![KINECTRICS]

Radiological Safety Analysis Software

Radiological safety analysis evaluates the consequences of routine or accidental releases of radioactivity to the environment.

Leveraging decades of expertise in nuclear software development, qualification and use, we have developed software for radiological safety analysis that offer many advantages, including:

Easy to Use

Our software is specifically designed to be user-friendly. It offers intuitive navigation and a straightforward graphical interface, ensuring a hassle-free experience while maintaining robust performance.

Wide Range of Applications

Our software is versatile, supporting various applications such as site evaluation studies, deterministic and probabilistic safety assessments, emergency planning, plant habitability assessment, design assist analysis, normal operations, and decommissioning.

Compliance

Our software is built to meet current nuclear standards, including CSA N288, CSA 286.7, and NQA-1 (for ORCA), ensuring usability across a broad range of jurisdictions.

Proven Track Record

Our tools have been successfully used to license nuclear facilities in a broad range of jurisdictions.
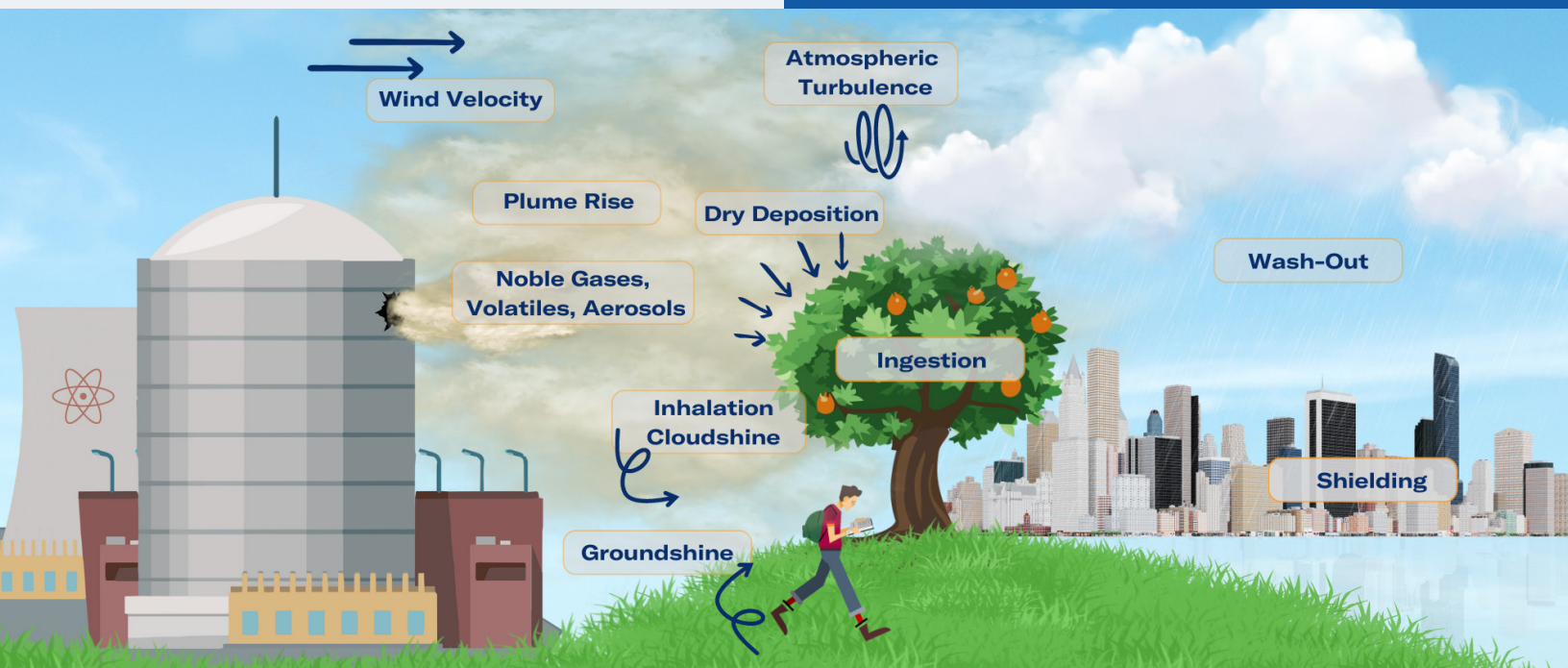
ORCA (On/Off-site Radiological Consequences of Accidents) calculates atmospheric dispersion and radiological doses following accidental airborne releases from nuclear facilities, following CSA Standard N288.2. The code supports calculations for facilities close to site boundaries (known as the near field) with the implementation of the dispersion parametrizations in NUREG/CR-6331, which is consistent with software accepted by the U.S. NRC.

- Assess the radiological consequences during nuclear accidents

RINO (Radiological Impacts of Normal Operation) models the public's radiation exposure from radionuclides released by nuclear facilities during normal operation, following CSA Standard N288.1. The software also evaluates the impact of conventional and radiological contaminants on non-human biota for nuclear facilities, following the CSA Standard N288.6. RINO can also compute the Derived Release Limits (DRLs) for nuclear facilities, which need regulatory approval and are part of the operating license.

- Assess the off-site radiological consequences during normal operation of nuclear facilities

- Screening level assessment of the effect of conventional contamination on the environment

Comprehensive Radiological Safety Analysis

- **Environmental Modeling:** Predicts radioactive material concentrations in air, water, soil, plants, and animals by considering the characteristics of the radioactive release and the nuclear facility.

- **Exposure Pathways:** Assesses radiological consequences by accounting for a variety of exposure pathways including inhalation, cloudshine, groundshine, and ingestion, as appropriate.

- **Regulatory Compliance:** The results of the analysis are used to demonstrate compliance with dose limits set by the regulator.

Let's work together! Scan to learn more.

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