
 87  TYPE1OUT012    'CAN FAT/BREAST'               1  11
 88  TYPE1OUT013    'CAN FAT/GI'                   1  11
 89  TYPE1OUT014    'CAN FAT/LEUKEMIA'             1  11
 90  TYPE1OUT015    'CAN FAT/BONE'                 1  11
 91  TYPE1OUT016    'CAN FAT/OTHER'                1  11
 92  TYPE1OUT017    'CAN INJ/THYROID'              1  11
 93  TYPE1OUT018    'CAN INJ/BREAST'               1  11
 94  TYPE1OUT019    'CAN FAT/TOTAL'                1  11  (0 TO 50 MILES)
 95  TYPE1OUT020    'ERL FAT/TOTAL'                1  11
 96  TYPE1OUT021    'ERL INJ/PRODROMAL VOMIT'      1  11
 97  TYPE1OUT022    'ERL INJ/DIARRHEA'             1  11
 98  TYPE1OUT023    'ERL INJ/PNEUMONITIS'          1  11
 99  TYPE1OUT024    'ERL INJ/THYROIDITIS'          1  11
100  TYPE1OUT025    'ERL INJ/HYPOTHYROIDISM'       1  11
101  TYPE1OUT026    'ERL INJ/SKIN ERYTHEMA'        1  11
102  TYPE1OUT027    'ERL INJ/TRANSEPIDERMAL'       1  11

*******************************************************************************
      * 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
      *
103  TYPE2NUMBER  1
```

```
      *
      *             FATALITY RISK THRESHOLD
      *
  104 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
      *
  105 TYPE3NUMBER  4
      *
      *               ORGAN NAME    DOSE THRESHOLD (Sv)
      *
  106 TYPE3OUT001    'A-RED MARR'        1.5
  107 TYPE3OUT002    'A-LUNGS'           5.0
  108 TYPE3OUT003    'L-EDEWBODY'        2.0
  109 TYPE3OUT004    'L-EDEWBODY'        0.25
*************************************************************************************
      * 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
      *
```

```
 110  TYPE4NUMBER  5
      *
      *            RADIAL INDEX   TYPE OF EFFECT
      *
 111  TYPE4OUT001       1         'ERL FAT/TOTAL'
 112  TYPE4OUT002       2         'ERL FAT/TOTAL'
 113  TYPE4OUT003       3         'ERL FAT/TOTAL'
 114  TYPE4OUT004       4         'ERL FAT/TOTAL'
 115  TYPE4OUT005       5         '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
      *
 116  TYPE5NUMBER     2
      *
      *             ORGAN      I1DIS5     I2DIS5
      *
 117  TYPE5OUT001 'L-EDEWBODY'      1          7          (0-10 MILES)
 118  TYPE5OUT002 'L-EDEWBODY'      1          11    NOCCDF  (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
      *
  119 TYPE6NUMBER     0
      *
      *             ORGNAM        PATHNM      I1DIS6   I2DIS6
      *
      *TYPE6OUT001  'A-RED MARR'    'TOT ACU'      1       11     (0-50 MILES)
      *TYPE6OUT002  'A-LUNGS'       'TOT ACU'      1       11     (0-50 MILES)
      *TYPE6OUT003  'L-EDEWBODY'    'TOT LIF'      1       11     (0-50 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
      *
  120 TYPE7NUMBER   0
      *
      *                   NAME           I1DIS7       I2DIS7
      *
      *TYPE7OUT001     'ERL FAT/TOTAL'        1           11       (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
      *
  121 TYPE8NUMBER   2
      *
      *              NAME        I1DIS8  I2DIS8
      *
  122 TYPE8OUT001 'ERL FAT/TOTAL'   1       2     NOCCDF  (0-EXCL ZONE + 1 MI)
  123 TYPE8OUT002 'CAN FAT/TOTAL'   1       7     NOCCDF  (0-10 MILES)
*******************************************************************************
      * RESULT A OPTIONS BLOCK, LOADED BY INOUTA, STORED IN /INOUTA/
      *
      * peak dose to a given organ
      *
      *            NUMA
  124 TYPEANUMBER   1
      *
      *              ORGNAM    I1DISA  I2DISA
  125 TYPEAOUT001 'L-EDEWBODY'  1       11
      .
******** TERMINATOR RECORD ENCOUNTERED -- END OF BASE CASE USER INPUT ********

USER INPUT PROCESSING SUMMARY - BASE CASE

NUMBER OF RECORDS READ                          =  385
NUMBER OF BLANK OR COMMENT RECORDS READ         =  259
NUMBER OF TERMINATOR RECORDS                    =    1
NUMBER OF RECORDS PROCESSED                     =  125
     NUMBER OF PROCESSED RECORDS DUPLICATED     =    0
     NUMBER OF PROCESSED RECORDS SORTED         =  125
*******************************************************************************
****************


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

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:

SECPOP90 V2.3 MACCS Site Data File for North Anna
Lat: 38d 3'48'' Long: 77d 47'13'' LAST MODIFIED 12-17-1999
11 SPATIAL INTERVALS
16 WIND DIRECTIONS
7 CROP CATEGORIES
4 WATER PATHWAY ISOTOPES
1 WATERSHEDS
80 ECONOMIC REGIONS

SPATIAL DISTANCES	KILOMETERS						
1.61	3.22	4.83	6.44	8.05	9.65	16.09	32.18
48.27	64.37	80.47					
POPULATION							
0.	46.	118.	146.	184.	118.	575.	9413.
6143.	21240.	50387.					
2.	44.	70.	192.	248.	168.	1320.	9192.
12963.	30219.	211772.					
2.	36.	52.	112.	120.	164.	1186.	46762.
109366.	45870.	94562.					
0.	18.	124.	48.	76.	242.	1410.	7010.
8060.	13313.	20186.					
0.	20.	134.	50.	40.	146.	1278.	7379.
5592.	1986.	4563.					
2.	8.	20.	116.	162.	102.	1042.	6880.
6707.	5912.	9060.					
0.	19.	86.	10.	12.	55.	645.	3676.
23788.	72630.	93953.					
3.	55.	32.	30.	44.	29.	1098.	6211.
18766.	540546.	478477.					
0.	46.	22.	33.	44.	46.	695.	5427.
14467.	24696.	41914.					
0.	11.	12.	59.	72.	128.	484.	3710.
6963.	6727.	7333.					
0.	4.	15.	59.	95.	181.	1133.	3207.
3407.	6302.	4671.					
0.	21.	46.	34.	69.	233.	1296.	5060.
7737.	10450.	9498.					
0.	34.	26.	26.	32.	34.	482.	3193.
5315.	128151.	25521.					
0.	33.	87.	58.	32.	149.	567.	3101.
9823.	21412.	11862.					
1.	39.	58.	102.	79.	242.	555.	3785.
14054.	14311.	3690.					

```
      0.       34.       76.       16.       30.       58.      870.     5690.
  10949.    30925.    11980.
LAND FRACTION
0.00 0.97 0.97 0.97 0.97 0.97 0.97 0.99 1.00 1.00 1.00
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.98 0.98 0.97
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.91 0.78
0.00 0.97 0.97 0.97 0.00 0.97 0.97 0.98 0.98 0.96 0.90
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.99 0.99 0.95 0.90
0.00 0.97 0.97 0.97 0.97 0.97 0.97 0.99 0.99 0.97 0.95
0.97 0.00 0.97 0.97 0.97 0.97 0.99 1.00 1.00 0.99 0.98
0.97 0.97 0.97 0.97 0.97 0.97 0.97 1.00 0.99 0.97 0.97
0.00 0.97 0.00 0.97 0.97 0.97 0.97 0.98 0.98 0.99 0.98
0.97 0.97 0.97 0.00 0.97 0.97 0.97 0.97 0.98 0.99 1.00
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.98 0.99 0.99 1.00
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.99 0.99 0.99
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.98 1.00 1.00
0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.99 1.00 1.00 1.00
0.97 0.97 0.97 0.97 0.97 0.97 0.98 1.00 1.00 1.00 1.00
0.00 0.97 0.97 0.97 0.00 0.97 0.97 0.99 1.00 1.00 1.00
REGION INDEX
1 2 2 2 2 2 2 3 4 5 6
1 2 2 2 2 2 2 7 8 910
1 2 2 2 2 2 211121314
1 2 2 2 2 2 215161718
1 2 2 2 2 2 219202122
1 2 2 2 2 2 223242526
127282930313233343536
127272727272737383940
127272727272741424344
127272727272745464748
127272727272749505152
127272727272753545556
127272727272757585960
127272727616263646566
167686970717273747576
1 2 2 2 2 2 277787980
WATERSHED INDEX
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1
CROP SEASON AND SHARE
  1 PASTURE                90. 270.   0.41
  2 STORED FORAGE         150. 240.   0.13
  3 GRAINS                150. 240.   0.21
  4 GRN LEAFY VEGETABLES  150. 240.   0.002
  5 OTHER FOOD CROPS      150. 240.   0.004
  6 LEGUMES AND SEEDS     150. 240.   0.15
  7 ROOTS AND TUBERS      150. 240.   0.003
WATERSHED DEFINITION              1111111111222222222233333333334444444444
  1 Sr-89                              5.0E-6    0.0
```

2	Sr-90			5.0E-6	0.0	
3	Cs-134			5.0E-6	0.0	
4	Cs-137			5.0E-6	0.0	

REGIONAL ECONOMIC DATA

1	EXCLUSION	0.237	.196	301.	5682.	121231.
2	REGION_02	0.187	.362	315.	9617.	131822.
3	REGION_03	0.359	.213	510.	7306.	136163.
4	REGION_04	0.495	.244	499.	7434.	151560.
5	REGION_05	0.547	.239	484.	9041.	178741.
6	REGION_06	0.543	.228	500.	9873.	187870.
7	REGION_07	0.187	.365	313.	9662.	131866.
8	REGION_08	0.257	.142	336.	10497.	162264.
9	REGION_09	0.303	.106	376.	11381.	179934.
10	REGION_10	0.174	.242	644.	13466.	163079.
11	REGION_11	0.187	.365	313.	9662.	131866.
12	REGION_12	0.117	.074	238.	10404.	157487.
13	REGION_13	0.144	.004	311.	11315.	165761.
14	REGION_14	0.184	.067	529.	10960.	155691.
15	REGION_15	0.182	.294	353.	8663.	130899.
16	REGION_16	0.184	.081	406.	6872.	136128.
17	REGION_17	0.280	.000	361.	5453.	137948.
18	REGION_18	0.309	.000	481.	6253.	140558.
19	REGION_19	0.167	.059	484.	5363.	127707.
20	REGION_20	0.163	.000	517.	4526.	126897.
21	REGION_21	0.260	.000	469.	4221.	129440.
22	REGION_22	0.381	.000	565.	4386.	132106.
23	REGION_23	0.163	.000	517.	4526.	126897.
24	REGION_24	0.164	.000	518.	4548.	127178.
25	REGION_25	0.260	.078	486.	4205.	129697.
26	REGION_26	0.302	.044	465.	3836.	126644.
27	REGION_27	0.248	.158	298.	4765.	118786.
28	REGION_28	0.248	.158	298.	4765.	118782.
29	REGION_29	0.248	.158	298.	4765.	118782.
30	REGION_30	0.232	.211	302.	6029.	122159.
31	REGION_31	0.216	.267	306.	7356.	125704.
32	REGION_32	0.297	.101	574.	6813.	151359.
33	REGION_33	0.312	.059	706.	7498.	165179.
34	REGION_34	0.292	.051	681.	7106.	160138.
35	REGION_35	0.317	.087	663.	6931.	161577.
36	REGION_36	0.259	.063	667.	6932.	166318.
37	REGION_37	0.322	.068	705.	7632.	166437.
38	REGION_38	0.291	.047	725.	7761.	174110.
39	REGION_39	0.133	.001	713.	6710.	178269.
40	REGION_40	0.088	.000	812.	6938.	166779.
41	REGION_41	0.262	.140	377.	5319.	127984.
42	REGION_42	0.270	.065	431.	6431.	174439.
43	REGION_43	0.238	.380	461.	6866.	149780.
44	REGION_44	0.157	.080	1147.	7335.	147445.
45	REGION_45	0.249	.136	307.	4962.	128258.
46	REGION_46	0.257	.041	362.	6189.	182163.
47	REGION_47	0.272	.334	526.	5967.	140373.
48	REGION_48	0.318	.174	1251.	4528.	120349.
49	REGION_49	0.251	.116	314.	5126.	136469.
50	REGION_50	0.285	.002	334.	5071.	156279.
51	REGION_51	0.299	.030	649.	3521.	109866.
52	REGION_52	0.234	.017	695.	3155.	104004.
53	REGION_53	0.248	.157	298.	4764.	118781.
54	REGION_54	0.309	.024	268.	3850.	118092.
55	REGION_55	0.335	.023	276.	5205.	130383.
56	REGION_56	0.326	.053	375.	6965.	142491.
57	REGION_57	0.248	.158	298.	4765.	118782.
58	REGION_58	0.302	.120	301.	6453.	136149.
59	REGION_59	0.346	.073	286.	8218.	158406.

```
  60 REGION_60      0.371 .079      308.     8830.   160018.
  61 REGION_61      0.248 .158      298.     4765.   118782.
  62 REGION_62      0.228 .231      306.     6526.   123614.
  63 REGION_63      0.389 .133      515.     5491.   131831.
  64 REGION_64      0.459 .140      581.     6067.   137365.
  65 REGION_65      0.398 .219      377.     6412.   122434.
  66 REGION_66      0.367 .161     1395.     7574.   127782.
  67 REGION_67      0.220 .252      305.     7004.   124763.
  68 REGION_68      0.187 .365      313.     9662.   131866.
  69 REGION_69      0.248 .158      298.     4765.   118782.
  70 REGION_70      0.187 .365      313.     9662.   131866.
  71 REGION_71      0.187 .365      313.     9662.   131866.
  72 REGION_72      0.238 .320      371.     8964.   133138.
  73 REGION_73      0.464 .121      630.     5877.   138768.
  74 REGION_74      0.477 .262      479.     6073.   125842.
  75 REGION_75      0.484 .312      418.     5941.   117144.
  76 REGION_76      0.431 .183     1413.     6654.   120587.
  77 REGION_77      0.458 .126      623.     5956.   138624.
  78 REGION_78      0.469 .252      501.     6668.   138080.
  79 REGION_79      0.469 .279      454.     6978.   138495.
  80 REGION_80      0.438 .040      234.     8887.   155434.
END
POPULATION

>>The Record Identifier TYPEBNUMBER was not found:
>>Type B results not being generated


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

********************************************************************************

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

********************************************************************************

       * EMERGENCY RESPONSE SCENARIO NUMBER 2

       *

       * SPECIFIC DESCRIPTION OF THE EMERGENCY RESPONSE SCENARIO BEING USED

       *

  126  EZEANAM2001  'NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE'

********   RECORD NUMBER   126 REPLACES RECORD NUMBER    33   ********
       *

       * THE TYPE OF WEIGHTING TO BE APPLIED TO THE EMERGENCY RESPONSE SCENARIOS

       *

       * WEIGHTING FRACTION APPLICABLE TO THIS SCENARIO FOR EVACUATION

       *

  127  EZWTFRAC001  0.05   (5% of the people DO NOT evacuate)

********   RECORD NUMBER   127 REPLACES RECORD NUMBER    35   ********
       *
```

```
       * LAST RING IN THE MOVEMENT ZONE
       *
  128  EZLASMOV001      0     (A ZERO TURNS OFF THE EVACUATION MODEL)
********    RECORD NUMBER    128 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


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

       * GENERAL DESCRIPTIVE TITLE DESCRIBING THIS NAPS "CHRONC" INPUT FILE

       * BASE CASE Using revise Economic data CHEVACST =40, CHRELCST = 40

       * CHDBCST = 42000, CHPOPCST = 7300, CHVALWF = 6979, CHVALWNF = 141206

       *    LAST MODIFIED by MGM  01/05/00

    1  CHCHNAME001 'NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model'

********************************************************************************

       * EMERGENCY RESPONSE COST DATA BLOCK

       *

       * DAILY COST FOR A PERSON WHO IS EVACUATED (DOLLARS/PERSON-DAY)

       *

    2  CHEVACST001  40.00   (INCLUDES FOOD AND HOUSING COSTS BUT NOT LOST INCOME)

       *

       * DAILY COST FOR A PERSON WHO IS RELOCATED (DOLLARS/PERSON-DAY)

       *

    3  CHRELCST001  40.00   (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
      *
  13  CHCDFRM0001   658.1   1463.
      *
      * COST OF NONFARM DECONTAMINATION PER RESIDENT PERSON (DOLLARS/PERSON)
      *  FOR THE VARIOUS LEVELS OF DECONTAMINATION
      *
  14  CHCDNFRM001   3510.   9360.
      *
      * 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)
      *
   19 CHDLBCST001   42000.
*******************************************************************************
      * 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
      *
   22 CHPOPCST001   7300.
*******************************************************************************
      * 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 100 MILES)
      *
  33  CHVALWF0001   6979.  *  NAPS
      *
      * FRACTION OF FARM WEALTH IN IMPROVEMENTS FOR THE REGION
      *
```

```
34  CHFRFIM0001   0.25  *  SURRY/NAPS
    *
    * 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
    *
35  CHVALWNF001  141206.  *  NAPS
    *
    * 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 'SAMP_A.BIN'   (revised data file of 8/12/95)
    *
    * 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.
      *
      *              effective     thyroid  (doses in sieverts)
   39 DOSEMILK001     0.025          0.075
   40 DOSEOTHR001     0.025          0.075
      *
      * 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 critera, GCMAXR, used for NUREG-1150 wre 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   1      (UP TO 10 ALLOWED)
      *
      *              ORGNAM          INNER      OUTER
      *
   49 TYPE9OUT001   'L-EDEWBODY'       1          11    (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
      *
   50 TYP10NUMBER   1      (UP TO 10 ALLOWED)
      *
      *              INNER      OUTER
      *
   51 TYP10OUT001      1          11    (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.
      *
   52 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
      *
   53 TYP12NUMBER   1      (UP TO 10 ALLOWED)
      *
      *              INNER      OUTER
      *
   54 TYP12OUT001      1          11    (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
      *
   55 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')
      *
      .
******** TERMINATOR RECORD ENCOUNTERED -- END OF BASE CASE USER INPUT ********

USER INPUT PROCESSING SUMMARY - BASE CASE

NUMBER OF RECORDS READ                          =  304
NUMBER OF BLANK OR COMMENT RECORDS READ         =  248
NUMBER OF TERMINATOR RECORDS                    =    1
NUMBER OF RECORDS PROCESSED                     =   55
     NUMBER OF PROCESSED RECORDS DUPLICATED     =    0
     NUMBER OF PROCESSED RECORDS SORTED         =   55
********************************************************************************
***************

COMIDA2 binary file header =
COMIDA2 03/27/97   12:54:37   Version 1.11, 12/17/95
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"

 7 CANCER EFFECTS ARE DEFINED IN THE MODEL.
    INDEX  CANCER EFFECT                    ORGAN       ALPHA       BETA      CFRISK
   CIRISK
       1                          LEUKEMIA     L-RED MARR   1.000E+00  0.000E+00
9.700E-03  0.000E+00
       2                          BONE         L-BONE SUR   1.000E+00  0.000E+00
9.000E-04  0.000E+00
       3                          BREAST       L-BREAST     1.000E+00  0.000E+00
5.400E-03  1.700E-02
       4                          LUNG         L-LUNGS      1.000E+00  0.000E+00
1.550E-02  0.000E+00
       5                          THYROID      L-THYROIDH   1.000E+00  0.000E+00
7.200E-04  7.200E-03
       6                          GI           L-LOWER LI   1.000E+00  0.000E+00
3.360E-02  0.000E+00
       7                          OTHER        L-EDEWBODY   1.000E+00  0.000E+00
```

