

\* MACCS input cards generated by MelMaccs Version 1.5.2  
 \* Date of creation: 10/29/2008 10:55:44 AM  
 \* MELCOR plot file opened : F:\NBixler\WinMACCS Projects\SOARCA\SurryR6  
 \Surry-LTSBO-Oct-2008\SourceTerm\04\_Surry\_LTSBO\_unmitigated.ptf  
 \* MELCOR plot file title : Case 1BYR/ 8/30/07 /11:43:46 /Surry  
 \*  
 \* Reactor Type used to calculated core inventory from MelMACCS.inf: PWR  
 \*  
 \* Chemical names as exported from MELCOR file  
 ISGRPNAM001 Xe  
 ISGRPNAM002 Cs  
 ISGRPNAM003 Ba  
 ISGRPNAM004 I  
 ISGRPNAM005 Te  
 ISGRPNAM006 Ru  
 ISGRPNAM007 Mo  
 ISGRPNAM008 Ce  
 ISGRPNAM009 La  
 \*  
 \* Number of Chemical Groups  
 ISMAXGRP001 9  
 \*  
 \* Expert deposition velocities based on linear regression of expert  
 elicited data  
 \* As of 1/14/05, unpublished work based on NUREG/CR-6244, Bixler,  
 Phillips and Morrow  
 \* See MELMACCS System Documentation for detail.  
 \* The following model parameters were used:  
 \* Surface roughness: 0.1(m)  
 \* Wind speed: 2.2(m/s)  
 \* Nominal Density of Aerosols: 1000(kg/m\*\*3)  
 \* Quantile: 0.5  
 \* Regression coefficients a, b, c, d, e, f, g:  
 \* -2.996 0.992 0.19 -0.072 2.438 16.911 0.169  
 \* PSize(1): 0.15332297 microns d\_p(1): 0.15332297 microns  
 \* PSize(2): 0.28543303 microns d\_p(2): 0.28543303 microns  
 \* PSize(3): 0.53137513 microns d\_p(3): 0.53137513 microns  
 \* PSize(4): 0.98923215 microns d\_p(4): 0.98923215 microns  
 \* PSize(5): 1.8415997 microns d\_p(5): 1.8415997 microns  
 \* PSize(6): 3.4284058 microns d\_p(6): 3.4284058 microns  
 \* PSize(7): 6.3824765 microns d\_p(7): 6.3824765 microns  
 \* PSize(8): 11.881909 microns d\_p(8): 11.881909 microns  
 \* PSize(9): 22.119903 microns d\_p(9): 20 microns  
 \* PSize(10): 41.17942 microns d\_p(10): 20 microns  
 \* Dry Deposition Velocity  
 DDVDEPOS001 5.3471E-04  
 DDVDEPOS002 4.9073E-04  
 DDVDEPOS003 6.4289E-04  
 DDVDEPOS004 1.0839E-03  
 DDVDEPOS005 2.1202E-03  
 DDVDEPOS006 4.3375E-03  
 DDVDEPOS007 8.3669E-03  
 DDVDEPOS008 1.3719E-02  
 DDVDEPOS009 1.6988E-02  
 DDVDEPOS010 1.6988E-02  
 \*  
 \* Number of releases as selected by user  
 RDNUMREL001 28  
 \*  
 \* Number of particle size groups

DDNPSGRP001 10

\*

\* DryDeposition WetDeposition

|             |         |         |
|-------------|---------|---------|
| ISDEPFLA001 | .FALSE. | .FALSE. |
| ISDEPFLA002 | .TRUE.  | .TRUE.  |
| ISDEPFLA003 | .TRUE.  | .TRUE.  |
| ISDEPFLA004 | .TRUE.  | .TRUE.  |
| ISDEPFLA005 | .TRUE.  | .TRUE.  |
| ISDEPFLA006 | .TRUE.  | .TRUE.  |
| ISDEPFLA007 | .TRUE.  | .TRUE.  |
| ISDEPFLA008 | .TRUE.  | .TRUE.  |
| ISDEPFLA009 | .TRUE.  | .TRUE.  |

