

New MELCOR 2.1 Code Features

Nastasia Mosunova

(Nuclear Safety Institute of Russian Academy of Sciences)

New capabilities added to MELCOR 2.1 code version are considered.

- Activity calculations model. For radiological impact estimation it's necessary to have activity values. Previous MELCOR versions output masses of RN classes and user should perform additional calculations to obtain activities. To simplify users' work activity calculation model has been developed, implemented in the code and tested on the wide range of input decks.
- Smart CF-TF from restart capability. Previous MELCOR code versions has a very limited capability of modifying control function using a restart file (can only change min and max values) and there is no ability to change tabular functions from the restart at all. For user convenience and flexibility the adding of new control functions and tabular functions in input or changing of any parameters are allowed starting from MELCOR 2.1 code version.