2.760E-02 0.000E+00

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 = 0.410

BREATHING RATE (CUBIC M/S) =   2.660E-04

DISPERSION MODEL FLAG IS 2

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	0.1122	0.0561	0.0153	0.0102	0.0255	0.0714	0.2347	0.0612	0.0204	0.0000	0.0153	0.0153	0.1224	0.1173	0.0459	0.0765
2	0.0981	0.1651	0.0837	0.0526	0.0742	0.1148	0.1842	0.1388	0.0167	0.0048	0.0048	0.0096	0.0144	0.0000	0.0072	0.0311
3	0.0000	0.0385	0.0385	0.0192	0.0769	0.0385	0.0769	0.1346	0.0769	0.0769	0.1154	0.1154	0.0577	0.0385	0.0385	0.0577
4	0.0381	0.0550	0.0444	0.0233	0.0402	0.0338	0.0698	0.0613	0.1311	0.0782	0.0909	0.0803	0.1015	0.0803	0.0507	0.0211
5	0.0499	0.0670	0.0670	0.0242	0.0228	0.0385	0.0655	0.1111	0.1296	0.0755	0.0698	0.0513	0.0598	0.0798	0.0499	0.0385
6	0.0432	0.0925	0.0621	0.0351	0.0304	0.0371	0.0655	0.0871	0.1627	0.0932	0.0682	0.0493	0.0567	0.0446	0.0459	0.0263
7	0.0186	0.0839	0.0947	0.0621	0.0606	0.0575	0.0839	0.1444	0.1910	0.0854	0.0186	0.0186	0.0233	0.0217	0.0311	0.0047
8	0.0163	0.1423	0.1463	0.0610	0.0732	0.0732	0.1667	0.1545	0.0813	0.0325	0.0041	0.0041	0.0366	0.0041	0.0000	0.0041
9	0.0122	0.0488	0.0244	0.0366	0.0976	0.0854	0.0122	0.0976	0.0976	0.1341	0.1098	0.0854	0.0610	0.0488	0.0488	0.0000
10	0.0243	0.0706	0.0511	0.0730	0.0730	0.0511	0.0852	0.1095	0.0949	0.0462	0.0487	0.0706	0.0779	0.0608	0.0365	0.0268
11	0.0377	0.1062	0.1216	0.0771	0.0479	0.0531	0.0993	0.1010	0.0599	0.0377	0.0240	0.0377	0.0377	0.0702	0.0394	0.0497
12	0.1153	0.1950	0.1796	0.0743	0.0588	0.0526	0.0526	0.0433	0.0441	0.0341	0.0155	0.0163	0.0116	0.0193	0.0410	0.0464
13	0.0606	0.0808	0.0909	0.0606	0.0707	0.0505	0.0505	0.0707	0.0808	0.0404	0.0404	0.0404	0.1010	0.0303	0.0303	0.1010
14	0.0898	0.0544	0.0875	0.0544	0.0969	0.0780	0.1087	0.0733	0.0757	0.0473	0.0236	0.0284	0.0426	0.0378	0.0567	0.0449
15	0.0521	0.0443	0.0729	0.0677	0.0807	0.1224	0.1693	0.1042	0.0703	0.0391	0.0417	0.0182	0.0156	0.0208	0.0234	0.0573
16	0.0838	0.1257	0.1467	0.0778	0.0808	0.1287	0.1617	0.0659	0.0269	0.0150	0.0120	0.0030	0.0060	0.0060	0.0210	0.0389
17	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437
18	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437
19	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437
20	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437
21	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437
22	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437
23	0.0628	0.0490	0.0383	0.0277	0.0373	0.0266	0.0501	0.0628	0.1565	0.1150	0.0958	0.0479	0.0714	0.0650	0.0501	0.0437

```
   24 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   25 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   26 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   27 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   28 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   29 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   30 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   31 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   32 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   33 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   34 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   35 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   36 0.0628 0.0490 0.0383 0.0277 0.0373 0.0266 0.0501 0.0628 0.1565 0.1150 0.0958
0.0479 0.0714 0.0650 0.0501 0.0437
   37 0.0604 0.0986 0.0893 0.0503 0.0525 0.0567 0.0887 0.0880 0.1043 0.0622 0.0461
0.0366 0.0466 0.0439 0.0395 0.0361
   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 0.0000 0.0000 0.0000
   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:  SECPOP90 V2.3 MACCS Site Data File for
North Anna
  Lat: 38d 3'48'' Long:  77d 47'13'' LAST MODIFIED  12-17-1999

 THIS PROGRAM CURRENTLY ALLOWS THE GENERATION OF UP TO  394 RESULTS

YOU HAVE REQUESTED  52 RESULTS FROM "EARLY" COMPOSED OF:

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

YOU HAVE REQUESTED   38 RESULTS FROM "CHRONC" COMPOSED OF:

  17 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	160	14	21	4.57E-03
2	160	16	18	5.71E-04
3	164	1	12	3.69E-02
4	164	13	36	4.28E-04
5	164	14	35	3.14E-04
6	164	15	32	6.56E-04
7	165	20	9	2.34E-03
8	166	3	25	1.43E-04
9	166	4	23	1.14E-04
10	166	20	26	4.00E-04
11	166	21	25	1.43E-04
12	168	13	6	4.23E-02
13	170	10	2	1.19E-02
14	172	12	3	1.48E-03
15	173	14	36	4.28E-04
16	173	15	35	3.14E-04
17	174	4	10	1.17E-02
18	174	21	25	1.43E-04
19	179	11	19	4.00E-04
20	179	20	7	1.84E-02
21	180	15	1	5.59E-03
22	183	10	4	1.35E-02
23	198	17	26	4.00E-04
24	198	18	25	1.43E-04
25	198	21	11	1.67E-02
26	203	2	15	1.10E-02
27	209	16	5	2.00E-02
28	210	6	16	9.53E-03
29	210	9	1	5.59E-03
30	221	4	36	4.28E-04
31	221	5	35	3.14E-04
32	223	20	32	6.56E-04
33	224	3	20	2.80E-03
34	233	22	14	1.21E-02
35	234	20	13	2.83E-03
36	236	5	11	1.67E-02
37	246	18	9	2.34E-03
38	246	21	10	1.17E-02
39	248	12	1	5.59E-03
40	254	24	14	1.21E-02
41	260	12	3	1.48E-03
42	263	4	5	2.00E-02
43	263	16	2	1.19E-02
44	265	13	21	4.57E-03
45	273	18	31	1.14E-04
46	278	24	4	1.35E-02
47	281	13	22	2.71E-03
48	281	18	33	1.14E-04
49	281	19	32	6.56E-04
50	288	19	13	2.83E-03

TRIAL	DAY	HOUR	BIN	PRBMET
51	295	8	7	1.84E-02
52	296	21	15	1.10E-02
53	307	13	17	1.30E-02
54	308	8	6	4.23E-02
55	311	24	16	9.53E-03
56	312	11	3	1.48E-03

57	323	7	13	2.83E-03
58	324	2	12	3.69E-02
59	330	3	27	5.42E-04
60	330	15	8	7.02E-03
61	334	4	16	9.53E-03
62	342	8	26	4.00E-04
63	344	12	2	1.19E-02
64	347	14	20	2.80E-03
65	350	2	9	2.34E-03
66	350	3	10	1.17E-02
67	360	17	5	2.00E-02
68	362	16	6	4.23E-02
69	1	20	7	1.84E-02
70	5	9	12	3.69E-02
71	8	12	17	1.30E-02
72	10	1	11	1.67E-02
73	15	5	19	4.00E-04
74	15	7	19	4.00E-04
75	19	13	4	1.35E-02
76	29	5	14	1.21E-02
77	30	9	15	1.10E-02
78	36	2	22	2.71E-03
79	36	10	17	1.30E-02
80	40	16	3	1.48E-03
81	48	10	27	5.42E-04
82	49	1	22	2.71E-03
83	51	8	18	5.71E-04
84	51	21	13	2.83E-03
85	53	9	4	1.35E-02
86	53	23	8	7.02E-03
87	59	24	21	4.57E-03
88	66	11	5	2.00E-02
89	70	9	2	1.19E-02
90	76	20	20	2.80E-03
91	77	16	18	5.71E-04
92	80	24	27	5.42E-04
93	85	17	8	7.02E-03
94	88	10	7	1.84E-02
95	89	17	8	7.02E-03
96	91	18	31	1.14E-04
97	94	7	27	5.42E-04
98	98	20	36	4.28E-04
99	99	3	26	4.00E-04
100	99	12	31	1.14E-04

TRIAL	DAY	HOUR	BIN	PRBMET
101	99	13	30	1.14E-04
102	107	1	31	1.14E-04
103	107	2	30	1.14E-04
104	107	6	32	6.56E-04
105	109	15	17	1.30E-02
106	112	22	10	1.17E-02
107	118	2	11	1.67E-02
108	119	9	1	5.59E-03
109	121	15	22	2.71E-03
110	122	12	20	2.80E-03
111	122	19	18	5.71E-04
112	123	12	6	4.23E-02
113	128	13	35	3.14E-04
114	128	14	34	1.14E-04
115	128	23	21	4.57E-03
116	134	2	9	2.34E-03

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       117          136          20          15   1.10E-02
       118          138          23          16   9.53E-03
       119          143           9          19   4.00E-04
       120          143          24          14   1.21E-02
       121          144          18          12   3.69E-02
 WARNING!!  WARNING!!  WARNING!!  WARNING!!

 THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

 THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

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

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

 THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

 THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

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

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

 THE TOTAL RELEASE DURATION EXCEEDS 20 HOURS.

 THIS MAY CAUSE ERRONEOUS RESULTS TO BE PRODUCED.

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

  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
                                               PROB                               QUANTILES
                             PEAK        PEAK  PEAK
                                             NON-ZERO   MEAN       50TH       90TH       95TH
    99TH      99.5TH       CONS        PROB   TRIAL
Source Term 1: Plume 1, at 32.2-48.3 km
 Cs-137   Center Air Conc. (Bq-s/m3)    1.0000  4.19E+07  3.30E+07  8.03E+07
9.64E+07  1.35E+08  1.56E+08  3.18E+08  1.48E-03   80
 Cs-137   Ground Air Conc. (Bq-s/m3)    1.0000  4.05E+07  3.13E+07  8.04E+07
9.71E+07 NOT-FOUND NOT-FOUND  1.38E+08  1.21E-02  120
 Cs-137   Center Ground Conc. (Bq/m2)   1.0000  4.62E+05  3.61E+05  8.53E+05
9.94E+05 NOT-FOUND NOT-FOUND  1.52E+06  1.21E-02  120
 Total    Center Ground Conc. (Bq/m2)   1.0000  2.98E+08  2.45E+08  5.44E+08
6.41E+08 NOT-FOUND NOT-FOUND  9.31E+08  1.21E-02  120
 Ground-Level Dilution, X/Q (s/m3)      1.0000  6.84E-08  3.87E-08  1.61E-07
2.44E-07 NOT-FOUND NOT-FOUND  4.56E-07  1.10E-02   52
 Cs-137   Adjusted Source, Q (Bq)       1.0000  8.22E+14  7.72E+14  1.08E+15
1.13E+15  1.26E+15  1.32E+15  1.43E+15  1.48E-03   80
 Plume Sigma-y (m)                      1.0000  5.69E+03  5.25E+03  7.19E+03
1.05E+04 NOT-FOUND NOT-FOUND  1.46E+04  1.19E-02   63
 Plume Sigma-z (m)                      1.0000  4.23E+02  3.53E+02  6.17E+02
7.72E+02 NOT-FOUND NOT-FOUND  2.01E+03  1.30E-02   53
 Plume Height  (m)                      1.0000  7.21E+01  3.59E+01  9.48E+01
1.93E+02  7.74E+02  8.10E+02  9.67E+02  3.14E-04  113
 Plume Arrival Time (s)                 1.0000  1.73E+04  1.39E+04  2.51E+04
2.93E+04  3.50E+04  3.76E+04  3.99E+04  2.83E-03   35

Source Term 1: Plume 1, at 48.3-64.4 km
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 Cs-137   Center Air Conc. (Bq-s/m3)     1.0000  2.06E+07  1.63E+07  3.68E+07
4.79E+07  7.75E+07  8.50E+07  2.74E+08  1.48E-03   80
 Cs-137   Ground Air Conc. (Bq-s/m3)     1.0000  1.98E+07  1.54E+07  3.54E+07
4.65E+07 NOT-FOUND NOT-FOUND  7.79E+07  2.00E-02   67
 Cs-137   Center Ground Conc. (Bq/m2)    1.0000  2.35E+05  2.09E+05  4.65E+05
5.67E+05 NOT-FOUND NOT-FOUND  7.70E+05  2.00E-02   67
 Total    Center Ground Conc. (Bq/m2)    1.0000  1.46E+08  1.17E+08  2.82E+08
3.47E+08 NOT-FOUND NOT-FOUND  4.40E+08  2.00E-02   67
 Ground-Level Dilution, X/Q (s/m3)       1.0000  3.65E-08  2.28E-08  6.60E-08
1.20E-07 NOT-FOUND NOT-FOUND  2.49E-07  1.10E-02   52
 Cs-137   Adjusted Source, Q (Bq)        1.0000  7.45E+14  7.10E+14  1.06E+15
1.11E+15  1.25E+15  1.31E+15  1.43E+15  1.48E-03   80
 Plume Sigma-y (m)                       1.0000  7.77E+03  7.31E+03  1.02E+04
1.11E+04  1.36E+04  1.49E+04  1.97E+04  5.42E-04   97
 Plume Sigma-z (m)                       1.0000  4.73E+02  3.59E+02  5.76E+02
8.15E+02  1.02E+03  1.03E+03  1.07E+03  4.28E-04    4
 Plume Height  (m)                       1.0000  7.21E+01  3.59E+01  9.48E+01
1.93E+02  7.74E+02  8.10E+02  9.67E+02  3.14E-04  113
 Plume Arrival Time (s)                  1.0000  2.25E+04  2.06E+04  3.30E+04
3.57E+04  4.31E+04  4.68E+04  5.34E+04  2.83E-03   35
 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

  "CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model

SOURCE TERM  1 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case 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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
               0.950

    COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
               0.050

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

    COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model


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

04/20/04   16:17:21    PAGE   1          PROB                                QUANTILES
                         PEAK       PEAK  PEAK
                                      NON-ZERO    MEAN       50TH       90TH       95TH
     99TH      99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL                0-16.1 km  0.2296  1.18E-03  0.00E+00  2.28E-03
4.97E-03  2.77E-02  3.50E-02  6.32E-02  2.00E-04   35
 ERL INJ/PRODROMAL VOMIT      0-16.1 km  0.6544  2.34E-02  3.39E-03  7.05E-02
1.09E-01  2.47E-01  3.03E-01  4.37E-01  6.56E-04   76
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ERL INJ/DIARRHEA 0-16.1 km 0.3420 5.93E-03 0.00E+00 1.64E-02
2.88E-02 7.25E-02 9.23E-02 1.69E-01 8.85E-04 76
ERL INJ/PNEUMONITIS 0-16.1 km 0.0939 2.78E-04 0.00E+00 0.00E+00
5.40E-04 8.26E-03 1.50E-02 3.25E-02 8.85E-04 76
ERL INJ/THYROIDITIS 0-16.1 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 INJ/HYPOTHYROIDISM 0-16.1 km 0.2978 5.26E-04 0.00E+00 1.45E-03
2.38E-03 7.96E-03 1.10E-02 1.77E-02 8.85E-04 76
ERL INJ/SKIN ERYTHEMA 0-16.1 km 0.9773 2.02E+01 7.61E+00 5.78E+01
8.71E+01 1.34E+02 1.57E+02 2.39E+02 1.08E-03 76
ERL INJ/TRANSEPIDERMAL 0-16.1 km 0.8729 1.44E+00 3.09E-01 3.99E+00
6.61E+00 1.24E+01 1.50E+01 2.59E+01 6.56E-04 76
CAN FAT/TOTAL 0-16.1 km 1.0000 4.57E+01 4.14E+01 7.32E+01
8.11E+01 1.02E+02 1.09E+02 1.34E+02 6.56E-04 76
CAN FAT/LUNG 0-80.5 km 1.0000 2.35E+02 1.65E+02 5.12E+02
5.93E+02 7.94E+02 8.83E+02 1.42E+03 2.23E-03 67
CAN FAT/THYROID 0-80.5 km 1.0000 9.68E+00 7.08E+00 2.14E+01
2.53E+01 3.48E+01 3.90E+01 5.02E+01 1.08E-03 86
CAN FAT/BREAST 0-80.5 km 1.0000 6.74E+01 4.99E+01 1.33E+02
1.84E+02 2.47E+02 2.74E+02 3.55E+02 1.08E-03 86
CAN FAT/GI 0-80.5 km 1.0000 2.11E+02 1.57E+02 4.20E+02
5.24E+02 6.70E+02 7.48E+02 9.59E+02 1.08E-03 86
CAN FAT/LEUKEMIA 0-80.5 km 1.0000 7.89E+01 6.25E+01 1.45E+02
1.93E+02 2.64E+02 2.99E+02 3.46E+02 1.08E-03 86
CAN FAT/BONE 0-80.5 km 1.0000 1.80E+01 1.34E+01 3.26E+01
3.66E+01 4.81E+01 5.58E+01 6.73E+01 2.23E-03 67
CAN FAT/OTHER 0-80.5 km 1.0000 2.49E+02 1.85E+02 5.31E+02
6.46E+02 8.84E+02 9.98E+02 1.23E+03 1.08E-03 86
CAN INJ/THYROID 0-80.5 km 1.0000 9.68E+01 7.08E+01 2.14E+02
2.53E+02 3.48E+02 3.90E+02 5.02E+02 1.08E-03 86
CAN INJ/BREAST 0-80.5 km 1.0000 2.12E+02 1.50E+02 4.77E+02
5.66E+02 7.51E+02 8.22E+02 1.12E+03 1.08E-03 86
CAN FAT/TOTAL 0-80.5 km 1.0000 8.70E+02 6.48E+02 1.76E+03
2.16E+03 2.85E+03 3.34E+03 4.18E+03 2.23E-03 67
ERL FAT/TOTAL 0-80.5 km 0.2296 1.18E-03 0.00E+00 2.28E-03
4.97E-03 2.77E-02 3.50E-02 6.32E-02 2.00E-04 35
ERL INJ/PRODROMAL VOMIT 0-80.5 km 0.6544 2.34E-02 3.39E-03 7.05E-02
1.09E-01 2.47E-01 3.03E-01 4.37E-01 6.56E-04 76
ERL INJ/DIARRHEA 0-80.5 km 0.3420 5.93E-03 0.00E+00 1.64E-02
2.88E-02 7.25E-02 9.23E-02 1.69E-01 8.85E-04 76
ERL INJ/PNEUMONITIS 0-80.5 km 0.0939 2.78E-04 0.00E+00 0.00E+00
5.40E-04 8.26E-03 1.50E-02 3.25E-02 8.85E-04 76
ERL INJ/THYROIDITIS 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 INJ/HYPOTHYROIDISM 0-80.5 km 0.2978 5.26E-04 0.00E+00 1.45E-03
2.38E-03 7.96E-03 1.10E-02 1.77E-02 8.85E-04 76
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.9773 2.02E+01 7.61E+00 5.78E+01
8.71E+01 1.34E+02 1.57E+02 2.39E+02 1.08E-03 76
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.8729 1.44E+00 3.09E-01 3.99E+00
6.61E+00 1.24E+01 1.50E+01 2.59E+01 6.56E-04 76

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 0.5233 4.55E-02 7.05E-02 8.84E-02
9.75E-02 NOT-FOUND NOT-FOUND 1.61E-01 4.18E-02 26

POPULATION EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 0.2296 2.02E-02 0.00E+00 7.74E-02
1.19E-01 3.56E-01 4.51E-01 5.00E-01 3.68E-03 26
04/20/04 16:17:21 PAGE 2 PROB QUANTILES
PEAK PEAK PEAK
NON-ZERO MEAN 50TH 90TH 95TH
99TH 99.5TH CONS PROB TRIAL
POPULATION EXCEEDING DOSE

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 EARLY dose A-LUNGS > 5.00 Sv              0.0939  4.32E-03  0.00E+00  0.00E+00
3.68E-02  8.06E-02  9.88E-02  1.07E-01  4.79E-03   10
 EARLY dose L-EDEWBODY > 2.00 Sv           0.7825  1.03E+00  1.79E-01  2.83E+00
3.86E+00  1.03E+01  2.02E+01  2.86E+01  8.85E-04   76
 EARLY dose L-EDEWBODY > 0.250 Sv          0.9981  9.47E+01  5.78E+01  2.21E+02
2.96E+02  5.30E+02  6.21E+02  6.81E+03  2.57E-04   35

AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL                 0-1.6 km  0.5233  9.08E-05  3.42E-06  3.17E-04
5.09E-04  1.06E-03  1.13E-03  1.19E-03  2.83E-03   35
 ERL FAT/TOTAL               1.6-3.2 km  0.0418  2.21E-07  0.00E+00  0.00E+00
0.00E+00 NOT-FOUND NOT-FOUND  7.57E-06  1.21E-02   76
 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
 ERL FAT/TOTAL               4.8-6.4 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               6.4-8.1 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  7.36E+02  7.12E+02  1.07E+03
1.15E+03  1.36E+03  1.46E+03  1.81E+03  6.56E-04   76
 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  1.79E+04  1.25E+04  3.56E+04
4.58E+04  6.24E+04  6.98E+04  8.91E+04  1.08E-03   86

POPULATION WEIGHTED RISK
 ERL FAT/TOTAL                 0-3.2 km  0.2296  2.48E-06  0.00E+00  5.01E-06
1.12E-05  5.68E-05  7.71E-05  1.32E-04  2.00E-04   35
 CAN FAT/TOTAL                0-16.1 km  1.0000  1.06E-03  9.13E-04  1.91E-03
2.22E-03  2.95E-03  3.19E-03  4.07E-03  4.85E-04   52

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  2.31E+00  2.04E+00  4.23E+00
5.21E+00 NOT-FOUND NOT-FOUND  7.29E+00  1.21E-02   76
 L-EDEWBODY                  1.6-3.2 km  1.0000  7.83E-01  7.11E-01  1.44E+00
1.83E+00 NOT-FOUND NOT-FOUND  2.58E+00  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  4.75E-01  3.97E-01  9.48E-01
1.15E+00 NOT-FOUND NOT-FOUND  1.59E+00  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  3.19E-01  2.74E-01  6.36E-01
7.79E-01 NOT-FOUND NOT-FOUND  1.05E+00  1.21E-02   76
 L-EDEWBODY                  6.4-8.1 km  1.0000  2.36E-01  2.13E-01  4.44E-01
5.39E-01 NOT-FOUND NOT-FOUND  8.21E-01  1.21E-02   76
 L-EDEWBODY                  8.1-9.7 km  1.0000  1.81E-01  1.44E-01  3.18E-01
3.66E-01 NOT-FOUND NOT-FOUND  5.77E-01  1.10E-02  117
 L-EDEWBODY                  9.7-16.1 km  1.0000  1.06E-01  9.49E-02  1.75E-01
2.10E-01  2.65E-01 NOT-FOUND  2.67E-01  9.53E-03  118
 L-EDEWBODY                 16.1-32.2 km  1.0000  1.54E-01  1.29E-01  2.13E-01
2.28E-01  2.66E-01  2.84E-01  3.74E-01  2.83E-03   35
 L-EDEWBODY                 32.2-48.3 km  1.0000  8.09E-02  7.53E-02  1.17E-01
1.29E-01  1.63E-01 NOT-FOUND  1.64E-01  9.53E-03  118
 L-EDEWBODY                 48.3-64.4 km  1.0000  5.35E-02  5.02E-02  7.67E-02
8.60E-02 NOT-FOUND NOT-FOUND  1.22E-01  2.00E-02   67
 L-EDEWBODY                 64.4-80.5 km  1.0000  4.62E-02  4.16E-02  6.04E-02
6.69E-02 NOT-FOUND NOT-FOUND  9.64E-02  3.69E-02    3
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  1 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFI
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RESULTS FOR A SINGLE EMERGENCY RESPONSE COHORT WITHOUT ANY WEIGHTING FRACTIONS BEING APPLIED

COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH	CONS	PROB	TRIAL
HEALTH EFFECTS CASES													
ERL FAT/TOTAL	0-16.1 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
ERL INJ/PRODROMAL VOMIT	0-16.1 km	0.0437	8.30E-04	0.00E+00	0.00E+00	0.00E+00	2.26E-02	3.17E-02	7.11E-02	2.00E-04	35		
ERL INJ/DIARRHEA	0-16.1 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
ERL INJ/PNEUMONITIS	0-16.1 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
ERL INJ/THYROIDITIS	0-16.1 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
ERL INJ/HYPOTHYROIDISM	0-16.1 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
ERL INJ/SKIN ERYTHEMA	0-16.1 km	0.8116	1.26E+01	2.69E+00	3.84E+01	6.37E+01	1.08E+02	1.31E+02	2.09E+02	1.08E-03	76		
ERL INJ/TRANSEPIDERMAL	0-16.1 km	0.3134	3.63E-01	0.00E+00	1.09E+00	1.86E+00	5.36E+00	7.45E+00	1.30E+01	8.85E-04	76		
CAN FAT/TOTAL	0-16.1 km	1.0000	1.25E+01	9.50E+00	2.73E+01	3.31E+01	4.69E+01	5.21E+01	6.58E+01	4.85E-04	52		
CAN FAT/LUNG	0-80.5 km	1.0000	1.30E+02	8.87E+01	2.89E+02	3.53E+02	5.46E+02	6.80E+02	1.02E+03	2.23E-03	67		
CAN FAT/THYROID	0-80.5 km	1.0000	2.28E+00	1.43E+00	5.21E+00	6.26E+00	9.28E+00	1.18E+01	1.70E+01	2.23E-03	67		
CAN FAT/BREAST	0-80.5 km	1.0000	1.30E+01	8.64E+00	3.03E+01	3.67E+01	5.74E+01	7.01E+01	1.03E+02	1.08E-03	86		
CAN FAT/GI	0-80.5 km	1.0000	5.97E+01	4.03E+01	1.21E+02	1.48E+02	2.40E+02	2.98E+02	4.13E+02	2.23E-03	67		
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	1.80E+01	1.15E+01	3.90E+01	5.09E+01	7.96E+01	9.94E+01	1.30E+02	2.23E-03	67		
CAN FAT/BONE	0-80.5 km	1.0000	6.97E+00	4.80E+00	1.41E+01	1.88E+01	2.63E+01	3.00E+01	3.80E+01	2.23E-03	67		
CAN FAT/OTHER	0-80.5 km	1.0000	6.56E+01	4.39E+01	1.27E+02	1.58E+02	2.55E+02	3.15E+02	4.63E+02	2.23E-03	67		
CAN INJ/THYROID	0-80.5 km	1.0000	2.28E+01	1.43E+01	5.21E+01	6.26E+01	9.28E+01	1.18E+02	1.70E+02	2.23E-03	67		
CAN INJ/BREAST	0-80.5 km	1.0000	4.10E+01	2.70E+01	9.42E+01	1.15E+02	1.69E+02	2.01E+02	3.26E+02	1.08E-03	86		
CAN FAT/TOTAL	0-80.5 km	1.0000	2.96E+02	2.05E+02	6.42E+02	7.98E+02	1.26E+03	1.56E+03	2.17E+03	2.23E-03	67		
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	0.00E+00	0
ERL INJ/PRODROMAL VOMIT	0-80.5 km	0.0437	8.30E-04	0.00E+00	0.00E+00	0.00E+00	2.26E-02	3.17E-02	7.11E-02	2.00E-04	35		
ERL INJ/DIARRHEA	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	0.00E+00	0
ERL INJ/PNEUMONITIS	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	0.00E+00	0
ERL INJ/THYROIDITIS	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	0.00E+00	0
ERL INJ/HYPOTHYROIDISM	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	0.00E+00	0
ERL INJ/SKIN ERYTHEMA	0-80.5 km	0.8116	1.26E+01	2.69E+00	3.84E+01								

6.37E+01 1.08E+02 1.31E+02 2.09E+02 1.08E-03 76
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.3134 3.63E-01 0.00E+00 1.09E+00
1.86E+00 5.36E+00 7.45E+00 1.30E+01 8.85E-04 76

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 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 EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 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
EARLY dose A-LUNGS > 5.00 Sv 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
EARLY dose L-EDEWBODY > 2.00 Sv 0.1658 3.91E-01 0.00E+00 1.20E+00
2.05E+00 7.16E+00 1.15E+01 2.66E+01 8.85E-04 76
EARLY dose L-EDEWBODY > 0.250 Sv 0.8507 8.10E+01 4.38E+01 1.88E+02
2.83E+02 5.16E+02 6.01E+02 6.77E+03 2.57E-04 35

AVERAGE INDIVIDUAL RISK
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 1.6-3.2 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 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
ERL FAT/TOTAL 4.8-6.4 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

		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
AVERAGE INDIVIDUAL RISK								
ERL FAT/TOTAL		6.4-8.1 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 1.11E+02 8.79E+01 2.24E+02
2.71E+02 3.48E+02 3.78E+02 5.17E+02 4.85E-04 52
L-EDEWBODY TOT LIF 0-80.5 km 1.0000 4.67E+03 3.07E+03 1.04E+04
1.24E+04 1.85E+04 2.27E+04 3.35E+04 2.23E-03 67

POPULATION WEIGHTED RISK
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
CAN FAT/TOTAL 0-16.1 km 1.0000 6.05E-04 4.51E-04 1.27E-03
1.58E-03 2.23E-03 2.43E-03 3.19E-03 4.85E-04 52

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
L-EDEWBODY 0-1.6 km 1.0000 1.87E+00 1.57E+00 3.59E+00
4.57E+00 NOT-FOUND NOT-FOUND 6.23E+00 1.21E-02 76
L-EDEWBODY 1.6-3.2 km 1.0000 5.76E-01 5.08E-01 1.06E+00
1.31E+00 NOT-FOUND NOT-FOUND 2.25E+00 1.21E-02 76
L-EDEWBODY 3.2-4.8 km 1.0000 3.17E-01 2.63E-01 7.20E-01
8.41E-01 NOT-FOUND NOT-FOUND 1.25E+00 1.21E-02 76
L-EDEWBODY 4.8-6.4 km 1.0000 2.00E-01 1.51E-01 4.68E-01
5.53E-01 NOT-FOUND NOT-FOUND 7.98E-01 1.21E-02 76
L-EDEWBODY 6.4-8.1 km 1.0000 1.37E-01 1.09E-01 2.87E-01
3.48E-01 NOT-FOUND NOT-FOUND 5.67E-01 1.21E-02 76
L-EDEWBODY 8.1-9.7 km 0.9809 9.54E-02 7.48E-02 2.00E-01
2.41E-01 NOT-FOUND NOT-FOUND 3.89E-01 1.10E-02 117
L-EDEWBODY 9.7-16.1 km 0.9406 4.64E-02 3.96E-02 1.01E-01
1.17E-01 1.65E-01 NOT-FOUND 1.66E-01 9.53E-03 118
L-EDEWBODY 16.1-32.2 km 1.0000 1.19E-01 1.04E-01 2.02E-01

2.18E-01 2.61E-01 2.82E-01 3.21E-01 2.83E-03 35
L-EDEWBODY 32.2-48.3 km 1.0000 4.60E-02 3.88E-02 7.78E-02
1.01E-01 NOT-FOUND NOT-FOUND 1.33E-01 1.21E-02 120
L-EDEWBODY 48.3-64.4 km 1.0000 2.25E-02 1.82E-02 3.72E-02
4.70E-02 NOT-FOUND NOT-FOUND 6.94E-02 2.00E-02 67
L-EDEWBODY 64.4-80.5 km 1.0000 1.35E-02 1.09E-02 2.30E-02
3.68E-02 NOT-FOUND NOT-FOUND 4.58E-02 3.69E-02 3
DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

SOURCE TERM 1 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFI

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

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
HEALTH EFFECTS CASES								
ERL FAT/TOTAL		0-16.1 km	0.2296	2.37E-02	0.00E+00	4.54E-02		
9.93E-02	5.03E-01	7.52E-01	1.26E+00	2.00E-04	35			
ERL INJ/PRODROMAL VOMIT		0-16.1 km	0.6544	4.52E-01	7.22E-02	1.28E+00		
2.07E+00	4.41E+00	5.63E+00	7.95E+00	1.74E-03	76			
ERL INJ/DIARRHEA		0-16.1 km	0.3420	1.19E-01	0.00E+00	3.54E-01		
6.26E-01	1.41E+00	1.83E+00	3.38E+00	8.85E-04	76			
ERL INJ/PNEUMONITIS		0-16.1 km	0.0939	5.55E-03	0.00E+00	0.00E+00		
1.13E-02	1.54E-01	2.69E-01	6.49E-01	8.85E-04	76			
ERL INJ/THYROIDITIS		0-16.1 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 INJ/HYPOTHYROIDISM		0-16.1 km	0.2978	1.05E-02	0.00E+00	3.09E-02		
4.55E-02	1.58E-01	2.17E-01	3.55E-01	8.85E-04	76			
ERL INJ/SKIN ERYTHEMA		0-16.1 km	0.9630	1.65E+02	9.69E+01	3.81E+02		
5.75E+02	1.09E+03	1.27E+03	2.02E+03	6.56E-04	34			
ERL INJ/TRANSEPIDERMAL		0-16.1 km	0.8559	2.19E+01	5.18E+00	6.24E+01		
1.00E+02	1.86E+02	2.28E+02	3.24E+02	6.56E-04	76			
CAN FAT/TOTAL		0-16.1 km	1.0000	5.69E+01	5.08E+01	9.99E+01		
1.10E+02	1.37E+02	1.51E+02	2.18E+02	6.56E-04	76			
CAN FAT/LUNG		0-80.5 km	1.0000	1.54E+02	1.11E+02	3.06E+02		
3.84E+02	5.93E+02	6.87E+02	1.04E+03	2.23E-03	67			
CAN FAT/THYROID		0-80.5 km	1.0000	2.44E+00	1.62E+00	5.28E+00		
6.54E+00	1.06E+01	1.32E+01	1.71E+01	2.23E-03	67			
CAN FAT/BREAST		0-80.5 km	1.0000	1.38E+01	9.35E+00	3.05E+01		
3.69E+01	5.75E+01	7.01E+01	1.05E+02	1.08E-03	86			
CAN FAT/GI		0-80.5 km	1.0000	6.74E+01	4.80E+01	1.24E+02		
1.50E+02	2.44E+02	3.12E+02	4.21E+02	2.23E-03	67			
CAN FAT/LEUKEMIA		0-80.5 km	1.0000	2.02E+01	1.39E+01	4.03E+01		
5.22E+01	8.08E+01	9.94E+01	1.33E+02	2.23E-03	67			
CAN FAT/BONE		0-80.5 km	1.0000	8.31E+00	6.22E+00	1.55E+01		
2.04E+01	2.68E+01	3.04E+01	3.94E+01	2.23E-03	67			
CAN FAT/OTHER		0-80.5 km	1.0000	7.43E+01	5.44E+01	1.38E+02		
1.79E+02	2.76E+02	3.45E+02	4.71E+02	2.23E-03	67			
CAN INJ/THYROID		0-80.5 km	1.0000	2.44E+01	1.62E+01	5.28E+01		
6.54E+01	1.06E+02	1.32E+02	1.71E+02	2.23E-03	67			
CAN INJ/BREAST		0-80.5 km	1.0000	4.33E+01	2.89E+01	9.59E+01		

1.15E+02 1.70E+02 2.01E+02 3.31E+02 1.08E-03 86
CAN FAT/TOTAL 0-80.5 km 1.0000 3.40E+02 2.50E+02 6.89E+02
8.39E+02 1.31E+03 1.59E+03 2.21E+03 2.23E-03 67
ERL FAT/TOTAL 0-80.5 km 0.2296 2.37E-02 0.00E+00 4.54E-02
9.93E-02 5.03E-01 7.52E-01 1.26E+00 2.00E-04 35
ERL INJ/PRODROMAL VOMIT 0-80.5 km 0.6544 4.52E-01 7.22E-02 1.28E+00
2.07E+00 4.41E+00 5.63E+00 7.95E+00 1.74E-03 76
ERL INJ/DIARRHEA 0-80.5 km 0.3420 1.19E-01 0.00E+00 3.54E-01
6.26E-01 1.41E+00 1.83E+00 3.38E+00 8.85E-04 76
ERL INJ/PNEUMONITIS 0-80.5 km 0.0939 5.55E-03 0.00E+00 0.00E+00
1.13E-02 1.54E-01 2.69E-01 6.49E-01 8.85E-04 76
ERL INJ/THYROIDITIS 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 INJ/HYPOTHYROIDISM 0-80.5 km 0.2978 1.05E-02 0.00E+00 3.09E-02
4.55E-02 1.58E-01 2.17E-01 3.55E-01 8.85E-04 76
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.9630 1.65E+02 9.69E+01 3.81E+02
5.75E+02 1.09E+03 1.27E+03 2.02E+03 6.56E-04 34
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.8559 2.19E+01 5.18E+00 6.24E+01
1.00E+02 1.86E+02 2.28E+02 3.24E+02 6.56E-04 76

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 0.5233 9.10E-01 1.01E+00 1.57E+00
1.90E+00 NOT-FOUND NOT-FOUND 3.22E+00 4.18E-02 26

POPULATION EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 0.2296 4.04E-01 0.00E+00 1.29E+00
2.25E+00 5.88E+00 7.85E+00 1.00E+01 3.68E-03 26
EARLY dose A-LUNGS > 5.00 Sv 0.0939 8.64E-02 0.00E+00 0.00E+00
8.07E-01 1.51E+00 1.97E+00 2.14E+00 4.79E-03 10
EARLY dose L-EDEWBODY > 2.00 Sv 0.7825 1.32E+01 3.64E+00 3.82E+01
5.56E+01 8.46E+01 9.88E+01 1.31E+02 1.08E-03 76
EARLY dose L-EDEWBODY > 0.250 Sv 0.9981 3.56E+02 2.55E+02 7.58E+02
9.32E+02 1.28E+03 1.45E+03 7.56E+03 2.57E-04 35

AVERAGE INDIVIDUAL RISK
ERL FAT/TOTAL 0-1.6 km 0.5233 1.82E-03 6.16E-05 5.67E-03
1.01E-02 2.13E-02 2.26E-02 2.38E-02 2.83E-03 35
ERL FAT/TOTAL 1.6-3.2 km 0.0418 4.42E-06 0.00E+00 0.00E+00
0.00E+00 NOT-FOUND NOT-FOUND 1.51E-04 1.21E-02 76
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
ERL FAT/TOTAL 4.8-6.4 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

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

AVERAGE INDIVIDUAL RISK
ERL FAT/TOTAL 6.4-8.1 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 5.21E+02 4.77E+02 8.18E+02
9.43E+02 1.18E+03 1.29E+03 1.67E+03 6.56E-04 76
L-EDEWBODY TOT LIF 0-80.5 km 1.0000 5.08E+03 3.45E+03 1.06E+04
1.26E+04 1.85E+04 2.27E+04 3.39E+04 2.23E-03 67

POPULATION WEIGHTED RISK
ERL FAT/TOTAL 0-3.2 km 0.2296 4.95E-05 0.00E+00 1.00E-04
2.18E-04 1.04E-03 1.31E-03 2.64E-03 2.00E-04 35
CAN FAT/TOTAL 0-16.1 km 1.0000 2.76E-03 2.41E-03 4.74E-03
5.52E-03 7.27E-03 7.88E-03 1.06E-02 6.56E-04 76

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PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  8.22E+00  7.49E+00  1.45E+01
1.84E+01 NOT-FOUND NOT-FOUND  2.53E+01  1.21E-02   76
 L-EDEWBODY                  1.6-3.2 km  1.0000  2.23E+00  2.02E+00  4.04E+00
5.44E+00 NOT-FOUND NOT-FOUND  8.13E+00  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  1.18E+00  1.01E+00  2.44E+00
3.15E+00 NOT-FOUND NOT-FOUND  4.23E+00  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  7.32E-01  5.77E-01  1.63E+00
2.12E+00 NOT-FOUND NOT-FOUND  2.60E+00  1.21E-02   76
 L-EDEWBODY                  6.4-8.1 km  1.0000  5.36E-01  3.70E-01  1.08E+00
1.35E+00 NOT-FOUND NOT-FOUND  2.55E+00  1.21E-02   76
 L-EDEWBODY                  8.1-9.7 km  1.0000  4.06E-01  2.90E-01  7.95E-01
1.07E+00 NOT-FOUND NOT-FOUND  1.75E+00  1.21E-02   76
 L-EDEWBODY                 9.7-16.1 km  1.0000  2.62E-01  1.96E-01  4.47E-01
6.76E-01 NOT-FOUND NOT-FOUND  1.14E+00  1.21E-02   34
 L-EDEWBODY                16.1-32.2 km  1.0000  1.19E-01  1.04E-01  2.02E-01
2.18E-01  2.61E-01  2.82E-01  3.21E-01  2.83E-03   35
 L-EDEWBODY                32.2-48.3 km  1.0000  4.60E-02  3.88E-02  7.78E-02
1.01E-01 NOT-FOUND NOT-FOUND  1.33E-01  1.21E-02  120
 L-EDEWBODY                48.3-64.4 km  1.0000  2.25E-02  1.82E-02  3.72E-02
4.70E-02 NOT-FOUND NOT-FOUND  6.94E-02  2.00E-02   67
 L-EDEWBODY                64.4-80.5 km  1.0000  1.35E-02  1.09E-02  2.30E-02
3.68E-02 NOT-FOUND NOT-FOUND  4.58E-02  3.69E-02    3
 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

  "CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model

SOURCE TERM  1 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFI

RESULTS FROM THE "CHRONC" MODULE ALONE

    COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model


04/20/04   16:17:21    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                0-16.1 km  1.0000  3.10E+01  3.01E+01  4.62E+01
5.25E+01  6.42E+01  7.00E+01  8.84E+01  6.56E-04   76
 CAN FAT/LUNG                 0-80.5 km  1.0000  1.04E+02  7.64E+01  2.27E+02
3.01E+02  3.73E+02  4.09E+02  5.12E+02  1.08E-03   86
 CAN FAT/THYROID              0-80.5 km  1.0000  7.40E+00  5.41E+00  1.54E+01
2.07E+01  2.62E+01  2.91E+01  3.44E+01  1.08E-03   86
 CAN FAT/BREAST               0-80.5 km  1.0000  5.43E+01  3.96E+01  1.10E+02
1.33E+02  2.02E+02  2.16E+02  2.51E+02  1.08E-03   86
 CAN FAT/GI                   0-80.5 km  1.0000  1.51E+02  1.11E+02  3.14E+02
3.71E+02  5.17E+02  5.53E+02  6.39E+02  1.08E-03   86
 CAN FAT/LEUKEMIA             0-80.5 km  1.0000  6.08E+01  5.01E+01  1.08E+02
1.25E+02  1.76E+02  2.02E+02  2.44E+02  1.08E-03   86
 CAN FAT/BONE                 0-80.5 km  1.0000  1.09E+01  8.62E+00  2.09E+01
2.48E+01  3.33E+01  3.64E+01  4.41E+01  1.08E-03   34
 CAN FAT/OTHER                0-80.5 km  1.0000  1.83E+02  1.28E+02  3.70E+02
5.04E+02  6.75E+02  7.41E+02  8.82E+02  1.08E-03   86
 CAN INJ/THYROID              0-80.5 km  1.0000  7.40E+01  5.41E+01  1.54E+02
2.07E+02  2.62E+02  2.91E+02  3.44E+02  1.08E-03   86
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CAN INJ/BREAST			0-80.5 km	1.0000	1.71E+02	1.17E+02	3.57E+02		
4.79E+02	5.78E+02	6.18E+02	7.90E+02	1.08E-03	86				
CAN FAT/TOTAL			0-80.5 km	1.0000	5.71E+02	4.30E+02	1.13E+03		
1.41E+03	2.10E+03	2.25E+03	2.60E+03	1.08E-03	86				

POPULATION DOSE (Sv)

L-EDEWBODY TOT LIF			0-16.1 km	1.0000	6.05E+02	5.76E+02	8.41E+02		
9.37E+02	1.05E+03	1.09E+03	1.49E+03	3.16E-06	103				
L-EDEWBODY TOT LIF			0-80.5 km	1.0000	1.32E+04	1.00E+04	3.03E+04		
3.48E+04	4.80E+04	5.31E+04	6.39E+04	1.08E-03	86				

POPULATION WEIGHTED RISK

CAN FAT/TOTAL			0-16.1 km	1.0000	3.45E-04	3.19E-04	5.14E-04		
5.55E-04	6.63E-04	7.03E-04	7.90E-04	1.53E-05	73				

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY			0-1.6 km	1.0000	1.27E-01	1.08E-01	1.46E-01		
1.66E-01	NOT-FOUND	NOT-FOUND	1.97E-01	2.00E-02	67				
L-EDEWBODY			1.6-3.2 km	1.0000	1.24E-01	1.05E-01	1.41E-01		
1.61E-01	NOT-FOUND	NOT-FOUND	1.97E-01	1.67E-02	25				
L-EDEWBODY			3.2-4.8 km	1.0000	1.14E-01	1.02E-01	1.16E-01		
1.22E-01	1.39E-01	1.46E-01	1.96E-01	1.14E-04	102				
L-EDEWBODY			4.8-6.4 km	1.0000	9.20E-02	8.80E-02	1.11E-01		
1.17E-01	1.32E-01	1.39E-01	1.67E-01	4.28E-04	98				
L-EDEWBODY			6.4-8.1 km	1.0000	7.94E-02	7.64E-02	1.06E-01		
1.14E-01	1.36E-01	1.46E-01	1.55E-01	2.83E-03	50				
L-EDEWBODY			8.1-9.7 km	1.0000	6.99E-02	7.10E-02	9.39E-02		
1.03E-01	1.17E-01	1.23E-01	1.29E-01	2.83E-03	50				
L-EDEWBODY			9.7-16.1 km	1.0000	4.93E-02	4.59E-02	7.69E-02		
8.38E-02	NOT-FOUND	NOT-FOUND	1.06E-01	1.21E-02	34				
L-EDEWBODY			16.1-32.2 km	1.0000	3.51E-02	3.19E-02	5.10E-02		
5.42E-02	6.22E-02	6.60E-02	6.65E-02	4.57E-03	115				
L-EDEWBODY			32.2-48.3 km	1.0000	3.49E-02	3.27E-02	5.12E-02		
5.36E-02	5.95E-02	6.23E-02	6.48E-02	2.71E-03	47				
L-EDEWBODY			48.3-64.4 km	1.0000	3.11E-02	3.03E-02	4.85E-02		
5.07E-02	5.27E-02	5.36E-02	5.45E-02	2.34E-03	65				
L-EDEWBODY			64.4-80.5 km	1.0000	3.27E-02	3.12E-02	4.76E-02		
5.06E-02	5.26E-02	5.34E-02	5.67E-02	4.00E-04	99				

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

TOTAL LONG-TERM PATHWAYS DOSE				1.0000	1.32E+04	1.00E+04	3.03E+04		
3.48E+04	4.80E+04	5.31E+04	6.39E+04	1.08E-03	86				
LONG-TERM DIRECT EXPOSURE PATHWAYS				1.0000	1.14E+04	8.08E+03	2.57E+04		
3.29E+04	4.58E+04	5.03E+04	5.81E+04	7.17E-06	114				
TOTAL INGESTION PATHWAYS DOSE				1.0000	8.94E+02	8.22E+02	1.31E+03		
1.53E+03	2.08E+03	2.20E+03	3.39E+03	1.14E-04	86				
LONG-TERM GROUNDSHINE DOSE				1.0000	1.02E+04	7.27E+03	2.25E+04		
3.00E+04	3.35E+04	3.51E+04	5.23E+04	7.17E-06	114				
LONG-TERM RESUSPENSION DOSE				1.0000	1.20E+03	8.64E+02	2.87E+03		
3.43E+03	4.79E+03	5.19E+03	5.82E+03	1.08E-03	86				
WATER INGESTION DOSE				1.0000	2.01E+02	1.77E+02	3.41E+02		
3.98E+02	5.34E+02	5.75E+02	7.32E+02	1.79E-05	102				
POP.-DEPENDENT DECONTAMINATION DOSE				1.0000	9.39E+02	6.35E+02	2.07E+03		
2.55E+03	4.10E+03	5.04E+03	7.48E+03	1.08E-03	86				

		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH	CONS	PROB	TRIAL
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km													
FARM-DEPENDENT DECONTAMINATION DOSE				1.0000	1.88E+01	1.55E+01	3.25E+01						
3.88E+01	5.22E+01	5.47E+01	7.70E+01	3.59E-05	91								
INGESTION OF GRAINS				1.0000	1.26E+02	1.06E+02	2.19E+02						
2.93E+02	4.62E+02	5.32E+02	7.23E+02	8.56E-05	41								

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 INGESTION OF LEAF VEG                         1.0000  1.26E+02  1.06E+02  2.19E+02
2.93E+02  4.62E+02  5.32E+02  7.23E+02  8.56E-05    41
 INGESTION OF ROOT CROPS                       1.0000  7.58E+01  6.92E+01  1.15E+02
1.31E+02  1.76E+02  1.99E+02  2.53E+02  2.37E-05    97
 INGESTION OF FRUITS                           1.0000  4.74E+01  3.22E+01  9.83E+01
1.19E+02  1.81E+02  2.07E+02  2.69E+02  4.28E-04    29
 INGESTION OF LEGUMES                          1.0000  1.22E+02  1.10E+02  1.99E+02
2.25E+02  2.96E+02  3.20E+02  4.76E+02  1.14E-04    86
 INGESTION OF BEEF                             1.0000  1.16E+02  8.86E+01  2.30E+02
2.93E+02  4.12E+02  4.75E+02  8.12E+02  1.14E-04    86
 INGESTION OF MILK                             1.0000  1.42E+02  1.14E+02  2.50E+02
3.16E+02  4.66E+02  5.20E+02  9.42E+02  1.14E-04    86
