

Radwaste Solutions

Fall 2022

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18th Annual Buyers Guide

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& Decommissioning

Environmental
Remediation



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The directory sections of the Buyers Guide are kept current via annual company listing verification/update requests each June-August and new company listings that are submitted throughout the year.

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Three Mile Island Unit 2 in Pennsylvania



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Decommissioning the Zion Nuclear Power Station accelerated the restoration of the Lake Michigan property to its natural state by nearly 30 years.

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N.S. Savannah in Maryland



Fort Calhoun Nuclear Generating Station in Nebraska

What next, Diablo Canyon?

In the nuclear world, and the radwaste world in particular, things typically move slowly. It can, for example, take years to license a nuclear facility, and often many more to overcome the myriad obstacles to make it a reality. That's why it is interesting, and maybe a bit jarring, to see such phrases as "expedited process" and "hurried pace" being used when talking about a nuclear project.

These exact phrases were used in an August 23 *New York Times* article to describe the quickening efforts to keep California's Diablo Canyon nuclear power plant from closing. Plant owner Pacific Gas & Electric announced back in 2016 it was considering plans to shut down the plant's two units by 2025. And while many clearer heads in the state and elsewhere since then have raised concerns about closing the state's last operating nuclear power reactor, recent efforts to keep Diablo Canyon running have reached a fevered pitch. Most recently with a proposal in early August by Gov. Gavin Newsom to provide PG&E a \$1.4 billion forgivable loan to keep the plant operational.

In the background of the battle to save Diablo Canyon, PG&E has been quietly planning for shut-down and decommissioning. This is the focus of our feature beginning on page 20. It may seem premature to discuss the burial of a still-living power plant (I cannot help but imagine the poor serf in *Monty Python and the Holy Grail* proclaiming, "I'm not dead yet!"), and it may be. By the time this issue reaches your hands, PG&E may have announced a decision to keep the plant open.

PG&E's pre-closure planning, however, is unlikely to go to waste. As noted in the article, the company has been able to reduce its estimated decommissioning cost by around \$1 billion from its initial 2019 estimate. Those savings are unlikely to disappear should the plant remain open for another 5-10 years or longer. The preplanning also has allowed the utility to align its decommissioning methodologies and goals with regulators and community members, reducing the potential for the kind of conflict that can delay schedules and increase costs.

The importance of that last point cannot be overemphasized. Currently, there is talk among those in the nuclear industry of the value of designing new nuclear power plants with decommissioning in mind. This, of course, means making the segmentation, packaging, and removal of nuclear systems and components as easy, safe, and efficient as possible. But it should also mean building plants with as much stakeholder input as possible (within reason). Having community members, local governments, and of course regulators, involved in building a vision for the plant, and with its retirement in mind, may avoid many of the pitfalls and frictions that have plagued previous endeavors.

Hopefully, the lessons learned from Diablo Canyon and the almost two dozen other power reactors undergoing decommissioning in the United States will serve well to inform the decontamination and decommissioning of the next generation of nuclear power plants. In the meantime, we hope you enjoy this issue of *Radwaste Solutions*, which focuses on issues related to D&D and environmental remediation.



Tim Gregoire, editor-in-chief

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Final EIS issued for New Mexico interim storage facility

The Nuclear Regulatory Commission in July published its final environmental impact statement (EIS) for Holtec International's proposed HI-STORE consolidated interim storage facility (CISF) for spent nuclear fuel in southeastern New Mexico. Based on its environmental review, the NRC staff recommends issuing the license, subject to the findings in the staff's ongoing safety review of the application.

Holtec proposes initially to store 500 canisters holding approximately 8,680 metric tons of spent nuclear fuel at the HI-STORE CISF in a first phase and eventually up to 10,000 canisters in an additional 19 phases. The canisters would be transported by rail from operating, decommissioning, and decommissioned commercial nuclear power plants around the country.