\*

\* Height of the facility building (m)

|             |         |
|-------------|---------|
| WEBUILDH001 | 5.0E+01 |
| WEBUILDH002 | 5.0E+01 |
| WEBUILDH003 | 5.0E+01 |
| WEBUILDH004 | 5.0E+01 |
| WEBUILDH005 | 5.0E+01 |
| WEBUILDH006 | 5.0E+01 |
| WEBUILDH007 | 5.0E+01 |
| WEBUILDH008 | 5.0E+01 |
| WEBUILDH009 | 5.0E+01 |
| WEBUILDH010 | 5.0E+01 |
| WEBUILDH011 | 5.0E+01 |
| WEBUILDH012 | 5.0E+01 |
| WEBUILDH013 | 5.0E+01 |
| WEBUILDH014 | 5.0E+01 |
| WEBUILDH015 | 5.0E+01 |
| WEBUILDH016 | 5.0E+01 |
| WEBUILDH017 | 5.0E+01 |
| WEBUILDH018 | 5.0E+01 |
| WEBUILDH019 | 5.0E+01 |
| WEBUILDH020 | 5.0E+01 |
| WEBUILDH021 | 5.0E+01 |
| WEBUILDH022 | 5.0E+01 |
| WEBUILDH023 | 5.0E+01 |
| WEBUILDH024 | 5.0E+01 |
| WEBUILDH025 | 5.0E+01 |
| WEBUILDH026 | 5.0E+01 |
| WEBUILDH027 | 5.0E+01 |
| WEBUILDH028 | 5.0E+01 |

\*

\* Initial Sigma-Y width of plume (m)

|             |         |
|-------------|---------|
| SIGYINIT001 | 9.3E+00 |
| SIGYINIT002 | 9.3E+00 |
| SIGYINIT003 | 9.3E+00 |
| SIGYINIT004 | 9.3E+00 |
| SIGYINIT005 | 9.3E+00 |
| SIGYINIT006 | 9.3E+00 |
| SIGYINIT007 | 9.3E+00 |
| SIGYINIT008 | 9.3E+00 |
| SIGYINIT009 | 9.3E+00 |
| SIGYINIT010 | 9.3E+00 |
| SIGYINIT011 | 9.3E+00 |
| SIGYINIT012 | 9.3E+00 |
| SIGYINIT013 | 9.3E+00 |
| SIGYINIT014 | 9.3E+00 |
| SIGYINIT015 | 9.3E+00 |
| SIGYINIT016 | 9.3E+00 |

SIGYINIT017 9.3E+00  
SIGYINIT018 9.3E+00  
SIGYINIT019 9.3E+00  
SIGYINIT020 9.3E+00  
SIGYINIT021 9.3E+00  
SIGYINIT022 9.3E+00  
SIGYINIT023 9.3E+00  
SIGYINIT024 9.3E+00  
SIGYINIT025 9.3E+00  
SIGYINIT026 9.3E+00  
SIGYINIT027 9.3E+00  
SIGYINIT028 9.3E+00

\*

\* Initial Sigma-Z width of plume (m)

SIGZINIT001 2.33E+01  
SIGZINIT002 2.33E+01  
SIGZINIT003 2.33E+01  
SIGZINIT004 2.33E+01  
SIGZINIT005 2.33E+01  
SIGZINIT006 2.33E+01  
SIGZINIT007 2.33E+01  
SIGZINIT008 2.33E+01  
SIGZINIT009 2.33E+01  
SIGZINIT010 2.33E+01  
SIGZINIT011 2.33E+01  
SIGZINIT012 2.33E+01  
SIGZINIT013 2.33E+01  
SIGZINIT014 2.33E+01  
SIGZINIT015 2.33E+01  
SIGZINIT016 2.33E+01  
SIGZINIT017 2.33E+01  
SIGZINIT018 2.33E+01  
SIGZINIT019 2.33E+01  
SIGZINIT020 2.33E+01  
SIGZINIT021 2.33E+01  
SIGZINIT022 2.33E+01  
SIGZINIT023 2.33E+01  
SIGZINIT024 2.33E+01  
SIGZINIT025 2.33E+01  
SIGZINIT026 2.33E+01  
SIGZINIT027 2.33E+01  
SIGZINIT028 2.33E+01

