



Pearlhill Technologies LLC

Innovating safe, clean, and healthy technologies
for the interconnected tomorrow

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CAPABILITY STATEMENT

Company Information

Founded in 2007 as an Idaho Corporation, Pearlhill Technologies LLC has developed unique capability for (1) nuclear waste management, (2) fluorine chemistry, (3) CO₂ capture and utility, and (4) materials and electronics. Pearlhill's higher purpose is to continue innovating safe, clean, and health centered technologies for the interconnected tomorrow.

Nuclear waste management

- Extraction of non-radioactive fluorine content from depleted uranium fluoride byproducts of uranium isotopic enrichment plants (UIEPs). [US Pat. #8,367,026].
- Production of depleted uranium oxide byproduct.
- Patented SBIR, (Phase I & II) technology for production of sulfur tetrafluoride from uranium tetrafluoride.
- Chemical engineering and scientific support for trans-uranic waste management.
- Radiological services for waste management.

Manufacturing fluorinated products

- Innovation of processes to create nonmetallic inorganic fluorides from uranium tetrafluoride (NIFUT), including sulfur tetrafluoride (SF₄), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) gases. [US Pat. #8,231,855; 8,163,262].
- Expertise in fluorine chemistry and chemical technology for versatile use of sulfur tetrafluoride gas for carrying out many fluorination processes to produce products for the electrical-, semiconductor-, agrochemical-, pharmaceutical-, resins- and the coatings industries.

Carbon capture and CO₂ utility

- SBIR technology for production of 99.995% pure CO₂ at coal plants, [US Pat. #8,636,968].
- Utility of CO₂ for agricultural and other applications.

Fabrication of electronic sensors

- Plant memristance biosensors.
- Magnetoreception sensors.

TIN: 71-1032501
DUNS: 800333002
CAGE Code: 4U6Q1

NAICS Codes:

325120 – Industrial Gas Manufacturing
56221 – Waste Treatment and Disposal
562910 – Remediation Services
561210 – Facilities Support Services
562920 – Materials Recovery Facilities
5417 – Scientific R&D Services
541990 – Professional, Scientific & Technical Services

Business References

- **International Isotopes**
Development of fluorine extraction from low-level radioactive uranium tetrafluoride
- **MarCom**
Teaming partner for Title 8(a) certification, radiological, waste management and remediation
- **Energy Solutions**
Partner for commercialization of NIFUT technology and disposal of depleted uranium oxide byproduct
- **National Science Foundation**
Small Business Innovation Research (SBIR) Awards
- **Idaho Power**
Carbon capture and CO₂ supply
- **Boise State University**
R&D collaboration
- **Freedom Photonics**
Partner for commercialization of electronic sensors