The NRC's final EIS assesses the environmental impacts of the entire project, or all 20 possible phases, from construction through

decommissioning. It looks at the impacts to land use, transportation, geology and soils, surface waters and wetlands, groundwater, ecological resources, historic and cultural resources, environmental justice, and several other areas.

"Our community is pleased that the NRC has verified with the issuance of its environmental impact statement that the HI-STORE CISF project is a safe project with no negative implications to our existing businesses or to the public," said Sam Cobb, mayor of Hobbs, N.M.

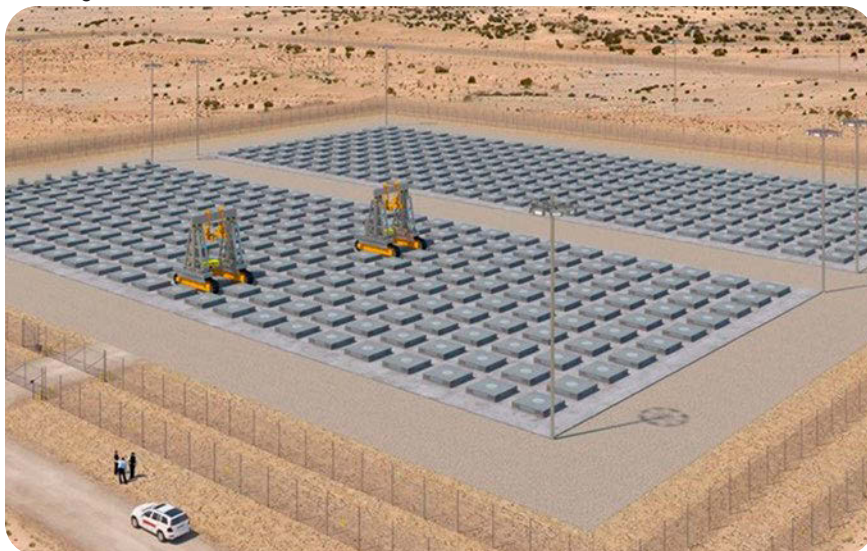
The city of Hobbs, along with the city of Carlsbad, is a member of the Eddy-Lea Energy Alliance (ELEA) of New Mexico, which in 2015 launched the initiative to establish an interim spent fuel storage facility at a site between the two cities. Holtec, in partnership with ELEA, submitted its application to the NRC for the HI-STORE CISF license in 2017.

The NRC published a draft EIS for public

comment in March 2020. Due to the COVID-19 public health emergency, the public comment period was extended to six months. During that time, NRC staff held six online public meetings to present the draft EIS and receive public comments. According to the NRC, more than 4,800 comment submissions with 3,718 individual comments were received and addressed in the final EIS.

Publication of the final EIS completes the environmental portion of the NRC's licensing review. The staff will make a licensing decision following completion of its safety evaluation report, expected in January 2023.

A rendering of Holtec's proposed HI-STORE CISF in southeastern New Mexico. (Image: Holtec)



DECOMMISSIONING

EnergySolutions gets go-ahead to D&D Kewaunee, NS Savannah

The Nuclear Regulatory Commission approved in March the transfer of the operating license of the shutdown Kewaunee nuclear power plant from Dominion Energy to Utah-based EnergySolutions for decontamination and decommissioning. Wisconsin Public Service Commission also approved the transfer, which includes the general license for the Wisconsin site's spent fuel storage facility.

EnergySolutions entered into an agreement with Dominion in May 2021 to acquire the Kewaunee site for accelerated decommissioning. The transaction would transfer the plant operator, Dominion Energy Kewaunee, to EnergySolutions, and rename it KewauneeSolutions.

The Kewaunee facility, a 574-MWe pressurized water reactor, is EnergySolutions' fourth ongoing nuclear power plant decommissioning project. The others are the San Onofre nuclear plant in California, the Fort Calhoun plant in Nebraska, and Three Mile Island-2 in Pennsylvania. Located in Carlton, Wis., Kewaunee began operations in 1974 and permanently shut down in May 2013. Transfer of the fuel to the dry storage facility was completed in 2018.