\*

\* Particle size distribution

RDPSDIST001 1.E-01 1.E-01 1.E-01 1.E-01 1.E-01 1.E-01 1.E-01 1.E-01 1.E-01 1.E-01  
RDPSDIST002 1.7253E-03 1.2568E-02 6.1936E-02 2.0023E-01 3.3587E-01 2.5154E-01 1.0904E-01 2.3724E-02 2.3164E-03 1.0491E-03  
RDPSDIST003 6.9369E-03 3.5569E-02 1.3521E-01 3.6943E-01 3.4503E-01 8.9828E-02 1.4891E-02 2.4987E-03 2.5378E-04 3.5801E-04  
RDPSDIST004 6.4734E-03 3.2205E-02 1.2135E-01 3.2831E-01 3.5699E-01 1.3246E-01 1.8507E-02 1.9513E-03 3.1865E-04 1.4352E-03  
RDPSDIST005 7.5316E-03 3.4526E-02 1.3139E-01 3.4902E-01 3.4046E-01 1.1441E-01 1.8634E-02 2.4394E-03 2.4403E-04 1.3427E-03  
RDPSDIST006 8.8027E-03 3.7293E-02 1.3455E-01 3.2437E-01 3.1282E-01 1.2745E-01 2.7086E-02 1.0219E-02 3.3785E-03 1.4033E-02  
RDPSDIST007 2.3927E-04 3.8904E-03 2.7791E-02 1.012E-01 2.6715E-01 3.2999E-01 1.9752E-01 6.3388E-02 8.4571E-03 3.7587E-04  
RDPSDIST008 7.5168E-03 3.2176E-02 1.1484E-01 2.8536E-01 3.3381E-01 1.7277E-01 3.5887E-02 7.9682E-03 1.6544E-03 8.0223E-03

RDPSDIST009 4.8946E-03 2.3734E-02 9.2321E-02 2.5365E-01 3.442E-01  
2.0353E-01 6.1483E-02 1.1995E-02 1.3403E-03 2.8579E-03

\*

\* Representative location of plume segment.0. = leading edge, .5 = midpoint, 1. = trailing edge

RDREFTIM001 0.  
RDREFTIM002 0.5  
RDREFTIM003 0.5  
RDREFTIM004 0.5  
RDREFTIM005 0.5  
RDREFTIM006 0.5  
RDREFTIM007 0.5  
RDREFTIM008 0.5  
RDREFTIM009 0.5  
RDREFTIM010 0.5  
RDREFTIM011 0.5  
RDREFTIM012 0.5  
RDREFTIM013 0.5  
RDREFTIM014 0.5  
RDREFTIM015 0.5  
RDREFTIM016 0.5  
RDREFTIM017 0.5  
RDREFTIM018 0.5  
RDREFTIM019 0.5  
RDREFTIM020 0.5  
RDREFTIM021 0.5  
RDREFTIM022 0.5  
RDREFTIM023 0.5  
RDREFTIM024 0.5  
RDREFTIM025 0.5  
RDREFTIM026 0.5  
RDREFTIM027 0.5  
RDREFTIM028 0.5

\*

\* MELCOR Release 1.E+00 is associated with plume number 1  
\* MELCOR Release 1.E+00 is associated with plume number 2  
\* MELCOR Release 1.E+00 is associated with plume number 3  
\* MELCOR Release 1.E+00 is associated with plume number 4  
\* MELCOR Release 1.E+00 is associated with plume number 5  
\* MELCOR Release 1.E+00 is associated with plume number 6  
\* MELCOR Release 1.E+00 is associated with plume number 7  
\* MELCOR Release 1.E+00 is associated with plume number 8  
\* MELCOR Release 1.E+00 is associated with plume number 9  
\* MELCOR Release 1.E+00 is associated with plume number 10  
\* MELCOR Release 1.E+00 is associated with plume number 11  
\* MELCOR Release 1.E+00 is associated with plume number 12  
\* MELCOR Release 1.E+00 is associated with plume number 13  
\* MELCOR Release 1.E+00 is associated with plume number 14  
\* MELCOR Release 1.E+00 is associated with plume number 15  
\* MELCOR Release 1.E+00 is associated with plume number 16  
\* MELCOR Release 1.E+00 is associated with plume number 17  
\* MELCOR Release 1.E+00 is associated with plume number 18  
\* MELCOR Release 1.E+00 is associated with plume number 19  
\* MELCOR Release 1.E+00 is associated with plume number 20  
\* MELCOR Release 1.E+00 is associated with plume number 21  
\* MELCOR Release 1.E+00 is associated with plume number 22  
\* MELCOR Release 1.E+00 is associated with plume number 23  
\* MELCOR Release 1.E+00 is associated with plume number 24  
\* MELCOR Release 1.E+00 is associated with plume number 25  
\* MELCOR Release 1.E+00 is associated with plume number 26

