Used fuel from Energy Northwest's Columbia Generating Station is safely stored on-site in Nuclear Regulatory Commission-approved, aboveground, dry, heavy steel and concrete casks. The casks are stored in a secure area and constantly monitored. | *continued…*

ENERGY NORTHWEST

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To learn more about commercially used nuclear fuel storage, go to www.nei.org

CASK CHARACTERISTICS

Height: 19 feet

Diameter: 11 feet

Weight: 185 tons

Fuel Capacity: 68 assemblies, each 14-feet-long.

Materials: Concrete outer cask encasing a stainless steel canister.

Durability: Each cask can safely store used nuclear fuel for hundreds of years. Crews periodically inspect the casks and the concrete pads they sit on to ensure the integrity of the casks and the sustained strength of the storage pad.

Storage: Secure area adjacent to Columbia Generating Station.

Current Licensing Period:
20 years (expires in June 2020)

INDEPENDENT SPENT FUEL STORAGE INSTALLATION CHARACTERISTICS

Total Pads: Two concrete pads located near Columbia Generating Station. Three more scheduled for construction in 2016.

Pad Capacity: Each pad can hold 18 casks.

Casks Stored: Currently 27 casks stored on two pads. Once three additional pads are poured, cask capacity will be 90 – enough to store all the used fuel Columbia may generate through more than 60 years of operation.

Cost: Nearly $57 million invested to date for initial construction, specialty equipment, NRC licensing, security and ongoing operations.

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COLUMBIA GENERATING STATION

Nuclear power has proven itself safe for more than 30 years of operation at 104 nuclear plants across the United States. Columbia Generating Station is one of these vital national energy facilities. The plant has produced reliable, affordable and environmentally responsible electrical power since 1984.

Every two years Columbia is powered down and the oldest of its 764 fuel assemblies – those that have been in the reactor producing vast quantities of power for approximately six years – are removed and replaced with new assemblies. Each assembly contains bundles of hollow rods filled with fingertip-sized solid fuel pellets. The assemblies replaced during refueling are referred to as spent fuel, or more accurately, used fuel (because the pellets can be recycled and reused).

STORING USED FUEL

Until 2002, Energy Northwest stored all of the used fuel from Columbia in the reactor building's specially designed, water-filled fuel pool. The pool, able to accommodate 2,654 fuel assemblies, was designed as a temporary storage option until the Department of Energy fulfilled its legal obligation to transfer all used fuel generated at commercial power plants in the United States to a federal national repository. However, plans for such a repository are indefinitely delayed.

In response to delays, Energy Northwest initiated construction of an independent spent fuel storage installation (ISFSI) dry cask storage project in 2001 to accommodate on-site storage of used fuel indefinitely. The first five casks were loaded and moved to a concrete storage pad in April 2002.

Additional loadings were successfully completed in 2004 and 2008, bringing the total number of casks stored on two pads to 27. Nine additional casks will be loaded on the existing pads in 2014. Three new concrete pads will be poured in 2016 for future cask storage.

SAFE, SECURE STORAGE FACILITY

The containers are designed and tested to ensure they prevent the release of radioactivity, even under the most extreme conditions – earthquakes, tornadoes, hurricanes, floods and sabotage. The casks use natural cooling and require no mechanical devices. Each filled cask weighs approximately 185 tons.

When the federal government eventually takes responsibility for this material, as required by law, the Department of Energy will transport these casks to a federal facility and continue the safe management of this used nuclear fuel.

RECYCLING

Nearly 95 percent of the used fuel stored at every commercial nuclear plant can be recycled and reused in reactors – dramatically reducing current and long-term storage requirements. To understand the scale, all of Columbia's used fuel could fit inside a building the size of a typical convenience store. If this fuel were recycled, the amount needing to be stored long term would now likely fit inside the soda cooler in the same convenience store. Today, France and the United Kingdom recycle their used fuel. The United States can, and should, recycle used fuel.

ABOUT ENERGY NORTHWEST

Energy Northwest develops, owns and operates a diverse mix of electricity generating resources, including hydro, solar and wind projects – and the Northwest's only nuclear power plant. These projects provide enough reliable, affordable and environmentally responsible energy to power more than a million homes each year, and that carbon-free electricity is provided at the cost of generation. As a Washington state, not-for-profit joint operating agency, Energy Northwest comprises 28 public power member utilities from across the state serving more than 1.5 million ratepayers. The agency continually explores new generation projects to meet its members' needs.

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