 INGESTION OF POULTRY                          1.0000  2.51E+01  1.97E+01  4.92E+01
6.36E+01  1.00E+02  1.09E+02  1.37E+02  7.71E-04    42
 INGESTION OF OTHER MEAT CROPS                 1.0000  1.48E+01  1.18E+01  2.79E+01
3.36E+01  4.76E+01  5.20E+01  7.26E+01  1.14E-04    86

ECONOMIC COST MEASURES ($)       0-80.5 km
 TOTAL ECONOMIC COSTS                          1.0000  2.87E+09  1.46E+09  6.66E+09
1.08E+10  1.52E+10  1.75E+10  2.20E+10  8.85E-04   120
 POP.-DEPENDENT COSTS                          1.0000  2.78E+09  1.32E+09  6.65E+09
1.08E+10  1.52E+10  1.75E+10  2.19E+10  8.85E-04   120
 FARM-DEPENDENT COSTS                          1.0000  8.89E+07  7.74E+07  1.57E+08
2.00E+08  2.48E+08  2.72E+08  4.06E+08  2.71E-05    97
 POP.-DEPENDENT DECONTAMINATION COST           1.0000  5.87E+08  2.85E+08  1.61E+09
2.33E+09  3.33E+09  3.61E+09  4.40E+09  8.85E-04   120
 FARM-DEPENDENT DECONTAMINATION COST           1.0000  2.72E+07  2.43E+07  4.28E+07
5.11E+07  6.72E+07  7.15E+07  8.54E+07  1.14E-04    86
 POP.-DEPENDENT INTERDICTION COST              1.0000  2.19E+09  1.02E+09  5.20E+09
8.06E+09  1.18E+10  1.32E+10  1.75E+10  8.85E-04   120
 FARM-DEPENDENT INTERDICTION COST              1.0000  4.06E+07  3.03E+07  8.71E+07
1.04E+08  1.28E+08  1.41E+08  2.79E+08  2.37E-05    97
 POP.-DEPENDENT CONDEMNATION COST              0.4381  8.42E+05  0.00E+00  3.16E+06
5.56E+06  7.82E+06  8.82E+06  2.28E+07  3.14E-04    87
 FARM-DEPENDENT CONDEMNATION COST              0.9551  1.20E+07  7.87E+06  3.11E+07
3.70E+07  5.03E+07  5.09E+07  5.58E+07  2.14E-05     4
 EMERGENCY PHASE COST                          0.9998  5.95E+05  3.76E+05  9.10E+05
1.60E+06  2.89E+06  1.04E+07  1.26E+07  2.57E-04    35
 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                            0.9852  3.80E+05  1.42E+05  1.07E+06
1.53E+06  2.30E+06  2.51E+06  5.55E+06  2.37E-05    97
 CROP DISPOSAL COST                            0.9852  8.82E+06  4.42E+06  2.25E+07
2.82E+07  3.68E+07  4.07E+07  6.70E+07  5.71E-05    41

AFFECTED AREA/POPULATION         0-80.5 km
 FARM DECONTAMINATION (HECTARES)               1.0000  3.58E+04  3.20E+04  5.67E+04
6.68E+04  8.79E+04  9.83E+04  1.11E+05  8.56E-05    41
 POP. DECONTAMINATION (INDIVIDUALS)            1.0000  1.47E+05  6.45E+04  3.75E+05
5.71E+05  1.05E+06  1.09E+06  1.21E+06  8.85E-04   120
 FARM INTERDICTION (HECTARES)                  1.0000  3.98E+04  3.53E+04  6.29E+04
7.31E+04  9.44E+04  1.03E+05  1.57E+05  8.56E-05    41
 POP. INTERDICTION (INDIVIDUALS)               1.0000  1.47E+05  6.45E+04  3.75E+05
5.71E+05  1.05E+06  1.09E+06  1.21E+06  8.85E-04   120
 FARM CONDEMNATION (HECTARES)                  0.9551  1.75E+03  1.16E+03  4.97E+03
5.90E+03  7.22E+03  7.39E+03  8.89E+03  2.14E-05     4
 POP. CONDEMNATION (INDIVIDUALS)               0.4381  6.38E+00  0.00E+00  3.00E+01
3.71E+01  5.55E+01  6.22E+01  1.64E+02  3.14E-04    87
 MILK DISPOSAL AREA (HECTARES)                 0.9852  2.15E+04  1.15E+04  4.98E+04
6.09E+04  7.78E+04  8.30E+04  1.88E+05  2.37E-05    97
 CROP DISPOSAL AREA (HECTARES)                 0.9852  2.00E+04  9.65E+03  4.83E+04
5.83E+04  7.58E+04  8.07E+04  1.44E+05  8.56E-05    41
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DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input

"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food

Model

SOURCE TERM 2 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case 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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
0.950

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
0.050

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

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
HEALTH EFFECTS CASES								
ERL FAT/TOTAL		0-16.1 km	0.3930	6.90E-03	0.00E+00	2.25E-02		
4.06E-02	8.29E-02	1.03E-01	1.82E-01	2.87E-04	87			
ERL INJ/PRODROMAL VOMIT		0-16.1 km	0.8297	8.39E-02	3.05E-02	2.23E-01		
3.51E-01	7.28E-01	8.94E-01	1.18E+00	6.56E-04	76			
ERL INJ/DIARRHEA		0-16.1 km	0.5551	2.74E-02	2.06E-03	8.20E-02		
1.34E-01	2.83E-01	3.34E-01	4.70E-01	8.85E-04	76			
ERL INJ/PNEUMONITIS		0-16.1 km	0.1665	8.73E-04	0.00E+00	5.72E-04		
2.59E-03	2.51E-02	3.26E-02	6.43E-02	8.85E-04	76			
ERL INJ/THYROIDITIS		0-16.1 km	0.0308	4.24E-05	0.00E+00	0.00E+00		
0.00E+00	1.55E-03	2.09E-03	3.87E-03	8.85E-04	76			
ERL INJ/HYPOTHYROIDISM		0-16.1 km	0.8682	1.69E-01	5.54E-02	4.66E-01		
8.15E-01	1.41E+00	1.69E+00	2.68E+00	1.08E-03	76			
ERL INJ/SKIN ERYTHEMA		0-16.1 km	0.9075	3.77E+01	1.67E+01	9.86E+01		
1.35E+02	2.39E+02	2.82E+02	4.30E+02	6.56E-04	76			
ERL INJ/TRANSEPIDERMAL		0-16.1 km	0.8228	3.22E+00	9.50E-01	7.99E+00		
1.38E+01	3.15E+01	3.79E+01	6.04E+01	6.56E-04	76			
CAN FAT/TOTAL		0-16.1 km	1.0000	4.55E+01	4.16E+01	7.30E+01		
8.22E+01	1.03E+02	1.08E+02	1.40E+02	1.26E-04	87			
CAN FAT/LUNG		0-80.5 km	1.0000	2.67E+02	1.78E+02	5.98E+02		
7.54E+02	1.01E+03	1.32E+03	1.81E+03	2.23E-03	67			
CAN FAT/THYROID		0-80.5 km	1.0000	2.52E+01	1.62E+01	5.43E+01		
7.35E+01	9.99E+01	1.17E+02	1.40E+02	2.23E-03	67			
CAN FAT/BREAST		0-80.5 km	1.0000	1.25E+02	8.38E+01	2.80E+02		
3.33E+02	4.53E+02	5.09E+02	6.63E+02	3.42E-04	39			
CAN FAT/GI		0-80.5 km	1.0000	3.13E+02	2.13E+02	6.80E+02		
8.69E+02	1.13E+03	1.22E+03	1.60E+03	3.42E-04	39			
CAN FAT/LEUKEMIA		0-80.5 km	1.0000	9.81E+01	6.54E+01	2.13E+02		
2.86E+02	3.51E+02	3.78E+02	5.06E+02	3.42E-04	39			
CAN FAT/BONE		0-80.5 km	1.0000	1.04E+01	7.07E+00	2.27E+01		
3.05E+01	3.77E+01	4.13E+01	5.27E+01	3.42E-04	39			
CAN FAT/OTHER		0-80.5 km	1.0000	3.49E+02	2.38E+02	7.59E+02		

1.01E+03 1.22E+03 1.32E+03 1.79E+03 3.42E-04 39
CAN INJ/THYROID 0-80.5 km 1.0000 2.52E+02 1.62E+02 5.43E+02
7.35E+02 9.99E+02 1.17E+03 1.40E+03 2.23E-03 67
CAN INJ/BREAST 0-80.5 km 1.0000 3.94E+02 2.57E+02 8.87E+02
1.06E+03 1.30E+03 1.42E+03 2.09E+03 3.42E-04 39
CAN FAT/TOTAL 0-80.5 km 1.0000 1.19E+03 8.01E+02 2.59E+03
3.21E+03 4.18E+03 4.69E+03 5.95E+03 3.42E-04 39
ERL FAT/TOTAL 0-80.5 km 0.3930 6.90E-03 0.00E+00 2.25E-02
4.06E-02 8.29E-02 1.03E-01 1.82E-01 2.87E-04 87
ERL INJ/PRODROMAL VOMIT 0-80.5 km 0.8297 8.39E-02 3.05E-02 2.23E-01
3.51E-01 7.28E-01 8.94E-01 1.18E+00 6.56E-04 76
ERL INJ/DIARRHEA 0-80.5 km 0.5551 2.74E-02 2.06E-03 8.20E-02
1.34E-01 2.83E-01 3.34E-01 4.70E-01 8.85E-04 76
ERL INJ/PNEUMONITIS 0-80.5 km 0.1665 8.73E-04 0.00E+00 5.72E-04
2.59E-03 2.51E-02 3.26E-02 6.43E-02 8.85E-04 76
ERL INJ/THYROIDITIS 0-80.5 km 0.0308 4.24E-05 0.00E+00 0.00E+00
0.00E+00 1.55E-03 2.09E-03 3.87E-03 8.85E-04 76
ERL INJ/HYPOTHYROIDISM 0-80.5 km 0.8682 1.69E-01 5.54E-02 4.66E-01
8.15E-01 1.41E+00 1.69E+00 2.68E+00 1.08E-03 76
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.9075 3.84E+01 1.67E+01 9.98E+01
1.39E+02 2.46E+02 2.92E+02 1.37E+03 2.57E-04 35
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.8228 3.22E+00 9.50E-01 7.99E+00
1.38E+01 3.15E+01 3.79E+01 6.04E+01 6.56E-04 76

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 0.7624 7.40E-02 7.64E-02 1.12E-01
1.43E-01 NOT-FOUND NOT-FOUND 2.42E-01 1.95E-02 35

POPULATION EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 0.3930 8.73E-02 0.00E+00 2.09E-01
4.40E-01 1.16E+00 1.36E+00 1.83E+00 1.37E-03 76

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

POPULATION EXCEEDING DOSE
EARLY dose A-LUNGS > 5.00 Sv 0.1665 8.52E-03 0.00E+00 3.68E-02
6.72E-02 1.02E-01 1.07E-01 1.50E-01 2.51E-05 10
EARLY dose L-EDEWBODY > 2.00 Sv 0.8284 2.52E+00 1.02E+00 5.24E+00
1.01E+01 3.00E+01 3.37E+01 4.72E+01 6.56E-04 76
EARLY dose L-EDEWBODY > 0.250 Sv 0.9463 2.03E+02 9.18E+01 3.72E+02
6.05E+02 1.76E+03 3.70E+03 2.02E+04 2.57E-04 35

AVERAGE INDIVIDUAL RISK
ERL FAT/TOTAL 0-1.6 km 0.7624 4.22E-04 1.22E-04 1.09E-03
1.39E-03 2.02E-03 2.04E-03 2.13E-03 4.00E-04 10
ERL FAT/TOTAL 1.6-3.2 km 0.1375 3.40E-06 0.00E+00 5.14E-06
2.44E-05 7.72E-05 8.83E-05 8.99E-05 4.57E-03 87
ERL FAT/TOTAL 3.2-4.8 km 0.0195 6.29E-08 0.00E+00 0.00E+00
0.00E+00 NOT-FOUND NOT-FOUND 3.28E-06 1.21E-02 76
ERL FAT/TOTAL 4.8-6.4 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 6.4-8.1 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 7.87E+02 7.52E+02 1.13E+03
1.24E+03 1.51E+03 1.65E+03 2.40E+03 1.26E-04 87
L-EDEWBODY TOT LIF 0-80.5 km 1.0000 2.52E+04 1.70E+04 5.50E+04
7.29E+04 9.65E+04 1.04E+05 1.30E+05 3.42E-04 39

POPULATION WEIGHTED RISK
ERL FAT/TOTAL 0-3.2 km 0.3930 1.43E-05 0.00E+00 4.89E-05

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7.89E-05  1.74E-04  2.17E-04  3.78E-04  2.87E-04   87
 CAN FAT/TOTAL                0-16.1 km  1.0000  1.29E-03  1.11E-03  2.16E-03
2.42E-03  3.10E-03  3.34E-03  3.92E-03  1.20E-03   61

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  3.04E+00  2.77E+00  5.55E+00
7.31E+00 NOT-FOUND NOT-FOUND  9.95E+00  1.21E-02   76
 L-EDEWBODY                  1.6-3.2 km  1.0000  9.97E-01  8.04E-01  1.90E+00
2.44E+00 NOT-FOUND NOT-FOUND  3.59E+00  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  5.92E-01  5.14E-01  1.04E+00
1.26E+00 NOT-FOUND NOT-FOUND  1.88E+00  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  3.92E-01  3.50E-01  7.03E-01
8.30E-01 NOT-FOUND NOT-FOUND  1.19E+00  1.21E-02   76
 L-EDEWBODY                  6.4-8.1 km  1.0000  3.02E-01  2.96E-01  4.77E-01
5.48E-01 NOT-FOUND NOT-FOUND  8.85E-01  1.21E-02   76
 L-EDEWBODY                  8.1-9.7 km  1.0000  2.46E-01  2.45E-01  3.60E-01
3.99E-01 NOT-FOUND NOT-FOUND  6.05E-01  1.10E-02  117
 L-EDEWBODY                 9.7-16.1 km  1.0000  1.89E-01  1.92E-01  3.09E-01
3.40E-01  4.24E-01 NOT-FOUND  4.27E-01  9.53E-03   61
 L-EDEWBODY                16.1-32.2 km  1.0000  2.13E-01  2.07E-01  3.26E-01
3.55E-01  4.30E-01  4.67E-01  5.90E-01  2.83E-03   35
 L-EDEWBODY                32.2-48.3 km  1.0000  1.07E-01  1.03E-01  1.51E-01
1.78E-01 NOT-FOUND NOT-FOUND  2.61E-01  1.21E-02  120
 L-EDEWBODY                48.3-64.4 km  1.0000  7.37E-02  7.11E-02  1.03E-01
1.18E-01 NOT-FOUND NOT-FOUND  1.42E-01  2.00E-02   67
 L-EDEWBODY                64.4-80.5 km  1.0000  6.95E-02  6.70E-02  1.00E-01
1.02E-01  1.06E-01  1.08E-01  1.17E-01  1.43E-04   24
 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  2 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFE

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

    COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE


04/20/04   16:17:21    PAGE  11          PROB                              QUANTILES
                         PEAK      PEAK  PEAK
                                     NON-ZERO   MEAN       50TH       90TH       95TH
     99TH      99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL                0-16.1 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 INJ/PRODROMAL VOMIT      0-16.1 km  0.1024  2.54E-03  0.00E+00  3.03E-03
1.58E-02  5.84E-02  7.35E-02  1.40E-01  8.85E-04   76
 ERL INJ/DIARRHEA             0-16.1 km  0.0051  7.70E-05  0.00E+00  0.00E+00
0.00E+00  0.00E+00  7.43E-03  2.31E-02  2.00E-04   35
 ERL INJ/PNEUMONITIS          0-16.1 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 INJ/THYROIDITIS          0-16.1 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 INJ/HYPOTHYROIDISM       0-16.1 km  0.4918  9.93E-02  0.00E+00  3.07E-01
5.86E-01  1.18E+00  1.39E+00  2.07E+00  1.08E-03   76
 ERL INJ/SKIN ERYTHEMA        0-16.1 km  0.8548  2.84E+01  1.02E+01  7.64E+01
1.11E+02  1.91E+02  2.30E+02  3.49E+02  6.56E-04   76
 ERL INJ/TRANSEPIDERMAL       0-16.1 km  0.4718  1.27E+00  0.00E+00  2.69E+00
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6.73E+00 2.02E+01 2.48E+01 3.70E+01 8.85E-04 76
CAN FAT/TOTAL 0-16.1 km 1.0000 1.40E+01 1.06E+01 3.07E+01
3.59E+01 5.07E+01 5.46E+01 7.15E+01 4.85E-04 52
CAN FAT/LUNG 0-80.5 km 1.0000 1.13E+02 7.01E+01 2.62E+02
3.72E+02 6.15E+02 7.32E+02 1.37E+03 2.23E-03 67
CAN FAT/THYROID 0-80.5 km 1.0000 9.77E+00 5.76E+00 2.46E+01
3.31E+01 5.16E+01 5.94E+01 9.38E+01 2.23E-03 67
CAN FAT/BREAST 0-80.5 km 1.0000 1.16E+01 6.43E+00 2.99E+01
3.72E+01 5.90E+01 7.52E+01 1.19E+02 1.08E-03 86
CAN FAT/GI 0-80.5 km 1.0000 3.94E+01 2.24E+01 1.02E+02
1.29E+02 2.28E+02 2.98E+02 3.73E+02 2.23E-03 67
CAN FAT/LEUKEMIA 0-80.5 km 1.0000 9.61E+00 5.37E+00 2.42E+01
3.24E+01 5.34E+01 6.98E+01 9.21E+01 1.08E-03 86
CAN FAT/BONE 0-80.5 km 1.0000 1.06E+00 6.08E-01 2.62E+00
3.44E+00 5.59E+00 6.99E+00 9.93E+00 2.23E-03 67
CAN FAT/OTHER 0-80.5 km 1.0000 5.79E+01 3.44E+01 1.34E+02
1.99E+02 3.24E+02 3.96E+02 5.50E+02 2.23E-03 67
CAN INJ/THYROID 0-80.5 km 1.0000 9.77E+01 5.76E+01 2.46E+02
3.31E+02 5.16E+02 5.94E+02 9.38E+02 2.23E-03 67
CAN INJ/BREAST 0-80.5 km 1.0000 3.66E+01 2.00E+01 9.37E+01
1.19E+02 1.91E+02 2.99E+02 3.75E+02 1.08E-03 86
CAN FAT/TOTAL 0-80.5 km 1.0000 2.43E+02 1.37E+02 6.13E+02
8.33E+02 1.35E+03 1.62E+03 2.59E+03 2.23E-03 67
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 INJ/PRODROMAL VOMIT 0-80.5 km 0.1024 2.54E-03 0.00E+00 3.03E-03
1.58E-02 5.84E-02 7.35E-02 1.40E-01 8.85E-04 76
ERL INJ/DIARRHEA 0-80.5 km 0.0051 7.70E-05 0.00E+00 0.00E+00
0.00E+00 0.00E+00 7.43E-03 2.31E-02 2.00E-04 35
ERL INJ/PNEUMONITIS 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 INJ/THYROIDITIS 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 INJ/HYPOTHYROIDISM 0-80.5 km 0.4918 9.93E-02 0.00E+00 3.07E-01
5.86E-01 1.18E+00 1.39E+00 2.07E+00 1.08E-03 76
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.8548 2.91E+01 1.02E+01 7.79E+01
1.13E+02 2.00E+02 2.40E+02 1.30E+03 2.57E-04 35
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.4718 1.27E+00 0.00E+00 2.69E+00
6.73E+00 2.02E+01 2.48E+01 3.70E+01 8.85E-04 76

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 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 EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 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
EARLY dose A-LUNGS > 5.00 Sv 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
EARLY dose L-EDEWBODY > 2.00 Sv 0.2434 1.15E+00 0.00E+00 2.65E+00
4.98E+00 2.13E+01 2.68E+01 4.23E+01 8.85E-04 76
EARLY dose L-EDEWBODY > 0.250 Sv 0.8717 1.84E+02 7.75E+01 3.24E+02
5.60E+02 1.75E+03 3.51E+03 2.01E+04 2.57E-04 35

AVERAGE INDIVIDUAL RISK
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 1.6-3.2 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 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
ERL FAT/TOTAL 4.8-6.4 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

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		PEAK	PEAK	PEAK NON-ZERO	MEAN	PROB 50TH	90TH	QUANTILES 95TH	99TH	99.5TH	CONS	PROB	TRIAL
AVERAGE INDIVIDUAL RISK													
ERL FAT/TOTAL		6.4-8.1 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	1.49E+02	1.15E+02	3.09E+02	3.58E+02	5.03E+02	5.40E+02	6.87E+02	4.85E-04	52	
L-EDEWBODY	TOT LIF	0-80.5 km	1.0000	4.07E+03	2.35E+03	1.04E+04	1.30E+04	2.17E+04	2.74E+04	3.98E+04	2.23E-03	67	
POPULATION WEIGHTED RISK													
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
CAN FAT/TOTAL		0-16.1 km	1.0000	6.78E-04	5.14E-04	1.36E-03	1.72E-03	2.51E-03	2.88E-03	3.47E-03	4.85E-04	52	
PEAK DOSE FOUND ON SPATIAL GRID (Sv)													
L-EDEWBODY		0-1.6 km	1.0000	2.55E+00	2.12E+00	4.67E+00	5.83E+00	NOT-FOUND	NOT-FOUND	8.51E+00	1.21E-02	76	
L-EDEWBODY		1.6-3.2 km	1.0000	7.82E-01	6.59E-01	1.59E+00	2.10E+00	NOT-FOUND	NOT-FOUND	3.03E+00	1.21E-02	76	
L-EDEWBODY		3.2-4.8 km	1.0000	4.28E-01	3.38E-01	1.00E+00	1.19E+00	NOT-FOUND	NOT-FOUND	1.67E+00	1.21E-02	76	
L-EDEWBODY		4.8-6.4 km	1.0000	2.69E-01	2.22E-01	5.64E-01	7.47E-01	NOT-FOUND	NOT-FOUND	1.06E+00	1.21E-02	76	
L-EDEWBODY		6.4-8.1 km	1.0000	1.83E-01	1.40E-01	3.86E-01	5.07E-01	NOT-FOUND	NOT-FOUND	7.46E-01	1.21E-02	76	
L-EDEWBODY		8.1-9.7 km	0.9809	1.27E-01	1.04E-01	2.54E-01	3.20E-01	NOT-FOUND	NOT-FOUND	5.14E-01	1.10E-02	117	
L-EDEWBODY		9.7-16.1 km	0.9406	6.18E-02	5.24E-02	1.28E-01	1.54E-01	2.19E-01	NOT-FOUND	2.21E-01	9.53E-03	118	
L-EDEWBODY		16.1-32.2 km	1.0000	1.25E-01	1.09E-01	2.08E-01	2.23E-01	2.63E-01	2.83E-01	4.30E-01	2.83E-03	35	
L-EDEWBODY		32.2-48.3 km	1.0000	4.99E-02	4.08E-02	9.22E-02	1.12E-01	NOT-FOUND	NOT-FOUND	1.61E-01	1.21E-02	120	
L-EDEWBODY		48.3-64.4 km	1.0000	2.43E-02	1.96E-02	4.75E-02	5.71E-02	NOT-FOUND	NOT-FOUND	8.38E-02	2.00E-02	67	
L-EDEWBODY		64.4-80.5 km	1.0000	1.46E-02	1.15E-02	2.90E-02	4.24E-02	NOT-FOUND	NOT-FOUND	5.45E-02	3.69E-02	3	

DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

SOURCE TERM 2 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFE

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

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE

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

HEALTH EFFECTS CASES

ERL FAT/TOTAL	0-16.1 km	0.3930	1.38E-01	0.00E+00	4.88E-01		
7.57E-01	1.63E+00	2.08E+00	3.65E+00	2.87E-04	87		
ERL INJ/PRODROMAL VOMIT	0-16.1 km	0.8297	1.63E+00	5.52E-01	4.42E+00		
6.92E+00	1.29E+01	1.56E+01	2.17E+01	6.56E-04	76		
ERL INJ/DIARRHEA	0-16.1 km	0.5551	5.47E-01	3.65E-02	1.65E+00		
2.74E+00	5.70E+00	6.84E+00	9.14E+00	2.97E-03	87		
ERL INJ/PNEUMONITIS	0-16.1 km	0.1665	1.75E-02	0.00E+00	1.11E-02		
5.14E-02	5.58E-01	7.42E-01	1.29E+00	8.85E-04	76		
ERL INJ/THYROIDITIS	0-16.1 km	0.0308	8.48E-04	0.00E+00	0.00E+00		
0.00E+00	3.34E-02	4.47E-02	7.75E-02	8.85E-04	76		
ERL INJ/HYPOTHYROIDISM	0-16.1 km	0.8682	1.50E+00	8.53E-01	3.61E+00		
5.24E+00	8.87E+00	1.05E+01	1.52E+01	6.56E-04	76		
ERL INJ/SKIN ERYTHEMA	0-16.1 km	0.7857	2.14E+02	1.13E+02	5.55E+02		
8.19E+02	1.29E+03	1.48E+03	2.07E+03	6.56E-04	40		
ERL INJ/TRANSEPIDERMAL	0-16.1 km	0.7524	4.03E+01	1.14E+01	1.08E+02		
1.61E+02	3.21E+02	3.92E+02	6.06E+02	6.56E-04	76		
CAN FAT/TOTAL	0-16.1 km	1.0000	5.11E+01	4.29E+01	1.00E+02		
1.13E+02	1.49E+02	1.68E+02	2.33E+02	6.56E-04	76		
CAN FAT/LUNG	0-80.5 km	1.0000	1.32E+02	8.74E+01	2.99E+02		
4.04E+02	6.24E+02	7.32E+02	1.39E+03	2.23E-03	67		
CAN FAT/THYROID	0-80.5 km	1.0000	1.09E+01	7.21E+00	2.56E+01		
3.39E+01	5.16E+01	5.94E+01	9.53E+01	2.23E-03	67		
CAN FAT/BREAST	0-80.5 km	1.0000	1.24E+01	7.18E+00	3.08E+01		
3.79E+01	5.90E+01	7.52E+01	1.20E+02	1.08E-03	86		
CAN FAT/GI	0-80.5 km	1.0000	4.49E+01	2.86E+01	1.08E+02		
1.34E+02	2.28E+02	2.98E+02	3.80E+02	2.23E-03	67		
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	1.07E+01	6.67E+00	2.56E+01		
3.35E+01	5.34E+01	6.98E+01	9.31E+01	1.08E-03	86		
CAN FAT/BONE	0-80.5 km	1.0000	1.19E+00	7.44E-01	2.68E+00		
3.51E+00	5.72E+00	6.99E+00	1.01E+01	2.23E-03	67		
CAN FAT/OTHER	0-80.5 km	1.0000	6.75E+01	4.31E+01	1.40E+02		
2.04E+02	3.24E+02	3.96E+02	5.62E+02	2.23E-03	67		
CAN INJ/THYROID	0-80.5 km	1.0000	1.09E+02	7.21E+01	2.56E+02		
3.39E+02	5.16E+02	5.94E+02	9.53E+02	2.23E-03	67		
CAN INJ/BREAST	0-80.5 km	1.0000	3.92E+01	2.28E+01	9.59E+01		
1.20E+02	1.91E+02	2.99E+02	3.79E+02	1.08E-03	86		
CAN FAT/TOTAL	0-80.5 km	1.0000	2.80E+02	1.82E+02	6.43E+02		
8.52E+02	1.35E+03	1.62E+03	2.63E+03	2.23E-03	67		
ERL FAT/TOTAL	0-80.5 km	0.3930	1.38E-01	0.00E+00	4.88E-01		
7.57E-01	1.63E+00	2.08E+00	3.65E+00	2.87E-04	87		
ERL INJ/PRODROMAL VOMIT	0-80.5 km	0.8297	1.63E+00	5.52E-01	4.42E+00		
6.92E+00	1.29E+01	1.56E+01	2.17E+01	6.56E-04	76		
ERL INJ/DIARRHEA	0-80.5 km	0.5551	5.47E-01	3.65E-02	1.65E+00		
2.74E+00	5.70E+00	6.84E+00	9.14E+00	2.97E-03	87		
ERL INJ/PNEUMONITIS	0-80.5 km	0.1665	1.75E-02	0.00E+00	1.11E-02		
5.14E-02	5.58E-01	7.42E-01	1.29E+00	8.85E-04	76		
ERL INJ/THYROIDITIS	0-80.5 km	0.0308	8.48E-04	0.00E+00	0.00E+00		
0.00E+00	3.34E-02	4.47E-02	7.75E-02	8.85E-04	76		
ERL INJ/HYPOTHYROIDISM	0-80.5 km	0.8682	1.50E+00	8.53E-01	3.61E+00		
5.24E+00	8.87E+00	1.05E+01	1.52E+01	6.56E-04	76		
ERL INJ/SKIN ERYTHEMA	0-80.5 km	0.7857	2.15E+02	1.13E+02	5.56E+02		
8.22E+02	1.31E+03	1.52E+03	2.65E+03	2.57E-04	35		
ERL INJ/TRANSEPIDERMAL	0-80.5 km	0.7524	4.03E+01	1.14E+01	1.08E+02		
1.61E+02	3.21E+02	3.92E+02	6.06E+02	6.56E-04	76		

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000		0.7624	1.48E+00	1.19E+00	3.24E+00
3.84E+00 NOT-FOUND NOT-FOUND	4.83E+00	1.95E-02	35		

POPULATION EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv		0.3930	1.75E+00	0.00E+00	4.46E+00
8.73E+00	2.34E+01	2.75E+01	3.66E+01	1.37E-03	76

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 EARLY dose A-LUNGS > 5.00 Sv           0.1665  1.70E-01  0.00E+00  8.08E-01
1.11E+00  2.04E+00  2.14E+00  3.00E+00  2.51E-05   10
 EARLY dose L-EDEWBODY > 2.00 Sv        0.8284  2.85E+01  1.78E+01  7.28E+01
9.19E+01  1.72E+02  2.11E+02  3.09E+02  6.56E-04   76
 EARLY dose L-EDEWBODY > 0.250 Sv       0.9463  5.66E+02  3.87E+02  1.15E+03
1.48E+03  2.71E+03  4.70E+03  2.13E+04  2.57E-04   35

AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL                 0-1.6 km  0.7624  8.44E-03  2.59E-03  2.94E-02
3.13E-02  3.47E-02  3.63E-02  4.26E-02  4.00E-04   10
 ERL FAT/TOTAL               1.6-3.2 km  0.1375  6.81E-05  0.00E+00  1.05E-04
3.86E-04  1.27E-03  1.73E-03  1.80E-03  4.57E-03   87
 ERL FAT/TOTAL               3.2-4.8 km  0.0195  1.26E-06  0.00E+00  0.00E+00
0.00E+00 NOT-FOUND NOT-FOUND  6.56E-05  1.21E-02   76
 ERL FAT/TOTAL               4.8-6.4 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
04/20/04    16:17:21     PAGE  14          PROB                          QUANTILES
                           PEAK        PEAK  PEAK
                                             NON-ZERO    MEAN      50TH      90TH      95TH
     99TH      99.5TH      CONS        PROB  TRIAL
AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL               6.4-8.1 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  5.26E+02  4.73E+02  9.37E+02
1.07E+03  1.35E+03  1.49E+03  2.19E+03  6.56E-04   76
 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  4.45E+03  2.72E+03  1.06E+04
1.34E+04  2.25E+04  2.77E+04  4.02E+04  2.23E-03   67

POPULATION WEIGHTED RISK
 ERL FAT/TOTAL                 0-3.2 km  0.3930  2.86E-04  0.00E+00  9.75E-04
1.62E-03  3.44E-03  4.32E-03  7.56E-03  1.17E-03   87
 CAN FAT/TOTAL                0-16.1 km  1.0000  2.48E-03  2.13E-03  4.58E-03
5.64E-03  7.74E-03  8.44E-03  1.13E-02  6.56E-04   76

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  1.16E+01  1.02E+01  2.10E+01
2.73E+01 NOT-FOUND NOT-FOUND  3.71E+01  1.21E-02   76
 L-EDEWBODY                  1.6-3.2 km  1.0000  3.09E+00  2.79E+00  5.58E+00
8.19E+00 NOT-FOUND NOT-FOUND  1.17E+01  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  1.62E+00  1.30E+00  3.43E+00
4.51E+00 NOT-FOUND NOT-FOUND  6.02E+00  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  9.92E-01  7.67E-01  2.24E+00
3.03E+00 NOT-FOUND NOT-FOUND  3.65E+00  1.21E-02   76
 L-EDEWBODY                  6.4-8.1 km  1.0000  7.05E-01  5.32E-01  1.57E+00
2.22E+00 NOT-FOUND NOT-FOUND  3.54E+00  1.21E-02   76
 L-EDEWBODY                  8.1-9.7 km  1.0000  5.22E-01  3.66E-01  1.12E+00
1.51E+00 NOT-FOUND NOT-FOUND  2.40E+00  1.21E-02   76
 L-EDEWBODY                 9.7-16.1 km  1.0000  3.15E-01  2.44E-01  6.33E-01
9.64E-01 NOT-FOUND NOT-FOUND  1.56E+00  1.21E-02   34
 L-EDEWBODY                16.1-32.2 km  1.0000  1.25E-01  1.09E-01  2.08E-01
2.23E-01  2.63E-01  2.83E-01  4.30E-01  2.83E-03   35
 L-EDEWBODY                32.2-48.3 km  1.0000  4.99E-02  4.08E-02  9.22E-02
1.12E-01 NOT-FOUND NOT-FOUND  1.61E-01  1.21E-02  120
 L-EDEWBODY                48.3-64.4 km  1.0000  2.43E-02  1.96E-02  4.75E-02
5.71E-02 NOT-FOUND NOT-FOUND  8.38E-02  2.00E-02   67
 L-EDEWBODY                64.4-80.5 km  1.0000  1.46E-02  1.15E-02  2.90E-02
4.24E-02 NOT-FOUND NOT-FOUND  5.45E-02  3.69E-02    3
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
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"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 2 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFE

RESULTS FROM THE "CHRONC" MODULE ALONE

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH
		CONS	PROB	TRIAL						
HEALTH EFFECTS CASES										
CAN FAT/TOTAL	0-16.1 km	1.0000	2.97E+01	2.79E+01	4.83E+01	5.46E+01	6.96E+01	7.38E+01	9.96E+01	1.26E-04 87
CAN FAT/LUNG	0-80.5 km	1.0000	1.52E+02	1.02E+02	3.39E+02	4.40E+02	5.66E+02	6.06E+02	8.28E+02	3.42E-04 39
CAN FAT/THYROID	0-80.5 km	1.0000	1.54E+01	1.02E+01	3.45E+01	4.58E+01	5.71E+01	6.09E+01	8.50E+01	3.42E-04 39
CAN FAT/BREAST	0-80.5 km	1.0000	1.13E+02	7.73E+01	2.51E+02	3.13E+02	3.82E+02	4.17E+02	6.17E+02	3.42E-04 39
CAN FAT/GI	0-80.5 km	1.0000	2.73E+02	1.84E+02	6.07E+02	7.51E+02	1.00E+03	1.08E+03	1.45E+03	3.42E-04 39
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	8.85E+01	5.99E+01	2.01E+02	2.38E+02	3.22E+02	3.48E+02	4.68E+02	3.42E-04 39
CAN FAT/BONE	0-80.5 km	1.0000	9.30E+00	6.31E+00	2.04E+01	2.57E+01	3.39E+01	3.65E+01	4.85E+01	3.42E-04 39
CAN FAT/OTHER	0-80.5 km	1.0000	2.91E+02	1.96E+02	6.77E+02	8.07E+02	1.07E+03	1.16E+03	1.57E+03	3.42E-04 39
CAN INJ/THYROID	0-80.5 km	1.0000	1.54E+02	1.02E+02	3.45E+02	4.58E+02	5.71E+02	6.09E+02	8.50E+02	3.42E-04 39
CAN INJ/BREAST	0-80.5 km	1.0000	3.57E+02	2.42E+02	8.10E+02	1.03E+03	1.26E+03	1.38E+03	1.94E+03	3.42E-04 39
CAN FAT/TOTAL	0-80.5 km	1.0000	9.43E+02	6.24E+02	2.14E+03	2.77E+03	3.48E+03	3.75E+03	5.06E+03	3.42E-04 39
POPULATION DOSE (Sv)										
L-EDEWBODY TOT LIF	0-16.1 km	1.0000	6.19E+02	5.71E+02	9.80E+02	1.07E+03	1.26E+03	1.36E+03	2.01E+03	1.26E-04 87
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	2.11E+04	1.44E+04	4.91E+04	6.08E+04	7.92E+04	8.54E+04	1.14E+05	3.42E-04 39
POPULATION WEIGHTED RISK										
CAN FAT/TOTAL	0-16.1 km	1.0000	5.26E-04	5.16E-04	8.21E-04	9.20E-04	1.07E-03	1.12E-03	1.57E-03	2.08E-05 97
PEAK DOSE FOUND ON SPATIAL GRID (Sv)										
L-EDEWBODY	0-1.6 km	0.9028	3.03E-02	1.41E-05	1.12E-01	1.27E-01	1.72E-01	NOT-FOUND	1.91E-01	5.59E-03 39
L-EDEWBODY	1.6-3.2 km	0.9861	1.00E-01	1.02E-01	1.15E-01	1.21E-01	1.37E-01	1.44E-01	1.92E-01	1.14E-04 114
L-EDEWBODY	3.2-4.8 km	0.9905	1.05E-01	1.05E-01	1.29E-01	1.40E-01	1.72E-01	1.88E-01	1.90E-01	4.57E-03 1
L-EDEWBODY	4.8-6.4 km	1.0000	8.63E-02	1.01E-01	1.14E-01	1.21E-01	1.38E-01	1.46E-01	1.82E-01	3.14E-04 31
L-EDEWBODY	6.4-8.1 km	1.0000	9.24E-02	9.20E-02	1.22E-01	1.33E-01	1.64E-01	1.79E-01	1.92E-01	2.80E-03 64
L-EDEWBODY	8.1-9.7 km	1.0000	9.86E-02	1.00E-01	1.16E-01					

1.24E-01	1.44E-01	1.53E-01	1.92E-01	4.28E-04	4		
L-EDEWBODY		9.7-16.1 km		1.0000	1.15E-01	1.03E-01	1.18E-01
1.25E-01	1.43E-01	1.52E-01	1.91E-01	3.14E-04	16		
L-EDEWBODY		16.1-32.2 km		1.0000	8.80E-02	9.62E-02	1.15E-01
1.23E-01	1.43E-01	1.52E-01	1.60E-01	2.83E-03	35		
L-EDEWBODY		32.2-48.3 km		1.0000	5.69E-02	5.67E-02	7.49E-02
7.78E-02	8.52E-02	8.86E-02	1.03E-01	5.71E-04	91		
L-EDEWBODY		48.3-64.4 km		1.0000	4.94E-02	4.88E-02	7.16E-02
7.44E-02	8.14E-02	8.46E-02	9.55E-02	5.71E-04	111		
L-EDEWBODY		64.4-80.5 km		1.0000	5.50E-02	5.29E-02	7.43E-02
7.80E-02	8.72E-02	9.15E-02	9.55E-02	2.71E-03	78		

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

TOTAL LONG-TERM PATHWAYS DOSE				1.0000	2.11E+04	1.44E+04	4.91E+04
6.08E+04	7.92E+04	8.54E+04	1.14E+05	3.42E-04	39		
LONG-TERM DIRECT EXPOSURE PATHWAYS				1.0000	1.93E+04	1.21E+04	4.65E+04
5.58E+04	7.44E+04	8.18E+04	1.11E+05	3.42E-04	39		
TOTAL INGESTION PATHWAYS DOSE				1.0000	8.84E+02	8.18E+02	1.35E+03
1.59E+03	2.15E+03	2.32E+03	3.31E+03	2.37E-05	81		
LONG-TERM GROUNDSHINE DOSE				1.0000	1.89E+04	1.19E+04	4.43E+04
5.49E+04	7.42E+04	8.17E+04	1.09E+05	3.42E-04	39		
LONG-TERM RESUSPENSION DOSE				1.0000	3.74E+02	2.40E+02	9.16E+02
1.07E+03	1.31E+03	1.43E+03	2.08E+03	3.42E-04	39		
WATER INGESTION DOSE				1.0000	3.38E+02	2.63E+02	6.88E+02
8.14E+02	1.05E+03	1.10E+03	1.62E+03	1.79E-05	102		
POP.-DEPENDENT DECONTAMINATION DOSE				0.9985	9.00E+02	4.52E+02	2.43E+03
3.46E+03	5.49E+03	7.00E+03	1.10E+04	1.08E-03	86		

		PEAK		PEAK	PEAK	PROB			QUANTILES	
						NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS		PROB	TRIAL					
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km										
FARM-DEPENDENT DECONTAMINATION DOSE						0.9985	2.71E+01	2.41E+01	4.69E+01	
5.60E+01	7.34E+01	7.75E+01	1.21E+02	2.86E-05	91					
INGESTION OF GRAINS						1.0000	3.56E+01	3.03E+01	6.09E+01	
7.34E+01	1.09E+02	1.32E+02	3.58E+02	2.87E-05	49					
INGESTION OF LEAF VEG						1.0000	3.56E+01	3.03E+01	6.09E+01	
7.34E+01	1.09E+02	1.32E+02	3.58E+02	2.87E-05	49					
INGESTION OF ROOT CROPS						1.0000	2.40E+01	1.66E+01	4.78E+01	
6.17E+01	8.23E+01	9.00E+01	1.44E+02	2.87E-05	32					
INGESTION OF FRUITS						1.0000	3.38E+01	2.46E+01	6.86E+01	
8.45E+01	1.11E+02	1.19E+02	2.06E+02	2.87E-05	32					
INGESTION OF LEGUMES						1.0000	3.80E+01	3.31E+01	6.20E+01	
7.35E+01	1.00E+02	1.04E+02	1.42E+02	1.37E-05	16					
INGESTION OF BEEF						1.0000	1.94E+02	1.42E+02	4.20E+02	
5.42E+02	8.44E+02	1.00E+03	1.38E+03	3.71E-04	63					
INGESTION OF MILK						1.0000	1.47E+02	9.67E+01	3.63E+02	
5.09E+02	7.19E+02	7.92E+02	1.20E+03	2.85E-05	86					
INGESTION OF POULTRY						1.0000	4.69E+01	4.10E+01	8.89E+01	
1.12E+02	1.85E+02	2.25E+02	4.21E+02	2.87E-05	49					
INGESTION OF OTHER MEAT CROPS						1.0000	1.64E+01	1.13E+01	3.62E+01	
4.57E+01	7.62E+01	9.30E+01	1.59E+02	3.71E-04	63					

ECONOMIC COST MEASURES ($) 0-80.5 km

TOTAL ECONOMIC COSTS				0.9985	5.04E+09	2.44E+09	1.01E+10
1.95E+10	3.01E+10	3.06E+10	3.43E+10	2.51E-05	62		
POP.-DEPENDENT COSTS				0.9985	4.87E+09	2.33E+09	1.00E+10
1.89E+10	3.01E+10	3.05E+10	3.41E+10	2.51E-05	62		
FARM-DEPENDENT COSTS				0.9985	1.71E+08	1.38E+08	3.10E+08
3.56E+08	4.94E+08	5.21E+08	7.39E+08	2.37E-05	97		
POP.-DEPENDENT DECONTAMINATION COST				0.9985	1.20E+09	5.21E+08	2.78E+09
4.58E+09	7.93E+09	8.54E+09	1.04E+10	2.51E-05	62		
FARM-DEPENDENT DECONTAMINATION COST				0.9985	4.33E+07	3.75E+07	6.73E+07

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7.69E+07  1.00E+08  1.08E+08  1.86E+08  2.37E-05   97
 POP.-DEPENDENT INTERDICTION COST       0.9985  3.62E+09  1.56E+09  8.30E+09
1.21E+10  2.01E+10  2.05E+10  2.37E+10  2.51E-05   62
 FARM-DEPENDENT INTERDICTION COST       0.9985  9.83E+07  6.88E+07  2.07E+08
2.43E+08  3.11E+08  3.24E+08  4.48E+08  1.37E-05  113
 POP.-DEPENDENT CONDEMNATION COST       0.9108  4.73E+07  2.66E+07  1.19E+08
1.87E+08  2.19E+08  2.29E+08  3.20E+08  3.63E-05   30
 FARM-DEPENDENT CONDEMNATION COST       0.9219  2.27E+06  1.62E+06  5.39E+06
7.23E+06  8.40E+06  8.96E+06  1.10E+07  2.66E-04    1
 EMERGENCY PHASE COST                   0.9597  7.72E+05  3.52E+05  1.72E+06
2.33E+06  1.04E+07  1.08E+07  1.26E+07  2.57E-04   35
 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                     0.9849  1.07E+06  5.87E+05  2.70E+06
3.65E+06  5.25E+06  5.45E+06  7.50E+06  2.37E-05   97
 CROP DISPOSAL COST                     0.9985  2.61E+07  2.01E+07  5.64E+07
6.44E+07  7.53E+07  7.87E+07  1.08E+08  4.86E-05   97

AFFECTED AREA/POPULATION       0-80.5 km
 FARM DECONTAMINATION (HECTARES)        0.9985  4.18E+04  3.62E+04  7.06E+04
7.87E+04  1.01E+05  1.08E+05  1.88E+05  2.37E-05   97
 POP. DECONTAMINATION (INDIVIDUALS)     0.9985  2.06E+05  8.90E+04  4.86E+05
1.02E+06  1.08E+06  1.11E+06  1.34E+06  3.41E-05   97
 FARM INTERDICTION (HECTARES)           0.9985  6.30E+04  5.27E+04  1.04E+05
1.14E+05  1.39E+05  1.51E+05  2.30E+05  4.24E-05   97
 POP. INTERDICTION (INDIVIDUALS)        0.9985  2.06E+05  8.90E+04  4.86E+05
1.02E+06  1.08E+06  1.11E+06  1.34E+06  3.41E-05   97
 FARM CONDEMNATION (HECTARES)           0.9219  3.26E+02  2.69E+02  7.40E+02
1.01E+03  1.15E+03  1.21E+03  1.52E+03  2.66E-04    1
 POP. CONDEMNATION (INDIVIDUALS)        0.9108  3.50E+02  2.18E+02  8.43E+02
1.13E+03  1.84E+03  2.02E+03  2.30E+03  3.63E-05   30
 MILK DISPOSAL AREA (HECTARES)          0.9850  5.97E+04  4.66E+04  1.08E+05
1.20E+05  1.51E+05  1.67E+05  2.68E+05  2.71E-05   97
 CROP DISPOSAL AREA (HECTARES)          0.9985  5.71E+04  4.50E+04  1.04E+05
1.13E+05  1.39E+05  1.51E+05  2.31E+05  4.24E-05   97
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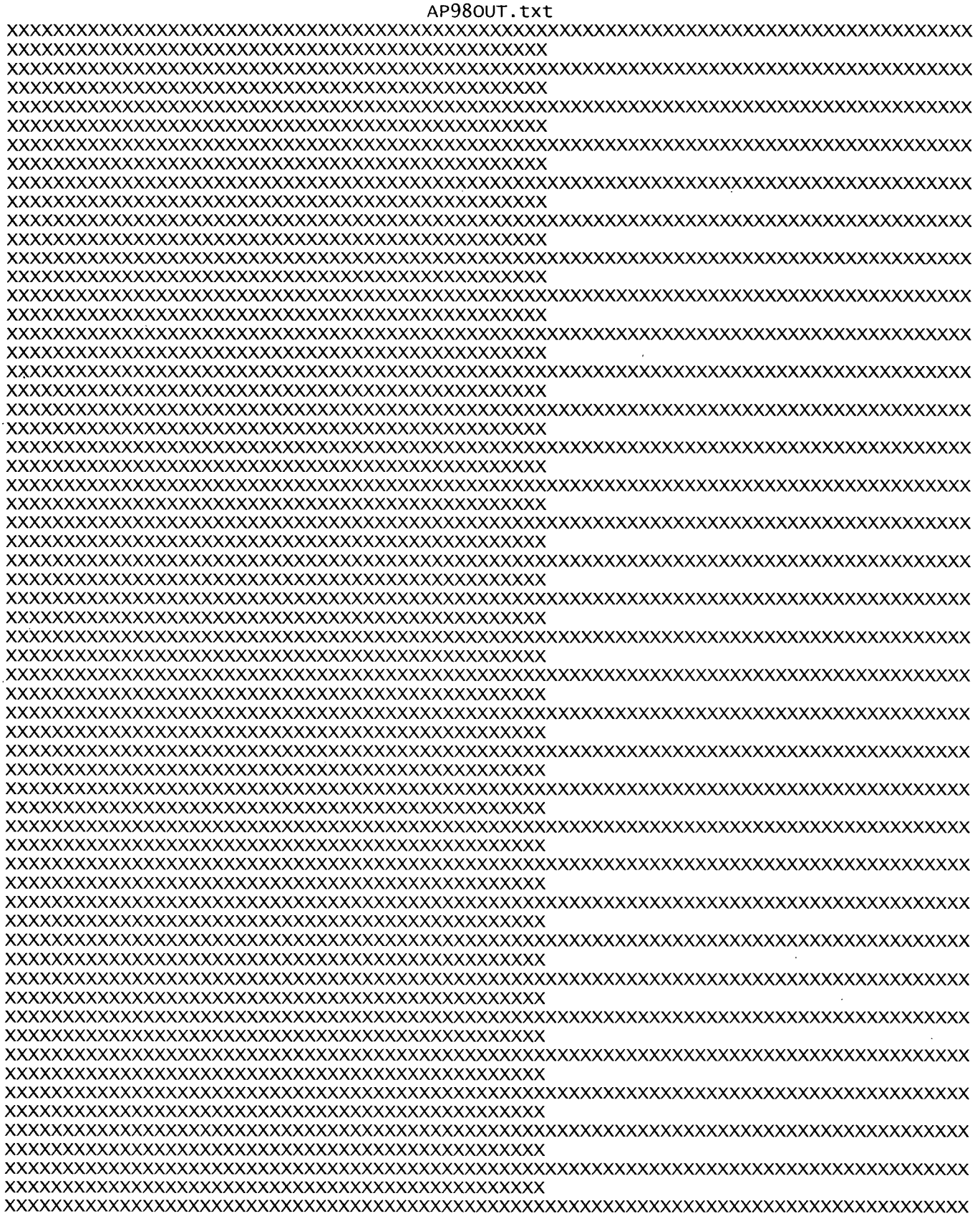

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□ DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 3 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case DIRECT

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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
0.950

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
0.050

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

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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

	PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL			
HEALTH EFFECTS CASES							
ERL FAT/TOTAL		0-16.1 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 INJ/PRODROMAL VOMIT		0-16.1 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 INJ/DIARRHEA		0-16.1 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 INJ/PNEUMONITIS		0-16.1 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 INJ/THYROIDITIS		0-16.1 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 INJ/HYPOTHYROIDISM		0-16.1 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 INJ/SKIN ERYTHEMA		0-16.1 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 INJ/TRANSEPIDERMAL		0-16.1 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		0-16.1 km	1.0000	1.07E+00	9.68E-01	2.02E+00	
2.23E+00	2.80E+00	3.06E+00	3.67E+00	6.56E-04	40		
CAN FAT/LUNG		0-80.5 km	1.0000	1.29E+00	8.72E-01	3.01E+00	
3.75E+00	5.93E+00	7.00E+00	9.92E+00	2.23E-03	67		
CAN FAT/THYROID		0-80.5 km	1.0000	7.46E-02	4.65E-02	1.69E-01	
2.30E-01	3.90E-01	5.00E-01	6.72E-01	1.08E-03	86		
CAN FAT/BREAST		0-80.5 km	1.0000	6.00E-01	4.29E-01	1.17E+00	
1.53E+00	2.62E+00	3.19E+00	4.79E+00	1.08E-03	86		
CAN FAT/GI		0-80.5 km	1.0000	1.83E+00	1.34E+00	3.48E+00	
4.32E+00	6.67E+00	9.91E+00	1.18E+01	1.08E-03	86		
CAN FAT/LEUKEMIA		0-80.5 km	1.0000	5.60E-01	4.22E-01	1.08E+00	
1.33E+00	2.24E+00	3.00E+00	3.83E+00	1.08E-03	86		
CAN FAT/BONE		0-80.5 km	1.0000	6.71E-02	5.21E-02	1.23E-01	
1.57E-01	2.64E-01	3.16E-01	4.32E-01	1.08E-03	86		
CAN FAT/OTHER		0-80.5 km	1.0000	1.89E+00	1.32E+00	3.64E+00	
4.98E+00	7.99E+00	1.00E+01	1.40E+01	1.08E-03	86		
CAN INJ/THYROID		0-80.5 km	1.0000	7.46E-01	4.65E-01	1.69E+00	
2.30E+00	3.90E+00	5.00E+00	6.72E+00	1.08E-03	86		
CAN INJ/BREAST		0-80.5 km	1.0000	1.89E+00	1.29E+00	3.69E+00	
5.14E+00	8.58E+00	1.06E+01	1.51E+01	1.08E-03	86		
CAN FAT/TOTAL		0-80.5 km	1.0000	6.31E+00	4.76E+00	1.18E+01	
1.54E+01	2.62E+01	3.16E+01	4.52E+01	1.08E-03	86		
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 INJ/PRODROMAL VOMIT		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 INJ/DIARRHEA		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 INJ/PNEUMONITIS		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 INJ/THYROIDITIS		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 INJ/HYPOTHYROIDISM		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 INJ/SKIN ERYTHEMA		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 INJ/TRANSEPIDERMAL		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		
EARLY FATALITY DISTANCE (km)							
ERL FAT/TOTAL RISK > 0.000			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 EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 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

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

POPULATION EXCEEDING DOSE
EARLY dose A-LUNGS > 5.00 Sv 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
EARLY dose L-EDEWBODY > 2.00 Sv 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
EARLY dose L-EDEWBODY > 0.250 Sv 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

AVERAGE INDIVIDUAL RISK
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 1.6-3.2 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 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
ERL FAT/TOTAL 4.8-6.4 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 6.4-8.1 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 2.30E+01 2.09E+01 3.90E+01
4.64E+01 5.70E+01 6.10E+01 7.86E+01 6.56E-04 40
L-EDEWBODY TOT LIF 0-80.5 km 1.0000 1.37E+02 1.03E+02 3.01E+02
3.69E+02 6.02E+02 7.33E+02 1.01E+03 1.08E-03 86

POPULATION WEIGHTED RISK
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
CAN FAT/TOTAL 0-16.1 km 1.0000 3.23E-05 2.94E-05 5.93E-05
7.11E-05 9.26E-05 1.03E-04 1.32E-04 6.56E-04 40

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