\* MELCOR Release 1.E+00 is associated with plume number 27

\* MELCOR Release 1.E+00 is associated with plume number 28

\* Plume Duration

RDPLUDUR001 3.6001E+03  
RDPLUDUR002 3.6002E+03  
RDPLUDUR003 3.5998E+03  
RDPLUDUR004 3.600E+03  
RDPLUDUR005 3.7201E+03  
RDPLUDUR006 3.4799E+03  
RDPLUDUR007 3.5999E+03  
RDPLUDUR008 3.600E+03  
RDPLUDUR009 3.6001E+03  
RDPLUDUR010 3.6001E+03  
RDPLUDUR011 3.5999E+03  
RDPLUDUR012 3.6001E+03  
RDPLUDUR013 3.600E+03  
RDPLUDUR014 3.5999E+03  
RDPLUDUR015 3.600E+03  
RDPLUDUR016 3.6001E+03  
RDPLUDUR017 3.6001E+03  
RDPLUDUR018 3.600E+03  
RDPLUDUR019 3.600E+03  
RDPLUDUR020 3.5999E+03  
RDPLUDUR021 3.600E+03  
RDPLUDUR022 3.6001E+03  
RDPLUDUR023 3.600E+03  
RDPLUDUR024 3.5998E+03  
RDPLUDUR025 3.6001E+03  
RDPLUDUR026 3.720E+03  
RDPLUDUR027 2.4001E+03  
RDPLUDUR028 1.197E+02

\*

\* Start Time of Release

RDPDELAY001 1.6308E+05  
RDPDELAY002 1.6668E+05  
RDPDELAY003 1.7028E+05  
RDPDELAY004 1.7388E+05  
RDPDELAY005 1.7748E+05  
RDPDELAY006 1.812E+05  
RDPDELAY007 1.8468E+05  
RDPDELAY008 1.8828E+05  
RDPDELAY009 1.9188E+05  
RDPDELAY010 1.9548E+05  
RDPDELAY011 1.9908E+05  
RDPDELAY012 2.0268E+05  
RDPDELAY013 2.0628E+05  
RDPDELAY014 2.0988E+05  
RDPDELAY015 2.1348E+05  
RDPDELAY016 2.1708E+05  
RDPDELAY017 2.2068E+05  
RDPDELAY018 2.2428E+05  
RDPDELAY019 2.2788E+05  
RDPDELAY020 2.3148E+05  
RDPDELAY021 2.3508E+05  
RDPDELAY022 2.3868E+05  
RDPDELAY023 2.4228E+05  
RDPDELAY024 2.4588E+05  
RDPDELAY025 2.4948E+05  
RDPDELAY026 2.5308E+05  
RDPDELAY027 2.568E+05

RDPDELAY028 2.592E+05

\*

\* Initial plume height

RDPLHITE001 8.4E+00  
RDPLHITE002 8.4E+00  
RDPLHITE003 8.4E+00  
RDPLHITE004 8.4E+00  
RDPLHITE005 8.4E+00  
RDPLHITE006 8.4E+00  
RDPLHITE007 8.4E+00  
RDPLHITE008 8.4E+00  
RDPLHITE009 8.4E+00  
RDPLHITE010 8.4E+00  
RDPLHITE011 8.4E+00  
RDPLHITE012 8.4E+00  
RDPLHITE013 8.4E+00  
RDPLHITE014 8.4E+00  
RDPLHITE015 8.4E+00  
RDPLHITE016 8.4E+00  
RDPLHITE017 8.4E+00  
RDPLHITE018 8.4E+00  
RDPLHITE019 8.4E+00  
RDPLHITE020 8.4E+00  
RDPLHITE021 8.4E+00  
RDPLHITE022 8.4E+00  
RDPLHITE023 8.4E+00  
RDPLHITE024 8.4E+00  
RDPLHITE025 8.4E+00  
RDPLHITE026 8.4E+00  
RDPLHITE027 8.4E+00  
RDPLHITE028 8.4E+00

\*

\* Flag indicating plume buoyancy model

RDPLMMOD001 DENSITY

\*

\* Heat in Watts (or J/s)