For the decommissioning work to be done by KewauneeSolutions, the facility will be fully dismantled and all radioactive waste will be removed. According to the NRC, EnergySolutions has said it intends to begin active decontamination and demolition of the facility this year and complete decommissioning by 2030—decades earlier than Dominion Energy had planned.

EnergySolutions also announced in March that it has joined Radiation Safety and Control Services (RSCS) in the decommissioning of NS Savannah, the world's first nuclear-powered merchant ship, currently berthed at the Port of Baltimore in Maryland.

EnergySolutions said that a joint venture of the two companies, Nuclear Ship Support Services, is

conducting the final phases of decommissioning the ship's reactor, which was defueled in 1975 but



Top: The Kewaunee nuclear power plant in Carlton, Wis.

Bottom: NS Savannah at Pier 13 in Baltimore, Md., in 2012.

remains in place. The ship, one of only four nuclear-powered cargo ships ever built, was in service between 1962 and 1972. It will be preserved for future use as a museum following decommissioning.

According to EnergySolutions, remediation work is expected to be completed in mid-2023, and NS Savannah's license from the Nuclear Regulatory Commission is expected to be terminated by 2025. Designated a Nuclear Historic Landmark by the American Nuclear Society and a Historic Mechanical Engineering Landmark by ASME, NS Savannah was commissioned in July 1956 under President Eisenhower's Atoms for Peace program.

Source Points continues

Holtec acquires Michigan's Palisades and Big Rock Point

Holtec International has completed the acquisition of the Palisades nuclear power plant and the Big Rock Point site from Entergy Corporation. The Nuclear Regulatory Commission approved the license transfer for the two sites, both located in Michigan, in December 2021.

Under Holtec's asset transfer agreement with Entergy that was announced on June 28, ownership of the sites has been transferred to Holtec International, with Holtec Decommissioning International serving as the license holder and prime decommissioning contractor.

The Palisades nuclear power plant. (Photo: Holtec International)



Located in Covert, Mich., Palisades' 777-MWe pressurized water reactor was removed from service on May 20 after more than 50 years of operation. The shutdown occurred 11 days prior to the plant's scheduled May 31 retirement date after a site and world-record production run of 577 straight days of operation. Big Rock Point, located in Charlevoix, Mich., was shut down in 1997 and decommissioned in the early 2000s. Only the reactor's independent spent fuel storage installation remains at the site.

Holtec has stated that over the past few years it has been working methodically with Palisades personnel on an integrated transition plan, laying the foundation for decommissioning of the site. The first substantial activity will be moving the plant's spent fuel from its spent fuel pool to dry storage, which is projected to be completed by 2025.

The Palisades decommissioning project will have a 19-year timeline and will render the 400-plus acre site fit for commercial and industrial use, except for the independent spent fuel storage installation.

LOW-LEVEL WASTE

NRC consolidates Part 61, GTCC LLW rulemaking

The Nuclear Regulatory Commission will integrate two separate rulemaking activities concerning the disposal of low-level radioactive waste,

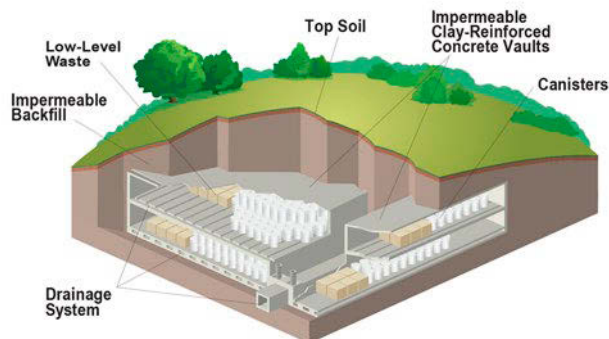
issuing a "re-proposed" rule that consolidates updates to 10 CFR Part 61, *Low-Level Radioactive Waste Disposal*, and proposed changes to the requirements for the near-surface disposal of greater-than-Class C (GTCC) waste.