L-EDEWBODY 0-1.6 km 1.0000 5.11E-02 5.17E-02 7.23E-02
7.54E-02 8.33E-02 8.69E-02 9.11E-02 2.34E-03 65
L-EDEWBODY 1.6-3.2 km 1.0000 3.60E-02 3.30E-02 6.08E-02
6.85E-02 7.19E-02 7.28E-02 7.39E-02 2.34E-03 37
L-EDEWBODY 3.2-4.8 km 1.0000 3.07E-02 2.92E-02 5.16E-02
5.36E-02 5.86E-02 6.09E-02 7.28E-02 4.00E-04 10
L-EDEWBODY 4.8-6.4 km 1.0000 2.11E-02 2.02E-02 4.38E-02
5.12E-02 5.58E-02 5.79E-02 6.61E-02 4.28E-04 98
L-EDEWBODY 6.4-8.1 km 1.0000 1.46E-02 1.20E-02 2.72E-02
3.45E-02 NOT-FOUND NOT-FOUND 5.73E-02 1.21E-02 76
L-EDEWBODY 8.1-9.7 km 1.0000 1.06E-02 9.39E-03 1.91E-02
2.69E-02 3.44E-02 3.69E-02 3.90E-02 2.83E-03 50
L-EDEWBODY 9.7-16.1 km 1.0000 6.00E-03 5.30E-03 1.11E-02
1.35E-02 NOT-FOUND NOT-FOUND 2.52E-02 1.21E-02 34
L-EDEWBODY 16.1-32.2 km 1.0000 2.09E-03 1.88E-03 3.56E-03
4.16E-03 5.69E-03 6.37E-03 8.19E-03 2.83E-03 35
L-EDEWBODY 32.2-48.3 km 1.0000 7.53E-04 6.54E-04 1.26E-03
1.49E-03 2.03E-03 2.07E-03 2.22E-03 5.71E-04 91
L-EDEWBODY 48.3-64.4 km 1.0000 3.82E-04 3.31E-04 6.42E-04
8.14E-04 NOT-FOUND NOT-FOUND 1.20E-03 2.00E-02 67
L-EDEWBODY 64.4-80.5 km 1.0000 2.44E-04 2.02E-04 4.11E-04
6.26E-04 NOT-FOUND NOT-FOUND 1.09E-03 3.69E-02 3

DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

SOURCE TERM 3 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case DIRECT

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

COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE

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		PROB			QUANTILES			
		PEAK	PEAK	PEAK NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
HEALTH EFFECTS CASES								
ERL FAT/TOTAL		0-16.1 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 INJ/PRODROMAL VOMIT		0-16.1 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 INJ/DIARRHEA		0-16.1 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 INJ/PNEUMONITIS		0-16.1 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 INJ/THYROIDITIS		0-16.1 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 INJ/HYPOTHYROIDISM		0-16.1 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 INJ/SKIN ERYTHEMA		0-16.1 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 INJ/TRANSEPIDERMAL		0-16.1 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		0-16.1 km	1.0000	2.31E-02	1.80E-02	4.95E-02		
5.87E-02	7.72E-02	8.33E-02	1.08E-01	4.85E-04	52			
CAN FAT/LUNG		0-80.5 km	1.0000	2.54E-01	1.41E-01	6.26E-01		
8.34E-01	1.34E+00	1.61E+00	2.59E+00	2.23E-03	67			
CAN FAT/THYROID		0-80.5 km	1.0000	8.62E-03	5.03E-03	2.15E-02		
2.95E-02	4.42E-02	5.34E-02	7.98E-02	2.23E-03	67			
CAN FAT/BREAST		0-80.5 km	1.0000	2.48E-02	1.37E-02	6.37E-02		
8.16E-02	1.47E-01	1.98E-01	2.29E-01	1.08E-03	86			
CAN FAT/GI		0-80.5 km	1.0000	9.71E-02	5.63E-02	2.49E-01		
3.31E-01	5.13E-01	6.42E-01	9.07E-01	2.23E-03	67			
CAN FAT/LEUKEMIA		0-80.5 km	1.0000	2.55E-02	1.40E-02	6.46E-02		
8.29E-02	1.32E-01	1.60E-01	2.34E-01	2.23E-03	67			
CAN FAT/BONE		0-80.5 km	1.0000	4.14E-03	2.41E-03	1.04E-02		
1.33E-02	2.20E-02	2.54E-02	3.98E-02	2.23E-03	67			
CAN FAT/OTHER		0-80.5 km	1.0000	1.22E-01	7.05E-02	3.12E-01		
3.91E-01	6.37E-01	7.81E-01	1.17E+00	2.23E-03	67			
CAN INJ/THYROID		0-80.5 km	1.0000	8.62E-02	5.03E-02	2.15E-01		
2.95E-01	4.42E-01	5.34E-01	7.98E-01	2.23E-03	67			
CAN INJ/BREAST		0-80.5 km	1.0000	7.80E-02	4.49E-02	2.06E-01		
2.52E-01	4.07E-01	5.00E-01	7.22E-01	1.08E-03	86			
CAN FAT/TOTAL		0-80.5 km	1.0000	5.37E-01	3.07E-01	1.22E+00		
1.67E+00	2.75E+00	3.51E+00	5.24E+00	2.23E-03	67			
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 INJ/PRODROMAL VOMIT		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 INJ/DIARRHEA	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
ERL INJ/PNEUMONITIS	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
ERL INJ/THYROIDITIS	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
ERL INJ/HYPOTHYROIDISM	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
ERL INJ/SKIN ERYTHEMA	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
ERL INJ/TRANSEPIDERMAL	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

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0

POPULATION EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
EARLY dose A-LUNGS > 5.00 Sv		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
EARLY dose L-EDEWBODY > 2.00 Sv		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
EARLY dose L-EDEWBODY > 0.250 Sv		0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0

AVERAGE INDIVIDUAL RISK

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
ERL FAT/TOTAL	1.6-3.2 km	0.0000	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
ERL FAT/TOTAL	4.8-6.4 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0

		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH	CONS	PROB	TRIAL
AVERAGE INDIVIDUAL RISK													
ERL FAT/TOTAL	6.4-8.1 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
POPULATION DOSE (Sv)													
L-EDEWBODY TOT LIF	0-16.1 km	1.0000	3.36E-01	2.66E-01	7.07E-01	8.50E-01	1.12E+00	1.21E+00	1.59E+00	4.85E-04	52		
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	8.87E+00	5.10E+00	2.20E+01	2.98E+01	4.58E+01	5.55E+01	8.50E+01	2.23E-03	67		
POPULATION WEIGHTED RISK													
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	0.00E+00	0
CAN FAT/TOTAL	0-16.1 km	1.0000	1.12E-06	8.90E-07	2.26E-06	2.76E-06	3.61E-06	3.98E-06	5.25E-06	4.85E-04	52		
PEAK DOSE FOUND ON SPATIAL GRID (Sv)													
L-EDEWBODY	0-1.6 km	1.0000	5.56E-03	5.05E-03	1.03E-02	1.24E-02	NOT-FOUND	NOT-FOUND	1.83E-02	1.21E-02	76		
L-EDEWBODY	1.6-3.2 km	1.0000	1.77E-03	1.33E-03	3.52E-03	4.98E-03	NOT-FOUND	NOT-FOUND	6.82E-03	1.21E-02	76		
L-EDEWBODY	3.2-4.8 km	1.0000	9.80E-04	7.92E-04	2.09E-03	2.64E-03	NOT-FOUND	NOT-FOUND	3.86E-03	1.21E-02	76		

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 L-EDEWBODY                   4.8-6.4 km  1.0000  6.22E-04  5.00E-04  1.26E-03
1.70E-03 NOT-FOUND NOT-FOUND  2.50E-03  1.21E-02   76
 L-EDEWBODY                   6.4-8.1 km  1.0000  4.26E-04  3.34E-04  9.21E-04
1.17E-03 NOT-FOUND NOT-FOUND  1.79E-03  1.21E-02   76
 L-EDEWBODY                   8.1-9.7 km  0.9809  2.98E-04  2.39E-04  6.14E-04
7.84E-04 NOT-FOUND NOT-FOUND  1.22E-03  1.10E-02  117
 L-EDEWBODY                  9.7-16.1 km  0.9406  1.44E-04  1.24E-04  3.04E-04
3.74E-04  5.20E-04 NOT-FOUND  5.22E-04  9.53E-03  118
 L-EDEWBODY                 16.1-32.2 km  1.0000  3.21E-04  2.64E-04  6.19E-04
7.51E-04  1.10E-03  1.35E-03  1.61E-03  2.83E-03   35
 L-EDEWBODY                 32.2-48.3 km  1.0000  1.12E-04  8.91E-05  2.18E-04
2.81E-04 NOT-FOUND NOT-FOUND  3.59E-04  1.21E-02  120
 L-EDEWBODY                 48.3-64.4 km  1.0000  5.41E-05  4.56E-05  1.01E-04
1.32E-04 NOT-FOUND NOT-FOUND  1.87E-04  2.00E-02   67
 L-EDEWBODY                 64.4-80.5 km  1.0000  3.21E-05  2.52E-05  6.21E-05
8.61E-05 NOT-FOUND NOT-FOUND  1.15E-04  3.69E-02    3
□  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  3 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case DIRECT

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

    COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE


04/20/04    16:17:21     PAGE  21          PROB                              QUANTILES
                           PEAK       PEAK  PEAK
                                        NON-ZERO   MEAN      50TH      90TH      95TH
     99TH     99.5TH       CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL                 0-16.1 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 INJ/PRODROMAL VOMIT       0-16.1 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 INJ/DIARRHEA              0-16.1 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 INJ/PNEUMONITIS           0-16.1 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 INJ/THYROIDITIS           0-16.1 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 INJ/HYPOTHYROIDISM        0-16.1 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 INJ/SKIN ERYTHEMA         0-16.1 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 INJ/TRANSEPIDERMAL        0-16.1 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                 0-16.1 km  1.0000  1.07E-01  9.29E-02  2.06E-01
2.43E-01  3.32E-01  3.66E-01  4.86E-01  6.56E-04   76
 CAN FAT/LUNG                  0-80.5 km  1.0000  2.91E-01  1.92E-01  6.68E-01
8.90E-01  1.38E+00  1.64E+00  2.64E+00  2.23E-03   67
 CAN FAT/THYROID               0-80.5 km  1.0000  1.00E-02  6.63E-03  2.36E-02
3.15E-02  4.48E-02  5.34E-02  8.16E-02  2.23E-03   67
 CAN FAT/BREAST                0-80.5 km  1.0000  2.92E-02  1.87E-02  6.84E-02
8.52E-02  1.52E-01  1.99E-01  2.32E-01  1.08E-03   86
 CAN FAT/GI                    0-80.5 km  1.0000  1.13E-01  7.46E-02  2.62E-01
3.50E-01  5.65E-01  6.59E-01  9.26E-01  2.23E-03   67
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CAN FAT/LEUKEMIA			0-80.5 km	1.0000	2.99E-02	1.97E-02	7.05E-02	8.57E-02	1.51E-01	1.99E-01	2.39E-01	2.23E-03	67
CAN FAT/BONE			0-80.5 km	1.0000	4.80E-03	3.19E-03	1.09E-02	1.41E-02	2.27E-02	2.58E-02	4.06E-02	2.23E-03	67
CAN FAT/OTHER			0-80.5 km	1.0000	1.42E-01	9.36E-02	3.23E-01	4.08E-01	6.49E-01	7.87E-01	1.20E+00	2.23E-03	67
CAN INJ/THYROID			0-80.5 km	1.0000	1.00E-01	6.63E-02	2.36E-01	3.15E-01	4.48E-01	5.34E-01	8.16E-01	2.23E-03	67
CAN INJ/BREAST			0-80.5 km	1.0000	9.21E-02	5.99E-02	2.13E-01	2.64E-01	4.15E-01	5.00E-01	7.31E-01	1.08E-03	86
CAN FAT/TOTAL			0-80.5 km	1.0000	6.21E-01	3.87E-01	1.32E+00	1.94E+00	2.81E+00	3.55E+00	5.34E+00	2.23E-03	67
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 INJ/PRODROMAL VOMIT			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 INJ/DIARRHEA			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 INJ/PNEUMONITIS			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 INJ/THYROIDITIS			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 INJ/HYPOTHYROIDISM			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 INJ/SKIN ERYTHEMA			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 INJ/TRANSEPIDERMAL			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

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000				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 EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv				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
EARLY dose A-LUNGS > 5.00 Sv				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
EARLY dose L-EDEWBODY > 2.00 Sv				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
EARLY dose L-EDEWBODY > 0.250 Sv				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

AVERAGE INDIVIDUAL RISK

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			1.6-3.2 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			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
ERL FAT/TOTAL			4.8-6.4 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

			PEAK	PEAK	PROB			QUANTILES			
					NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH
			CONS	PROB	TRIAL						
AVERAGE INDIVIDUAL RISK											
ERL FAT/TOTAL			6.4-8.1 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	1.77E+00	1.44E+00	3.24E+00	3.85E+00	5.29E+00	5.68E+00	7.92E+00	6.56E-04	76

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 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  1.03E+01  6.84E+00  2.44E+01
3.21E+01  4.67E+01  5.59E+01  8.67E+01  2.23E-03   67

POPULATION WEIGHTED RISK
 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
 CAN FAT/TOTAL                0-16.1 km  1.0000  5.19E-06  4.44E-06  1.01E-05
1.13E-05  1.49E-05  1.68E-05  2.36E-05  6.56E-04   76

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  4.10E-02  3.74E-02  7.30E-02
9.20E-02  1.18E-01  1.29E-01  1.30E-01  4.57E-03   87
 L-EDEWBODY                  1.6-3.2 km  1.0000  1.11E-02  1.02E-02  2.15E-02
3.12E-02 NOT-FOUND NOT-FOUND  4.15E-02  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  5.84E-03  4.69E-03  1.15E-02
1.42E-02 NOT-FOUND NOT-FOUND  2.16E-02  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  3.61E-03  2.74E-03  8.29E-03
1.07E-02 NOT-FOUND NOT-FOUND  1.32E-02  1.21E-02   76
 L-EDEWBODY                  6.4-8.1 km  1.0000  2.57E-03  2.06E-03  6.04E-03
7.67E-03 NOT-FOUND NOT-FOUND  1.30E-02  1.21E-02   76
 L-EDEWBODY                  8.1-9.7 km  1.0000  1.90E-03  1.34E-03  3.99E-03
5.42E-03 NOT-FOUND NOT-FOUND  8.89E-03  1.21E-02   76
 L-EDEWBODY                 9.7-16.1 km  1.0000  1.10E-03  8.09E-04  2.46E-03
3.23E-03 NOT-FOUND NOT-FOUND  5.80E-03  1.21E-02   34
 L-EDEWBODY                16.1-32.2 km  1.0000  3.21E-04  2.64E-04  6.19E-04
7.51E-04  1.10E-03  1.35E-03  1.61E-03  2.83E-03   35
 L-EDEWBODY                32.2-48.3 km  1.0000  1.12E-04  8.91E-05  2.18E-04
2.81E-04 NOT-FOUND NOT-FOUND  3.59E-04  1.21E-02  120
 L-EDEWBODY                48.3-64.4 km  1.0000  5.41E-05  4.56E-05  1.01E-04
1.32E-04 NOT-FOUND NOT-FOUND  1.87E-04  2.00E-02   67
 L-EDEWBODY                64.4-80.5 km  1.0000  3.21E-05  2.52E-05  6.21E-05
8.61E-05 NOT-FOUND NOT-FOUND  1.15E-04  3.69E-02    3
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

  "CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model

SOURCE TERM  3 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case DIRECT

RESULTS FROM THE "CHRONC" MODULE ALONE

    COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model


04/20/04   16:17:21    PAGE  23          PROB                            QUANTILES
                         PEAK       PEAK  PEAK
                                        NON-ZERO   MEAN      50TH      90TH      95TH
    99TH      99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 CAN FAT/TOTAL                0-16.1 km  1.0000  1.05E+00  9.44E-01  1.90E+00
2.17E+00  2.73E+00  3.01E+00  3.60E+00  6.56E-04   40
 CAN FAT/LUNG                 0-80.5 km  1.0000  1.04E+00  7.29E-01  2.18E+00
2.80E+00  4.42E+00  6.88E+00  8.53E+00  1.08E-03   86
 CAN FAT/THYROID              0-80.5 km  1.0000  6.59E-02  3.96E-02  1.39E-01
2.04E-01  3.35E-01  4.96E-01  6.23E-01  1.08E-03   86
 CAN FAT/BREAST               0-80.5 km  1.0000  5.75E-01  4.01E-01  1.15E+00
1.49E+00  2.59E+00  3.17E+00  4.56E+00  1.08E-03   86
 CAN FAT/GI                   0-80.5 km  1.0000  1.73E+00  1.28E+00  3.34E+00
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4.10E+00  6.45E+00  8.04E+00  1.11E+01  1.08E-03   86
 CAN FAT/LEUKEMIA              0-80.5 km  1.0000  5.34E-01  4.00E-01  1.04E+00
1.25E+00  1.91E+00  2.97E+00  3.64E+00  1.08E-03   86
 CAN FAT/BONE                  0-80.5 km  1.0000  6.29E-02  5.06E-02  1.15E-01
1.41E-01  2.33E-01  3.00E-01  4.06E-01  1.08E-03   86
 CAN FAT/OTHER                 0-80.5 km  1.0000  1.76E+00  1.26E+00  3.46E+00
4.57E+00  6.73E+00  1.00E+01  1.32E+01  1.08E-03   86
 CAN INJ/THYROID               0-80.5 km  1.0000  6.59E-01  3.96E-01  1.39E+00
2.04E+00  3.35E+00  4.96E+00  6.23E+00  1.08E-03   86
 CAN INJ/BREAST                0-80.5 km  1.0000  1.81E+00  1.27E+00  3.51E+00
4.64E+00  7.73E+00  1.00E+01  1.44E+01  1.08E-03   86
 CAN FAT/TOTAL                 0-80.5 km  1.0000  5.77E+00  4.28E+00  1.11E+01
1.41E+01  2.41E+01  3.00E+01  4.20E+01  1.08E-03   86

POPULATION DOSE (Sv)
 L-EDEWBODY  TOT LIF           0-16.1 km  1.0000  2.26E+01  2.04E+01  3.84E+01
4.54E+01  5.64E+01  6.05E+01  7.77E+01  6.56E-04   40
 L-EDEWBODY  TOT LIF           0-80.5 km  1.0000  1.28E+02  9.68E+01  2.74E+02
3.49E+02  5.49E+02  7.00E+02  9.55E+02  1.08E-03   86

POPULATION WEIGHTED RISK
 CAN FAT/TOTAL                 0-16.1 km  1.0000  3.10E-05  2.75E-05  5.66E-05
6.87E-05  8.85E-05  9.84E-05  1.29E-04  6.56E-04   40

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                     0-1.6 km  1.0000  4.37E-02  4.26E-02  7.06E-02
7.17E-02  7.42E-02  7.53E-02  8.17E-02  1.14E-04   48
 L-EDEWBODY                   1.6-3.2 km  1.0000  3.38E-02  2.90E-02  5.45E-02
5.77E-02  6.58E-02  6.96E-02  7.11E-02  4.68E-03   37
 L-EDEWBODY                   3.2-4.8 km  1.0000  2.95E-02  2.82E-02  5.07E-02
5.28E-02  5.80E-02  6.04E-02  7.08E-02  4.00E-04   10
 L-EDEWBODY                   4.8-6.4 km  1.0000  2.03E-02  1.86E-02  3.86E-02
5.02E-02  5.45E-02  5.65E-02  6.40E-02  4.28E-04   98
 L-EDEWBODY                   6.4-8.1 km  1.0000  1.41E-02  1.15E-02  2.67E-02
3.45E-02  5.13E-02  5.37E-02  5.57E-02  2.83E-03   50
 L-EDEWBODY                   8.1-9.7 km  1.0000  1.03E-02  8.74E-03  1.74E-02
2.56E-02  3.42E-02  3.65E-02  3.86E-02  2.83E-03   50
 L-EDEWBODY                  9.7-16.1 km  1.0000  5.81E-03  5.27E-03  1.09E-02
1.33E-02 NOT-FOUND NOT-FOUND  2.49E-02  1.21E-02   34
 L-EDEWBODY                 16.1-32.2 km  1.0000  1.77E-03  1.46E-03  3.17E-03
3.47E-03  4.26E-03  4.65E-03  6.58E-03  2.83E-03   35
 L-EDEWBODY                 32.2-48.3 km  1.0000  6.42E-04  5.76E-04  1.07E-03
1.16E-03  1.41E-03  1.54E-03  2.06E-03  5.71E-04   91
 L-EDEWBODY                 48.3-64.4 km  1.0000  3.28E-04  3.06E-04  5.48E-04
6.28E-04 NOT-FOUND NOT-FOUND  1.01E-03  2.00E-02   67
 L-EDEWBODY                 64.4-80.5 km  1.0000  2.12E-04  1.49E-04  3.39E-04
4.74E-04 NOT-FOUND NOT-FOUND  9.70E-04  3.69E-02    3

L-EDEWBODY  POP. DOSE (Sv)     0-80.5 km
 TOTAL LONG-TERM PATHWAYS DOSE          1.0000  1.28E+02  9.68E+01  2.74E+02
3.49E+02  5.49E+02  7.00E+02  9.55E+02  1.08E-03   86
 LONG-TERM DIRECT EXPOSURE PATHWAYS     1.0000  9.94E+01  6.17E+01  2.28E+02
3.06E+02  4.49E+02  7.00E+02  9.42E+02  1.08E-03   86
 TOTAL INGESTION PATHWAYS DOSE          1.0000  2.85E+01  1.93E+01  6.85E+01
7.97E+01  1.05E+02  1.13E+02  1.82E+02  5.71E-05   41
 LONG-TERM GROUNDSHINE DOSE             1.0000  9.29E+01  5.73E+01  2.15E+02
2.74E+02  4.39E+02  6.94E+02  8.81E+02  1.08E-03   86
 LONG-TERM RESUSPENSION DOSE            1.0000  6.45E+00  3.89E+00  1.36E+01
1.98E+01  3.00E+01  4.95E+01  6.12E+01  1.08E-03   86
 WATER INGESTION DOSE                   1.0000  4.64E-01  3.84E-01  8.60E-01
1.02E+00  1.16E+00  1.22E+00  1.90E+00  1.79E-05  102
 POP.-DEPENDENT DECONTAMINATION DOSE    0.5875  3.25E-02  6.45E-03  8.81E-02
1.39E-01  2.41E-01  2.71E-01  3.72E-01  2.87E-04   87
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	PEAK	PEAK	PEAK	PROB NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
	99TH	99.5TH	CONS	PROB	TRIAL			
L-EDEWBODY POP. DOSE (Sv)				0-80.5 km				
FARM-DEPENDENT DECONTAMINATION DOSE					0.7304	4.15E-03	1.18E-03	1.28E-02
1.55E-02	2.19E-02	2.40E-02	2.68E-02	2.09E-03	87			
INGESTION OF GRAINS					1.0000	2.30E+00	1.02E+00	5.11E+00
7.84E+00	1.89E+01	2.22E+01	3.96E+01	5.71E-05	41			
INGESTION OF LEAF VEG					1.0000	2.30E+00	1.02E+00	5.11E+00
7.84E+00	1.89E+01	2.22E+01	3.96E+01	5.71E-05	41			
INGESTION OF ROOT CROPS					1.0000	1.59E+00	1.00E+00	3.67E+00
4.55E+00	5.82E+00	6.32E+00	9.19E+00	5.71E-05	41			
INGESTION OF FRUITS					1.0000	2.14E+00	1.22E+00	5.41E+00
6.48E+00	8.05E+00	8.67E+00	1.32E+01	5.71E-05	41			
INGESTION OF LEGUMES					1.0000	1.54E+00	9.42E-01	3.29E+00
3.80E+00	5.14E+00	5.50E+00	8.09E+00	5.71E-05	41			
INGESTION OF BEEF					1.0000	8.76E+00	5.91E+00	2.03E+01
2.41E+01	3.15E+01	3.30E+01	4.63E+01	2.86E-05	2			
INGESTION OF MILK					1.0000	7.86E+00	5.13E+00	1.71E+01
2.15E+01	3.03E+01	3.16E+01	4.34E+01	2.86E-05	2			
INGESTION OF POULTRY					1.0000	2.24E+00	1.10E+00	5.15E+00
6.63E+00	1.21E+01	1.39E+01	2.68E+01	5.71E-05	41			
INGESTION OF OTHER MEAT CROPS					1.0000	5.01E-01	3.45E-01	9.85E-01
1.40E+00	2.73E+00	3.18E+00	5.52E+00	5.71E-05	41			
ECONOMIC COST MEASURES ($)				0-80.5 km				
TOTAL ECONOMIC COSTS					0.8361	5.14E+05	2.27E+05	1.29E+06
1.69E+06	2.55E+06	2.94E+06	3.80E+06	4.66E-05	30			
POP.-DEPENDENT COSTS					0.5875	3.23E+05	4.19E+04	9.22E+05
1.24E+06	2.08E+06	2.19E+06	2.97E+06	6.99E-05	18			
FARM-DEPENDENT COSTS					0.8260	1.91E+05	7.00E+04	5.56E+05
7.13E+05	1.14E+06	1.38E+06	2.11E+06	1.31E-03	34			
POP.-DEPENDENT DECONTAMINATION COST					0.5875	6.45E+04	8.86E+03	1.76E+05
2.70E+05	4.79E+05	5.09E+05	5.83E+05	6.99E-05	18			
FARM-DEPENDENT DECONTAMINATION COST					0.7304	1.89E+04	9.29E+03	4.36E+04
5.36E+04	7.30E+04	7.72E+04	9.70E+04	3.12E-04	18			
POP.-DEPENDENT INTERDICTION COST					0.5875	2.58E+05	2.62E+04	7.18E+05
9.45E+05	2.02E+06	2.06E+06	2.38E+06	6.99E-05	18			
FARM-DEPENDENT INTERDICTION COST					0.8122	1.48E+05	2.53E+04	4.19E+05
5.48E+05	1.02E+06	1.16E+06	1.49E+06	1.31E-03	34			
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			
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			
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			
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					0.6184	3.76E+03	1.60E+02	9.62E+03
1.81E+04	2.60E+04	2.94E+04	3.43E+04	2.66E-04	1			
CROP DISPOSAL COST					0.6061	2.08E+04	2.61E+03	5.92E+04
8.00E+04	1.58E+05	2.26E+05	5.84E+05	1.31E-03	34			
AFFECTED AREA/POPULATION				0-80.5 km				
FARM DECONTAMINATION (HECTARES)					0.7304	2.49E+01	1.59E+01	6.88E+01
8.00E+01	1.04E+02	1.09E+02	1.33E+02	3.12E-04	18			
POP. DECONTAMINATION (INDIVIDUALS)					0.5875	1.79E+01	2.56E+00	4.55E+01
6.47E+01	1.10E+02	1.16E+02	1.66E+02	6.99E-05	18			
FARM INTERDICTION (HECTARES)					0.8122	1.00E+02	5.57E+01	2.72E+02
3.48E+02	7.70E+02	1.03E+03	1.34E+03	1.31E-03	34			
POP. INTERDICTION (INDIVIDUALS)					0.5875	1.79E+01	2.56E+00	4.55E+01
6.47E+01	1.10E+02	1.16E+02	1.66E+02	6.99E-05	18			

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 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)         0.6184   1.95E+02  1.60E+01  4.90E+02
9.45E+02  1.13E+03  1.20E+03  1.52E+03  2.66E-04    1
 CROP DISPOSAL AREA (HECTARES)         0.6061   8.88E+01  1.58E+01  2.72E+02
3.48E+02  7.70E+02  1.03E+03  1.34E+03  1.31E-03   34
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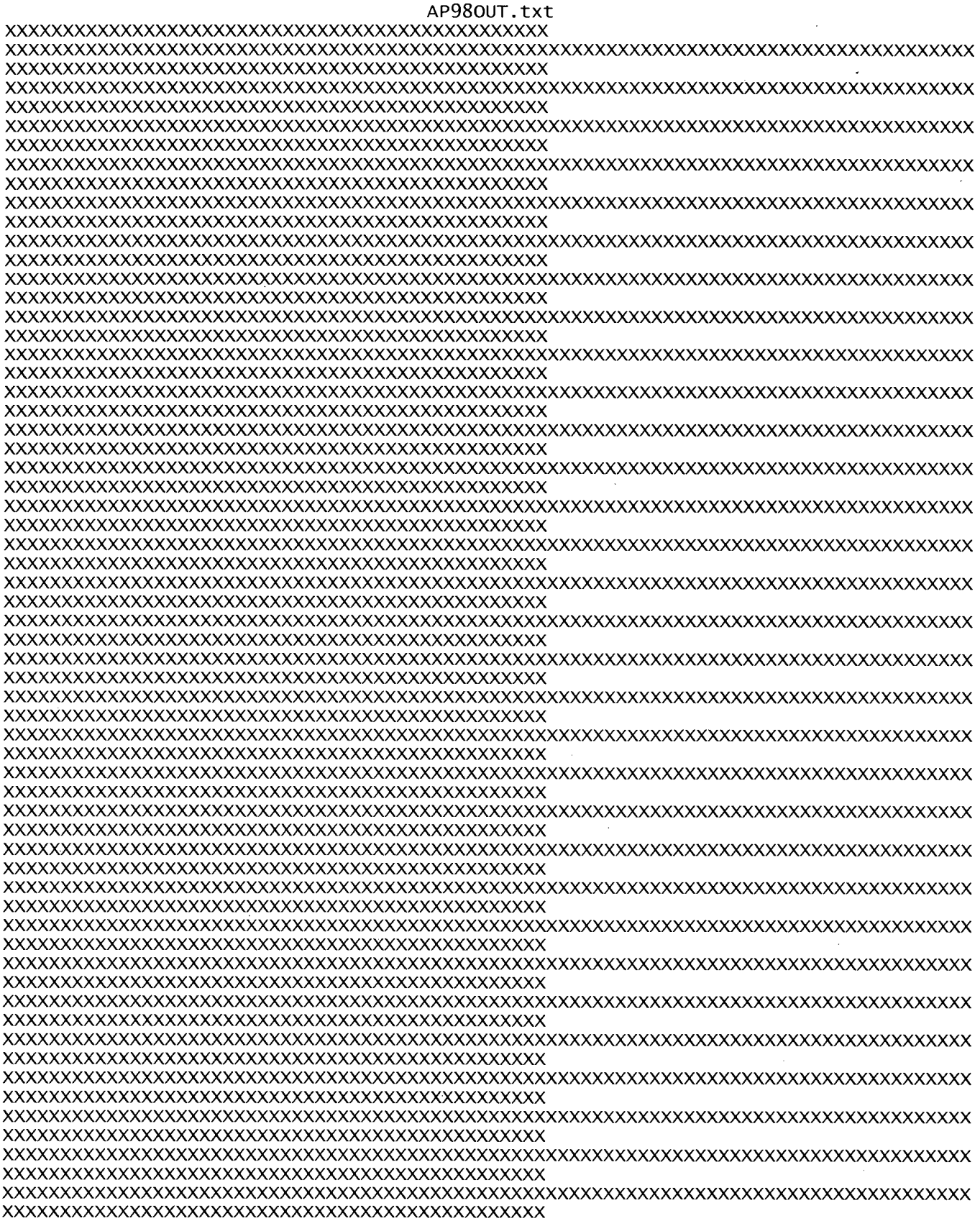

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DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 4 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case 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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
0.950

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
0.050

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

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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

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HEALTH EFFECTS CASES		PROB NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH	PEAK CONS	PEAK PROB	PEAK TRIAL
ERL FAT/TOTAL	0-16.1 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 INJ/PRODROMAL VOMIT	0-16.1 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 INJ/DIARRHEA	0-16.1 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 INJ/PNEUMONITIS	0-16.1 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 INJ/THYROIDITIS	0-16.1 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 INJ/HYPOTHYROIDISM	0-16.1 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 INJ/SKIN ERYTHEMA	0-16.1 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 INJ/TRANSEPIDERMAL	0-16.1 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	0-16.1 km	1.0000	4.44E-01	3.48E-01	8.92E-01	1.03E+00	1.19E+00	1.26E+00	1.66E+00	2.19E-04	44
CAN FAT/LUNG	0-80.5 km	1.0000	4.41E-01	3.09E-01	1.01E+00	1.23E+00	1.92E+00	2.96E+00	3.31E+00	2.23E-03	67
CAN FAT/THYROID	0-80.5 km	1.0000	2.51E-02	1.48E-02	5.99E-02	7.90E-02	1.44E-01	1.99E-01	2.24E-01	1.08E-03	86

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 CAN FAT/BREAST                0-80.5 km  1.0000  2.06E-01  1.41E-01  4.36E-01
5.69E-01  8.80E-01  1.06E+00  1.59E+00  1.08E-03   86
 CAN FAT/GI                    0-80.5 km  1.0000  6.42E-01  5.00E-01  1.21E+00
1.48E+00  2.41E+00  3.02E+00  3.91E+00  1.08E-03   86
 CAN FAT/LEUKEMIA              0-80.5 km  1.0000  1.94E-01  1.44E-01  3.66E-01
4.69E-01  7.04E-01  1.00E+00  1.28E+00  1.08E-03   86
 CAN FAT/BONE                  0-80.5 km  1.0000  2.33E-02  1.80E-02  4.42E-02
5.57E-02  8.80E-02  1.05E-01  1.44E-01  1.08E-03   86
 CAN FAT/OTHER                 0-80.5 km  1.0000  6.53E-01  5.04E-01  1.20E+00
1.58E+00  2.64E+00  3.18E+00  4.65E+00  1.08E-03   86
 CAN INJ/THYROID               0-80.5 km  1.0000  2.51E-01  1.48E-01  5.99E-01
7.90E-01  1.44E+00  1.99E+00  2.24E+00  1.08E-03   86
 CAN INJ/BREAST                0-80.5 km  1.0000  6.50E-01  4.86E-01  1.20E+00
1.61E+00  2.66E+00  3.21E+00  5.02E+00  1.08E-03   86
 CAN FAT/TOTAL                 0-80.5 km  1.0000  2.19E+00  1.55E+00  4.55E+00
5.79E+00  8.88E+00  1.06E+01  1.50E+01  1.08E-03   86
 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 INJ/PRODROMAL VOMIT       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 INJ/DIARRHEA              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 INJ/PNEUMONITIS           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 INJ/THYROIDITIS           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 INJ/HYPOTHYROIDISM        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 INJ/SKIN ERYTHEMA         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 INJ/TRANSEPIDERMAL        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

EARLY FATALITY DISTANCE (km)
 ERL FAT/TOTAL RISK > 0.000               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 EXCEEDING DOSE
 EARLY dose A-RED MARR > 1.50 Sv          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
04/20/04   16:17:21    PAGE  26            PROB                       QUANTILES
                   PEAK        PEAK  PEAK
                                   NON-ZERO   MEAN      50TH      90TH      95TH
    99TH      99.5TH      CONS       PROB  TRIAL
POPULATION EXCEEDING DOSE
 EARLY dose A-LUNGS > 5.00 Sv             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
 EARLY dose L-EDEWBODY > 2.00 Sv          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
 EARLY dose L-EDEWBODY > 0.250 Sv         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

AVERAGE INDIVIDUAL RISK
 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                 1.6-3.2 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                 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
 ERL FAT/TOTAL                 4.8-6.4 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                 6.4-8.1 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
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POPULATION DOSE (Sv)
 L-EDEWBODY  TOT LIF          0-16.1 km  1.0000  9.48E+00  7.66E+00  1.80E+01
2.13E+01  2.64E+01  2.89E+01  3.43E+01  1.54E-05   31
 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  4.73E+01  3.49E+01  1.01E+02
1.22E+02  1.85E+02  2.96E+02  3.37E+02  1.08E-03   86

POPULATION WEIGHTED RISK
 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
 CAN FAT/TOTAL                0-16.1 km  1.0000  1.17E-05  1.04E-05  2.19E-05
2.64E-05  3.49E-05  3.82E-05  5.01E-05  6.56E-04   76

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  3.61E-02  3.36E-02  6.07E-02
7.02E-02  7.39E-02  7.56E-02  7.58E-02  4.57E-03   87
 L-EDEWBODY                  1.6-3.2 km  1.0000  2.28E-02  2.10E-02  4.18E-02
5.17E-02  7.02E-02  7.10E-02  7.36E-02  4.28E-04   98
 L-EDEWBODY                  3.2-4.8 km  1.0000  1.16E-02  1.03E-02  2.16E-02
2.75E-02  3.47E-02  3.73E-02  3.77E-02  4.57E-03   87
 L-EDEWBODY                  4.8-6.4 km  1.0000  7.01E-03  6.30E-03  1.21E-02
1.48E-02  2.03E-02  2.06E-02  2.20E-02  4.28E-04   98
 L-EDEWBODY                  6.4-8.1 km  1.0000  4.85E-03  4.03E-03  9.02E-03
1.17E-02 NOT-FOUND NOT-FOUND  1.91E-02  1.21E-02   76
 L-EDEWBODY                  8.1-9.7 km  1.0000  3.54E-03  3.14E-03  6.30E-03
8.68E-03  1.15E-02  1.23E-02  1.30E-02  2.83E-03   50
 L-EDEWBODY                  9.7-16.1 km  1.0000  2.00E-03  1.48E-03  3.86E-03
4.98E-03 NOT-FOUND NOT-FOUND  8.38E-03  1.21E-02   34
 L-EDEWBODY                 16.1-32.2 km  1.0000  6.94E-04  6.67E-04  1.13E-03
1.26E-03  1.63E-03  1.83E-03  2.72E-03  2.83E-03   35
 L-EDEWBODY                 32.2-48.3 km  1.0000  2.50E-04  2.20E-04  3.82E-04
4.52E-04  7.03E-04  7.11E-04  7.37E-04  5.71E-04   91
 L-EDEWBODY                 48.3-64.4 km  1.0000  1.27E-04  1.11E-04  2.22E-04
2.62E-04 NOT-FOUND NOT-FOUND  4.00E-04  2.00E-02   67
 L-EDEWBODY                 64.4-80.5 km  1.0000  8.12E-05  6.74E-05  1.36E-04
1.90E-04 NOT-FOUND NOT-FOUND  3.61E-04  3.69E-02    3
□  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  4 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case IC

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

    COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE


04/20/04   16:17:21    PAGE  27          PROB                              QUANTILES
                         PEAK       PEAK  PEAK
                                          NON-ZERO   MEAN       50TH       90TH       95TH
     99TH      99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL                 0-16.1 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 INJ/PRODROMAL VOMIT       0-16.1 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 INJ/DIARRHEA              0-16.1 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
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ERL INJ/PNEUMONITIS	0-16.1 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 INJ/THYROIDITIS	0-16.1 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 INJ/HYPOTHYROIDISM	0-16.1 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 INJ/SKIN ERYTHEMA	0-16.1 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 INJ/TRANSEPIDERMAL	0-16.1 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	0-16.1 km	1.0000	7.67E-03	6.07E-03	1.50E-02	1.97E-02	2.59E-02	2.90E-02	3.60E-02	4.85E-04	52
CAN FAT/LUNG	0-80.5 km	1.0000	8.46E-02	4.85E-02	2.10E-01	2.95E-01	4.34E-01	5.17E-01	8.62E-01	2.23E-03	67
CAN FAT/THYROID	0-80.5 km	1.0000	2.87E-03	1.65E-03	7.42E-03	9.86E-03	1.43E-02	1.67E-02	2.66E-02	2.23E-03	67
CAN FAT/BREAST	0-80.5 km	1.0000	8.24E-03	4.76E-03	2.11E-02	2.63E-02	4.15E-02	5.07E-02	7.63E-02	1.08E-03	86
CAN FAT/GI	0-80.5 km	1.0000	3.23E-02	1.81E-02	8.29E-02	1.10E-01	1.66E-01	1.99E-01	3.02E-01	2.23E-03	67
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	8.50E-03	4.94E-03	2.13E-02	2.82E-02	4.24E-02	5.00E-02	7.77E-02	2.23E-03	67
CAN FAT/BONE	0-80.5 km	1.0000	1.38E-03	8.05E-04	3.32E-03	4.52E-03	7.38E-03	8.49E-03	1.32E-02	2.23E-03	67
CAN FAT/OTHER	0-80.5 km	1.0000	4.07E-02	2.36E-02	1.04E-01	1.32E-01	2.18E-01	2.53E-01	3.90E-01	2.23E-03	67
CAN INJ/THYROID	0-80.5 km	1.0000	2.87E-02	1.65E-02	7.42E-02	9.86E-02	1.43E-01	1.67E-01	2.66E-01	2.23E-03	67
CAN INJ/BREAST	0-80.5 km	1.0000	2.60E-02	1.41E-02	6.77E-02	8.44E-02	1.51E-01	1.99E-01	2.40E-01	1.08E-03	86
CAN FAT/TOTAL	0-80.5 km	1.0000	1.79E-01	1.02E-01	4.31E-01	5.82E-01	9.17E-01	1.19E+00	1.74E+00	2.23E-03	67
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 INJ/PRODROMAL VOMIT	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 INJ/DIARRHEA	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 INJ/PNEUMONITIS	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 INJ/THYROIDITIS	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 INJ/HYPOTHYROIDISM	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 INJ/SKIN ERYTHEMA	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 INJ/TRANSEPIDERMAL	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

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000		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 EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv		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
EARLY dose A-LUNGS > 5.00 Sv		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
EARLY dose L-EDEWBODY > 2.00 Sv		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
EARLY dose L-EDEWBODY > 0.250 Sv		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

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AVERAGE INDIVIDUAL RISK
 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                1.6-3.2 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                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
 ERL FAT/TOTAL                4.8-6.4 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
04/20/04   16:17:21    PAGE  28         PROB                          QUANTILES
                           PEAK       PEAK  PEAK
                                          NON-ZERO   MEAN      50TH      90TH      95TH
     99TH      99.5TH      CONS       PROB  TRIAL
AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL                6.4-8.1 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  1.12E-01  8.89E-02  2.26E-01
2.75E-01  3.60E-01  3.97E-01  5.29E-01  4.85E-04   52
 L-EDEWBODY  TOT LIF           0-80.5 km  1.0000  2.95E+00  1.70E+00  7.45E+00
9.94E+00  1.54E+01  1.86E+01  2.83E+01  2.23E-03   67

POPULATION WEIGHTED RISK
 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
 CAN FAT/TOTAL                 0-16.1 km  1.0000  3.72E-07  3.00E-07  7.64E-07
9.16E-07  1.18E-06  1.29E-06  1.75E-06  4.85E-04   52

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                     0-1.6 km  1.0000  1.85E-03  1.61E-03  3.41E-03
4.19E-03 NOT-FOUND NOT-FOUND  6.10E-03  1.21E-02   76
 L-EDEWBODY                   1.6-3.2 km  1.0000  5.89E-04  5.09E-04  1.10E-03
1.34E-03 NOT-FOUND NOT-FOUND  2.27E-03  1.21E-02   76
 L-EDEWBODY                   3.2-4.8 km  1.0000  3.26E-04  2.72E-04  7.27E-04
8.92E-04 NOT-FOUND NOT-FOUND  1.28E-03  1.21E-02   76
 L-EDEWBODY                   4.8-6.4 km  1.0000  2.07E-04  1.56E-04  4.74E-04
5.53E-04 NOT-FOUND NOT-FOUND  8.31E-04  1.21E-02   76
 L-EDEWBODY                   6.4-8.1 km  1.0000  1.42E-04  1.09E-04  2.87E-04
3.48E-04 NOT-FOUND NOT-FOUND  5.97E-04  1.21E-02   76
 L-EDEWBODY                   8.1-9.7 km  0.9809  9.91E-05  7.92E-05  2.10E-04
2.60E-04 NOT-FOUND NOT-FOUND  4.08E-04  1.10E-02  117
 L-EDEWBODY                  9.7-16.1 km  0.9406  4.81E-05  3.98E-05  1.01E-04
1.18E-04  1.72E-04 NOT-FOUND  1.74E-04  9.53E-03  118
 L-EDEWBODY                 16.1-32.2 km  1.0000  1.07E-04  8.86E-05  2.09E-04
2.37E-04  3.33E-04  4.16E-04  5.35E-04  2.83E-03   35
 L-EDEWBODY                 32.2-48.3 km  1.0000  3.71E-05  3.15E-05  6.51E-05
9.04E-05 NOT-FOUND NOT-FOUND  1.20E-04  1.21E-02  120
 L-EDEWBODY                 48.3-64.4 km  1.0000  1.80E-05  1.39E-05  3.53E-05
4.36E-05 NOT-FOUND NOT-FOUND  6.23E-05  2.00E-02   67
 L-EDEWBODY                 64.4-80.5 km  1.0000  1.07E-05  8.54E-06  2.01E-05
2.66E-05 NOT-FOUND NOT-FOUND  3.83E-05  3.69E-02    3
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  4 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case IC

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

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH	CONS
HEALTH EFFECTS CASES											
ERL FAT/TOTAL	0-16.1 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 INJ/PRODROMAL VOMIT	0-16.1 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 INJ/DIARRHEA	0-16.1 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 INJ/PNEUMONITIS	0-16.1 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 INJ/THYROIDITIS	0-16.1 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 INJ/HYPOTHYROIDISM	0-16.1 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 INJ/SKIN ERYTHEMA	0-16.1 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 INJ/TRANSEPIDERMAL	0-16.1 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	0-16.1 km	1.0000	3.55E-02	3.12E-02	6.79E-02	8.05E-02	1.10E-01	1.21E-01	1.60E-01	6.56E-04	76
CAN FAT/LUNG	0-80.5 km	1.0000	9.69E-02	6.26E-02	2.26E-01	3.06E-01	4.49E-01	5.40E-01	8.78E-01	2.23E-03	67
CAN FAT/THYROID	0-80.5 km	1.0000	3.33E-03	2.18E-03	7.85E-03	1.05E-02	1.46E-02	1.69E-02	2.71E-02	2.23E-03	67
CAN FAT/BREAST	0-80.5 km	1.0000	9.74E-03	6.24E-03	2.20E-02	2.78E-02	4.22E-02	5.35E-02	7.73E-02	1.08E-03	86
CAN FAT/GI	0-80.5 km	1.0000	3.77E-02	2.43E-02	8.80E-02	1.12E-01	1.68E-01	1.99E-01	3.08E-01	2.23E-03	67
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	9.95E-03	6.36E-03	2.33E-02	3.14E-02	4.42E-02	5.22E-02	7.95E-02	2.23E-03	67
