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T1.3-P04. Atmospheric Dispersion During Normal & Accidental Release

Ground contamination level due to dry and wet deposition can also be computed for this model. a- first step in the process of dose evaluation is the computation of air concentration of the released radio nuclides using appropriate atmospheric dispersion model. b- second step is to compute inhalation ,immersion and external gamma doses due to the passage of the plume(in case of continuous and short time release).this requires use of an appropriate dosemetric model .ingestion dose due to ground contamination needs the use of an appropriate environmental model. Computation of air concentration and ground contamination using input data on source term, met data and site characteristics, then the dose can be computed easily by multiplying the (time integrated) concentration by recalculated dose factors for the particular nuclides and route. Typical input information required for step (a) *Source term which specifies * The quantity of nuclides*Mode of release (height, velocity, etc.). *Met parameters -The concentration and doses are directly proportional to source strength and inversely to the wind, once the plume enters the atmosphere it is subjected to transport by wind and diffusion by turbulent. -Processes affecting concentration (wake effect, 0decay, build up daughters, deposition , sedimentation, rain).

Primary author: MALKAWI, Ahmad (Jordan Atomic Energy Commission)

Presenter: MALKAWI, Ahmad (Jordan Atomic Energy Commission)

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