The three acting NRC commissioners voted in March to approve the recommendation of agency staff to combine the rulemaking activities, as proposed in its October 2020 paper, *Path Forward and Recommendations for Certain Low-Level Radioactive Waste Disposal Rulemakings* (SECY-20-0098). The commissioners' votes and accompanying comments approving SECY-20-0098 were made public on April 5.

The commissioners also approved a provision, included in SECY-20-0098, allowing NRC



Low-Level Radioactive Waste Disposal



The LLW disposal site accepts waste from States participating in a regional disposal agreement.

Agreement States to license the disposal of GTCC waste streams that are suitable for near-surface disposal, along with a staff recommendation to explore regulatory approaches that would allow for a single regulator for an Agreement State licensee disposing of GTCC waste containing strategic special nuclear material.

In approving the SECY-20-0098 recommendations, the commissioners directed NRC staff to reexamine the technical basis for the performance objectives in Part 61 and ensure that the

compliance period following the closure of a disposal facility is based on scientific data.

“Rather than using the same compliance period for disposal sites containing significant amounts of depleted uranium, GTCC, or transuranic waste, the staff should consider a site-specific, graded approach based on when the peak dose is projected to occur or establish a longer compliance period for disposal sites containing significant quantities of mobile, long-lived radionuclides,” an April 5 memorandum to NRC staff states.

DOE authority to sell depleted uranium needs clarification, GAO says

The Government Accountability Office is recommending that Congress clarify the Department of Energy’s legal authority to sell depleted uranium hexafluoride (DUF₆) left over from uranium enrichment operations at the department’s Portsmouth Site in Ohio and the Paducah Site in Kentucky.

The DOE estimates that it could cost at least \$7.2 billion to convert its inventory of DUF₆ into more stable chemical forms and dispose of it off-site. But if the DOE can transfer portions of its DUF₆ inventory—such as by selling some to a private company—it could save billions, according to the GAO. The GAO findings are contained in its report *Nuclear Waste Cleanup: DOE’s Efforts to Manage Depleted Uranium Would Benefit from Clearer Legal Authorities*, published on July 27.

The DOE’s Office of Environmental Management (EM) used the COVID-19 shutdown to perform maintenance and modifications at the two DUF₆ conversion facilities at Portsmouth and Paducah. These facilities convert DUF₆ into two primary products: depleted uranium oxide and hydrofluoric acid.

According to the report, the agency spent about \$47.4 million on modifications to improve the facilities’ efficiency. EM has not fully assessed

the impact of this shutdown on the conversion mission, but officials have stated that they were developing new cost and schedule estimates for the facilities that will be finalized in 2022, the GAO said. Conversion operations restarted at the Paducah facility in November 2021, and EM officials told the GAO that operations restarted at the Portsmouth facility in July 2022.

EM has three agreements to reserve nearly 30,000 cylinders of DUF₆ (about 44 percent of the inventory) for use by other entities. If the agreements are finalized, the agency may not need to convert all its DUF₆ and could reduce operations of the conversion facilities by roughly 30 years, potentially saving over \$2 billion in operations costs, according to the GAO report.



A DUF₆ storage cylinder is moved at the Portsmouth DUF₆ conversion facility. (Photo: DOE)

TRANSURANIC WASTE

Texas threatens DOE on continued storage of Los Alamos waste

The Texas Commission on Environmental Quality is threatening enforcement action against the Department of Energy for failing to meet its obligations in removing containers of transuranic waste currently held in temporary storage at Waste Control Specialists' Federal Waste Facility in western Texas.