CAN FAT/BONE	0-80.5 km	1.0000	1.60E-03	1.06E-03	3.61E-03	5.00E-03	7.62E-03	8.64E-03	1.35E-02	2.23E-03	67
CAN FAT/OTHER	0-80.5 km	1.0000	4.73E-02	3.15E-02	1.08E-01	1.39E-01	2.25E-01	2.57E-01	3.98E-01	2.23E-03	67
CAN INJ/THYROID	0-80.5 km	1.0000	3.33E-02	2.18E-02	7.85E-02	1.05E-01	1.46E-01	1.69E-01	2.71E-01	2.23E-03	67
CAN INJ/BREAST	0-80.5 km	1.0000	3.06E-02	2.03E-02	7.20E-02	8.70E-02	1.52E-01	1.99E-01	2.43E-01	1.08E-03	86
CAN FAT/TOTAL	0-80.5 km	1.0000	2.06E-01	1.29E-01	4.57E-01	6.05E-01	9.31E-01	1.21E+00	1.78E+00	2.23E-03	67
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 INJ/PRODROMAL VOMIT	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 INJ/DIARRHEA	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 INJ/PNEUMONITIS	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 INJ/THYROIDITIS	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 INJ/HYPOTHYROIDISM	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 INJ/SKIN ERYTHEMA	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 INJ/TRANSEPIDERMAL	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

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

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000					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 EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv					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			
EARLY dose A-LUNGS > 5.00 Sv					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			
EARLY dose L-EDEWBODY > 2.00 Sv					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			
EARLY dose L-EDEWBODY > 0.250 Sv					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			

AVERAGE INDIVIDUAL RISK

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			1.6-3.2 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			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			
ERL FAT/TOTAL			4.8-6.4 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			

				PROB		QUANTILES	
	PEAK	PEAK	PEAK NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL			
AVERAGE INDIVIDUAL RISK							
ERL FAT/TOTAL		6.4-8.1 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	5.89E-01	5.22E-01	1.07E+00
1.24E+00	1.74E+00	2.01E+00	2.64E+00	6.56E-04	76			
L-EDEWBODY TOT LIF			0-80.5 km		1.0000	3.43E+00	2.21E+00	8.00E+00
1.07E+01	1.59E+01	1.87E+01	2.88E+01	2.23E-03	67			

POPULATION WEIGHTED RISK

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			
CAN FAT/TOTAL			0-16.1 km		1.0000	1.72E-06	1.41E-06	3.20E-06
3.79E-06	5.26E-06	5.66E-06	7.78E-06	6.56E-04	76			

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY			0-1.6 km		1.0000	1.36E-02	1.18E-02	2.56E-02
3.09E-02	3.88E-02	4.28E-02	4.34E-02	4.57E-03	87			
L-EDEWBODY			1.6-3.2 km		1.0000	3.68E-03	3.08E-03	7.45E-03
1.04E-02	NOT-FOUND	NOT-FOUND	1.38E-02	1.21E-02	76			
L-EDEWBODY			3.2-4.8 km		1.0000	1.95E-03	1.47E-03	3.94E-03
5.31E-03	NOT-FOUND	NOT-FOUND	7.18E-03	1.21E-02	76			
L-EDEWBODY			4.8-6.4 km		1.0000	1.20E-03	9.22E-04	2.56E-03
3.27E-03	NOT-FOUND	NOT-FOUND	4.41E-03	1.21E-02	76			
L-EDEWBODY			6.4-8.1 km		1.0000	8.56E-04	6.60E-04	2.06E-03
2.36E-03	NOT-FOUND	NOT-FOUND	4.32E-03	1.21E-02	76			
L-EDEWBODY			8.1-9.7 km		1.0000	6.34E-04	4.49E-04	1.38E-03
1.98E-03	NOT-FOUND	NOT-FOUND	2.96E-03	1.21E-02	76			
L-EDEWBODY			9.7-16.1 km		1.0000	3.66E-04	2.56E-04	8.21E-04
1.10E-03	NOT-FOUND	NOT-FOUND	1.93E-03	1.21E-02	34			
L-EDEWBODY			16.1-32.2 km		1.0000	1.07E-04	8.86E-05	2.09E-04
2.37E-04	3.33E-04	4.16E-04	5.35E-04	2.83E-03	35			
L-EDEWBODY			32.2-48.3 km		1.0000	3.71E-05	3.15E-05	6.51E-05

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9.04E-05 NOT-FOUND NOT-FOUND  1.20E-04  1.21E-02  120
 L-EDEWBODY                48.3-64.4 km  1.0000  1.80E-05  1.39E-05  3.53E-05
4.36E-05 NOT-FOUND NOT-FOUND  6.23E-05  2.00E-02   67
 L-EDEWBODY                64.4-80.5 km  1.0000  1.07E-05  8.54E-06  2.01E-05
2.66E-05 NOT-FOUND NOT-FOUND  3.83E-05  3.69E-02    3
 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

  "CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model

SOURCE TERM  4 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case IC

RESULTS FROM THE "CHRONC" MODULE ALONE

    COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model


04/20/04   16:17:21     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                0-16.1 km  1.0000  4.35E-01  3.38E-01  8.69E-01
1.02E+00  1.18E+00  1.25E+00  1.66E+00  2.19E-04   44
 CAN FAT/LUNG                 0-80.5 km  1.0000  3.56E-01  2.52E-01  7.54E-01
9.55E-01  1.60E+00  2.00E+00  2.84E+00  1.08E-03   86
 CAN FAT/THYROID              0-80.5 km  1.0000  2.22E-02  1.34E-02  5.21E-02
6.60E-02  1.06E-01  1.29E-01  2.07E-01  1.08E-03   86
 CAN FAT/BREAST               0-80.5 km  1.0000  1.98E-01  1.37E-01  3.88E-01
5.28E-01  8.59E-01  1.06E+00  1.52E+00  1.08E-03   86
 CAN FAT/GI                   0-80.5 km  1.0000  6.10E-01  4.89E-01  1.16E+00
1.40E+00  2.25E+00  3.01E+00  3.68E+00  1.08E-03   86
 CAN FAT/LEUKEMIA             0-80.5 km  1.0000  1.86E-01  1.38E-01  3.47E-01
4.43E-01  6.66E-01  9.90E-01  1.21E+00  1.08E-03   86
 CAN FAT/BONE                 0-80.5 km  1.0000  2.19E-02  1.67E-02  4.06E-02
5.19E-02  8.29E-02  1.04E-01  1.35E-01  1.08E-03   86
 CAN FAT/OTHER                0-80.5 km  1.0000  6.12E-01  4.76E-01  1.15E+00
1.47E+00  2.56E+00  3.15E+00  4.38E+00  1.08E-03   86
 CAN INJ/THYROID              0-80.5 km  1.0000  2.22E-01  1.34E-01  5.21E-01
6.60E-01  1.06E+00  1.29E+00  2.07E+00  1.08E-03   86
 CAN INJ/BREAST               0-80.5 km  1.0000  6.23E-01  4.61E-01  1.18E+00
1.56E+00  2.64E+00  3.19E+00  4.78E+00  1.08E-03   86
 CAN FAT/TOTAL                0-80.5 km  1.0000  2.01E+00  1.44E+00  3.86E+00
5.10E+00  8.29E+00  1.04E+01  1.40E+01  1.08E-03   86

POPULATION DOSE (Sv)
 L-EDEWBODY  TOT LIF          0-16.1 km  1.0000  9.34E+00  7.49E+00  1.77E+01
2.11E+01  2.58E+01  2.82E+01  3.42E+01  1.54E-05   31
 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  4.44E+01  3.33E+01  9.33E+01
1.17E+02  1.78E+02  2.11E+02  3.17E+02  1.08E-03   86

POPULATION WEIGHTED RISK
 CAN FAT/TOTAL                0-16.1 km  1.0000  1.13E-05  1.01E-05  2.12E-05
2.53E-05  3.38E-05  3.70E-05  4.82E-05  6.56E-04   76

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  3.37E-02  3.17E-02  5.19E-02
5.39E-02  5.89E-02  6.12E-02  7.04E-02  4.28E-04    4
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 L-EDEWBODY                      1.6-3.2 km  1.0000  2.20E-02  2.02E-02  4.13E-02
5.05E-02  5.64E-02  5.91E-02  7.15E-02  4.28E-04   98
 L-EDEWBODY                      3.2-4.8 km  1.0000  1.12E-02  1.03E-02  2.08E-02
2.54E-02  3.35E-02  3.61E-02  3.64E-02  4.57E-03   87
 L-EDEWBODY                      4.8-6.4 km  1.0000  6.75E-03  6.17E-03  1.12E-02
1.28E-02  1.75E-02  2.00E-02  2.13E-02  4.28E-04   98
 L-EDEWBODY                      6.4-8.1 km  1.0000  4.68E-03  3.90E-03  9.02E-03
1.09E-02  1.47E-02  1.67E-02  1.85E-02  2.83E-03   50
 L-EDEWBODY                      8.1-9.7 km  1.0000  3.41E-03  3.08E-03  6.30E-03
8.68E-03  1.14E-02  1.22E-02  1.28E-02  2.83E-03   50
 L-EDEWBODY                     9.7-16.1 km  1.0000  1.93E-03  1.48E-03  3.86E-03
4.98E-03 NOT-FOUND NOT-FOUND  8.28E-03  1.21E-02   34
 L-EDEWBODY                    16.1-32.2 km  1.0000  5.87E-04  5.22E-04  1.08E-03
1.22E-03  1.61E-03  1.81E-03  2.19E-03  2.83E-03   35
 L-EDEWBODY                    32.2-48.3 km  1.0000  2.13E-04  1.74E-04  3.78E-04
4.49E-04  5.48E-04  5.79E-04  6.86E-04  5.71E-04   91
 L-EDEWBODY                    48.3-64.4 km  1.0000  1.09E-04  1.01E-04  1.74E-04
2.27E-04 NOT-FOUND NOT-FOUND  3.37E-04  2.00E-02   67
 L-EDEWBODY                    64.4-80.5 km  1.0000  7.05E-05  5.53E-05  1.18E-04
1.84E-04 NOT-FOUND NOT-FOUND  3.23E-04  3.69E-02    3

L-EDEWBODY  POP. DOSE (Sv)     0-80.5 km
 TOTAL LONG-TERM PATHWAYS DOSE              1.0000  4.44E+01  3.33E+01  9.33E+01
1.17E+02  1.78E+02  2.11E+02  3.17E+02  1.08E-03   86
 LONG-TERM DIRECT EXPOSURE PATHWAYS         1.0000  3.35E+01  2.15E+01  7.88E+01
1.06E+02  1.65E+02  2.00E+02  3.13E+02  1.08E-03   86
 TOTAL INGESTION PATHWAYS DOSE              1.0000  1.09E+01  6.53E+00  2.66E+01
3.14E+01  3.77E+01  4.07E+01  6.14E+01  5.71E-05   41
 LONG-TERM GROUNDSHINE DOSE                 1.0000  3.13E+01  2.06E+01  7.37E+01
9.41E+01  1.60E+02  2.00E+02  2.93E+02  1.08E-03   86
 LONG-TERM RESUSPENSION DOSE                1.0000  2.18E+00  1.33E+00  5.18E+00
6.46E+00  9.98E+00  1.24E+01  2.04E+01  1.08E-03   86
 WATER INGESTION DOSE                       1.0000  1.54E-01  1.27E-01  2.87E-01
3.34E-01  4.51E-01  5.03E-01  6.32E-01  1.79E-05  102
 POP.-DEPENDENT DECONTAMINATION DOSE        0.2387  1.15E-03  0.00E+00  3.87E-03
5.21E-03  8.57E-03  1.30E-02  7.82E-02  2.87E-04   87
04/20/04    16:17:21    PAGE  32            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
 FARM-DEPENDENT DECONTAMINATION DOSE        0.4366  2.51E-04  0.00E+00  6.30E-04
7.41E-04  1.11E-03  1.54E-03  2.27E-03  2.09E-03   87
 INGESTION OF GRAINS                        1.0000  8.78E-01  3.63E-01  1.99E+00
3.16E+00  7.35E+00  8.07E+00  1.33E+01  5.71E-05   41
 INGESTION OF LEAF VEG                      1.0000  8.78E-01  3.63E-01  1.99E+00
3.16E+00  7.35E+00  8.07E+00  1.33E+01  5.71E-05   41
 INGESTION OF ROOT CROPS                    1.0000  6.01E-01  3.37E-01  1.32E+00
1.60E+00  2.16E+00  2.30E+00  3.09E+00  5.71E-05   41
 INGESTION OF FRUITS                        1.0000  8.19E-01  4.78E-01  2.11E+00
2.42E+00  3.11E+00  3.26E+00  4.44E+00  5.71E-05   41
 INGESTION OF LEGUMES                       1.0000  5.76E-01  3.09E-01  1.19E+00
1.39E+00  2.00E+00  2.08E+00  2.72E+00  5.71E-05   41
 INGESTION OF BEEF                          1.0000  3.33E+00  2.07E+00  7.76E+00
9.62E+00  1.11E+01  1.16E+01  1.65E+01  2.86E-05    2
 INGESTION OF MILK                          1.0000  3.04E+00  1.85E+00  7.20E+00
8.55E+00  1.07E+01  1.11E+01  1.56E+01  2.86E-05    2
 INGESTION OF POULTRY                       1.0000  8.58E-01  4.76E-01  1.99E+00
2.75E+00  5.07E+00  5.56E+00  9.03E+00  5.71E-05   41
 INGESTION OF OTHER MEAT CROPS              1.0000  1.89E-01  1.23E-01  3.82E-01
5.20E-01  1.01E+00  1.10E+00  1.85E+00  5.71E-05   41

ECONOMIC COST MEASURES ($)     0-80.5 km
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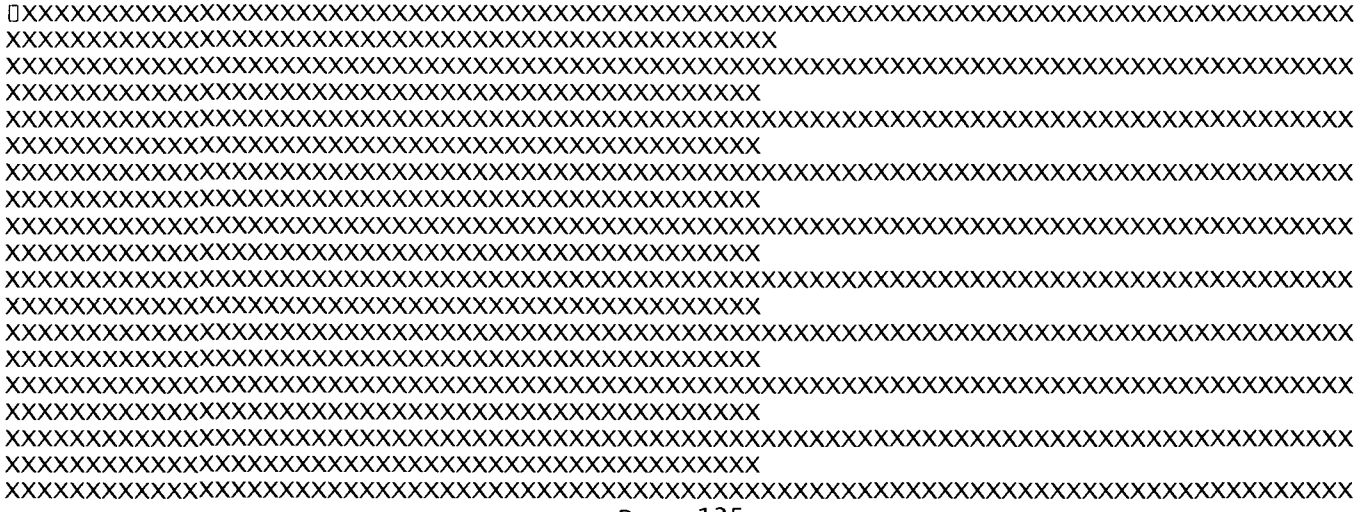
TOTAL ECONOMIC COSTS				0.6864	4.46E+04	2.05E+04	1.18E+05
1.57E+05	3.06E+05	3.98E+05	1.09E+06	2.87E-04	87		
POP.-DEPENDENT COSTS				0.2387	1.13E+04	0.00E+00	3.99E+04
5.07E+04	6.30E+04	6.91E+04	1.04E+06	2.87E-04	87		
FARM-DEPENDENT COSTS				0.6689	3.33E+04	1.32E+04	1.02E+05
1.33E+05	2.32E+05	2.77E+05	4.92E+05	6.39E-05	102		
POP.-DEPENDENT DECONTAMINATION COST				0.2387	2.22E+03	0.00E+00	8.55E+03
1.03E+04	1.58E+04	1.90E+04	2.04E+05	2.87E-04	87		
FARM-DEPENDENT DECONTAMINATION COST				0.4366	3.45E+03	0.00E+00	7.85E+03
8.28E+03	9.37E+03	9.89E+03	3.19E+04	2.09E-03	87		
POP.-DEPENDENT INTERDICTION COST				0.2387	9.08E+03	0.00E+00	2.51E+04
3.06E+04	4.26E+04	4.91E+04	8.33E+05	2.87E-04	87		
FARM-DEPENDENT INTERDICTION COST				0.6009	2.56E+04	2.36E+03	8.38E+04
1.11E+05	2.02E+05	2.19E+05	4.24E+05	6.39E-05	102		
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		
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		
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		
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				0.4512	8.96E+02	0.00E+00	2.71E+03
3.77E+03	7.07E+03	7.54E+03	9.54E+03	3.97E-04	7		
CROP DISPOSAL COST				0.3832	3.39E+03	0.00E+00	1.12E+04
1.48E+04	2.92E+04	3.21E+04	5.46E+04	6.39E-05	102		

AFFECTED AREA/POPULATION 0-80.5 km

FARM DECONTAMINATION (HECTARES)				0.4366	5.24E+00	0.00E+00	1.25E+01
1.39E+01	1.76E+01	1.96E+01	4.84E+01	2.09E-03	87		
POP. DECONTAMINATION (INDIVIDUALS)				0.2387	6.33E-01	0.00E+00	2.25E+00
2.51E+00	3.57E+00	4.65E+00	5.80E+01	2.87E-04	87		
FARM INTERDICTION (HECTARES)				0.6009	1.73E+01	1.15E+01	4.73E+01
7.50E+01	1.08E+02	1.18E+02	2.19E+02	6.39E-05	102		
POP. INTERDICTION (INDIVIDUALS)				0.2387	6.33E-01	0.00E+00	2.25E+00
2.51E+00	3.57E+00	4.65E+00	5.80E+01	2.87E-04	87		
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)				0.4512	4.79E+01	0.00E+00	1.41E+02
2.13E+02	3.38E+02	3.68E+02	4.63E+02	7.77E-04	7		
CROP DISPOSAL AREA (HECTARES)				0.3832	1.46E+01	0.00E+00	4.72E+01
7.50E+01	1.08E+02	1.18E+02	2.19E+02	6.39E-05	102		



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 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 5 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case 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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
0.950

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
0.050

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

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH
HEALTH EFFECTS CASES		CONS	PROB	TRIAL						
ERL FAT/TOTAL	0-16.1 km	0.4028	6.73E-03	0.00E+00	1.77E-02	4.33E-02	9.08E-02	1.03E-01	2.47E-01	2.69E-05 98
ERL INJ/PRODROMAL VOMIT	0-16.1 km	0.8119	5.43E-02	2.00E-02	1.47E-01	2.25E-01	4.10E-01	5.06E-01	1.34E+00	2.69E-05 98
ERL INJ/DIARRHEA	0-16.1 km	0.5681	1.78E-02	2.02E-03	4.69E-02	9.07E-02	1.57E-01	1.93E-01	6.12E-01	2.69E-05 98
ERL INJ/PNEUMONITIS	0-16.1 km	0.3062	5.02E-03	0.00E+00	1.09E-02	3.58E-02	7.26E-02	1.01E-01	1.44E-01	2.69E-05 98
ERL INJ/THYROIDITIS	0-16.1 km	0.3841	1.60E-03	0.00E+00	5.08E-03	7.41E-03	1.41E-02	1.74E-02	7.70E-02	2.69E-05 98
ERL INJ/HYPOTHYROIDISM	0-16.1 km	0.8878	1.10E+00	6.49E-01	2.81E+00	3.65E+00	6.03E+00	7.29E+00	1.13E+01	1.34E-03 27
ERL INJ/SKIN ERYTHEMA	0-16.1 km	0.9126	1.41E+02	9.43E+01	3.28E+02	4.39E+02	7.10E+02	7.86E+02	9.52E+02	1.34E-03 27
ERL INJ/TRANSEPIDERMAL	0-16.1 km	0.8794	2.04E+01	8.07E+00	5.55E+01	8.52E+01	1.51E+02	1.89E+02	2.69E+02	1.34E-03 27
CAN FAT/TOTAL	0-16.1 km	1.0000	1.35E+02	1.18E+02	2.23E+02	2.56E+02	3.20E+02	3.38E+02	4.06E+02	4.85E-04 27
CAN FAT/LUNG	0-80.5 km	1.0000	7.02E+02	5.10E+02	1.36E+03	1.90E+03	3.02E+03	3.29E+03	4.83E+03	2.00E-04 14
CAN FAT/THYROID	0-80.5 km	1.0000	8.13E+01	6.20E+01	1.56E+02	2.07E+02	3.49E+02	4.48E+02	5.32E+02	3.68E-03 12
CAN FAT/BREAST	0-80.5 km	1.0000	2.67E+02	2.15E+02	5.11E+02	6.25E+02	1.05E+03	1.23E+03	1.67E+03	1.28E-03 17
CAN FAT/GI	0-80.5 km	1.0000	6.78E+02	5.51E+02	1.26E+03	1.55E+03	2.37E+03	2.75E+03	4.05E+03	1.28E-03 17
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	2.06E+02	1.60E+02	3.80E+02	4.65E+02	7.52E+02	9.02E+02	1.26E+03	1.28E-03 17
CAN FAT/BONE	0-80.5 km	1.0000	2.14E+01	1.65E+01	3.98E+01	4.95E+01	7.53E+01	9.02E+01	1.31E+02	1.28E-03 17
CAN FAT/OTHER	0-80.5 km	1.0000	8.07E+02	6.45E+02	1.48E+03	1.85E+03	3.14E+03	3.57E+03	4.60E+03	1.28E-03 17
CAN INJ/THYROID	0-80.5 km	1.0000	8.13E+02	6.20E+02	1.56E+03	2.07E+03	3.49E+03	4.48E+03	5.32E+03	3.68E-03 12
CAN INJ/BREAST	0-80.5 km	1.0000	8.40E+02	6.79E+02	1.53E+03	1.94E+03	3.18E+03	3.70E+03	5.26E+03	1.28E-03 17
CAN FAT/TOTAL	0-80.5 km	1.0000	2.76E+03	2.16E+03	5.18E+03	6.46E+03	1.06E+04	1.23E+04	1.65E+04	1.28E-03 17
ERL FAT/TOTAL	0-80.5 km	0.4028	6.73E-03	0.00E+00	1.77E-02	4.33E-02	9.08E-02	1.03E-01	2.47E-01	2.69E-05 98
ERL INJ/PRODROMAL VOMIT	0-80.5 km	0.8119	5.43E-02	2.00E-02	1.47E-01	2.25E-01	4.10E-01	5.06E-01	1.34E+00	2.69E-05 98
ERL INJ/DIARRHEA	0-80.5 km	0.5681	1.78E-02	2.02E-03	4.69E-02	9.07E-02	1.57E-01	1.93E-01	6.12E-01	2.69E-05 98
ERL INJ/PNEUMONITIS	0-80.5 km	0.3062	5.02E-03	0.00E+00	1.09E-02	3.58E-02	7.26E-02	1.01E-01	1.44E-01	2.69E-05 98
ERL INJ/THYROIDITIS	0-80.5 km	0.3841	1.60E-03	0.00E+00	5.08E-03	7.41E-03	1.41E-02	1.74E-02	7.70E-02	2.69E-05 98
ERL INJ/HYPOTHYROIDISM	0-80.5 km	0.8878	1.10E+00	6.49E-01	2.81E+00					

3.65E+00 6.03E+00 7.29E+00 1.13E+01 1.34E-03 27
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.9126 2.95E+02 9.43E+01 5.19E+02
1.02E+03 3.63E+03 5.67E+03 2.33E+04 7.99E-04 52
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.8794 2.04E+01 8.07E+00 5.55E+01
8.52E+01 1.51E+02 1.89E+02 2.69E+02 1.34E-03 27

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 0.7333 6.06E-02 7.27E-02 8.51E-02
9.10E-02 1.13E-01 1.28E-01 2.42E-01 4.28E-04 98

POPULATION EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 0.4028 4.17E-02 0.00E+00 1.18E-01
1.45E-01 4.82E-01 8.20E-01 1.83E+00 2.69E-05 98
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	PEAK	PEAK	PEAK	PROB		QUANTILES		
				NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				

POPULATION EXCEEDING DOSE
EARLY dose A-LUNGS > 5.00 Sv 0.3062 3.23E-02 0.00E+00 1.04E-01
1.31E-01 3.56E-01 7.60E-01 1.33E+00 9.12E-04 76
EARLY dose L-EDEWBODY > 2.00 Sv 0.8745 2.80E+01 9.14E+00 7.26E+01
1.05E+02 1.98E+02 2.42E+02 4.57E+02 1.34E-03 27
EARLY dose L-EDEWBODY > 0.250 Sv 0.9437 2.39E+03 4.99E+02 5.81E+03
8.49E+03 2.78E+04 4.00E+04 5.15E+04 7.99E-04 52

AVERAGE INDIVIDUAL RISK
ERL FAT/TOTAL 0-1.6 km 0.7333 4.74E-04 2.03E-04 1.56E-03
2.04E-03 2.20E-03 2.27E-03 2.58E-03 3.14E-04 16
ERL FAT/TOTAL 1.6-3.2 km 0.0191 7.13E-07 0.00E+00 0.00E+00
0.00E+00 3.10E-05 3.45E-05 1.51E-04 4.28E-04 98
ERL FAT/TOTAL 3.2-4.8 km 0.0004 1.31E-09 0.00E+00 0.00E+00
0.00E+00 0.00E+00 0.00E+00 3.06E-06 4.28E-04 98
ERL FAT/TOTAL 4.8-6.4 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 6.4-8.1 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 2.21E+03 2.12E+03 3.53E+03
4.04E+03 5.16E+03 5.39E+03 7.46E+03 6.70E-05 98
L-EDEWBODY TOT LIF 0-80.5 km 1.0000 5.68E+04 4.57E+04 1.07E+05
1.32E+05 2.09E+05 2.36E+05 3.34E+05 1.28E-03 17

POPULATION WEIGHTED RISK
ERL FAT/TOTAL 0-3.2 km 0.4028 1.41E-05 0.00E+00 4.13E-05
9.63E-05 1.80E-04 2.17E-04 5.14E-04 2.69E-05 98
CAN FAT/TOTAL 0-16.1 km 1.0000 3.16E-03 2.77E-03 5.45E-03
6.54E-03 9.92E-03 1.11E-02 1.38E-02 1.34E-03 27

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
L-EDEWBODY 0-1.6 km 1.0000 8.37E+00 7.86E+00 1.30E+01
1.52E+01 NOT-FOUND NOT-FOUND 2.71E+01 1.21E-02 76
L-EDEWBODY 1.6-3.2 km 1.0000 2.44E+00 2.06E+00 4.37E+00
5.33E+00 NOT-FOUND NOT-FOUND 8.89E+00 1.21E-02 76
L-EDEWBODY 3.2-4.8 km 1.0000 1.39E+00 1.13E+00 2.88E+00
3.39E+00 NOT-FOUND NOT-FOUND 4.48E+00 1.21E-02 76
L-EDEWBODY 4.8-6.4 km 1.0000 9.58E-01 8.19E-01 1.72E+00
2.21E+00 NOT-FOUND NOT-FOUND 3.15E+00 2.00E-02 27
L-EDEWBODY 6.4-8.1 km 1.0000 7.11E-01 6.22E-01 1.19E+00
1.49E+00 NOT-FOUND NOT-FOUND 2.66E+00 2.00E-02 27
L-EDEWBODY 8.1-9.7 km 1.0000 5.30E-01 4.59E-01 9.33E-01
1.25E+00 NOT-FOUND NOT-FOUND 1.88E+00 2.00E-02 27
L-EDEWBODY 9.7-16.1 km 1.0000 3.31E-01 3.16E-01 4.76E-01

7.11E-01 8.28E-01 NOT-FOUND 8.31E-01 9.53E-03 55
L-EDEWBODY 16.1-32.2 km 1.0000 4.06E-01 3.58E-01 6.25E-01
7.45E-01 NOT-FOUND NOT-FOUND 1.06E+00 1.10E-02 52
L-EDEWBODY 32.2-48.3 km 1.0000 2.45E-01 2.26E-01 3.44E-01
3.86E-01 NOT-FOUND NOT-FOUND 4.95E-01 1.10E-02 52
L-EDEWBODY 48.3-64.4 km 1.0000 1.55E-01 1.29E-01 2.38E-01
2.87E-01 NOT-FOUND NOT-FOUND 3.00E-01 4.23E-02 12
L-EDEWBODY 64.4-80.5 km 1.0000 1.23E-01 1.12E-01 1.95E-01
2.22E-01 NOT-FOUND NOT-FOUND 2.82E-01 1.17E-02 17
DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

SOURCE TERM 5 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case BP

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

COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE

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		PEAK		PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS		PROB	TRIAL			
HEALTH EFFECTS CASES								
ERL FAT/TOTAL			0-16.1 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 INJ/PRODROMAL VOMIT			0-16.1 km	0.0229	3.16E-04	0.00E+00	0.00E+00	
0.00E+00	1.31E-02	1.97E-02	4.50E-02	8.85E-04	76			
ERL INJ/DIARRHEA			0-16.1 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 INJ/PNEUMONITIS			0-16.1 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 INJ/THYROIDITIS			0-16.1 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 INJ/HYPOTHYROIDISM			0-16.1 km	0.7909	5.79E-01	2.15E-01	1.65E+00	
2.39E+00	4.12E+00	5.17E+00	8.49E+00	2.34E-03	27			
ERL INJ/SKIN ERYTHEMA			0-16.1 km	0.8630	1.05E+02	6.65E+01	2.50E+02	
3.53E+02	5.92E+02	6.80E+02	8.30E+02	1.34E-03	27			
ERL INJ/TRANSEPIDERMAL			0-16.1 km	0.7989	1.00E+01	2.28E+00	3.30E+01	
4.86E+01	9.41E+01	1.12E+02	1.60E+02	9.99E-04	27			
CAN FAT/TOTAL			0-16.1 km	1.0000	4.59E+01	3.60E+01	9.11E+01	
1.12E+02	1.67E+02	1.98E+02	2.63E+02	1.34E-03	27			
CAN FAT/LUNG			0-80.5 km	1.0000	4.12E+02	2.38E+02	9.48E+02	
1.29E+03	2.42E+03	3.02E+03	3.90E+03	2.00E-04	14			
CAN FAT/THYROID			0-80.5 km	1.0000	4.99E+01	3.09E+01	1.09E+02	
1.37E+02	2.27E+02	2.76E+02	4.14E+02	3.68E-03	12			
CAN FAT/BREAST			0-80.5 km	1.0000	3.97E+01	2.35E+01	8.97E+01	
1.18E+02	2.02E+02	2.61E+02	4.74E+02	1.28E-03	17			
CAN FAT/GI			0-80.5 km	1.0000	1.32E+02	8.07E+01	2.90E+02	
3.96E+02	6.85E+02	8.19E+02	1.26E+03	1.28E-03	17			
CAN FAT/LEUKEMIA			0-80.5 km	1.0000	3.14E+01	1.88E+01	6.72E+01	
9.88E+01	1.52E+02	1.83E+02	3.58E+02	1.28E-03	17			
CAN FAT/BONE			0-80.5 km	1.0000	3.32E+00	2.02E+00	7.17E+00	
1.06E+01	1.68E+01	2.07E+01	3.80E+01	1.28E-03	17			
CAN FAT/OTHER			0-80.5 km	1.0000	2.33E+02	1.48E+02	5.29E+02	
7.05E+02	1.14E+03	1.28E+03	1.62E+03	1.28E-03	17			
CAN INJ/THYROID			0-80.5 km	1.0000	4.99E+02	3.09E+02	1.09E+03	

1.37E+03 2.27E+03 2.76E+03 4.14E+03 3.68E-03 12
CAN INJ/BREAST 0-80.5 km 1.0000 1.25E+02 7.32E+01 2.80E+02
3.94E+02 6.89E+02 8.73E+02 1.49E+03 1.28E-03 17
CAN FAT/TOTAL 0-80.5 km 1.0000 9.00E+02 5.57E+02 2.01E+03
2.81E+03 4.84E+03 5.53E+03 6.97E+03 1.28E-03 17
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 INJ/PRODROMAL VOMIT 0-80.5 km 0.0229 3.16E-04 0.00E+00 0.00E+00
0.00E+00 1.31E-02 1.97E-02 4.50E-02 8.85E-04 76
ERL INJ/DIARRHEA 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 INJ/PNEUMONITIS 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 INJ/THYROIDITIS 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 INJ/HYPOTHYROIDISM 0-80.5 km 0.7909 5.79E-01 2.15E-01 1.65E+00
2.39E+00 4.12E+00 5.17E+00 8.49E+00 2.34E-03 27
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.8630 2.59E+02 6.67E+01 4.20E+02
9.18E+02 3.58E+03 5.67E+03 2.32E+04 7.99E-04 52
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.7989 1.00E+01 2.28E+00 3.30E+01
4.86E+01 9.41E+01 1.12E+02 1.60E+02 9.99E-04 27

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 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 EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 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
EARLY dose A-LUNGS > 5.00 Sv 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
EARLY dose L-EDEWBODY > 2.00 Sv 0.6874 2.02E+01 2.70E+00 5.51E+01
9.23E+01 1.78E+02 2.30E+02 4.14E+02 1.34E-03 27
EARLY dose L-EDEWBODY > 0.250 Sv 0.8804 2.34E+03 4.38E+02 5.79E+03
8.47E+03 2.78E+04 4.00E+04 5.15E+04 7.99E-04 52

AVERAGE INDIVIDUAL RISK
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 1.6-3.2 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 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
ERL FAT/TOTAL 4.8-6.4 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
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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
AVERAGE INDIVIDUAL RISK								
ERL FAT/TOTAL		6.4-8.1 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	4.33E+02	3.50E+02	8.54E+02		
1.05E+03	1.40E+03	1.58E+03	2.32E+03	1.34E-03	27			
L-EDEWBODY TOT LIF		0-80.5 km	1.0000	1.53E+04	9.28E+03	3.36E+04		
4.56E+04	7.58E+04	8.32E+04	1.18E+05	1.28E-03	17			
POPULATION WEIGHTED RISK								
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			
CAN FAT/TOTAL		0-16.1 km	1.0000	2.23E-03	1.72E-03	4.46E-03		

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5.76E-03  8.25E-03  9.22E-03  1.28E-02  1.34E-03   27

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  7.09E+00  6.69E+00  1.26E+01
1.49E+01 NOT-FOUND NOT-FOUND  2.34E+01  1.21E-02   76
 L-EDEWBODY                  1.6-3.2 km  1.0000  2.08E+00  1.79E+00  3.82E+00
4.96E+00 NOT-FOUND NOT-FOUND  7.71E+00  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  1.15E+00  9.59E-01  2.17E+00
2.80E+00 NOT-FOUND NOT-FOUND  3.93E+00  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  7.48E-01  6.09E-01  1.43E+00
1.98E+00 NOT-FOUND NOT-FOUND  2.89E+00  2.00E-02   27
 L-EDEWBODY                  6.4-8.1 km  1.0000  5.23E-01  4.18E-01  1.02E+00
1.37E+00 NOT-FOUND NOT-FOUND  2.35E+00  2.00E-02   27
 L-EDEWBODY                  8.1-9.7 km  0.9809  3.68E-01  2.75E-01  6.86E-01
1.05E+00 NOT-FOUND NOT-FOUND  1.63E+00  2.00E-02   27
 L-EDEWBODY                 9.7-16.1 km  0.9406  1.87E-01  1.41E-01  4.12E-01
5.37E-01  6.74E-01 NOT-FOUND  6.79E-01  9.53E-03  118
 L-EDEWBODY                16.1-32.2 km  1.0000  2.73E-01  2.19E-01  5.48E-01
6.42E-01 NOT-FOUND NOT-FOUND  9.03E-01  1.10E-02   52
 L-EDEWBODY                32.2-48.3 km  1.0000  1.38E-01  1.19E-01  2.46E-01
3.01E-01 NOT-FOUND NOT-FOUND  3.32E-01  1.10E-02   52
 L-EDEWBODY                48.3-64.4 km  1.0000  7.53E-02  6.60E-02  1.11E-01
1.21E-01  1.47E-01  1.60E-01  1.86E-01  1.48E-03   14
 L-EDEWBODY                64.4-80.5 km  1.0000  5.00E-02  4.10E-02  8.49E-02
1.19E-01 NOT-FOUND NOT-FOUND  1.59E-01  4.23E-02   12
 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  5 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case BP

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

    COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE


04/20/04   16:17:21    PAGE  37          PROB                              QUANTILES
                         PEAK       PEAK  PEAK
                                        NON-ZERO    MEAN       50TH       90TH       95TH
     99TH      99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL               0-16.1 km  0.4028  1.35E-01  0.00E+00  4.04E-01
8.88E-01  1.71E+00  2.05E+00  4.94E+00  2.69E-05   98
 ERL INJ/PRODROMAL VOMIT     0-16.1 km  0.8119  1.08E+00  3.94E-01  2.76E+00
4.55E+00  7.80E+00  1.01E+01  2.67E+01  2.69E-05   98
 ERL INJ/DIARRHEA            0-16.1 km  0.5681  3.55E-01  4.27E-02  9.46E-01
1.78E+00  3.26E+00  3.93E+00  1.22E+01  2.69E-05   98
 ERL INJ/PNEUMONITIS         0-16.1 km  0.3062  1.00E-01  0.00E+00  2.14E-01
7.34E-01  1.61E+00  2.02E+00  2.88E+00  2.69E-05   98
 ERL INJ/THYROIDITIS         0-16.1 km  0.3841  3.20E-02  0.00E+00  1.02E-01
1.53E-01  2.52E-01  2.90E-01  1.54E+00  2.69E-05   98
 ERL INJ/HYPOTHYROIDISM      0-16.1 km  0.8878  1.10E+01  7.96E+00  2.52E+01
3.23E+01  4.56E+01  5.23E+01  6.52E+01  1.34E-03   27
 ERL INJ/SKIN ERYTHEMA       0-16.1 km  0.9082  8.27E+02  5.59E+02  2.04E+03
2.60E+03  3.37E+03  3.60E+03  3.98E+03  1.77E-03   72
 ERL INJ/TRANSEPIDERMAL      0-16.1 km  0.8613  2.18E+02  1.10E+02  5.38E+02
8.46E+02  1.44E+03  1.76E+03  2.39E+03  1.34E-03   27
 CAN FAT/TOTAL               0-16.1 km  1.0000  1.65E+02  1.37E+02  3.11E+02
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3.63E+02	5.13E+02	5.71E+02	6.99E+02	1.34E-03	27		
CAN FAT/LUNG			0-80.5 km	1.0000	4.68E+02	3.10E+02	1.04E+03
1.38E+03	2.47E+03	3.02E+03	4.01E+03	2.00E-04	14		
CAN FAT/THYROID			0-80.5 km	1.0000	5.69E+01	3.98E+01	1.15E+02
1.43E+02	2.29E+02	2.76E+02	4.19E+02	3.68E-03	12		
CAN FAT/BREAST			0-80.5 km	1.0000	4.13E+01	2.52E+01	9.00E+01
1.18E+02	2.02E+02	2.61E+02	4.74E+02	1.28E-03	17		
CAN FAT/GI			0-80.5 km	1.0000	1.46E+02	9.58E+01	3.06E+02
4.08E+02	6.85E+02	8.19E+02	1.26E+03	1.28E-03	17		
CAN FAT/LEUKEMIA			0-80.5 km	1.0000	3.37E+01	2.09E+01	7.12E+01
1.02E+02	1.54E+02	1.84E+02	3.59E+02	1.28E-03	17		
CAN FAT/BONE			0-80.5 km	1.0000	3.56E+00	2.22E+00	7.40E+00
1.08E+01	1.69E+01	2.07E+01	3.80E+01	1.28E-03	17		
CAN FAT/OTHER			0-80.5 km	1.0000	2.70E+02	1.88E+02	5.55E+02
7.40E+02	1.14E+03	1.29E+03	1.63E+03	1.28E-03	17		
CAN INJ/THYROID			0-80.5 km	1.0000	5.69E+02	3.98E+02	1.15E+03
1.43E+03	2.29E+03	2.76E+03	4.19E+03	3.68E-03	12		
CAN INJ/BREAST			0-80.5 km	1.0000	1.30E+02	7.92E+01	2.82E+02
3.94E+02	6.89E+02	8.73E+02	1.49E+03	1.28E-03	17		
CAN FAT/TOTAL			0-80.5 km	1.0000	1.02E+03	6.98E+02	2.19E+03
2.91E+03	4.85E+03	5.53E+03	6.98E+03	1.28E-03	17		
ERL FAT/TOTAL			0-80.5 km	0.4028	1.35E-01	0.00E+00	4.04E-01
8.88E-01	1.71E+00	2.05E+00	4.94E+00	2.69E-05	98		
ERL INJ/PRODROMAL VOMIT			0-80.5 km	0.8119	1.08E+00	3.94E-01	2.76E+00
4.55E+00	7.80E+00	1.01E+01	2.67E+01	2.69E-05	98		
ERL INJ/DIARRHEA			0-80.5 km	0.5681	3.55E-01	4.27E-02	9.46E-01
1.78E+00	3.26E+00	3.93E+00	1.22E+01	2.69E-05	98		
ERL INJ/PNEUMONITIS			0-80.5 km	0.3062	1.00E-01	0.00E+00	2.14E-01
7.34E-01	1.61E+00	2.02E+00	2.88E+00	2.69E-05	98		
ERL INJ/THYROIDITIS			0-80.5 km	0.3841	3.20E-02	0.00E+00	1.02E-01
1.53E-01	2.52E-01	2.90E-01	1.54E+00	2.69E-05	98		
ERL INJ/HYPOTHYROIDISM			0-80.5 km	0.8878	1.10E+01	7.96E+00	2.52E+01
3.23E+01	4.56E+01	5.23E+01	6.52E+01	1.34E-03	27		
ERL INJ/SKIN ERYTHEMA			0-80.5 km	0.9082	9.81E+02	5.59E+02	2.28E+03
3.25E+03	5.72E+03	6.94E+03	2.52E+04	7.99E-04	52		
ERL INJ/TRANSEPIDERMAL			0-80.5 km	0.8613	2.18E+02	1.10E+02	5.38E+02
8.46E+02	1.44E+03	1.76E+03	2.39E+03	1.34E-03	27		

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000				0.7333	1.21E+00	1.08E+00	1.46E+00
1.67E+00	3.25E+00	3.55E+00	4.83E+00	4.28E-04	98		

POPULATION EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv				0.4028	8.34E-01	0.00E+00	2.36E+00
2.89E+00	9.73E+00	1.39E+01	3.66E+01	2.69E-05	98		
EARLY dose A-LUNGS > 5.00 Sv				0.3062	6.46E-01	0.00E+00	2.08E+00
2.62E+00	7.78E+00	1.18E+01	2.66E+01	9.12E-04	76		
EARLY dose L-EDEWBODY > 2.00 Sv				0.8745	1.75E+02	1.16E+02	4.07E+02
5.67E+02	9.13E+02	1.05E+03	1.28E+03	1.34E-03	27		
EARLY dose L-EDEWBODY > 0.250 Sv				0.9437	3.41E+03	2.04E+03	6.73E+03
8.85E+03	2.78E+04	4.00E+04	5.36E+04	5.71E-05	80		

AVERAGE INDIVIDUAL RISK

ERL FAT/TOTAL			0-1.6 km	0.7333	9.49E-03	3.58E-03	3.01E-02
3.20E-02	3.68E-02	3.92E-02	5.16E-02	3.14E-04	16		
ERL FAT/TOTAL			1.6-3.2 km	0.0191	1.43E-05	0.00E+00	0.00E+00
0.00E+00	7.17E-04	7.71E-04	3.01E-03	4.28E-04	98		
ERL FAT/TOTAL			3.2-4.8 km	0.0004	2.62E-08	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	6.11E-05	4.28E-04	98		
ERL FAT/TOTAL			4.8-6.4 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		

		NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
		PROB	TRIAL						
AVERAGE INDIVIDUAL RISK									
ERL FAT/TOTAL	6.4-8.1 km	0.0000	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	1.79E+03	1.50E+03	3.19E+03	3.75E+03	5.28E+03	5.82E+03	7.06E+03
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	1.66E+04	1.07E+04	3.48E+04	4.75E+04	7.75E+04	8.73E+04	1.18E+05
POPULATION WEIGHTED RISK									
ERL FAT/TOTAL	0-3.2 km	0.4028	2.82E-04	0.00E+00	8.37E-04	1.90E-03	3.60E-03	4.01E-03	1.03E-02
CAN FAT/TOTAL	0-16.1 km	1.0000	7.99E-03	7.14E-03	1.38E-02	1.69E-02	2.34E-02	2.61E-02	3.39E-02
PEAK DOSE FOUND ON SPATIAL GRID (Sv)									
L-EDEWBODY	0-1.6 km	1.0000	3.23E+01	3.08E+01	6.13E+01	7.20E+01	8.04E+01	8.44E+01	1.03E+02
L-EDEWBODY	1.6-3.2 km	1.0000	8.10E+00	7.34E+00	1.40E+01	1.81E+01	2.26E+01	2.40E+01	3.18E+01
L-EDEWBODY	3.2-4.8 km	1.0000	4.18E+00	3.50E+00	8.23E+00	1.01E+01	1.18E+01	1.26E+01	1.61E+01
L-EDEWBODY	4.8-6.4 km	1.0000	2.68E+00	2.19E+00	5.32E+00	6.54E+00	7.72E+00	8.11E+00	9.64E+00
L-EDEWBODY	6.4-8.1 km	1.0000	1.94E+00	1.38E+00	3.70E+00	4.62E+00	NOT-FOUND	NOT-FOUND	9.07E+00
L-EDEWBODY	8.1-9.7 km	1.0000	1.39E+00	1.04E+00	2.94E+00	4.07E+00	NOT-FOUND	NOT-FOUND	6.60E+00
L-EDEWBODY	9.7-16.1 km	1.0000	7.77E-01	5.31E-01	1.60E+00	2.25E+00	NOT-FOUND	NOT-FOUND	3.62E+00
L-EDEWBODY	16.1-32.2 km	1.0000	2.73E-01	2.19E-01	5.48E-01	6.42E-01	NOT-FOUND	NOT-FOUND	9.03E-01
L-EDEWBODY	32.2-48.3 km	1.0000	1.38E-01	1.19E-01	2.46E-01	3.01E-01	NOT-FOUND	NOT-FOUND	3.32E-01
L-EDEWBODY	48.3-64.4 km	1.0000	7.53E-02	6.60E-02	1.11E-01	1.21E-01	1.47E-01	1.60E-01	1.86E-01
L-EDEWBODY	64.4-80.5 km	1.0000	5.00E-02	4.10E-02	8.49E-02	1.19E-01	NOT-FOUND	NOT-FOUND	1.59E-01

DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 5 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case BP

RESULTS FROM THE "CHRONC" MODULE ALONE

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

		PEAK	PEAK	PROB		QUANTILES			
				NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	CONS
				PROB	TRIAL						
HEALTH EFFECTS CASES											

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 CAN FAT/TOTAL                0-16.1 km  1.0000  8.32E+01  7.36E+01  1.39E+02
1.67E+02  2.15E+02  2.27E+02  3.49E+02  6.70E-05   98
 CAN FAT/LUNG                 0-80.5 km  1.0000  2.87E+02  2.35E+02  5.55E+02
6.57E+02  9.72E+02  1.11E+03  1.43E+03  1.28E-03   17
 CAN FAT/THYROID              0-80.5 km  1.0000  3.11E+01  2.51E+01  5.94E+01
7.10E+01  1.06E+02  1.23E+02  1.65E+02  1.28E-03   17
 CAN FAT/BREAST               0-80.5 km  1.0000  2.27E+02  1.84E+02  4.19E+02
5.15E+02  7.39E+02  8.52E+02  1.20E+03  1.28E-03   17
 CAN FAT/GI                   0-80.5 km  1.0000  5.46E+02  4.51E+02  1.03E+03
1.20E+03  1.73E+03  2.02E+03  2.78E+03  1.28E-03   17
 CAN FAT/LEUKEMIA             0-80.5 km  1.0000  1.75E+02  1.33E+02  3.26E+02
3.80E+02  5.43E+02  6.39E+02  9.03E+02  1.28E-03   17
 CAN FAT/BONE                 0-80.5 km  1.0000  1.80E+01  1.40E+01  3.42E+01
4.02E+01  5.69E+01  6.50E+01  9.33E+01  1.28E-03   17
 CAN FAT/OTHER                0-80.5 km  1.0000  5.73E+02  4.63E+02  1.09E+03
1.30E+03  1.94E+03  2.25E+03  2.98E+03  1.28E-03   17
 CAN INJ/THYROID              0-80.5 km  1.0000  3.11E+02  2.51E+02  5.94E+02
7.10E+02  1.06E+03  1.23E+03  1.65E+03  1.28E-03   17
 CAN INJ/BREAST               0-80.5 km  1.0000  7.15E+02  5.85E+02  1.29E+03
1.55E+03  2.34E+03  2.74E+03  3.77E+03  1.28E-03   17
 CAN FAT/TOTAL                0-80.5 km  1.0000  1.86E+03  1.44E+03  3.50E+03
4.13E+03  6.02E+03  7.06E+03  9.55E+03  1.28E-03   17

POPULATION DOSE (Sv)
 L-EDEWBODY  TOT LIF          0-16.1 km  1.0000  1.71E+03  1.40E+03  3.00E+03
3.42E+03  4.65E+03  5.11E+03  6.97E+03  6.70E-05   98
 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  4.15E+04  3.36E+04  8.00E+04
9.52E+04  1.33E+05  1.52E+05  2.16E+05  1.28E-03   17

POPULATION WEIGHTED RISK
 CAN FAT/TOTAL                0-16.1 km  1.0000  6.50E-04  6.33E-04  1.06E-03
1.14E-03  1.37E-03  1.48E-03  2.94E-03  8.69E-06  113

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  0.1649  1.69E-02  0.00E+00  1.01E-01
1.07E-01  1.25E-01  1.34E-01  1.91E-01  1.14E-04  100
 L-EDEWBODY                  1.6-3.2 km  0.4568  6.33E-02  0.00E+00  1.15E-01
1.23E-01  1.46E-01  1.57E-01  1.94E-01  6.56E-04   49
 L-EDEWBODY                  3.2-4.8 km  0.6095  8.58E-02  1.01E-01  1.29E-01
1.44E-01  1.83E-01 NOT-FOUND  1.93E-01  7.08E-03   39
 L-EDEWBODY                  4.8-6.4 km  0.7844  1.13E-01  1.03E-01  1.20E-01
1.28E-01  1.48E-01  1.58E-01  1.90E-01  6.56E-04   49
 L-EDEWBODY                  6.4-8.1 km  0.8689  1.18E-01  1.07E-01  1.34E-01
1.47E-01  1.84E-01 NOT-FOUND  1.93E-01  7.02E-03   86
 L-EDEWBODY                  8.1-9.7 km  0.8816  1.11E-01  1.05E-01  1.21E-01
1.29E-01  1.50E-01  1.60E-01  1.93E-01  6.56E-04   32
 L-EDEWBODY                  9.7-16.1 km 0.9050  1.15E-01  1.05E-01  1.41E-01
1.60E-01 NOT-FOUND NOT-FOUND  1.93E-01  1.84E-02   94
 L-EDEWBODY                 16.1-32.2 km 0.9930  1.33E-01  1.06E-01  1.27E-01
1.37E-01  1.65E-01  1.79E-01  1.92E-01  2.71E-03   47
 L-EDEWBODY                 32.2-48.3 km 1.0000  1.07E-01  1.06E-01  1.46E-01
1.67E-01 NOT-FOUND NOT-FOUND  1.73E-01  4.23E-02   12
 L-EDEWBODY                 48.3-64.4 km 1.0000  7.98E-02  7.57E-02  1.05E-01
1.12E-01 NOT-FOUND NOT-FOUND  1.30E-01  1.17E-02   17
 L-EDEWBODY                 64.4-80.5 km 1.0000  7.25E-02  6.79E-02  1.00E-01
1.11E-01 NOT-FOUND NOT-FOUND  1.37E-01  1.17E-02   17

L-EDEWBODY  POP. DOSE (Sv)     0-80.5 km
 TOTAL LONG-TERM PATHWAYS DOSE          1.0000  4.15E+04  3.36E+04  8.00E+04
9.52E+04  1.33E+05  1.52E+05  2.16E+05  1.28E-03   17
 LONG-TERM DIRECT EXPOSURE PATHWAYS     1.0000  3.54E+04  3.00E+04  7.15E+04
8.26E+04  1.13E+05  1.27E+05  1.61E+05  1.28E-03   17
 TOTAL INGESTION PATHWAYS DOSE          1.0000  2.07E+03  1.94E+03  3.34E+03
```
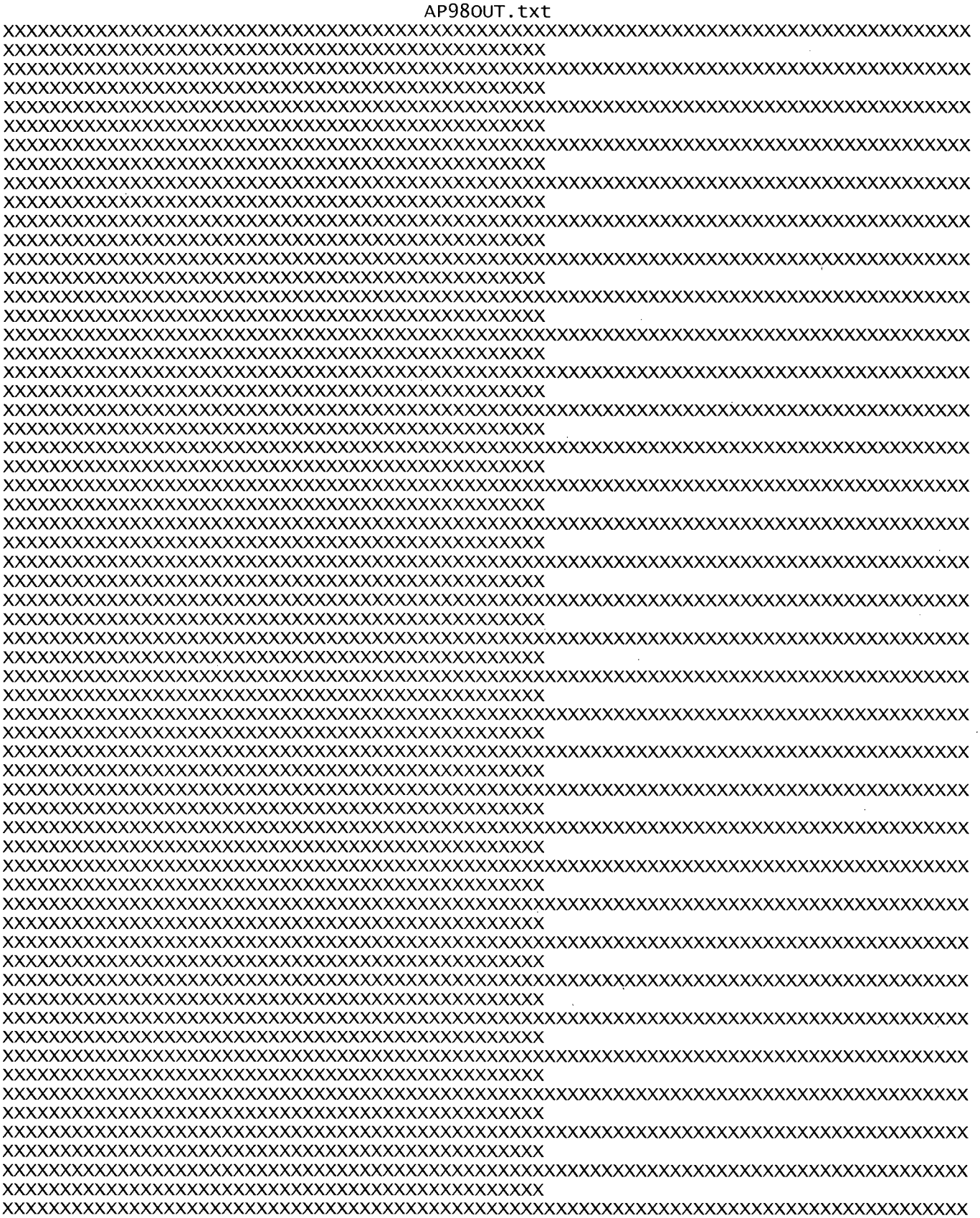

