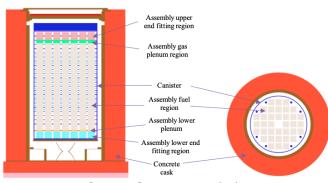
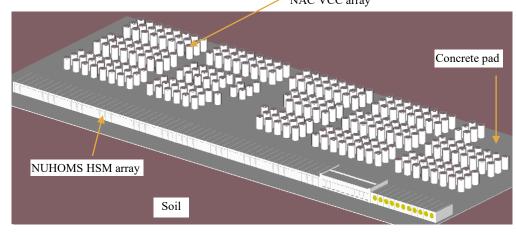
## SCALE 6.2.3/MAVRIC Model of a Proposed Consolidated Interim Storage Facility\* for Skyshine Dose Rate Calculations

Georgeta Radulescu, Kaushik Banerjee, Douglas Peplow, and Thomas Miller

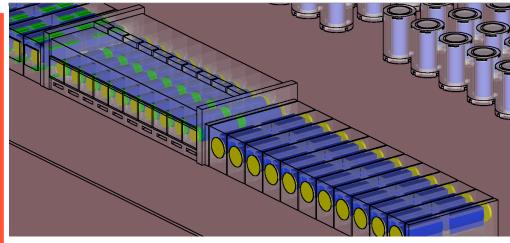
- 5,000 MTHM: 319 NAC vertical concrete casks (VCCs) and 148 NUHOMS horizontal storage modules (HSMs)
- 7 different cask systems: NAC-Universal Multi-Purpose Storage, NAC- Multi-Purpose Canister (MPC) Connecticut Yankee (CY), NAC-MPC Yankee Rowe (YR), NAC-MAGNASTOR, HSM Models 80, 102, and 152
- 7 different design basis fuel assemblies: Westinghouse (W) 17x17, site-specific CY and YR, W 15x15, General Electric 7x7, W 14x14, and Babcock & Wilcox (B&W) 15x15
- Pad size: 244 x 107 m<sup>2</sup>
- Soil modeled 1 m in depth
- Model size: 4.2 × 4.1 × 2.0 km<sup>3</sup>



NAC MPC-YR Model NUHOMS HSM Model 102



Storage Pad 3D Model



Storage Pad 3D Model: Concrete Wall Opacity Reduced to 20%

\*WCS Consolidated Interim Storage Facility Safety Analysis Report, Docket Number 72-1050, Revision 3, Interim Storage Partners, LLC (2020).

Assembly upper end fitting region

> Assembly gas plenum region

Assembly fuel

Assembly lower end

fitting region