RDPLHEAT001 5.1129E+04  
RDPLHEAT002 1.1361E+05  
RDPLHEAT003 2.0678E+05  
RDPLHEAT004 3.0533E+05  
RDPLHEAT005 3.8146E+05  
RDPLHEAT006 4.4392E+05  
RDPLHEAT007 4.8236E+05  
RDPLHEAT008 5.0746E+05  
RDPLHEAT009 5.2476E+05  
RDPLHEAT010 5.3774E+05  
RDPLHEAT011 5.4825E+05  
RDPLHEAT012 5.5903E+05  
RDPLHEAT013 5.7133E+05  
RDPLHEAT014 5.7534E+05  
RDPLHEAT015 5.7919E+05  
RDPLHEAT016 5.8467E+05  
RDPLHEAT017 5.9375E+05  
RDPLHEAT018 6.0221E+05  
RDPLHEAT019 6.1097E+05  
RDPLHEAT020 6.1662E+05  
RDPLHEAT021 6.222E+05  
RDPLHEAT022 6.3258E+05  
RDPLHEAT023 6.5642E+05  
RDPLHEAT024 6.5245E+05

RDPLHEAT025 6.4563E+05  
RDPLHEAT026 6.3731E+05  
RDPLHEAT027 6.2965E+05  
RDPLHEAT028 6.2677E+05

\*

\* Mass Flow Rate (kg/s)

RDPLMFLA001 1.7707E-01  
RDPLMFLA002 3.8938E-01  
RDPLMFLA003 7.0088E-01  
RDPLMFLA004 1.0243E+00  
RDPLMFLA005 1.266E+00  
RDPLMFLA006 1.4577E+00  
RDPLMFLA007 1.5681E+00  
RDPLMFLA008 1.6334E+00  
RDPLMFLA009 1.6727E+00  
RDPLMFLA010 1.698E+00  
RDPLMFLA011 1.7154E+00  
RDPLMFLA012 1.733E+00  
RDPLMFLA013 1.756E+00  
RDPLMFLA014 1.7535E+00  
RDPLMFLA015 1.7509E+00  
RDPLMFLA016 1.7536E+00  
RDPLMFLA017 1.7676E+00  
RDPLMFLA018 1.7798E+00  
RDPLMFLA019 1.7924E+00  
RDPLMFLA020 1.7965E+00  
RDPLMFLA021 1.8011E+00  
RDPLMFLA022 1.8119E+00  
RDPLMFLA023 1.8078E+00  
RDPLMFLA024 1.7569E+00  
RDPLMFLA025 1.7068E+00  
RDPLMFLA026 1.6573E+00  
RDPLMFLA027 1.617E+00  
RDPLMFLA028 1.6009E+00

\*

\* Gas Density (kg/m3)

RDPLMDEN001 4.8531E-01  
RDPLMDEN002 4.8291E-01  
RDPLMDEN003 4.8068E-01  
RDPLMDEN004 4.7854E-01  
RDPLMDEN005 4.7639E-01  
RDPLMDEN006 4.743E-01  
RDPLMDEN007 4.7235E-01  
RDPLMDEN008 4.7042E-01  
RDPLMDEN009 4.6855E-01  
RDPLMDEN010 4.6673E-01  
RDPLMDEN011 4.6496E-01  
RDPLMDEN012 4.6319E-01  
RDPLMDEN013 4.6151E-01  
RDPLMDEN014 4.599E-01  
RDPLMDEN015 4.5833E-01  
RDPLMDEN016 4.5679E-01  
RDPLMDEN017 4.5532E-01  
RDPLMDEN018 4.5389E-01  
RDPLMDEN019 4.5245E-01  
RDPLMDEN020 4.5111E-01  
RDPLMDEN021 4.4982E-01  
RDPLMDEN022 4.4794E-01  
RDPLMDEN023 4.4197E-01  
RDPLMDEN024 4.3869E-01