3.79E+03 5.03E+03 5.27E+03 7.33E+03 6.70E-05 98
LONG-TERM GROUNDSHINE DOSE 1.0000 3.50E+04 2.91E+04 7.07E+04
8.07E+04 1.09E+05 1.25E+05 1.61E+05 1.28E-03 17
LONG-TERM RESUSPENSION DOSE 1.0000 3.98E+02 2.91E+02 9.31E+02
1.08E+03 1.37E+03 1.51E+03 1.80E+03 1.54E-03 20
WATER INGESTION DOSE 1.0000 1.58E+03 1.30E+03 2.87E+03
3.35E+03 4.60E+03 5.10E+03 7.23E+03 6.70E-05 98
POP.-DEPENDENT DECONTAMINATION DOSE 1.0000 3.92E+03 2.09E+03 9.56E+03
1.26E+04 2.46E+04 3.35E+04 5.38E+04 1.28E-03 17

	PEAK		PEAK	PROB			QUANTILES
				NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km								
FARM-DEPENDENT DECONTAMINATION DOSE				1.0000	1.03E+02	9.55E+01	1.59E+02	
1.96E+02	2.78E+02	3.15E+02	4.73E+02	3.14E-04	17			
INGESTION OF GRAINS				1.0000	3.50E+01	3.16E+01	5.28E+01	
6.25E+01	7.96E+01	8.61E+01	1.77E+02	4.98E-06	45			
INGESTION OF LEAF VEG				1.0000	3.50E+01	3.16E+01	5.28E+01	
6.25E+01	7.96E+01	8.61E+01	1.77E+02	4.98E-06	45			
INGESTION OF ROOT CROPS				1.0000	2.00E+01	1.74E+01	3.03E+01	
3.54E+01	5.05E+01	5.57E+01	9.33E+01	6.23E-06	11			
INGESTION OF FRUITS				1.0000	5.54E+01	5.06E+01	8.48E+01	
1.01E+02	1.15E+02	1.23E+02	1.92E+02	2.51E-05	62			
INGESTION OF LEGUMES				1.0000	3.99E+01	3.48E+01	6.19E+01	
7.22E+01	8.84E+01	9.65E+01	1.33E+02	2.51E-05	62			
INGESTION OF BEEF				1.0000	1.52E+02	6.78E+01	3.54E+02	
4.47E+02	6.93E+02	7.45E+02	1.09E+03	1.99E-04	87			
INGESTION OF MILK				1.0000	1.21E+02	4.36E+01	2.93E+02	
3.57E+02	5.27E+02	5.78E+02	1.36E+03	2.49E-05	83			
INGESTION OF POULTRY				1.0000	3.97E+01	3.05E+01	8.41E+01	
1.01E+02	1.12E+02	1.18E+02	1.90E+02	4.98E-06	45			
INGESTION OF OTHER MEAT CROPS				1.0000	1.76E+01	4.91E+00	4.37E+01	
5.34E+01	7.29E+01	8.19E+01	9.80E+01	1.71E-03	58			
ECONOMIC COST MEASURES ($) 0-80.5 km								
TOTAL ECONOMIC COSTS				1.0000	1.35E+10	9.11E+09	3.06E+10	
3.52E+10	4.88E+10	6.11E+10	1.04E+11	1.28E-03	17			
POP.-DEPENDENT COSTS				1.0000	1.32E+10	8.78E+09	3.06E+10	
3.52E+10	4.88E+10	6.11E+10	1.04E+11	1.28E-03	17			
FARM-DEPENDENT COSTS				1.0000	3.55E+08	3.13E+08	5.68E+08	
6.66E+08	7.40E+08	7.60E+08	1.01E+09	4.98E-06	114			
POP.-DEPENDENT DECONTAMINATION COST				1.0000	3.09E+09	2.01E+09	8.11E+09	
1.01E+10	1.05E+10	1.07E+10	1.21E+10	3.41E-05	81			
FARM-DEPENDENT DECONTAMINATION COST				1.0000	1.01E+08	9.25E+07	1.37E+08	
1.58E+08	2.06E+08	2.14E+08	2.97E+08	1.74E-05	62			
POP.-DEPENDENT INTERDICTION COST				1.0000	9.60E+09	6.22E+09	2.12E+10	
2.41E+10	3.48E+10	4.39E+10	9.16E+10	1.28E-03	17			
FARM-DEPENDENT INTERDICTION COST				1.0000	1.86E+08	1.57E+08	3.20E+08	
3.58E+08	4.66E+08	5.05E+08	6.16E+08	3.05E-05	4			
POP.-DEPENDENT CONDEMNATION COST				0.9292	4.60E+08	2.36E+08	1.01E+09	
1.30E+09	5.44E+09	6.30E+09	7.11E+09	1.07E-04	90			
FARM-DEPENDENT CONDEMNATION COST				0.9381	1.50E+07	1.11E+07	3.40E+07	
4.52E+07	5.26E+07	5.39E+07	6.15E+07	1.40E-04	90			
EMERGENCY PHASE COST				0.9647	4.34E+06	2.25E+06	1.02E+07	
1.36E+07	3.89E+07	5.78E+07	1.37E+08	3.68E-03	12			
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	1.94E+06	1.37E+06	4.13E+06	
5.26E+06	6.89E+06	7.09E+06	7.92E+06	2.78E-05	4			
CROP DISPOSAL COST				1.0000	5.10E+07	4.56E+07	8.27E+07	
9.60E+07	1.08E+08	1.11E+08	1.54E+08	8.36E-06	113			

AFFECTED AREA/POPULATION 0-80.5 km

FARM DECONTAMINATION (HECTARES)	1.0000	8.55E+04	7.83E+04	1.17E+05	1.30E+05	1.66E+05	1.85E+05	2.50E+05	1.74E-05	62
POP. DECONTAMINATION (INDIVIDUALS)	1.0000	4.36E+05	2.75E+05	1.03E+06	1.08E+06	1.19E+06	1.25E+06	1.67E+06	4.91E-05	113
FARM INTERDICTION (HECTARES)	1.0000	1.12E+05	1.01E+05	1.77E+05	2.04E+05	2.27E+05	2.37E+05	3.11E+05	4.98E-06	114
POP. INTERDICTION (INDIVIDUALS)	1.0000	4.36E+05	2.75E+05	1.03E+06	1.08E+06	1.19E+06	1.25E+06	1.67E+06	4.91E-05	113
FARM CONDEMNATION (HECTARES)	0.9381	2.20E+03	1.39E+03	5.45E+03	6.72E+03	7.96E+03	8.46E+03	9.74E+03	9.99E-04	67
POP. CONDEMNATION (INDIVIDUALS)	0.9292	3.32E+03	1.73E+03	7.33E+03	1.05E+04	3.54E+04	4.73E+04	5.11E+04	1.07E-04	90
MILK DISPOSAL AREA (HECTARES)	1.0000	1.10E+05	9.97E+04	1.79E+05	2.05E+05	2.28E+05	2.39E+05	3.13E+05	4.98E-06	114
CROP DISPOSAL AREA (HECTARES)	1.0000	1.09E+05	1.00E+05	1.77E+05	2.05E+05	2.28E+05	2.38E+05	3.13E+05	4.98E-06	114



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DATE AND TIME OF RUN = MACCS2 04/20/04 16:17:21 VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 6 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case 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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
0.950

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
0.050

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

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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

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HEALTH EFFECTS CASES		PROB NON-ZERO	MEAN	50TH	90TH	95TH	99TH	99.5TH	PEAK CONS	PEAK PROB	PEAK TRIAL
ERL FAT/TOTAL	0-16.1 km	0.1433	9.83E-04	0.00E+00	8.29E-04	5.55E-03	2.49E-02	3.34E-02	7.21E-02	8.85E-04	76
ERL INJ/PRODROMAL VOMIT	0-16.1 km	0.4496	5.35E-03	0.00E+00	1.58E-02	2.89E-02	6.83E-02	8.57E-02	1.64E-01	8.85E-04	76
ERL INJ/DIARRHEA	0-16.1 km	0.2086	1.57E-03	0.00E+00	5.79E-03	9.24E-03	2.00E-02	2.50E-02	6.03E-02	8.85E-04	76
ERL INJ/PNEUMONITIS	0-16.1 km	0.1430	9.00E-04	0.00E+00	8.04E-04	3.85E-03	2.41E-02	3.32E-02	7.09E-02	8.85E-04	76
ERL INJ/THYROIDITIS	0-16.1 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 INJ/HYPOTHYROIDISM	0-16.1 km	0.8260	3.14E-02	1.11E-02	7.68E-02	1.13E-01	2.77E-01	4.55E-01	7.05E-01	8.85E-04	76
ERL INJ/SKIN ERYTHEMA	0-16.1 km	0.8897	5.77E+01	3.14E+01	1.41E+02						

2.02E+02 3.44E+02 4.11E+02 6.58E+02 1.34E-03 27
ERL INJ/TRANSEPIDERMAL 0-16.1 km 0.8000 4.89E+00 1.71E+00 1.28E+01
1.95E+01 3.66E+01 4.40E+01 5.94E+01 1.08E-03 76
CAN FAT/TOTAL 0-16.1 km 1.0000 7.05E+01 6.58E+01 1.14E+02
1.31E+02 1.79E+02 2.04E+02 2.55E+02 1.34E-03 27
CAN FAT/LUNG 0-80.5 km 1.0000 4.79E+02 3.07E+02 1.08E+03
1.47E+03 2.46E+03 2.87E+03 3.47E+03 3.68E-03 12
CAN FAT/THYROID 0-80.5 km 1.0000 1.70E+01 1.06E+01 3.56E+01
5.22E+01 7.78E+01 8.47E+01 1.02E+02 1.28E-03 17
CAN FAT/BREAST 0-80.5 km 1.0000 8.46E+01 5.49E+01 1.90E+02
2.79E+02 3.72E+02 4.11E+02 5.79E+02 1.28E-03 17
CAN FAT/GI 0-80.5 km 1.0000 2.53E+02 1.71E+02 5.00E+02
7.54E+02 1.12E+03 1.25E+03 1.54E+03 1.28E-03 17
CAN FAT/LEUKEMIA 0-80.5 km 1.0000 7.99E+01 5.68E+01 1.66E+02
2.22E+02 3.34E+02 3.75E+02 4.72E+02 1.28E-03 17
CAN FAT/BONE 0-80.5 km 1.0000 9.86E+00 7.46E+00 1.88E+01
2.79E+01 3.72E+01 4.11E+01 5.29E+01 1.28E-03 17
CAN FAT/OTHER 0-80.5 km 1.0000 3.15E+02 2.07E+02 6.94E+02
1.00E+03 1.32E+03 1.49E+03 1.89E+03 1.28E-03 17
CAN INJ/THYROID 0-80.5 km 1.0000 1.70E+02 1.06E+02 3.56E+02
5.22E+02 7.78E+02 8.47E+02 1.02E+03 1.28E-03 17
CAN INJ/BREAST 0-80.5 km 1.0000 2.66E+02 1.71E+02 5.52E+02
8.75E+02 1.26E+03 1.43E+03 1.82E+03 1.28E-03 17
CAN FAT/TOTAL 0-80.5 km 1.0000 1.24E+03 8.24E+02 2.65E+03
3.57E+03 5.45E+03 5.93E+03 7.43E+03 1.28E-03 17
ERL FAT/TOTAL 0-80.5 km 0.1433 9.83E-04 0.00E+00 8.29E-04
5.55E-03 2.49E-02 3.34E-02 7.21E-02 8.85E-04 76
ERL INJ/PRODROMAL VOMIT 0-80.5 km 0.4496 5.35E-03 0.00E+00 1.58E-02
2.89E-02 6.83E-02 8.57E-02 1.64E-01 8.85E-04 76
ERL INJ/DIARRHEA 0-80.5 km 0.2086 1.57E-03 0.00E+00 5.79E-03
9.24E-03 2.00E-02 2.50E-02 6.03E-02 8.85E-04 76
ERL INJ/PNEUMONITIS 0-80.5 km 0.1430 9.00E-04 0.00E+00 8.04E-04
3.85E-03 2.41E-02 3.32E-02 7.09E-02 8.85E-04 76
ERL INJ/THYROIDITIS 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 INJ/HYPOTHYROIDISM 0-80.5 km 0.8260 3.14E-02 1.11E-02 7.68E-02
1.13E-01 2.77E-01 4.55E-01 7.05E-01 8.85E-04 76
ERL INJ/SKIN ERYTHEMA 0-80.5 km 0.8897 6.06E+01 3.14E+01 1.45E+02
2.11E+02 4.07E+02 5.18E+02 1.40E+03 5.71E-05 80
ERL INJ/TRANSEPIDERMAL 0-80.5 km 0.8000 4.89E+00 1.71E+00 1.28E+01
1.95E+01 3.66E+01 4.40E+01 5.94E+01 1.08E-03 76