In a letter to DOE deputy secretary David Turk dated May 10 and made public on June 1, Toby Baker, executive director of TCEQ, said that the DOE has yet to come up with a plan to remove 74 standard waste boxes of TRU waste that were shipped from Los Alamos National Laboratory to the WCS facility in 2014. The waste was to be disposed of at the Waste Isolation Pilot Plant in New Mexico but was diverted to the WCS site after operations at WIPP were suspended because of the February 2014 radiological release at the underground repository.

Under an agreement signed by the DOE and TCEQ in 2015, the DOE was to remove the TRU waste from the WCS site for shipment out of Texas once WIPP resumed normal waste disposal operations. WIPP was able to resume disposal operations in January 2017 after the facility was remediated and stricter waste controls were put in place.

Some of the LANL waste boxes that were

shipped to WCS, however, were found to be similar to the waste drum that breached at WIPP, and those boxes no longer meet Department of Transportation shipping requirements or WIPP waste acceptance criteria.

In his letter to the DOE, Baker notes that the department submitted a draft plan with the commission for handling the LANL waste on April 1 of this year. Baker, however, said the plan only addresses the unloading and storage of the waste after it is removed from the federal waste facility, with no indication of when and how the waste will be shipped off-site. "The DOE's draft plan is not a plan to expedite the removal of the remaining LANL TRU waste in 2022. In fact, it does not address removing the waste from Texas at all," Baker wrote.

In a May 19 follow-up letter to William "Ike" White, senior advisor for the DOE's Office of Environmental Management, David Carlson, president and chief operating officer of WCS, also urged the DOE to find a pathway for removing the waste. Carlson said that his company is "concerned that the patience of TCEQ will be exhausted absent a greater commitment by DOE to establish date certain milestones" in moving the LANL waste off-site.

The Nuclear Regulatory Commission issued an order in 2014 allowing WCS to store the LANL TRU waste at its facility until 2016. Since then, the NRC has extended that two-year deadline three times, and the agency is currently considering another request to further extend the storage period until December 2024.

The NRC, noting that the LANL waste cannot be shipped from the WCS site because it currently does not meet DOT shipping requirements, issued an environmental assessment and finding of no significant impact in the May 27 *Federal Register* in support of WCS's latest request to continue storing the waste at its site.

Source Points continues

An aerial view of the WCS facility in Andrews County, Texas. (Photo: WCS)



WIPP

\$3 billion M&O contract awarded to Bechtel affiliate

Reston, Va.-based Tularosa Basin Range Services (TBRS), a single-purpose entity under the umbrella of Bechtel National, has been awarded the 10-year, \$3 billion management and operating contract for the Waste Isolation Pilot Plant (WIPP) by the Department of Energy's Office of Environmental Management (EM). Located near Carlsbad, N.M., WIPP is the DOE's geologic repository for defense-generated transuranic waste.

The new contract replaces the current WIPP M&O contract held by Nuclear Waste Partnership, which expires on September 30. The contract with TBRS was announced on July 11.

EM issued a final request for proposals for the WIPP M&O contract on June 2, 2021. The office said it received five proposals in response to the solicitation, and TBRS was selected after its proposal was determined to be the best value to the government.

The agreement with TBRS is a cost-plus-award-fee M&O contract with an indefinite delivery/indefinite quantity contract line item number. It will include a four-year base period and six one-year



The DOE's Waste Isolation Pilot Plant in New Mexico.

option periods. As the WIPP M&O contractor, TBRS will support EM's mission by managing, operating, and maintaining the WIPP site by performing work that includes the following:

- The Centralized Characterization Project.
- Transportation activities.
- WIPP operations.
- Projects, both capital asset and non-capital asset.
- Experimental and testing activities.
- WIPP program support.