RDPLMDEN025 4.3599E-01  
RDPLMDEN026 4.3357E-01  
RDPLMDEN027 4.3173E-01  
RDPLMDEN028 4.3099E-01  
\*  
\* Scaling Factor to adjust core inventory for power level  
RDCORSCA001 1.0  
\*  
\*                   Xe    Cs    Ba    I    Te    Ru    Mo    Ce    La  
RDRELFRC001 3.3619E-03 3.5019E-06 5.3109E-07 3.6182E-05 5.0925E-05  
7.7718E-08 2.6865E-07 1.9271E-07 1.2147E-08  
RDRELFRC002 7.2041E-03 7.082E-06 1.0291E-06 7.4314E-05 1.0437E-04  
1.5184E-07 5.223E-07 3.7698E-07 2.4203E-08  
RDRELFRC003 1.2655E-02 1.1665E-05 1.639E-06 1.2379E-04 1.7461E-04  
2.4386E-07 8.354E-07 6.0619E-07 3.9646E-08  
RDRELFRC004 1.8035E-02 1.5483E-05 2.1676E-06 1.6563E-04 2.3638E-04  
3.1838E-07 1.0867E-06 7.9248E-07 5.2824E-08  
RDRELFRC005 2.2437E-02 1.7947E-05 2.5149E-06 1.935E-04 2.7876E-04  
3.629E-07 1.2342E-06 9.0459E-07 6.1522E-08  
RDRELFRC006 2.3541E-02 1.7607E-05 2.4712E-06 1.9131E-04 2.7793E-04  
3.5009E-07 1.1859E-06 8.7396E-07 6.0666E-08  
RDRELFRC007 2.5518E-02 1.7908E-05 2.5187E-06 1.9609E-04 2.8732E-04  
3.5005E-07 1.1808E-06 8.752E-07 6.2038E-08  
RDRELFRC008 2.5869E-02 1.7058E-05 2.4056E-06 1.8828E-04 2.7852E-04  
3.2748E-07 1.0996E-06 8.2015E-07 5.9446E-08  
RDRELFRC009 2.5774E-02 1.601E-05 2.2653E-06 1.7815E-04 2.6649E-04  
3.0164E-07 1.0077E-06 7.5682E-07 5.6152E-08  
RDRELFRC010 2.5443E-02 1.4927E-05 2.1202E-06 1.6748E-04 2.5388E-04  
2.7579E-07 9.1592E-07 6.9331E-07 5.2712E-08  
RDRELFRC011 2.4986E-02 1.3881E-05 1.9804E-06 1.5707E-04 2.4196E-04  
2.5129E-07 8.2899E-07 6.3304E-07 4.9374E-08  
RDRELFRC012 2.4532E-02 1.2938E-05 1.855E-06 1.4767E-04 2.3202E-04  
2.293E-07 7.5038E-07 5.7892E-07 4.6369E-08  
RDRELFRC013 2.4152E-02 1.2116E-05 1.7464E-06 1.3955E-04 2.2464E-04  
2.1003E-07 6.809E-07 5.3155E-07 4.3761E-08  
RDRELFRC014 2.3429E-02 1.1209E-05 1.6248E-06 1.3029E-04 2.1578E-04  
1.8986E-07 6.0901E-07 4.8172E-07 4.0807E-08  
RDRELFRC015 2.2713E-02 1.0394E-05 1.5157E-06 1.2196E-04 2.0854E-04  
1.7184E-07 5.4461E-07 4.3719E-07 3.8147E-08  
RDRELFRC016 2.2076E-02 9.6878E-06 1.4217E-06 1.1476E-04 2.0329E-04  
1.5615E-07 4.8818E-07 3.9846E-07 3.585E-08  
RDRELFRC017 2.1585E-02 9.1063E-06 1.3453E-06 1.0893E-04 2.0049E-04  
1.4295E-07 4.4002E-07 3.659E-07 3.398E-08  
RDRELFRC018 2.1076E-02 8.5689E-06 1.2748E-06 1.0351E-04 1.9849E-04  
1.3084E-07 3.9573E-07 3.3604E-07 3.2244E-08  
RDRELFRC019 2.0577E-02 8.081E-06 1.2109E-06 9.861E-05 1.9756E-04  
1.1989E-07 3.5517E-07 3.0901E-07 3.0664E-08  
RDRELFRC020 1.9992E-02 7.6014E-06 1.147E-06 9.3706E-05 1.9684E-04  
1.0943E-07 3.1674E-07 2.831E-07 2.9074E-08  
RDRELFRC021 1.942E-02 7.1701E-06 1.0889E-06 8.9259E-05 1.9699E-04  
9.997E-08 2.8276E-07 2.5968E-07 2.7621E-08  
RDRELFRC022 1.8953E-02 6.814E-06 1.041E-06 8.5629E-05 1.9878E-04 9.185E-  
08 2.5391E-07 2.3961E-07 2.6419E-08  
RDRELFRC023 1.8729E-02 6.5743E-06 9.9396E-07 8.336E-05 2.0407E-04  
8.5522E-08 2.3114E-07 2.2412E-07 2.5628E-08  
RDRELFRC024 1.8132E-02 6.2255E-06 9.119E-07 7.9633E-05 2.0804E-04  
7.7889E-08 2.0585E-07 2.0512E-07 2.4364E-08  
RDRELFRC025 1.7542E-02 5.9113E-06 8.3737E-07 7.6255E-05 2.1662E-04  
7.0837E-08 1.8327E-07 1.8755E-07 2.3181E-08  
RDRELFRC026 1.7517E-02 5.8169E-06 7.9464E-07 7.5656E-05 2.3966E-04