EARLY FATALITY DISTANCE (km)
ERL FAT/TOTAL RISK > 0.000 0.3445 2.77E-02 0.00E+00 NOT-FOUND
NOT-FOUND NOT-FOUND NOT-FOUND 8.05E-02 3.44E-01 3

POPULATION EXCEEDING DOSE
EARLY dose A-RED MARR > 1.50 Sv 0.1262 4.74E-03 0.00E+00 1.39E-02
3.58E-02 8.50E-02 NOT-FOUND 1.07E-01 5.94E-03 10

	PEAK	PEAK	PEAK	PROB		QUANTILES		
			NON-ZERO	MEAN	50TH	90TH	95TH	
99TH	99.5TH	CONS	PROB	TRIAL				
POPULATION EXCEEDING DOSE								
EARLY dose A-LUNGS > 5.00 Sv				0.1430	8.30E-03	0.00E+00	3.57E-02	
7.54E-02	1.19E-01	1.40E-01	1.50E-01	3.74E-03	11			
EARLY dose L-EDEWBODY > 2.00 Sv				0.8519	7.20E+00	2.59E+00	2.21E+01	
3.30E+01	6.82E+01	7.78E+01	1.13E+02	1.08E-03	76			
EARLY dose L-EDEWBODY > 0.250 Sv				0.8943	9.02E+02	1.97E+02	2.38E+03	
3.50E+03	2.01E+04	2.07E+04	2.17E+04	1.34E-03	67			

AVERAGE INDIVIDUAL RISK
ERL FAT/TOTAL 0-1.6 km 0.3445 7.39E-05 0.00E+00 2.04E-04

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4.06E-04 NOT-FOUND NOT-FOUND  1.50E-03  1.21E-02   76
 ERL FAT/TOTAL               1.6-3.2 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               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
 ERL FAT/TOTAL               4.8-6.4 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               6.4-8.1 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  9.07E+02  8.72E+02  1.27E+03
1.43E+03  1.89E+03  2.07E+03  2.63E+03  4.85E-04   27
 L-EDEWBODY  TOT LIF          0-80.5 km  1.0000  2.23E+04  1.45E+04  4.83E+04
7.13E+04  1.04E+05  1.14E+05  1.37E+05  1.28E-03   17

POPULATION WEIGHTED RISK
 ERL FAT/TOTAL                 0-3.2 km  0.1433  2.06E-06  0.00E+00  1.97E-06
1.16E-05  5.82E-05  8.56E-05  1.51E-04  8.85E-04   76
 CAN FAT/TOTAL                0-16.1 km  1.0000  2.31E-03  2.01E-03  4.24E-03
5.24E-03  7.31E-03  8.14E-03  1.08E-02  1.34E-03   27

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                    0-1.6 km  1.0000  4.97E+00  4.30E+00  9.17E+00
1.11E+01 NOT-FOUND NOT-FOUND  1.65E+01  1.21E-02   76
 L-EDEWBODY                  1.6-3.2 km  1.0000  1.52E+00  1.25E+00  2.77E+00
3.41E+00 NOT-FOUND NOT-FOUND  5.40E+00  1.21E-02   76
 L-EDEWBODY                  3.2-4.8 km  1.0000  8.63E-01  7.11E-01  1.48E+00
1.88E+00 NOT-FOUND NOT-FOUND  2.70E+00  1.21E-02   76
 L-EDEWBODY                  4.8-6.4 km  1.0000  6.04E-01  5.63E-01  1.10E+00
1.39E+00 NOT-FOUND NOT-FOUND  1.90E+00  2.00E-02   27
 L-EDEWBODY                  6.4-8.1 km  1.0000  4.65E-01  4.25E-01  7.25E-01
9.89E-01 NOT-FOUND NOT-FOUND  1.61E+00  2.00E-02   27
 L-EDEWBODY                  8.1-9.7 km  1.0000  3.60E-01  3.19E-01  6.73E-01
8.09E-01 NOT-FOUND NOT-FOUND  1.14E+00  2.00E-02   27
 L-EDEWBODY                 9.7-16.1 km  1.0000  2.25E-01  1.81E-01  4.31E-01
5.43E-01 NOT-FOUND NOT-FOUND  6.51E-01  2.00E-02   27
 L-EDEWBODY               16.1-32.2 km  1.0000  2.38E-01  2.22E-01  3.84E-01
4.86E-01 NOT-FOUND NOT-FOUND  6.39E-01  1.10E-02   52
 L-EDEWBODY               32.2-48.3 km  1.0000  1.16E-01  1.09E-01  2.02E-01
2.22E-01  2.73E-01 NOT-FOUND  2.75E-01  9.53E-03  118
 L-EDEWBODY               48.3-64.4 km  1.0000  8.47E-02  7.93E-02  1.07E-01
1.12E-01  1.25E-01  1.30E-01  1.41E-01  1.48E-03   80
 L-EDEWBODY               64.4-80.5 km  1.0000  6.19E-02  5.52E-02  8.90E-02
1.02E-01 NOT-FOUND NOT-FOUND  1.44E-01  1.17E-02   17
□  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  6 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CI

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

    COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE


04/20/04   16:17:21    PAGE  43          PROB                           QUANTILES
                           PEAK       PEAK  PEAK
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			NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL			
HEALTH EFFECTS CASES							
ERL FAT/TOTAL		0-16.1 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 INJ/PRODROMAL VOMIT		0-16.1 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 INJ/DIARRHEA		0-16.1 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 INJ/PNEUMONITIS		0-16.1 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 INJ/THYROIDITIS		0-16.1 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 INJ/HYPOTHYROIDISM		0-16.1 km	0.2685	1.06E-02	0.00E+00	3.18E-02	
4.34E-02	1.37E-01	3.05E-01	5.43E-01	8.85E-04	76		
ERL INJ/SKIN ERYTHEMA		0-16.1 km	0.8585	4.40E+01	2.26E+01	1.10E+02	
1.54E+02	3.01E+02	3.83E+02	5.84E+02	1.34E-03	27		
ERL INJ/TRANSEPIDERMAL		0-16.1 km	0.5954	1.76E+00	5.18E-02	4.48E+00	
8.82E+00	1.95E+01	3.03E+01	4.34E+01	8.85E-04	76		
CAN FAT/TOTAL		0-16.1 km	1.0000	3.47E+01	2.77E+01	6.95E+01	
8.78E+01	1.30E+02	1.50E+02	1.99E+02	1.34E-03	27		
CAN FAT/LUNG		0-80.5 km	1.0000	3.33E+02	1.91E+02	7.82E+02	
1.10E+03	2.22E+03	2.77E+03	3.08E+03	2.00E-04	14		
CAN FAT/THYROID		0-80.5 km	1.0000	7.52E+00	4.22E+00	1.72E+01	
2.69E+01	4.84E+01	5.08E+01	5.56E+01	2.00E-04	14		
CAN FAT/BREAST		0-80.5 km	1.0000	1.49E+01	7.85E+00	3.57E+01	
5.15E+01	1.06E+02	1.31E+02	2.37E+02	1.28E-03	17		
CAN FAT/GI		0-80.5 km	1.0000	6.88E+01	3.83E+01	1.54E+02	
2.27E+02	3.57E+02	4.03E+02	7.17E+02	1.28E-03	17		
CAN FAT/LEUKEMIA		0-80.5 km	1.0000	1.52E+01	8.12E+00	3.62E+01	
5.11E+01	1.06E+02	1.30E+02	1.97E+02	1.28E-03	17		
CAN FAT/BONE		0-80.5 km	1.0000	2.01E+00	1.10E+00	4.88E+00	
7.01E+00	1.13E+01	1.37E+01	2.27E+01	1.28E-03	17		
CAN FAT/OTHER		0-80.5 km	1.0000	1.01E+02	6.06E+01	2.38E+02	
3.31E+02	5.60E+02	7.04E+02	8.97E+02	1.28E-03	17		
CAN INJ/THYROID		0-80.5 km	1.0000	7.52E+01	4.22E+01	1.72E+02	
2.69E+02	4.84E+02	5.08E+02	5.56E+02	2.00E-04	14		
CAN INJ/BREAST		0-80.5 km	1.0000	4.68E+01	2.41E+01	1.15E+02	
1.63E+02	3.13E+02	3.66E+02	7.45E+02	1.28E-03	17		
CAN FAT/TOTAL		0-80.5 km	1.0000	5.43E+02	3.16E+02	1.25E+03	
1.80E+03	3.08E+03	3.31E+03	4.63E+03	2.00E-04	14		
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 INJ/PRODROMAL VOMIT		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 INJ/DIARRHEA		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 INJ/PNEUMONITIS		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 INJ/THYROIDITIS		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 INJ/HYPOTHYROIDISM		0-80.5 km	0.2685	1.06E-02	0.00E+00	3.18E-02	
4.34E-02	1.37E-01	3.05E-01	5.43E-01	8.85E-04	76		
ERL INJ/SKIN ERYTHEMA		0-80.5 km	0.8585	4.70E+01	2.26E+01	1.13E+02	
1.65E+02	3.75E+02	5.18E+02	1.32E+03	5.71E-05	80		
ERL INJ/TRANSEPIDERMAL		0-80.5 km	0.5954	1.76E+00	5.18E-02	4.48E+00	
8.82E+00	1.95E+01	3.03E+01	4.34E+01	8.85E-04	76		
EARLY FATALITY DISTANCE (km)							
ERL FAT/TOTAL RISK > 0.000			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 EXCEEDING DOSE							

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 EARLY dose A-RED MARR > 1.50 Sv          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
 EARLY dose A-LUNGS > 5.00 Sv             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
 EARLY dose L-EDEWBODY > 2.00 Sv          0.4313  4.38E+00  0.00E+00  1.44E+01
2.82E+01  4.90E+01  6.93E+01  9.66E+01  1.08E-03   76
 EARLY dose L-EDEWBODY > 0.250 Sv         0.8663  8.79E+02  1.63E+02  2.38E+03
3.49E+03  2.01E+04  2.06E+04  2.17E+04  1.34E-03   67

AVERAGE INDIVIDUAL RISK
 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                1.6-3.2 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                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
 ERL FAT/TOTAL                4.8-6.4 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
□04/20/04   16:17:21    PAGE  44           PROB                          QUANTILES
                             PEAK       PEAK  PEAK
                                            NON-ZERO   MEAN      50TH      90TH      95TH
    99TH      99.5TH      CONS       PROB  TRIAL
AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL                6.4-8.1 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  2.61E+02  2.14E+02  5.07E+02
6.26E+02  9.55E+02  1.10E+03  1.40E+03  1.34E-03   27
 L-EDEWBODY  TOT LIF           0-80.5 km  1.0000  6.86E+03  3.84E+03  1.56E+04
2.26E+04  3.55E+04  4.02E+04  6.50E+04  1.28E-03   17

POPULATION WEIGHTED RISK
 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
 CAN FAT/TOTAL                 0-16.1 km  1.0000  1.68E-03  1.29E-03  3.38E-03
4.22E-03  6.67E-03  7.66E-03  9.66E-03  1.34E-03   27

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                     0-1.6 km  1.0000  4.27E+00  3.69E+00  7.51E+00
8.35E+00 NOT-FOUND NOT-FOUND  1.41E+01  1.21E-02   76
 L-EDEWBODY                   1.6-3.2 km  1.0000  1.25E+00  1.05E+00  2.40E+00
2.98E+00 NOT-FOUND NOT-FOUND  4.65E+00  1.21E-02   76
 L-EDEWBODY                   3.2-4.8 km  1.0000  6.94E-01  6.10E-01  1.33E+00
1.71E+00 NOT-FOUND NOT-FOUND  2.37E+00  1.21E-02   76
 L-EDEWBODY                   4.8-6.4 km  1.0000  4.51E-01  3.58E-01  8.78E-01
1.19E+00 NOT-FOUND NOT-FOUND  1.75E+00  2.00E-02   27
 L-EDEWBODY                   6.4-8.1 km  1.0000  3.15E-01  2.59E-01  6.02E-01
7.99E-01 NOT-FOUND NOT-FOUND  1.43E+00  2.00E-02   27
 L-EDEWBODY                   8.1-9.7 km  0.9809  2.22E-01  1.68E-01  4.85E-01
6.27E-01 NOT-FOUND NOT-FOUND  9.90E-01  2.00E-02   27
 L-EDEWBODY                  9.7-16.1 km  0.9406  1.13E-01  8.39E-02  2.57E-01
3.23E-01  4.08E-01 NOT-FOUND  4.11E-01  9.53E-03  118
 L-EDEWBODY                 16.1-32.2 km  1.0000  1.82E-01  1.39E-01  3.17E-01
3.66E-01 NOT-FOUND NOT-FOUND  5.42E-01  1.10E-02   52
 L-EDEWBODY                 32.2-48.3 km  1.0000  7.72E-02  7.01E-02  1.43E-01
1.87E-01  2.35E-01 NOT-FOUND  2.36E-01  9.53E-03  118
 L-EDEWBODY                 48.3-64.4 km  1.0000  4.13E-02  3.39E-02  7.80E-02
9.77E-02 NOT-FOUND NOT-FOUND  1.20E-01  4.23E-02   12
 L-EDEWBODY                 64.4-80.5 km  1.0000  2.60E-02  2.19E-02  4.86E-02
5.56E-02 NOT-FOUND NOT-FOUND  8.87E-02  1.17E-02   17
□  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12
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"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

SOURCE TERM 6 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CI

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

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH
HEALTH EFFECTS CASES										
ERL FAT/TOTAL	0-16.1 km	0.1433	1.97E-02	0.00E+00	1.39E-02	1.15E-01	5.71E-01	7.51E-01	1.44E+00	8.85E-04	76
ERL INJ/PRODROMAL VOMIT	0-16.1 km	0.4496	1.07E-01	0.00E+00	2.94E-01	5.22E-01	1.30E+00	1.67E+00	3.28E+00	8.85E-04	76
ERL INJ/DIARRHEA	0-16.1 km	0.2086	3.13E-02	0.00E+00	1.14E-01	1.84E-01	4.37E-01	5.67E-01	1.21E+00	8.85E-04	76
ERL INJ/PNEUMONITIS	0-16.1 km	0.1430	1.80E-02	0.00E+00	1.32E-02	8.14E-02	5.71E-01	7.51E-01	1.42E+00	8.85E-04	76
ERL INJ/THYROIDITIS	0-16.1 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 INJ/HYPOTHYROIDISM	0-16.1 km	0.8260	4.26E-01	2.05E-01	1.13E+00	1.60E+00	2.98E+00	3.66E+00	5.93E+00	6.56E-04	76
ERL INJ/SKIN ERYTHEMA	0-16.1 km	0.7517	3.18E+02	1.53E+02	8.73E+02	1.14E+03	1.84E+03	2.13E+03	2.61E+03	1.34E-03	67
ERL INJ/TRANSEPIDERMAL	0-16.1 km	0.7189	6.43E+01	2.52E+01	1.73E+02	2.37E+02	4.52E+02	5.45E+02	8.53E+02	1.34E-03	27
CAN FAT/TOTAL	0-16.1 km	1.0000	1.09E+02	9.41E+01	2.08E+02	2.45E+02	3.40E+02	3.83E+02	4.78E+02	1.34E-03	27
CAN FAT/LUNG	0-80.5 km	1.0000	3.82E+02	2.42E+02	8.29E+02	1.15E+03	2.22E+03	2.77E+03	3.17E+03	2.00E-04	14
CAN FAT/THYROID	0-80.5 km	1.0000	8.28E+00	5.15E+00	1.87E+01	2.75E+01	4.84E+01	5.10E+01	5.71E+01	2.00E-04	14
CAN FAT/BREAST	0-80.5 km	1.0000	1.53E+01	8.10E+00	3.58E+01	5.15E+01	1.06E+02	1.31E+02	2.37E+02	1.28E-03	17
CAN FAT/GI	0-80.5 km	1.0000	7.75E+01	4.86E+01	1.63E+02	2.31E+02	3.57E+02	4.03E+02	7.17E+02	1.28E-03	17
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	1.65E+01	9.50E+00	3.67E+01	5.20E+01	1.06E+02	1.30E+02	1.97E+02	1.28E-03	17
CAN FAT/BONE	0-80.5 km	1.0000	2.24E+00	1.31E+00	5.01E+00	7.05E+00	1.13E+01	1.37E+01	2.27E+01	1.28E-03	17
CAN FAT/OTHER	0-80.5 km	1.0000	1.16E+02	7.58E+01	2.58E+02	3.45E+02	5.85E+02	7.09E+02	8.97E+02	1.28E-03	17
CAN INJ/THYROID	0-80.5 km	1.0000	8.28E+01	5.15E+01	1.87E+02	2.75E+02	4.84E+02	5.10E+02	5.71E+02	2.00E-04	14
CAN INJ/BREAST	0-80.5 km	1.0000	4.83E+01	2.54E+01	1.16E+02	1.63E+02	3.13E+02	3.66E+02	7.46E+02	1.28E-03	17
CAN FAT/TOTAL	0-80.5 km	1.0000	6.18E+02	3.81E+02	1.27E+03	1.81E+03	3.09E+03	3.33E+03	4.78E+03	2.00E-04	14
ERL FAT/TOTAL	0-80.5 km	0.1433	1.97E-02	0.00E+00	1.39E-02	1.15E-01	5.71E-01	7.51E-01	1.44E+00	8.85E-04	76
ERL INJ/PRODROMAL VOMIT	0-80.5 km	0.4496	1.07E-01	0.00E+00	2.94E-01	5.22E-01	1.30E+00	1.67E+00	3.28E+00	8.85E-04	76
ERL INJ/DIARRHEA	0-80.5 km	0.2086	3.13E-02	0.00E+00	1.14E-01	1.84E-01	4.37E-01	5.67E-01	1.21E+00	8.85E-04	76

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 ERL INJ/PNEUMONITIS          0-80.5 km  0.1430  1.80E-02  0.00E+00  1.32E-02
8.14E-02  5.71E-01  7.51E-01  1.42E+00  8.85E-04    76
 ERL INJ/THYROIDITIS          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 INJ/HYPOTHYROIDISM       0-80.5 km  0.8260  4.26E-01  2.05E-01  1.13E+00
1.60E+00  2.98E+00  3.66E+00  5.93E+00  6.56E-04    76
 ERL INJ/SKIN ERYTHEMA        0-80.5 km  0.7517  3.21E+02  1.53E+02  8.75E+02
1.16E+03  2.00E+03  2.10E+03  2.85E+03  5.71E-05    80
 ERL INJ/TRANSEPIDERMAL       0-80.5 km  0.7189  6.43E+01  2.52E+01  1.73E+02
2.37E+02  4.52E+02  5.45E+02  8.53E+02  1.34E-03    27

EARLY FATALITY DISTANCE (km)
 ERL FAT/TOTAL RISK > 0.000              0.3445  5.55E-01  0.00E+00 NOT-FOUND
NOT-FOUND NOT-FOUND NOT-FOUND  1.61E+00  3.44E-01     3

POPULATION EXCEEDING DOSE
 EARLY dose A-RED MARR > 1.50 Sv         0.1262  9.48E-02  0.00E+00  2.42E-01
7.93E-01  1.59E+00 NOT-FOUND  2.14E+00  5.94E-03    10
 EARLY dose A-LUNGS > 5.00 Sv            0.1430  1.66E-01  0.00E+00  7.91E-01
1.22E+00  2.39E+00  2.80E+00  3.00E+00  3.74E-03    11
 EARLY dose L-EDEWBODY > 2.00 Sv         0.8519  6.09E+01  3.78E+01  1.35E+02
1.89E+02  3.33E+02  3.83E+02  6.59E+02  1.34E-03    27
 EARLY dose L-EDEWBODY > 0.250 Sv        0.8943  1.35E+03  7.62E+02  3.02E+03
4.24E+03  2.01E+04  2.09E+04  2.24E+04  1.34E-03    67

AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL                0-1.6 km   0.3445  1.48E-03  0.00E+00  4.26E-03
8.26E-03 NOT-FOUND NOT-FOUND  3.00E-02  1.21E-02    76
 ERL FAT/TOTAL              1.6-3.2 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              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
 ERL FAT/TOTAL              4.8-6.4 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
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		PEAK	PEAK	PEAK NON-ZERO	MEAN	PROB 50TH	QUANTILES 90TH	95TH	99TH	99.5TH	CONS
AVERAGE INDIVIDUAL RISK											
ERL FAT/TOTAL	6.4-8.1 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	8.09E+02	7.27E+02	1.37E+03	1.66E+03	2.32E+03	2.59E+03	3.35E+03	1.34E-03	27
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	7.41E+03	4.35E+03	1.60E+04	2.29E+04	4.06E+04	5.03E+04	6.50E+04	1.28E-03	17
POPULATION WEIGHTED RISK											
ERL FAT/TOTAL	0-3.2 km	0.1433	4.11E-05	0.00E+00	3.82E-05	2.26E-04	1.16E-03	1.70E-03	3.01E-03	8.85E-04	76
CAN FAT/TOTAL	0-16.1 km	1.0000	5.29E-03	4.46E-03	1.03E-02	1.16E-02	1.52E-02	1.71E-02	2.32E-02	1.34E-03	27
PEAK DOSE FOUND ON SPATIAL GRID (Sv)											
L-EDEWBODY	0-1.6 km	1.0000	1.75E+01	1.45E+01	3.28E+01	3.82E+01	NOT-FOUND	NOT-FOUND	5.75E+01	1.21E-02	76
L-EDEWBODY	1.6-3.2 km	1.0000	4.41E+00	3.58E+00	8.12E+00	1.04E+01	NOT-FOUND	NOT-FOUND	1.77E+01	1.21E-02	76
L-EDEWBODY	3.2-4.8 km	1.0000	2.29E+00	1.85E+00	4.23E+00	5.29E+00	NOT-FOUND	NOT-FOUND	8.99E+00	1.21E-02	76
L-EDEWBODY	4.8-6.4 km	1.0000	1.48E+00	1.16E+00	3.10E+00	3.69E+00	NOT-FOUND	NOT-FOUND	5.39E+00	1.21E-02	76

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 L-EDEWBODY                    6.4-8.1 km  1.0000  1.08E+00  7.49E-01  2.11E+00
2.69E+00 NOT-FOUND NOT-FOUND  5.43E+00  1.21E-02   76
 L-EDEWBODY                    8.1-9.7 km  1.0000  7.70E-01  5.39E-01  1.65E+00
2.43E+00 NOT-FOUND NOT-FOUND  3.94E+00  2.00E-02   27
 L-EDEWBODY                   9.7-16.1 km  1.0000  4.40E-01  3.08E-01  1.03E+00
1.37E+00 NOT-FOUND NOT-FOUND  2.17E+00  2.00E-02   27
 L-EDEWBODY                  16.1-32.2 km  1.0000  1.82E-01  1.39E-01  3.17E-01
3.66E-01 NOT-FOUND NOT-FOUND  5.42E-01  1.10E-02   52
 L-EDEWBODY                  32.2-48.3 km  1.0000  7.72E-02  7.01E-02  1.43E-01
1.87E-01  2.35E-01 NOT-FOUND  2.36E-01  9.53E-03  118
 L-EDEWBODY                  48.3-64.4 km  1.0000  4.13E-02  3.39E-02  7.80E-02
9.77E-02 NOT-FOUND NOT-FOUND  1.20E-01  4.23E-02   12
 L-EDEWBODY                  64.4-80.5 km  1.0000  2.60E-02  2.19E-02  4.86E-02
5.56E-02 NOT-FOUND NOT-FOUND  8.87E-02  1.17E-02   17
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

  "CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model

SOURCE TERM  6 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CI

RESULTS FROM THE "CHRONC" MODULE ALONE

    COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model


04/20/04    16:17:21     PAGE  47            PROB                          QUANTILES
                           PEAK       PEAK   PEAK
                                          NON-ZERO   MEAN      50TH      90TH      95TH
     99TH      99.5TH      CONS        PROB   TRIAL
HEALTH EFFECTS CASES
 CAN FAT/TOTAL                  0-16.1 km  1.0000  3.21E+01  3.13E+01  5.06E+01
5.70E+01  7.17E+01  7.46E+01  1.05E+02  8.69E-06   16
 CAN FAT/LUNG                   0-80.5 km  1.0000  1.43E+02  9.53E+01  3.12E+02
4.89E+02  5.77E+02  6.14E+02  7.14E+02  9.99E-04   17
 CAN FAT/THYROID                0-80.5 km  1.0000  9.40E+00  6.11E+00  2.02E+01
3.04E+01  3.68E+01  4.00E+01  4.70E+01  1.28E-03   17
 CAN FAT/BREAST                 0-80.5 km  1.0000  6.97E+01  4.63E+01  1.62E+02
2.20E+02  3.07E+02  3.18E+02  3.43E+02  1.28E-03   17
 CAN FAT/GI                     0-80.5 km  1.0000  1.84E+02  1.27E+02  3.90E+02
5.41E+02  7.13E+02  7.32E+02  8.33E+02  1.70E-04   47
 CAN FAT/LEUKEMIA               0-80.5 km  1.0000  6.46E+01  4.79E+01  1.25E+02
1.86E+02  2.27E+02  2.41E+02  2.76E+02  9.99E-04   17
 CAN FAT/BONE                   0-80.5 km  1.0000  7.83E+00  6.25E+00  1.49E+01
2.03E+01  2.50E+01  2.74E+01  3.11E+01  9.99E-04   17
 CAN FAT/OTHER                  0-80.5 km  1.0000  2.13E+02  1.44E+02  4.65E+02
6.90E+02  7.74E+02  8.08E+02  1.01E+03  1.70E-04   47
 CAN INJ/THYROID                0-80.5 km  1.0000  9.40E+01  6.11E+01  2.02E+02
3.04E+02  3.68E+02  4.00E+02  4.70E+02  1.28E-03   17
 CAN INJ/BREAST                 0-80.5 km  1.0000  2.19E+02  1.45E+02  4.77E+02
7.14E+02  9.55E+02  1.02E+03  1.08E+03  1.28E-03   17
 CAN FAT/TOTAL                  0-80.5 km  1.0000  6.92E+02  4.78E+02  1.57E+03
2.12E+03  2.96E+03  3.04E+03  3.24E+03  1.70E-04   47

POPULATION DOSE (Sv)
 L-EDEWBODY  TOT LIF            0-16.1 km  1.0000  6.19E+02  6.05E+02  9.34E+02
1.02E+03  1.13E+03  1.18E+03  1.86E+03  3.16E-06  102
 L-EDEWBODY  TOT LIF            0-80.5 km  1.0000  1.54E+04  1.02E+04  3.18E+04
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5.00E+04 6.20E+04 6.81E+04 7.29E+04 1.70E-04 47

POPULATION WEIGHTED RISK

CAN FAT/TOTAL	0-16.1 km	1.0000	4.45E-04	4.12E-04	6.95E-04		
7.28E-04	7.99E-04	8.32E-04	1.36E-03	1.20E-05	31		

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	0.8900	3.64E-02	2.68E-03	1.14E-01		
1.29E-01	1.72E-01	NOT-FOUND	1.83E-01	7.02E-03	93		
L-EDEWBODY	1.6-3.2 km	1.0000	1.05E-01	1.02E-01	1.23E-01		
1.33E-01	1.60E-01	1.73E-01	1.84E-01	2.80E-03	90		
L-EDEWBODY	3.2-4.8 km	0.9833	8.95E-02	8.56E-02	1.18E-01		
1.29E-01	1.58E-01	1.72E-01	1.85E-01	2.80E-03	110		
L-EDEWBODY	4.8-6.4 km	0.9833	1.01E-01	1.00E-01	1.13E-01		
1.19E-01	1.33E-01	1.40E-01	1.85E-01	1.14E-04	96		
L-EDEWBODY	6.4-8.1 km	0.9833	1.12E-01	1.04E-01	1.24E-01		
1.34E-01	1.60E-01	1.73E-01	1.85E-01	2.80E-03	90		
L-EDEWBODY	8.1-9.7 km	0.9833	1.10E-01	1.03E-01	1.17E-01		
1.24E-01	1.41E-01	1.49E-01	1.85E-01	3.14E-04	16		
L-EDEWBODY	9.7-16.1 km	1.0000	9.60E-02	9.34E-02	1.32E-01		
1.51E-01	NOT-FOUND	NOT-FOUND	1.79E-01	2.00E-02	27		
L-EDEWBODY	16.1-32.2 km	1.0000	5.62E-02	5.34E-02	7.70E-02		
8.27E-02	NOT-FOUND	NOT-FOUND	9.67E-02	1.10E-02	52		
L-EDEWBODY	32.2-48.3 km	1.0000	3.89E-02	3.45E-02	5.63E-02		
6.38E-02	NOT-FOUND	NOT-FOUND	7.65E-02	1.10E-02	77		
L-EDEWBODY	48.3-64.4 km	1.0000	4.34E-02	4.07E-02	5.75E-02		
6.18E-02	7.07E-02	7.19E-02	7.58E-02	5.71E-04	91		
L-EDEWBODY	64.4-80.5 km	1.0000	3.59E-02	3.18E-02	5.08E-02		
5.23E-02	5.61E-02	5.78E-02	6.74E-02	1.43E-04	8		

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

TOTAL LONG-TERM PATHWAYS DOSE		1.0000	1.54E+04	1.02E+04	3.18E+04		
5.00E+04	6.20E+04	6.81E+04	7.29E+04	1.70E-04	47		
LONG-TERM DIRECT EXPOSURE PATHWAYS		1.0000	1.32E+04	8.50E+03	2.95E+04		
4.50E+04	5.42E+04	5.64E+04	6.83E+04	1.70E-04	47		
TOTAL INGESTION PATHWAYS DOSE		1.0000	9.41E+02	8.56E+02	1.29E+03		
1.47E+03	2.01E+03	2.09E+03	2.85E+03	2.85E-05	86		
LONG-TERM GROUNDSHINE DOSE		1.0000	1.21E+04	7.96E+03	2.77E+04		
3.70E+04	5.19E+04	5.36E+04	6.26E+04	1.70E-04	47		
LONG-TERM RESUSPENSION DOSE		1.0000	1.08E+03	7.11E+02	2.54E+03		
3.39E+03	5.06E+03	5.26E+03	5.76E+03	9.99E-04	17		
WATER INGESTION DOSE		1.0000	2.91E+02	2.50E+02	5.30E+02		
6.16E+02	8.17E+02	9.08E+02	1.15E+03	1.79E-05	103		
POP.-DEPENDENT DECONTAMINATION DOSE		0.9944	1.24E+03	6.88E+02	3.03E+03		
3.96E+03	7.58E+03	9.46E+03	1.95E+04	1.28E-03	17		

	PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL			
L-EDEWBODY POP. DOSE (Sv) 0-80.5 km							
FARM-DEPENDENT DECONTAMINATION DOSE			0.9944	2.11E+01	1.72E+01	3.94E+01	
5.01E+01	7.20E+01	8.03E+01	1.21E+02	2.85E-04	17		
INGESTION OF GRAINS			1.0000	1.01E+02	8.96E+01	1.61E+02	
2.01E+02	2.59E+02	2.89E+02	4.47E+02	1.99E-04	44		
INGESTION OF LEAF VEG			1.0000	1.01E+02	8.96E+01	1.61E+02	
2.01E+02	2.59E+02	2.89E+02	4.47E+02	1.99E-04	44		
INGESTION OF ROOT CROPS			1.0000	6.31E+01	5.70E+01	1.04E+02	
1.19E+02	1.65E+02	1.90E+02	2.19E+02	2.85E-04	17		
INGESTION OF FRUITS			1.0000	3.97E+01	3.10E+01	7.53E+01	
9.16E+01	1.30E+02	1.50E+02	1.86E+02	1.71E-03	3		
INGESTION OF LEGUMES			1.0000	1.09E+02	1.01E+02	1.72E+02	
2.11E+02	2.97E+02	3.19E+02	4.19E+02	2.85E-04	17		
INGESTION OF BEEF			1.0000	1.56E+02	1.21E+02	3.05E+02	

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3.72E+02  5.58E+02  6.36E+02  7.28E+02  2.87E-04    87
 INGESTION OF MILK                      1.0000  1.09E+02  9.16E+01  2.10E+02
2.63E+02  3.84E+02  4.43E+02  6.03E+02  2.85E-05    86
 INGESTION OF POULTRY                   1.0000  3.53E+01  3.14E+01  6.53E+01
7.78E+01  1.07E+02  1.20E+02  2.00E+02  1.99E-04    44
 INGESTION OF OTHER MEAT CROPS          1.0000  1.90E+01  1.43E+01  3.81E+01
4.79E+01  6.40E+01  7.11E+01  9.64E+01  2.85E-04    57

ECONOMIC COST MEASURES ($)      0-80.5 km
 TOTAL ECONOMIC COSTS                   1.0000  4.13E+09  2.09E+09  8.89E+09
1.23E+10  2.31E+10  2.88E+10  3.21E+10  1.08E-03    86
 POP.-DEPENDENT COSTS                   0.9944  3.99E+09  1.94E+09  8.86E+09
1.22E+10  2.30E+10  2.88E+10  3.20E+10  3.41E-05    81
 FARM-DEPENDENT COSTS                   1.0000  1.39E+08  1.13E+08  2.46E+08
2.97E+08  3.53E+08  3.79E+08  5.24E+08  1.37E-05   113
 POP.-DEPENDENT DECONTAMINATION COST    0.9944  9.22E+08  3.84E+08  2.46E+09
3.41E+09  5.92E+09  7.39E+09  9.97E+09  1.08E-03    86
 FARM-DEPENDENT DECONTAMINATION COST    0.9944  3.28E+07  3.12E+07  5.23E+07
5.87E+07  7.33E+07  7.76E+07  1.12E+08  1.14E-04    86
 POP.-DEPENDENT INTERDICTION COST       0.9944  3.05E+09  1.29E+09  6.29E+09
1.10E+10  1.63E+10  1.94E+10  2.20E+10  3.41E-05    81
 FARM-DEPENDENT INTERDICTION COST       0.9971  7.36E+07  5.61E+07  1.46E+08
1.87E+08  2.35E+08  2.55E+08  3.57E+08  1.37E-05   113
 POP.-DEPENDENT CONDEMNATION COST       0.8636  1.56E+07  1.09E+07  3.32E+07
4.49E+07  8.16E+07  9.61E+07  1.01E+08  1.20E-04   103
 FARM-DEPENDENT CONDEMNATION COST       0.9104  1.22E+07  8.71E+06  3.00E+07
3.56E+07  5.03E+07  5.11E+07  5.57E+07  1.47E-04    18
 EMERGENCY PHASE COST                   0.9134  1.43E+06  6.16E+05  2.83E+06
5.03E+06  1.41E+07  1.77E+07  3.90E+07  2.63E-03    12
 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                     0.9863  9.73E+05  5.32E+05  2.58E+06
3.48E+06  5.20E+06  5.40E+06  6.40E+06  2.00E-04    28
 CROP DISPOSAL COST                     0.9836  1.99E+07  1.52E+07  4.17E+07
5.18E+07  6.86E+07  7.37E+07  9.08E+07  4.72E-04    28

AFFECTED AREA/POPULATION        0-80.5 km
 FARM DECONTAMINATION (HECTARES)        0.9944  3.60E+04  3.32E+04  5.81E+04
6.91E+04  7.45E+04  7.66E+04  9.70E+04  1.37E-05   113
 POP. DECONTAMINATION (INDIVIDUALS)     0.9944  1.89E+05  8.16E+04  4.38E+05
1.00E+06  1.02E+06  1.03E+06  1.10E+06  1.97E-05   113
 FARM INTERDICTION (HECTARES)           0.9971  5.06E+04  4.34E+04  8.71E+04
1.03E+05  1.26E+05  1.38E+05  1.88E+05  4.28E-04    29
 POP. INTERDICTION (INDIVIDUALS)        0.9944  1.89E+05  8.16E+04  4.38E+05
1.00E+06  1.02E+06  1.03E+06  1.10E+06  1.97E-05   113
 FARM CONDEMNATION (HECTARES)           0.9104  1.80E+03  1.22E+03  5.09E+03
5.92E+03  7.28E+03  7.52E+03  8.87E+03  1.47E-04    18
 POP. CONDEMNATION (INDIVIDUALS)        0.8636  1.16E+02  8.81E+01  3.07E+02
3.77E+02  5.77E+02  6.74E+02  7.26E+02  1.20E-04   103
 MILK DISPOSAL AREA (HECTARES)          0.9865  5.46E+04  4.11E+04  1.06E+05
1.16E+05  1.46E+05  1.61E+05  2.31E+05  3.71E-04    28
 CROP DISPOSAL AREA (HECTARES)          0.9836  4.45E+04  3.62E+04  8.72E+04
1.03E+05  1.31E+05  1.44E+05  1.88E+05  8.13E-04    28
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 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

"ATMOS" DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS input
"EARLY" DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

"CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

SOURCE TERM 7 OF 7:
RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case 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 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE
0.950

COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE
0.050

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

COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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

