



Green Cross for Safety® Awards 2021 Finalist | Innovation

# Central Plateau Cleanup Company

The Central Plateau Cleanup Company is the primary contractor for the safe environmental cleanup of the Central Plateau and River Corridor at the U.S. Department of Energy's Hanford Site in Richland, WA.

Beginning in 1943, plutonium for the bombs that brought an end to World War II was produced on this site. More than 30 years of plutonium production processes left solid and liquid wastes that pose a risk to the local environment, including the Columbia River.

CPCCo's mission is to support DOE by protecting the Columbia River and completing Central Plateau projects in a safe, compliant and cost-effective manner by reducing hazards and risks and shrinking the active cleanup footprint. Together, the CPCCo and DOE are working to develop innovative strategies to complete these projects.

The working environment at Hanford presents unique, high-hazard conditions due to the one-of-a-kind facilities, aging structures and the nature and volume of contamination. Many of the facilities being prepared for demolition at the Hanford Site have radiological and chemical contamination.

The role of CPCCo electricians is to ensure that all electrical hazards are de-energized and eliminated when preparing facilities for cold and dark operations and eventual deactivation and demolition. This requires appropriate personal protective equipment that is not only compliant with electrical standards, but ergonomically suitable and protective against radiological and chemical hazards.

At facilities posted as airborne radioactivity areas, complying with the proper PPE/fire retardant requirements is a challenge unless the area is down-posted. CPCCo workers asked for a full-face mask to wear with an arc flash face shield while complying with PPE requirements.

For the first time, CPCCO leadership faced the challenge of protecting electricians from arc flash while safeguarding them from other hazards.

Various committees addressed this new challenge, with participants identifying the need to add a heavy-duty breathing tube so workers can use a full-face respirator connected to a powered air purifying respirator. Fire retardant Indura fabric covers were designed to protect the respiratory protection equipment.

A subcontractor was hired to test the new equipment. After exposing this newly designed PPE to a

simulated arc flash in six different locations, it was declared a success. The final detail: adding fire-retardant material to protect the zippers.

Having appropriate and compliant PPE is essential to protecting workers. This innovation created equipment protective of workers facing electrical, radiological and chemical hazards. This new configuration allows employees greater protection in their work areas, and the successful testing by a third-party vendor further validates its effectiveness. This innovation is a key component of CPCCo's commitment to keep electrical workers safe as they complete the important cleanup mission at Hanford.

