Terrain

What is the difference between "Complex" and "Complex + Simple" terrain?

Complex terrain is any terrain that is located above the stack height or above the release height. Terrain below the release height is referred to as simple terrain. Use of the Complex Terrain option forces the metorology to be stability class F (or E for urban areas) with a stack height wind speed of 2.5 m/s.

The Complex + Simple Terrain modeling is used for intermediate terrain. 'Intermediate terrain' is defined as terrain that exceeds the height of the release, but is below the plume centerline height.

If the plume height is equal to or exceeds the terrain height, then that receptor is defined as having complex terrain, and the concentration is based on the complex terrain screening algorithm only. If the terrain height is below the plume height but exceeds the physical release height, then that receptor is defined as having intermediate terrain. For intermediate terrain receptors, concentrations from both the simple terrain algorithm and the complex terrain algorithm are obtained and the higher of the two concentrations is used. If the terrain height is less than or equal to the physical release height, then that receptor is defined as simple terrain, and the concentration is based on the simple terrain algorithm only.

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