6.6387E-08 1.6839E-07 1.7682E-07 2.2798E-08  
RDRELFRC027 1.098E-02 3.6155E-06 4.7829E-07 4.733E-05 1.6734E-04  
3.9433E-08 9.86E-08 1.0561E-07 1.4128E-08  
RDRELFRC028 5.4139E-04 1.7782E-07 2.3196E-08 2.3337E-06 8.6776E-06  
1.9013E-09 4.733E-09 5.1041E-09 6.9349E-10

\*  
\* Initial Core Mass from MELCOR Chemical Group Xe : 448.10004 kg  
\* Initial Core Mass from MELCOR Chemical Group Cs : 251.78614 kg  
\* Initial Core Mass from MELCOR Chemical Group Ba : 187.60002 kg  
\* Initial Core Mass from MELCOR Chemical Group I : 17.007623 kg  
\* Initial Core Mass from MELCOR Chemical Group Te : 40.900004 kg  
\* Initial Core Mass from MELCOR Chemical Group Ru : 309.50003 kg  
\* Initial Core Mass from MELCOR Chemical Group Mo : 323.52629 kg  
\* Initial Core Mass from MELCOR Chemical Group Ce : 1225.9001 kg  
\* Initial Core Mass from MELCOR Chemical Group La : 621.20006 kg  
\* Number of radionuclides belonging to chemical groups user selected  
ISNUMISO001 69

\*  
\* Data in melmaccs.inf is used to map radionuclide to the corresponding  
chemical group

ISOTPGRP001 Kr-85 1  
ISOTPGRP002 Kr-85m 1  
ISOTPGRP003 Kr-87 1  
ISOTPGRP004 Kr-88 1  
ISOTPGRP005 Xe-133 1  
ISOTPGRP006 Xe-135 1  
ISOTPGRP007 Xe-135m 1  
ISOTPGRP008 Cs-134 2  
ISOTPGRP009 Cs-136 2  
ISOTPGRP010 Cs-137 2  
ISOTPGRP011 Rb-86 2  
ISOTPGRP012 Rb-88 2  
ISOTPGRP013 Ba-139 3  
ISOTPGRP014 Ba-140 3  
ISOTPGRP015 Sr-89 3  
ISOTPGRP016 Sr-90 3  
ISOTPGRP017 Sr-91 3  
ISOTPGRP018 Sr-92 3  
ISOTPGRP019 Ba-137m 3  
ISOTPGRP020 I-131 4  
ISOTPGRP021 I-132 4  
ISOTPGRP022 I-133 4  
ISOTPGRP023 I-134 4  
ISOTPGRP024 I-135 4  
ISOTPGRP025 Te-127 5  
ISOTPGRP026 Te-127m 5  
ISOTPGRP027 Te-129 5  
ISOTPGRP028 Te-129m 5  
ISOTPGRP029 Te-131m 5  
ISOTPGRP030 Te-132 5  
ISOTPGRP031 Te-131 5  
ISOTPGRP032 Rh-105 6  
ISOTPGRP033 Ru-103 6  
ISOTPGRP034 Ru-105 6  
ISOTPGRP035 Ru-106 6  
ISOTPGRP036 Rh-103m 6  
ISOTPGRP037 Rh-106 6  
ISOTPGRP038 Nb-95 7  
ISOTPGRP039 Co-58 7  
ISOTPGRP040 Co-60 7

ISOTPGRP041 Mo-99 7  
ISOTPGRP042 Tc-99m 7  
ISOTPGRP043 Nb-97 7  
ISOTPGRP044 Nb-97m 7  
ISOTPGRP045 Ce-141 8  
ISOTPGRP046 Ce-143 8  
ISOTPGRP047 Ce-144 8  
ISOTPGRP048 Np-239 8  
ISOTPGRP049 Pu-238 8  
ISOTPGRP050 Pu-239 8  
ISOTPGRP051 Pu-240 8  
ISOTPGRP052 Pu-241 8  
ISOTPGRP053 Zr-95 8  
ISOTPGRP054 Zr-97 8  
ISOTPGRP055 Am-241 9  
ISOTPGRP056 Cm-242 9  
ISOTPGRP057 Cm-244 9  
ISOTPGRP058 La-140 9  
ISOTPGRP059 La-141 9  
ISOTPGRP060 La-142 9  
ISOTPGRP061 Nd-147 9  
ISOTPGRP062 Pr-143 9  
ISOTPGRP063 Y-90 9  
ISOTPGRP064 Y-91 9  
ISOTPGRP065 Y-92 9  
ISOTPGRP066 Y-93 9  
ISOTPGRP067 Y-91m 9  
ISOTPGRP068 Pr-144 9  
ISOTPGRP069 Pr-144m 9