		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
HEALTH EFFECTS CASES								
ERL FAT/TOTAL		0-16.1 km	0.3837	1.07E-02	0.00E+00	3.86E-02		
7.36E-02	1.19E-01	1.38E-01	2.69E-01	5.71E-05	14			
ERL INJ/PRODROMAL VOMIT		0-16.1 km	0.6599	2.31E-02	1.92E-03	6.95E-02		
1.12E-01	2.19E-01	2.45E-01	4.55E-01	5.71E-05	14			
ERL INJ/DIARRHEA		0-16.1 km	0.3330	7.86E-03	0.00E+00	2.26E-02		
4.12E-02	1.04E-01	1.13E-01	2.13E-01	5.71E-05	14			
ERL INJ/PNEUMONITIS		0-16.1 km	0.3837	1.07E-02	0.00E+00	3.86E-02		
7.27E-02	1.19E-01	1.38E-01	2.69E-01	5.71E-05	14			
ERL INJ/THYROIDITIS		0-16.1 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 INJ/HYPOTHYROIDISM		0-16.1 km	0.0623	3.33E-05	0.00E+00	0.00E+00		
1.50E-04	8.62E-04	NOT-FOUND	1.37E-03	6.88E-03	12			
ERL INJ/SKIN ERYTHEMA		0-16.1 km	0.9877	3.51E+01	3.08E+01	7.14E+01		
8.03E+01	1.02E+02	1.07E+02	1.24E+02	5.42E-04	22			
ERL INJ/TRANSEPIDERMAL		0-16.1 km	0.9178	7.04E+00	5.51E+00	1.50E+01		
2.03E+01	3.09E+01	3.33E+01	4.78E+01	1.71E-04	80			
CAN FAT/TOTAL		0-16.1 km	1.0000	7.41E+01	7.06E+01	1.15E+02		
1.27E+02	1.61E+02	1.78E+02	2.35E+02	8.56E-05	14			
CAN FAT/LUNG		0-80.5 km	1.0000	5.65E+02	2.94E+02	1.27E+03		
1.99E+03	3.56E+03	4.00E+03	5.84E+03	1.23E-03	22			
CAN FAT/THYROID		0-80.5 km	1.0000	1.48E+01	8.62E+00	3.25E+01		
4.74E+01	7.05E+01	7.90E+01	9.74E+01	1.40E-03	88			
CAN FAT/BREAST		0-80.5 km	1.0000	1.06E+02	6.17E+01	2.46E+02		
3.31E+02	5.03E+02	5.65E+02	7.00E+02	1.40E-03	88			
CAN FAT/GI		0-80.5 km	1.0000	3.64E+02	2.14E+02	7.90E+02		
1.09E+03	1.78E+03	2.02E+03	2.34E+03	8.56E-05	116			
CAN FAT/LEUKEMIA		0-80.5 km	1.0000	1.13E+02	6.79E+01	2.43E+02		
3.34E+02	5.15E+02	5.37E+02	6.87E+02	8.56E-05	116			
CAN FAT/BONE		0-80.5 km	1.0000	5.94E+01	3.21E+01	1.30E+02		
2.05E+02	3.63E+02	4.05E+02	5.69E+02	1.23E-03	22			
CAN FAT/OTHER		0-80.5 km	1.0000	3.99E+02	2.30E+02	8.52E+02		
1.16E+03	2.09E+03	2.27E+03	2.70E+03	1.23E-03	22			
CAN INJ/THYROID		0-80.5 km	1.0000	1.48E+02	8.62E+01	3.25E+02		
4.74E+02	7.05E+02	7.90E+02	9.74E+02	1.40E-03	88			
CAN INJ/BREAST		0-80.5 km	1.0000	3.35E+02	1.95E+02	7.44E+02		
1.07E+03	1.59E+03	1.88E+03	2.20E+03	1.40E-03	88			
CAN FAT/TOTAL		0-80.5 km	1.0000	1.62E+03	9.00E+02	3.63E+03		
5.27E+03	9.16E+03	1.04E+04	1.26E+04	1.23E-03	22			
ERL FAT/TOTAL		0-80.5 km	0.3837	1.07E-02	0.00E+00	3.86E-02		
7.36E-02	1.19E-01	1.38E-01	2.69E-01	5.71E-05	14			

ERL INJ/PRODROMAL VOMIT	0-80.5 km	0.6599	2.31E-02	1.92E-03	6.95E-02	1.12E-01	2.19E-01	2.45E-01	4.55E-01	5.71E-05	14
ERL INJ/DIARRHEA	0-80.5 km	0.3330	7.86E-03	0.00E+00	2.26E-02	4.12E-02	1.04E-01	1.13E-01	2.13E-01	5.71E-05	14
ERL INJ/PNEUMONITIS	0-80.5 km	0.3837	1.07E-02	0.00E+00	3.86E-02	7.27E-02	1.19E-01	1.38E-01	2.69E-01	5.71E-05	14
ERL INJ/THYROIDITIS	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 INJ/HYPOTHYROIDISM	0-80.5 km	0.0623	3.33E-05	0.00E+00	0.00E+00	1.50E-04	8.62E-04	NOT-FOUND	1.37E-03	6.88E-03	12
ERL INJ/SKIN ERYTHEMA	0-80.5 km	0.9877	5.41E+01	3.08E+01	8.40E+01	1.69E+02	4.51E+02	6.65E+02	7.45E+03	8.56E-05	80
ERL INJ/TRANSEPIDERMAL	0-80.5 km	0.9178	7.04E+00	5.51E+00	1.50E+01	2.03E+01	3.09E+01	3.33E+01	4.78E+01	1.71E-04	80

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000		0.6801	6.73E-02	7.54E-02	1.07E-01	1.18E-01	1.50E-01	1.67E-01	2.42E-01	1.48E-03	14

POPULATION EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv		0.1413	8.50E-03	0.00E+00	3.82E-02	7.70E-02	1.04E-01	1.08E-01	1.50E-01	1.06E-05	62

		PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH	CONS	PROB	TRIAL
POPULATION EXCEEDING DOSE												
EARLY dose A-LUNGS > 5.00 Sv		0.3837	9.66E-02	0.00E+00	2.98E-01	7.08E-01	1.06E+00	1.14E+00	1.83E+00	5.71E-05	14	
EARLY dose L-EDEWBODY > 2.00 Sv		0.8967	4.15E+00	3.17E+00	9.61E+00	1.17E+01	1.75E+01	2.03E+01	3.29E+01	1.71E-04	80	
EARLY dose L-EDEWBODY > 0.250 Sv		0.9877	5.72E+02	5.14E+01	1.28E+03	3.22E+03	5.74E+03	6.70E+03	3.57E+04	3.17E-03	29	

AVERAGE INDIVIDUAL RISK

ERL FAT/TOTAL	0-1.6 km	0.6801	7.51E-04	1.49E-04	2.07E-03	2.14E-03	2.33E-03	2.42E-03	2.76E-03	4.00E-04	62
ERL FAT/TOTAL	1.6-3.2 km	0.1551	5.79E-06	0.00E+00	6.78E-06	5.10E-05	1.06E-04	1.27E-04	1.75E-04	1.48E-03	14
ERL FAT/TOTAL	3.2-4.8 km	0.0015	4.76E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-06	1.48E-03	14
ERL FAT/TOTAL	4.8-6.4 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	6.4-8.1 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	1.56E+03	1.31E+03	2.62E+03	3.03E+03	3.38E+03	3.54E+03	5.12E+03	2.86E-05	91
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	2.80E+04	1.60E+04	6.03E+04	9.60E+04	1.16E+05	1.24E+05	1.81E+05	8.56E-05	116

POPULATION WEIGHTED RISK

ERL FAT/TOTAL	0-3.2 km	0.3837	2.24E-05	0.00E+00	8.50E-05	1.35E-04	2.80E-04	3.16E-04	5.60E-04	5.71E-05	14
CAN FAT/TOTAL	0-16.1 km	1.0000	5.07E-04	4.84E-04	7.54E-04	8.48E-04	1.05E-03	1.11E-03	1.51E-03	8.56E-05	14

PEAK DOSE FOUND ON SPATIAL GRID (Sv)

L-EDEWBODY	0-1.6 km	1.0000	1.47E+00	1.18E+00	2.97E+00	4.01E+00	NOT-FOUND	NOT-FOUND	4.32E+00	4.23E-02	12
L-EDEWBODY	1.6-3.2 km	1.0000	4.12E-01	3.24E-01	9.77E-01	1.05E+00	1.19E+00	1.25E+00	1.37E+00	1.48E-03	14

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 L-EDEWBODY                   3.2-4.8 km  1.0000  2.15E-01  1.69E-01  4.72E-01
5.25E-01  5.99E-01  6.34E-01  8.27E-01  1.48E-03    14
 L-EDEWBODY                   4.8-6.4 km  1.0000  1.41E-01  1.14E-01  3.01E-01
3.27E-01  3.97E-01  4.32E-01  5.33E-01  1.48E-03    14
 L-EDEWBODY                   6.4-8.1 km  1.0000  1.09E-01  9.48E-02  2.00E-01
2.18E-01  2.65E-01  2.88E-01  3.60E-01  1.48E-03    14
 L-EDEWBODY                   8.1-9.7 km  1.0000  8.91E-02  7.50E-02  1.19E-01
1.36E-01  1.87E-01  2.11E-01  2.54E-01  1.48E-03    80
 L-EDEWBODY                  9.7-16.1 km  1.0000  6.32E-02  5.75E-02  9.49E-02
1.05E-01  1.21E-01  1.28E-01  1.43E-01  1.48E-03    80
 L-EDEWBODY                 16.1-32.2 km  1.0000  2.42E-01  2.18E-01  3.22E-01
3.70E-01  5.09E-01  5.57E-01  6.52E-01  1.48E-03    80
 L-EDEWBODY                 32.2-48.3 km  1.0000  1.80E-01  1.56E-01  2.30E-01
2.48E-01  2.95E-01 NOT-FOUND  3.03E-01  5.59E-03    29
 L-EDEWBODY                 48.3-64.4 km  1.0000  1.30E-01  1.10E-01  2.01E-01
2.19E-01 NOT-FOUND NOT-FOUND  2.58E-01  1.35E-02    22
 L-EDEWBODY                 64.4-80.5 km  1.0000  8.94E-02  8.47E-02  1.13E-01
1.21E-01  1.42E-01  1.52E-01  2.04E-01  3.14E-04     5
 DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  7 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFL

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

    COHORT 1 = EVACUATION WITHIN 10 MILES, RELOCATION MODELS APPLY ELSEWHERE


04/20/04    16:17:21     PAGE  51          PROB                          QUANTILES
                              PEAK       PEAK  PEAK
                                             NON-ZERO   MEAN      50TH      90TH      95TH
     99TH      99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL                 0-16.1 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 INJ/PRODROMAL VOMIT       0-16.1 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 INJ/DIARRHEA              0-16.1 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 INJ/PNEUMONITIS           0-16.1 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 INJ/THYROIDITIS           0-16.1 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 INJ/HYPOTHYROIDISM        0-16.1 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 INJ/SKIN ERYTHEMA         0-16.1 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 INJ/TRANSEPIDERMAL        0-16.1 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                 0-16.1 km  1.0000  1.19E-02  9.70E-03  2.31E-02
2.87E-02  3.98E-02  4.54E-02  6.40E-02  1.34E-03    27
 CAN FAT/LUNG                  0-80.5 km  1.0000  4.53E+02  2.14E+02  1.09E+03
1.78E+03  3.36E+03  3.83E+03  5.35E+03  1.23E-03    22
 CAN FAT/THYROID               0-80.5 km  1.0000  4.45E+00  1.94E+00  1.07E+01
1.87E+01  2.95E+01  3.52E+01  4.88E+01  1.40E-03    88
 CAN FAT/BREAST                0-80.5 km  1.0000  3.24E+01  1.48E+01  7.87E+01
1.15E+02  1.99E+02  2.70E+02  3.53E+02  1.40E-03    88
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CAN FAT/GI			0-80.5 km	1.0000	1.77E+02	8.68E+01	4.11E+02		
7.17E+02	1.07E+03	1.13E+03	1.60E+03	8.56E-05	116				
CAN FAT/LEUKEMIA			0-80.5 km	1.0000	4.71E+01	2.31E+01	1.13E+02		
2.00E+02	2.84E+02	3.11E+02	4.37E+02	8.56E-05	116				
CAN FAT/BONE			0-80.5 km	1.0000	4.67E+01	2.20E+01	1.12E+02		
1.89E+02	3.38E+02	3.85E+02	5.24E+02	1.23E-03	22				
CAN FAT/OTHER			0-80.5 km	1.0000	1.93E+02	9.57E+01	4.60E+02		
7.47E+02	1.23E+03	1.37E+03	1.74E+03	1.17E-03	60				
CAN INJ/THYROID			0-80.5 km	1.0000	4.45E+01	1.94E+01	1.07E+02		
1.87E+02	2.95E+02	3.52E+02	4.88E+02	1.40E-03	88				
CAN INJ/BREAST			0-80.5 km	1.0000	1.02E+02	4.64E+01	2.52E+02		
4.48E+02	6.91E+02	8.70E+02	1.11E+03	1.40E-03	88				
CAN FAT/TOTAL			0-80.5 km	1.0000	9.53E+02	4.67E+02	2.19E+03		
3.36E+03	6.51E+03	7.18E+03	9.55E+03	8.56E-05	116				
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 INJ/PRODROMAL VOMIT			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 INJ/DIARRHEA			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 INJ/PNEUMONITIS			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 INJ/THYROIDITIS			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 INJ/HYPOTHYROIDISM			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 INJ/SKIN ERYTHEMA			0-80.5 km	0.0618	1.90E+01	0.00E+00	0.00E+00		
1.06E+02	3.16E+02	6.26E+02	7.37E+03	8.56E-05	80				
ERL INJ/TRANSEPIDERMAL			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				

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000				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 EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv				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				
EARLY dose A-LUNGS > 5.00 Sv				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				
EARLY dose L-EDEWBODY > 2.00 Sv				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				
EARLY dose L-EDEWBODY > 0.250 Sv				0.2080	5.27E+02	0.00E+00	1.19E+03		
3.14E+03	5.62E+03	6.66E+03	3.57E+04	3.17E-03	29				

AVERAGE INDIVIDUAL RISK

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			1.6-3.2 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			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				
ERL FAT/TOTAL			4.8-6.4 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				

		PEAK		PROB PEAK			QUANTILES	
				NON-ZERO	MEAN	50TH	90TH	95TH
99TH	99.5TH	CONS	PROB	TRIAL				
AVERAGE INDIVIDUAL RISK								
ERL FAT/TOTAL			6.4-8.1 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)

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 L-EDEWBODY  TOT LIF         0-16.1 km  1.0000  1.66E-01  1.30E-01  3.27E-01
4.05E-01  5.80E-01  6.47E-01  8.94E-01  1.34E-03   27
 L-EDEWBODY  TOT LIF         0-80.5 km  1.0000  1.32E+04  6.27E+03  2.97E+04
5.29E+04  9.23E+04  1.02E+05  1.23E+05  8.56E-05  116

POPULATION WEIGHTED RISK
 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
 CAN FAT/TOTAL               0-16.1 km  1.0000  5.76E-07  4.68E-07  1.11E-06
1.35E-06  2.06E-06  2.35E-06  3.11E-06  1.34E-03   27

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                   0-1.6 km  1.0000  2.70E-03  2.37E-03  4.97E-03
5.64E-03 NOT-FOUND NOT-FOUND  8.91E-03  1.21E-02   76
 L-EDEWBODY                 1.6-3.2 km  1.0000  7.99E-04  6.99E-04  1.34E-03
1.64E-03 NOT-FOUND NOT-FOUND  2.95E-03  1.21E-02   76
 L-EDEWBODY                 3.2-4.8 km  1.0000  4.44E-04  3.87E-04  9.63E-04
1.13E-03 NOT-FOUND NOT-FOUND  1.51E-03  1.21E-02   76
 L-EDEWBODY                 4.8-6.4 km  1.0000  2.89E-04  2.43E-04  5.79E-04
7.65E-04 NOT-FOUND NOT-FOUND  1.12E-03  2.00E-02   27
 L-EDEWBODY                 6.4-8.1 km  1.0000  2.02E-04  1.58E-04  3.97E-04
5.44E-04 NOT-FOUND NOT-FOUND  9.10E-04  2.00E-02   27
 L-EDEWBODY                 8.1-9.7 km  0.9809  1.43E-04  1.14E-04  2.91E-04
3.69E-04 NOT-FOUND NOT-FOUND  6.32E-04  2.00E-02   27
 L-EDEWBODY                9.7-16.1 km  0.9406  7.24E-05  5.73E-05  1.78E-04
2.13E-04  2.62E-04 NOT-FOUND  2.64E-04  9.53E-03  118
 L-EDEWBODY               16.1-32.2 km  1.0000  2.08E-01  1.90E-01  3.14E-01
3.44E-01  4.26E-01  4.67E-01  6.13E-01  1.48E-03   80
 L-EDEWBODY               32.2-48.3 km  1.0000  1.60E-01  1.34E-01  2.14E-01
2.25E-01  2.52E-01  2.64E-01  2.75E-01  2.83E-03   50
 L-EDEWBODY               48.3-64.4 km  1.0000  1.09E-01  1.01E-01  2.00E-01
2.13E-01 NOT-FOUND NOT-FOUND  2.40E-01  1.35E-02   22
 L-EDEWBODY               64.4-80.5 km  1.0000  6.68E-02  6.05E-02  1.05E-01
1.13E-01  1.35E-01  1.45E-01  1.96E-01  3.14E-04    5
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design


SOURCE TERM  7 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFL

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

    COHORT 2 = NO EVACUATION, RELOCATION MODELS APPLY EVERYWHERE


04/20/04   16:17:21    PAGE  53          PROB                          QUANTILES
                         PEAK       PEAK  PEAK
                                       NON-ZERO   MEAN      50TH      90TH      95TH
    99TH     99.5TH      CONS       PROB  TRIAL
HEALTH EFFECTS CASES
 ERL FAT/TOTAL               0-16.1 km  0.3837  2.14E-01  0.00E+00  7.75E-01
1.31E+00  2.76E+00  3.15E+00  5.39E+00  5.71E-05   14
 ERL INJ/PRODROMAL VOMIT     0-16.1 km  0.6599  4.63E-01  4.05E-02  1.42E+00
2.33E+00  4.90E+00  5.49E+00  9.11E+00  5.71E-05   14
 ERL INJ/DIARRHEA            0-16.1 km  0.3330  1.57E-01  0.00E+00  4.67E-01
8.26E-01  2.48E+00  3.10E+00  4.26E+00  5.71E-05   14
 ERL INJ/PNEUMONITIS         0-16.1 km  0.3837  2.14E-01  0.00E+00  7.75E-01
1.31E+00  2.76E+00  3.15E+00  5.39E+00  5.71E-05   14
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ERL INJ/THYROIDITIS	0-16.1 km	0.0000	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0
ERL INJ/HYPOTHYROIDISM	0-16.1 km	0.0623	6.67E-04	0.00E+00	0.00E+00	2.67E-03	1.61E-02	NOT-FOUND	2.74E-02
ERL INJ/SKIN ERYTHEMA	0-16.1 km	0.9877	7.02E+02	6.15E+02	1.26E+03	1.48E+03	2.04E+03	2.14E+03	2.48E+03
ERL INJ/TRANSEPIDERMAL	0-16.1 km	0.9178	1.41E+02	1.08E+02	3.12E+02	3.94E+02	5.89E+02	6.68E+02	9.57E+02
CAN FAT/TOTAL	0-16.1 km	1.0000	1.31E+02	1.11E+02	2.30E+02	2.77E+02	3.35E+02	3.55E+02	5.46E+02
CAN FAT/LUNG	0-80.5 km	1.0000	5.18E+02	2.97E+02	1.12E+03	1.80E+03	3.42E+03	3.89E+03	5.44E+03
CAN FAT/THYROID	0-80.5 km	1.0000	4.53E+00	2.03E+00	1.07E+01	1.87E+01	2.95E+01	3.53E+01	4.88E+01
CAN FAT/BREAST	0-80.5 km	1.0000	3.30E+01	1.54E+01	7.90E+01	1.15E+02	1.99E+02	2.71E+02	3.54E+02
CAN FAT/GI	0-80.5 km	1.0000	2.03E+02	1.17E+02	4.32E+02	7.22E+02	1.08E+03	1.15E+03	1.62E+03
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	5.29E+01	2.95E+01	1.20E+02	2.01E+02	2.89E+02	3.13E+02	4.42E+02
CAN FAT/BONE	0-80.5 km	1.0000	5.29E+01	3.00E+01	1.15E+02	1.92E+02	3.44E+02	3.91E+02	5.32E+02
CAN FAT/OTHER	0-80.5 km	1.0000	2.20E+02	1.23E+02	4.74E+02	7.63E+02	1.24E+03	1.39E+03	1.77E+03
CAN INJ/THYROID	0-80.5 km	1.0000	4.53E+01	2.03E+01	1.07E+02	1.87E+02	2.95E+02	3.53E+02	4.88E+02
CAN INJ/BREAST	0-80.5 km	1.0000	1.04E+02	4.75E+01	2.52E+02	4.48E+02	6.91E+02	8.70E+02	1.11E+03
CAN FAT/TOTAL	0-80.5 km	1.0000	1.08E+03	6.08E+02	2.31E+03	3.66E+03	6.52E+03	7.48E+03	9.70E+03
ERL FAT/TOTAL	0-80.5 km	0.3837	2.14E-01	0.00E+00	7.75E-01	1.31E+00	2.76E+00	3.15E+00	5.39E+00
ERL INJ/PRODROMAL VOMIT	0-80.5 km	0.6599	4.63E-01	4.05E-02	1.42E+00	2.33E+00	4.90E+00	5.49E+00	9.11E+00
ERL INJ/DIARRHEA	0-80.5 km	0.3330	1.57E-01	0.00E+00	4.67E-01	8.26E-01	2.48E+00	3.10E+00	4.26E+00
ERL INJ/PNEUMONITIS	0-80.5 km	0.3837	2.14E-01	0.00E+00	7.75E-01	1.31E+00	2.76E+00	3.15E+00	5.39E+00
ERL INJ/THYROIDITIS	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
ERL INJ/HYPOTHYROIDISM	0-80.5 km	0.0623	6.67E-04	0.00E+00	0.00E+00	2.67E-03	1.61E-02	NOT-FOUND	2.74E-02
ERL INJ/SKIN ERYTHEMA	0-80.5 km	0.9877	7.21E+02	6.17E+02	1.33E+03	1.61E+03	2.41E+03	2.83E+03	9.05E+03
ERL INJ/TRANSEPIDERMAL	0-80.5 km	0.9178	1.41E+02	1.08E+02	3.12E+02	3.94E+02	5.89E+02	6.68E+02	9.57E+02

EARLY FATALITY DISTANCE (km)

ERL FAT/TOTAL RISK > 0.000		0.6801	1.35E+00	1.16E+00	3.14E+00	3.37E+00	3.97E+00	4.26E+00	4.83E+00

POPULATION EXCEEDING DOSE

EARLY dose A-RED MARR > 1.50 Sv		0.1413	1.70E-01	0.00E+00	8.28E-01	1.25E+00	2.08E+00	2.16E+00	3.00E+00
EARLY dose A-LUNGS > 5.00 Sv		0.3837	1.93E+00	0.00E+00	5.51E+00	1.05E+01	2.10E+01	2.23E+01	3.66E+01
EARLY dose L-EDEWBODY > 2.00 Sv		0.8967	8.30E+01	6.45E+01	1.92E+02	2.45E+02	3.44E+02	3.79E+02	6.59E+02
EARLY dose L-EDEWBODY > 0.250 Sv		0.9877	1.43E+03	1.01E+03	2.62E+03	4.30E+03	7.70E+03	9.43E+03	3.70E+04

AVERAGE INDIVIDUAL RISK

ERL FAT/TOTAL	0-1.6 km	0.6801	1.50E-02	3.16E-03	3.27E-02	3.37E-02	3.97E-02	4.26E-02	4.83E-02

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3.45E-02  3.90E-02  4.11E-02  5.51E-02  4.00E-04   62
 ERL FAT/TOTAL              1.6-3.2 km  0.1551  1.16E-04  0.00E+00  1.87E-04
1.04E-03  2.09E-03  2.38E-03  3.50E-03  1.48E-03   14
 ERL FAT/TOTAL              3.2-4.8 km  0.0015  9.51E-08  0.00E+00  0.00E+00
0.00E+00  0.00E+00  0.00E+00  6.41E-05  1.48E-03   14
 ERL FAT/TOTAL              4.8-6.4 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
04/20/04   16:17:21    PAGE  54          PROB                        QUANTILES
                           PEAK      PEAK  PEAK
                                         NON-ZERO   MEAN      50TH      90TH      95TH
     99TH      99.5TH     CONS       PROB  TRIAL
AVERAGE INDIVIDUAL RISK
 ERL FAT/TOTAL              6.4-8.1 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  1.06E+03  9.28E+02  1.78E+03
2.13E+03  2.76E+03  3.04E+03  4.33E+03  8.56E-05   14
 L-EDEWBODY  TOT LIF         0-80.5 km  1.0000  1.42E+04  7.59E+03  3.04E+04
5.29E+04  9.27E+04  1.02E+05  1.24E+05  8.56E-05  116

POPULATION WEIGHTED RISK
 ERL FAT/TOTAL                0-3.2 km  0.3837  4.48E-04  0.00E+00  1.61E-03
3.11E-03  6.16E-03  7.23E-03  1.12E-02  5.71E-05   14
 CAN FAT/TOTAL               0-16.1 km  1.0000  6.37E-03  5.63E-03  1.10E-02
1.25E-02  1.67E-02  1.90E-02  2.65E-02  8.56E-05   14

PEAK DOSE FOUND ON SPATIAL GRID (Sv)
 L-EDEWBODY                   0-1.6 km  1.0000  2.77E+01  2.27E+01  5.59E+01
7.45E+01 NOT-FOUND NOT-FOUND  8.36E+01  4.23E-02   12
 L-EDEWBODY                 1.6-3.2 km  1.0000  7.16E+00  5.58E+00  1.45E+01
2.01E+01  2.26E+01  2.38E+01  2.59E+01  1.48E-03   14
 L-EDEWBODY                 3.2-4.8 km  1.0000  3.38E+00  2.62E+00  7.23E+00
8.05E+00  1.04E+01  1.20E+01  1.53E+01  1.48E-03   14
 L-EDEWBODY                 4.8-6.4 km  1.0000  1.98E+00  1.45E+00  5.01E+00
5.29E+00  6.01E+00  6.36E+00  9.63E+00  1.48E-03   14
 L-EDEWBODY                 6.4-8.1 km  1.0000  1.37E+00  1.06E+00  3.02E+00
3.35E+00  4.28E+00  4.75E+00  6.24E+00  1.48E-03   14
 L-EDEWBODY                 8.1-9.7 km  1.0000  1.00E+00  7.88E-01  2.15E+00
2.38E+00  3.00E+00  3.38E+00  4.19E+00  1.48E-03   80
 L-EDEWBODY                9.7-16.1 km  1.0000  5.28E-01  4.02E-01  1.10E+00
1.21E+00  1.52E+00  1.68E+00  2.03E+00  1.48E-03   80
 L-EDEWBODY               16.1-32.2 km  1.0000  2.08E-01  1.90E-01  3.14E-01
3.44E-01  4.26E-01  4.67E-01  6.13E-01  1.48E-03   80
 L-EDEWBODY               32.2-48.3 km  1.0000  1.60E-01  1.34E-01  2.14E-01
2.25E-01  2.52E-01  2.64E-01  2.75E-01  2.83E-03   50
 L-EDEWBODY               48.3-64.4 km  1.0000  1.09E-01  1.01E-01  2.00E-01
2.13E-01 NOT-FOUND NOT-FOUND  2.40E-01  1.35E-02   22
 L-EDEWBODY               64.4-80.5 km  1.0000  6.68E-02  6.05E-02  1.05E-01
1.13E-01  1.35E-01  1.45E-01  1.96E-01  3.14E-04    5
  DATE AND TIME OF RUN = MACCS2 04/20/04   16:17:21   VERSION 1.12

  "ATMOS"  DESCRIPTION = IN1A.INP, NAPS AP1000 Model--Using stacked ST data, ATMOS
input
  "EARLY"  DESCRIPTION = NAPS APEARLY.INP, For AP1000 Design

  "CHRONC" DESCRIPTION = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food
Model

SOURCE TERM  7 OF  7:
    RELEASE FRACTIONS OF SOURCE TERM FROM AP1000 Case CFL

RESULTS FROM THE "CHRONC" MODULE ALONE
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COHORT 3 = NAPS NCHRONC.INP, Sample Problem, "New" COMIDA2-Based Food Model

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		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	QUANTILES 50TH	90TH	95TH	99TH	99.5TH
		CONS	PROB	TRIAL						
HEALTH EFFECTS CASES										
CAN FAT/TOTAL	0-16.1 km	1.0000	6.75E+01	6.37E+01	1.06E+02	1.15E+02	1.38E+02	1.50E+02	2.23E+02	2.86E-05 91
CAN FAT/LUNG	0-80.5 km	1.0000	1.09E+02	6.65E+01	2.41E+02	3.03E+02	3.62E+02	3.90E+02	4.93E+02	5.99E-04 17
CAN FAT/THYROID	0-80.5 km	1.0000	1.04E+01	6.44E+00	2.27E+01	2.83E+01	3.69E+01	4.08E+01	5.15E+01	1.23E-03 22
CAN FAT/BREAST	0-80.5 km	1.0000	7.40E+01	4.60E+01	1.60E+02	2.09E+02	2.75E+02	3.07E+02	3.68E+02	1.23E-03 22
CAN FAT/GI	0-80.5 km	1.0000	1.86E+02	1.24E+02	3.92E+02	5.04E+02	6.48E+02	7.20E+02	8.80E+02	1.23E-03 22
CAN FAT/LEUKEMIA	0-80.5 km	1.0000	6.55E+01	4.31E+01	1.30E+02	1.66E+02	2.29E+02	2.50E+02	2.99E+02	1.23E-03 22
CAN FAT/BONE	0-80.5 km	1.0000	1.24E+01	8.35E+00	2.87E+01	3.29E+01	4.21E+01	4.69E+01	5.26E+01	5.99E-04 17
CAN FAT/OTHER	0-80.5 km	1.0000	2.04E+02	1.32E+02	4.54E+02	5.56E+02	7.47E+02	8.13E+02	9.66E+02	1.23E-03 22
CAN INJ/THYROID	0-80.5 km	1.0000	1.04E+02	6.44E+01	2.27E+02	2.83E+02	3.69E+02	4.08E+02	5.15E+02	1.23E-03 22
CAN INJ/BREAST	0-80.5 km	1.0000	2.33E+02	1.45E+02	5.29E+02	6.36E+02	8.98E+02	1.01E+03	1.16E+03	1.23E-03 22
CAN FAT/TOTAL	0-80.5 km	1.0000	6.61E+02	4.22E+02	1.33E+03	1.70E+03	2.36E+03	2.60E+03	3.09E+03	1.23E-03 22
POPULATION DOSE (Sv)										
L-EDEWBODY TOT LIF	0-16.1 km	1.0000	1.51E+03	1.27E+03	2.51E+03	2.96E+03	3.34E+03	3.50E+03	5.03E+03	2.86E-05 91
L-EDEWBODY TOT LIF	0-80.5 km	1.0000	1.48E+04	9.26E+03	3.30E+04	4.03E+04	5.51E+04	5.97E+04	7.00E+04	1.23E-03 22
POPULATION WEIGHTED RISK										
CAN FAT/TOTAL	0-16.1 km	1.0000	1.88E-04	1.65E-04	2.77E-04	3.06E-04	3.35E-04	3.48E-04	5.06E-04	7.17E-06 103
PEAK DOSE FOUND ON SPATIAL GRID (Sv)										
L-EDEWBODY	0-1.6 km	1.0000	8.56E-02	8.22E-02	1.19E-01	1.32E-01	NOT-FOUND	NOT-FOUND	1.35E-01	4.23E-02 12
L-EDEWBODY	1.6-3.2 km	1.0000	5.32E-02	5.15E-02	6.44E-02	7.03E-02	NOT-FOUND	NOT-FOUND	7.54E-02	1.10E-02 52
L-EDEWBODY	3.2-4.8 km	1.0000	4.58E-02	3.69E-02	5.23E-02	5.49E-02	NOT-FOUND	NOT-FOUND	6.10E-02	1.10E-02 52
L-EDEWBODY	4.8-6.4 km	1.0000	4.20E-02	3.15E-02	3.58E-02	3.78E-02	4.30E-02	4.54E-02	5.18E-02	1.48E-03 14
L-EDEWBODY	6.4-8.1 km	1.0000	4.01E-02	3.12E-02	3.46E-02	3.62E-02	4.01E-02	4.19E-02	4.81E-02	5.71E-04 83
L-EDEWBODY	8.1-9.7 km	1.0000	3.89E-02	3.15E-02	3.57E-02	3.78E-02	4.29E-02	NOT-FOUND	4.50E-02	5.59E-03 39
L-EDEWBODY	9.7-16.1 km	1.0000	3.67E-02	3.14E-02	3.61E-02	3.83E-02	NOT-FOUND	NOT-FOUND	4.14E-02	2.00E-02 67
L-EDEWBODY	16.1-32.2 km	1.0000	3.34E-02	3.04E-02	3.21E-02	3.29E-02	3.48E-02	3.56E-02	4.06E-02	1.14E-04 100
L-EDEWBODY	32.2-48.3 km	1.0000	2.05E-02	1.70E-02	3.19E-02	3.45E-02	NOT-FOUND	NOT-FOUND	4.06E-02	1.17E-02 17
L-EDEWBODY	48.3-64.4 km	1.0000	2.06E-02	1.87E-02	3.15E-02	3.24E-02	3.49E-02	3.60E-02	4.02E-02	4.00E-04 74

L-EDEWBODY	64.4-80.5 km	1.0000	2.25E-02	2.27E-02	3.24E-02	3.41E-02	3.83E-02	NOT-FOUND	3.99E-02
5.59E-03	29								

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

TOTAL LONG-TERM PATHWAYS DOSE		1.0000	1.48E+04	9.26E+03	3.30E+04	4.03E+04	5.51E+04	5.97E+04	7.00E+04
1.23E-03	22								
LONG-TERM DIRECT EXPOSURE PATHWAYS		1.0000	7.99E+03	4.69E+03	2.07E+04	2.56E+04	3.41E+04	3.69E+04	4.20E+04
1.66E-03	25								
TOTAL INGESTION PATHWAYS DOSE		1.0000	2.49E+02	1.82E+02	4.75E+02	6.56E+02	1.03E+03	1.17E+03	1.56E+03
9.99E-04	42								
LONG-TERM GROUNDSHINE DOSE		1.0000	6.94E+03	4.13E+03	1.70E+04	2.17E+04	2.92E+04	3.22E+04	3.73E+04
1.66E-03	25								
LONG-TERM RESUSPENSION DOSE		1.0000	1.04E+03	6.15E+02	2.61E+03	3.26E+03	4.33E+03	4.90E+03	5.21E+03
2.60E-03	42								
WATER INGESTION DOSE		1.0000	2.53E+01	2.21E+01	4.49E+01	5.26E+01	6.44E+01	7.01E+01	8.36E+01
1.14E-04	14								
POP.-DEPENDENT DECONTAMINATION DOSE		1.0000	6.36E+03	3.80E+03	1.38E+04	2.11E+04	3.24E+04	4.06E+04	5.54E+04
1.23E-03	22								

		PEAK	PEAK	PROB PEAK NON-ZERO	MEAN	50TH	90TH	95TH	QUANTILES 99TH	99.5TH	CONS	PROB	TRIAL
L-EDEWBODY POP. DOSE (Sv)	0-80.5 km												
FARM-DEPENDENT DECONTAMINATION DOSE		1.0000	2.09E+02	1.97E+02	3.29E+02	3.79E+02	5.06E+02	5.23E+02	6.75E+02	2.85E-05	86		
INGESTION OF GRAINS		1.0000	6.58E+01	3.02E+01	1.45E+02	2.68E+02	5.66E+02	6.68E+02	8.69E+02	9.99E-04	42		
INGESTION OF LEAF VEG		1.0000	6.58E+01	3.02E+01	1.45E+02	2.68E+02	5.66E+02	6.68E+02	8.69E+02	9.99E-04	42		
INGESTION OF ROOT CROPS		1.0000	2.40E+01	1.89E+01	4.57E+01	5.79E+01	9.16E+01	1.05E+02	1.27E+02	9.99E-04	42		
INGESTION OF FRUITS		1.0000	2.21E+01	1.12E+01	4.99E+01	6.93E+01	1.15E+02	1.32E+02	1.78E+02	9.99E-04	42		
INGESTION OF LEGUMES		1.0000	3.21E+01	2.76E+01	5.35E+01	6.22E+01	8.95E+01	1.02E+02	1.15E+02	9.99E-04	42		
INGESTION OF BEEF		1.0000	2.03E+01	1.43E+01	4.27E+01	5.25E+01	7.04E+01	7.44E+01	9.06E+01	4.28E-04	17		
INGESTION OF MILK		1.0000	4.31E+01	3.41E+01	8.88E+01	1.04E+02	1.25E+02	1.35E+02	1.79E+02	4.28E-04	17		
INGESTION OF POULTRY		1.0000	1.64E+00	1.06E+00	3.33E+00	4.28E+00	7.28E+00	7.80E+00	1.04E+01	1.70E-04	47		
INGESTION OF OTHER MEAT CROPS		1.0000	3.91E+00	2.70E+00	7.07E+00	1.04E+01	2.01E+01	2.27E+01	2.98E+01	9.99E-04	42		

ECONOMIC COST MEASURES ($) 0-80.5 km

TOTAL ECONOMIC COSTS		1.0000	5.68E+09	2.73E+09	1.35E+10	2.23E+10	3.19E+10	3.34E+10	3.64E+10
1.40E-03	88								
POP.-DEPENDENT COSTS		1.0000	5.60E+09	2.68E+09	1.35E+10	2.23E+10	3.19E+10	3.34E+10	3.62E+10
1.40E-03	88								
FARM-DEPENDENT COSTS		1.0000	8.02E+07	7.35E+07	1.16E+08	1.32E+08	1.79E+08	2.01E+08	2.32E+08
3.83E-05	99								
POP.-DEPENDENT DECONTAMINATION COST		1.0000	1.48E+09	6.93E+08	3.48E+09	6.13E+09	9.45E+09	1.02E+10	1.08E+10
1.40E-03	88								
FARM-DEPENDENT DECONTAMINATION COST		1.0000	5.86E+07	5.32E+07	9.01E+07	1.02E+08	1.16E+08	1.22E+08	1.77E+08
3.83E-05	99								
POP.-DEPENDENT INTERDICTION COST		1.0000	4.11E+09	2.03E+09	1.01E+10	1.50E+10	2.18E+10	2.30E+10	2.54E+10
1.40E-03	88								
FARM-DEPENDENT INTERDICTION COST		1.0000	1.98E+07	1.66E+07	3.07E+07	3.46E+07	4.56E+07	5.05E+07	6.41E+07
1.71E-04	41								
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								
FARM-DEPENDENT CONDEMNATION COST		0.9232	1.02E+06	8.49E+05	2.24E+06	2.79E+06	3.15E+06	3.22E+06	3.77E+06
5.35E-05	91								

EMERGENCY PHASE COST				0.9890	3.78E+06	2.38E+06	6.15E+06
1.18E+07	3.46E+07	4.19E+07	1.37E+08	1.23E-03	22		
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				0.9890	2.65E+04	8.50E+03	7.63E+04
1.03E+05	1.20E+05	1.27E+05	1.91E+05	5.71E-05	7		
CROP DISPOSAL COST				0.9890	7.73E+05	1.33E+05	2.24E+06
3.61E+06	8.48E+06	1.02E+07	1.58E+07	5.71E-05	41		

AFFECTED AREA/POPULATION 0-80.5 km

FARM DECONTAMINATION (HECTARES)				1.0000	5.63E+04	5.07E+04	8.64E+04
1.01E+05	1.25E+05	1.37E+05	1.79E+05	6.56E-04	40		
POP. DECONTAMINATION (INDIVIDUALS)				1.0000	2.39E+05	1.17E+05	6.41E+05
1.03E+06	1.13E+06	1.17E+06	1.33E+06	5.71E-04	40		
FARM INTERDICTION (HECTARES)				1.0000	5.63E+04	5.07E+04	8.64E+04
1.01E+05	1.25E+05	1.37E+05	1.79E+05	6.56E-04	40		
POP. INTERDICTION (INDIVIDUALS)				1.0000	2.39E+05	1.17E+05	6.41E+05
1.03E+06	1.13E+06	1.17E+06	1.33E+06	5.71E-04	40		
FARM CONDEMNATION (HECTARES)				0.9232	1.50E+02	1.14E+02	3.08E+02
3.26E+02	3.71E+02	3.92E+02	5.36E+02	1.91E-04	91		
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)				0.9890	1.45E+03	4.44E+02	4.90E+03
5.77E+03	7.36E+03	7.73E+03	8.89E+03	7.13E-04	3		
CROP DISPOSAL AREA (HECTARES)				0.9890	2.20E+03	4.72E+02	6.10E+03
8.38E+03	2.14E+04	2.49E+04	4.02E+04	8.56E-05	41		

Successful completion of MACCS2 was achieved!
This job required a total of 57.840 CPU seconds

Input processing required	0.219	CPU seconds
Simulation required	54.430	CPU seconds
Output processing required	3.191	CPU seconds