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# **WinMACCS, a MACCS2 Interface for Calculating Health and Economic Consequences from Accidental Release of Radioactive Materials into the Atmosphere**

## **User's Guide and Reference Manual for WinMACCS Version 3\***

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Prepared by  
K. McFadden, Sigma Software LLC  
N. E. Bixler, Sandia National Laboratories  
Lee Eubanks, Architrave Software Inc. R. Haaker, AQ Safety, Inc.

Sigma Software, LLC  
PO Box 1561  
Peralta, NM 87042

Sandia National Laboratories  
PO Box 5800  
Albuquerque, NM 87185-0748

Architrave Software Inc. 8500 Menaul Blvd. NE, Suite B335  
Albuquerque NM 87112

AQ Safety, Inc.  
11024 Montgomery NE, PMB 294  
Albuquerque, NM 87111

J. A. Mitchell, NRC Senior Level Technical Advisor  
C. Navarro, NRC Project Manager

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**U.S. Nuclear Regulatory Commission**  
**Washington, DC 20555-0001**

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optionally enter comments on this form. Details about these parameters are provided in the subsections referenced below.

POPFLG determines the source of the population data. The value is set to FILE if the population is provided by a file either generated by the preprocessor, SECPOP, or in a format consistent with SECPOP generated files. The value is set to UNIFORM if the population is to be treated as uniformly distributed.

WTNAM determines the method used for combining results from different cohorts when generating overall sums. The most common values used are PEOPLE or TIME. In these cases, the weighting factor for each cohort is determined by the value of variable WTFRAC. Results from CHRONC are included as a separate cohort, and are simply added to the weighted results from EARLY. If WTNAM is set to SUMPOP, then the population for each cohort is present in the site file under headings POPULATION1, POPULATION2, etc. This would be entered manually in the site data file since SECPOP does not support this option.

KIMODL determines whether consequence calculations consider potassium iodide (KI) ingestion. The value is set to KI if this is to be considered or NOKI if it is not to be considered. If considered, variables regarding the percentage of the population ingesting KI and its efficacy must be defined.

DOSMOD determines which model is used for calculating dose. The choices are Linear No Threshold (LNT), Annual Threshold, or Piecewise Linear. The simplest and traditional choice is the LNT model, where only one dose conversion factor (DCF) file is required, which contains 50-year committed dose conversion factors. Other choices require further user input with respect to threshold values and a set of 51 DCF files used to calculate dose. The additional set of 50 files break down the dose commitment period of 50 years into annual doses resulting from an exposure.

EVATYP determines the evacuation model. The choices are NONE, RADIAL, or NETWORK. If RADIAL or NETWORK is chosen, further user input to define evacuation behavior is required.

OVRRID is set to either True or False. This allows the user to override the default values used for the wind rose probabilities. If either uniform or nonuniform weather bin sampling is selected, then by default the wind rose probabilities are calculated from the weather file; otherwise, by default equal probabilities are assumed for each of the compass directions. This option should generally not be used unless a meteorological file is not available for the actual site being studied, i.e., the meteorological file is borrowed from another site. This option allows local wind rose characteristics to replace those contained in the meteorological data file.

IPLUME determines details regarding the plume dispersion model. If set to one, no wind shift is assumed. In this case, all plumes travel in the same direction as the first plume; wind rotation is used in this case. If set to two, both wind shift and wind rotation are used. In this case, each plume segment travels in the direction that the wind is blowing at the time that its representative