\*

\* Data in melmaccs.inf used to calculate core inventory (Becquerels)

RDCORINV001 Kr-85 2.9356E+16  
RDCORINV002 Kr-85m 8.0716E+17  
RDCORINV003 Kr-87 1.5981E+18  
RDCORINV004 Kr-88 2.141E+18  
RDCORINV005 Xe-133 6.0651E+18  
RDCORINV006 Xe-135 1.799E+18  
RDCORINV007 Xe-135m 1.2894E+18  
RDCORINV008 Cs-134 4.315E+17  
RDCORINV009 Cs-136 1.5689E+17  
RDCORINV010 Cs-137 3.0519E+17  
RDCORINV011 Rb-86 5.3634E+15  
RDCORINV012 Rb-88 2.1578E+18  
RDCORINV013 Ba-139 5.541E+18  
RDCORINV014 Ba-140 5.3674E+18  
RDCORINV015 Sr-89 2.9825E+18  
RDCORINV016 Sr-90 2.2719E+17  
RDCORINV017 Sr-91 3.7481E+18  
RDCORINV018 Sr-92 4.0042E+18  
RDCORINV019 Ba-137m 2.9227E+17  
RDCORINV020 I-131 2.7847E+18  
RDCORINV021 I-132 4.0849E+18  
RDCORINV022 I-133 5.7642E+18  
RDCORINV023 I-134 6.4827E+18  
RDCORINV024 I-135 5.4878E+18  
RDCORINV025 Te-127 2.6042E+17  
RDCORINV026 Te-127m 4.2245E+16  
RDCORINV027 Te-129 7.7907E+17  
RDCORINV028 Te-129m 1.4886E+17  
RDCORINV029 Te-131m 5.7109E+17

RDCORINV030 Te-132 4.2867E+18  
RDCORINV031 Te-131 2.5506E+18  
RDCORINV032 Rh-105 2.9048E+18  
RDCORINV033 Ru-103 4.612E+18  
RDCORINV034 Ru-105 3.1426E+18  
RDCORINV035 Ru-106 1.3989E+18  
RDCORINV036 Rh-103m 4.6063E+18  
RDCORINV037 Rh-106 1.5634E+18  
RDCORINV038 Nb-95 5.1753E+18  
RDCORINV039 Co-58 4.7871E+13  
RDCORINV040 Co-60 2.6513E+14  
RDCORINV041 Mo-99 5.6835E+18  
RDCORINV042 Tc-99m 5.0327E+18  
RDCORINV043 Nb-97 5.2438E+18  
RDCORINV044 Nb-97m 4.9469E+18  
RDCORINV045 Ce-141 4.8717E+18  
RDCORINV046 Ce-143 4.546E+18  
RDCORINV047 Ce-144 3.4184E+18  
RDCORINV048 Np-239 5.6682E+19  
RDCORINV049 Pu-238 8.3065E+15  
RDCORINV050 Pu-239 9.5573E+14  
RDCORINV051 Pu-240 1.1667E+15  
RDCORINV052 Pu-241 3.3938E+17  
RDCORINV053 Zr-95 4.9593E+18  
RDCORINV054 Zr-97 4.9976E+18  
RDCORINV055 Am-241 3.433E+14  
RDCORINV056 Cm-242 1.1361E+17  
RDCORINV057 Cm-244 1.1291E+16  
RDCORINV058 La-140 5.6659E+18  
RDCORINV059 La-141 5.0976E+18  
RDCORINV060 La-142 4.9216E+18  
RDCORINV061 Nd-147 2.0367E+18  
RDCORINV062 Pr-143 4.6533E+18  
RDCORINV063 Y-90 2.393E+17  
RDCORINV064 Y-91 3.9321E+18  
RDCORINV065 Y-92 4.1052E+18  
RDCORINV066 Y-93 4.6158E+18  
RDCORINV067 Y-91m 2.204E+18  
RDCORINV068 Pr-144 3.6321E+18  
RDCORINV069 Pr-144m 5.0572E+16

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