



MicroSkyshine[®] Version 5

MicroSkyshine[®] Version 5 calculates the photon dose from sky scattered gamma radiation. MicroSkyshine[®] is used to evaluate conformance with 10 CFR 50, Appendix I ALARA requirements and 40 CFR 190 fuel cycle exposure criteria. Typical applications include scattering from BWR turbine buildings and radwaste storage facilities.

MicroSkyshine[®]'s analytical method of solution is based on the use of "beam functions" for a point source. This method was developed for NUREG/CR-0781 (May 1979), which resulted from an NRC-sponsored effort. However, MicroSkyshine[®] reflects the efforts of analysts at Kansas State University, who further improved the method.

Updates to MicroSkyshine[®] Version 5 include

- Improved Microsoft Windows[®] 10 compatibility
- Updated graphics for all geometries
- Added compatibility for the latest versions of Microsoft[®] Excel and Word
- Installation process has been enhanced and is now compatible with Microsoft[®] System Center Configuration Manager
- Check for Update feature has been added

MicroSkyshine[®]'s features include

- A variety of silo and wall geometries along with dimensional data in meters, centimeters, feet, or inches.
- The scattering medium is air, and the Berger method is used for calculating buildup in an overhead shield. Any one of seven materials can be selected for this purpose. Built-in library data (radionuclides, attenuation, buildup).
- Source decay can be calculated and daughters generated.
- As many as twenty energy groups (with an energy range of 100 keV to 10 MeV) may be created; total concentration entries are automatically converted to curies.
- All calculations performed by MicroSkyshine[®] assume that the silo wall or vertical wall is a perfect shield; that is, radiation through the walls will not be calculated.

MicroSkyshine[®] Version 5 is compatible with Microsoft Windows[®] 10, 8/8.1, 7, Vista[®], and XP[®] along with Microsoft[®] .Net Framework Version 1.1 or newer. For exporting results to Microsoft Excel[®] and Word[®], Microsoft Office[®] 2003 or newer is required. Complete installation may require up to 50MB of hard disk space.

License Types: Subscription licenses which permit installation as a Single User, Local Area Site License, and Wide Area Site License.