



Environmental Engineering and Compliance

Polestar provides project life-cycle environmental remediation services and performance-based remediation to achieve site closure. We solve environmental challenges by implementing cost-effective, compliant approaches, producing lasting results.

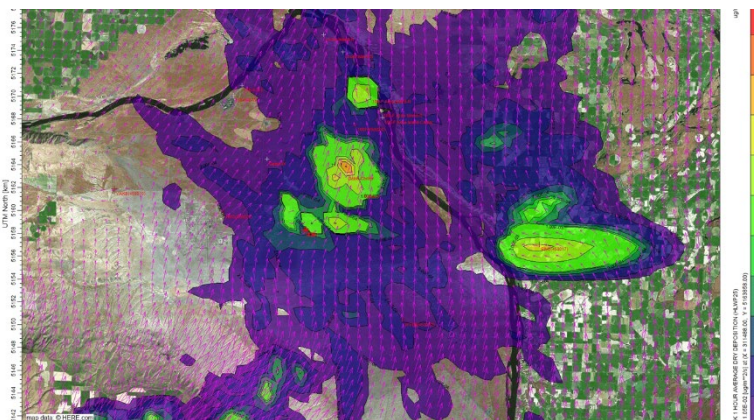
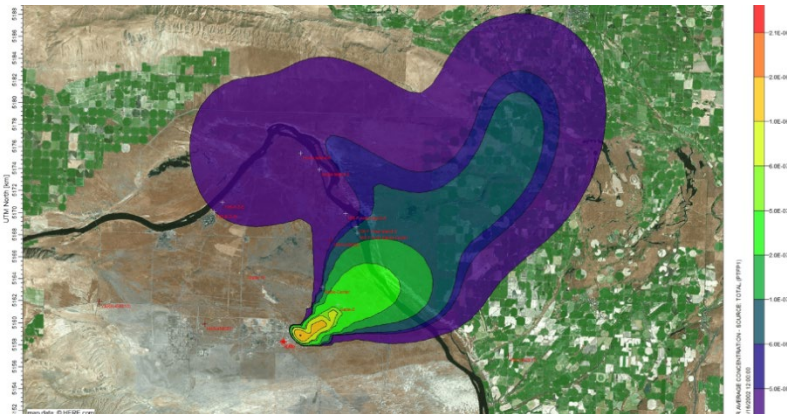
Polestar specializes in risk reduction and liability solutions with a focus on cleanup of high-hazard work environments to safely accelerate progress and reduce long-term costs.

Polestar’s Environmental Management Team has extensive demonstrated experience in the areas of:

- Environmental engineering
- Air dispersion modeling (radiological, criteria, and toxic air pollutants)
- Air compliance (air monitoring plans and notice of construction (NOC) documents)
- Environmental compliance
- Sampling and analysis plans (SAP)
- Sampling instructions
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA) documents/permits, and
- Interfacing with regulators

Polestar’s Waste Management Team has vast experience planning and executing in the full range of waste management activities including:

- Characterization
- Source term development
- Radiation shielding
- Waste classification/categorization
- Waste management plans
- Non-destructive analysis
- Transportation



Figures above: Illustrations of airborne concentrations from potential air emissions reflecting different hourly periods

- Performed over 100 air emissions/compliance evaluations
- Personnel in environmental and waste management fields with over 25 years of experience
- Have provided support directly to Department of Energy (DOE), DOE contractors, waste generators/projects, and waste repositories

Delivering Solutions to Reduce Environmental Risk

Proven processes and tools to support key mission objectives

Innovative Solutions to Complex Problems

- Developed the radiological and non-radiological NOC applications for the Integrated Disposal Facility, the disposal site for Hanford's vitrified tank waste.
- Evaluated the radiological airborne impacts from D4 of the 228 Building for AECL, Canada, based on hypothetical and real public receptors and local meteorology. Evaluated onsite impacts to workers and collocated projects on the Caulk River Site.
- Co-authored the Nine Mile Point 3, Calvert Cliffs 3, and Bell Bend Nuclear Power Plant Environmental Reports (Chapters 4 and 5) and supporting calculations. Developed three Environmental Reports for siting of the AREVA Evolutionary Power Reactor Nuclear Power Plant at proposed locations within the United States.
- Developed radiological Air Monitoring Plans (AMP) for complex burial grounds, waste repository, and facility deactivation/demolition projects.
- Authored remediation study evaluating 100 means and methods to determine the best remediation method for a waste site container >200,000 curies of radioactive source term below an existing facility.

Subject Matter Expertise

- Provide subject matter experts to support development of a Toxic Air Monitoring Program for the DOE Hanford site.
- Developed radiological and non-radiological air emissions calculations, air monitoring plans and compliance evaluations for DOE Hanford:
 - 105KE / KW Reactors and 100K ancillary facilities
 - 300 Area significant facilities (324, 327, 308, and 340 buildings)
 - Environmental Restoration Disposal Facility
 - Plutonium Finishing Plant
- Revised five DOE site-wide radiological NOC documents which included: coordinating contractor requirements; developing radiological inventories; evaluating hypothetical maximally exposed individuals with the potential to be exposed; developing tools and forms to track use of units that could emit radionuclides; creating handling limits and controls to ensure emission limits would not be exceeded; and resolving stakeholder comments.
- Performed waste characterization and waste site closeout support for DOE Hanford contaminated sites.
- Developed solid waste radionuclide characterization data quality objectives (DQOs) and management plans.
- Interact as Subject Matter Expert with the DOE, state, and federal regulators (Washington Department of Ecology, Washington Department of Health, and the Environmental Protection Agency).

Processes and Tools

- Polestar was one of the developers of DOE's RadCalc software used to support classifying radioactive waste for transportation.
- Personnel experienced with software used for air dispersion modeling, radiation shielding, and waste management including CAP88, AERMOD, CALPUFF, RadCalc, and MicroShield.
- Developed a software tool to calculate waste activities and concentrations to support waste calculations, classifications, and categorization of waste packages for transportation and disposal.



polestar
TECHNICAL SERVICES

*We deliver excellence;
fine isn't good enough*

Polestar is registered with the Small Business Administration as a Women Owned Small Business



Polestar owners Kathy Miller and Bill Bailey

CONTACT US

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