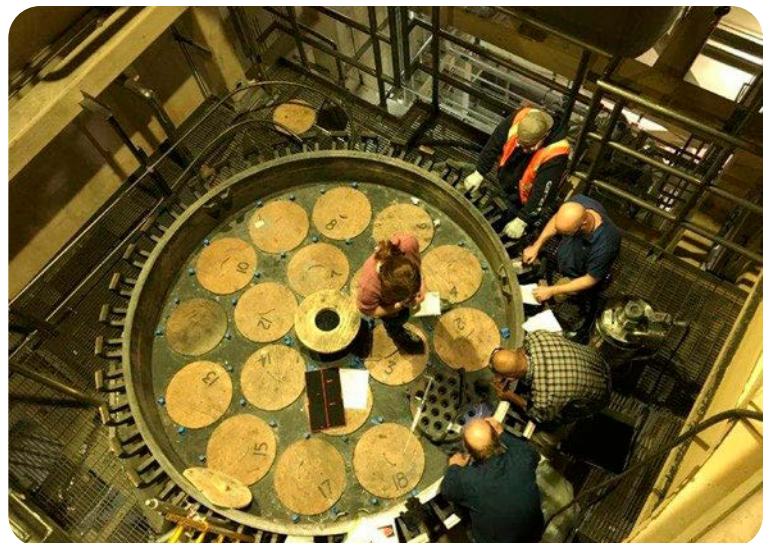
The company is also required to maintain and report on an annual Community Commitment Plan. TBRS will use Los Alamos Technical Associates as a small business teaming subcontractor.

IDAHO SITE

Test run completed on liquid waste treatment facility

The Department of Energy's Office of Environmental Management (EM) said it continues to make progress toward the start of operations of the Idaho National Laboratory Site's Integrated Waste Treatment Unit (IWTU), having completed a final test run of the facility earlier this year. EM announced on August 2 that IWTU staff operated the facility continuously for nine weeks under stable temperatures and pressures, converting approximately 137,000 gallons of liquid simulant to a granular solid.

In addition to more than doubling the previous simulant treatment milestone—about 64,000 gallons—engineers and operators with EM contractor Idaho Environmental Coalition (IEC) also



Workers inspect the IWTU's process gas filter before the current confirmatory run. (Photo: DOE)

Source Points continues

successfully completed a contractor readiness assessment. The DOE scheduled an independent federal facility readiness assessment that was to commence in mid-August. Those two assessments are crucial for validating the readiness of IWTU for radiological operations, according to EM.

“The plant has operated extremely well during this several-week run,” said Bill Kirby, IEC senior director of liquid waste and fuels. “Our staff has done an outstanding job managing all facets of the facility. We continue to set performance records weekly.”

Once fully operational, the IWTU will introduce a small percentage of sodium-bearing waste to simulant, then increase the percentage of waste in increments until 100 percent of the feed is actual waste. The IWTU was scheduled to begin radiological operations this fall.

Operation of the IWTU, which was constructed to treat approximately 900,000 gallons of Idaho’s radioactive liquid waste, has been delayed a number of times, most recently due to supply chain issues.

HANFORD SITE

Supreme Court rules against Washington workers’ comp law

The U.S. Supreme Court has struck down a Washington state workers’ compensation law that was designed to make it easier for workers at the Department of Energy’s Hanford Site to receive compensation benefits. The court, by unanimous decision, found on June 21 that the law violates the U.S. Supremacy Clause and discriminates against the federal government and its contractors.

In 2018, Washington state lawmakers passed legislation amending the workers’ compensation law to presume that diseases, including cancers and respiratory illnesses, that developed while employed at Hanford are occupational and should trigger benefits eligibility. The 2018 law applied exclusively to workers at the Hanford Site, located near Richland, Wash.

The federal government challenged the law, arguing that it exposes government contractors, and by extension the United States, to high costs that are not incurred by similarly situated state and private employers. The law was upheld by the U.S. District Court for the Eastern District of Washington in 2019, and the Ninth Circuit Court of Appeals affirmed that decision in August 2020. The Biden administration then appealed the case to the Supreme Court in September 2021.

After the Supreme Court agreed to hear the case, and to address concerns voiced by the federal government, the Washington state legislature modified the law in March of this year to apply to all workers at all radiological waste sites in the state. Having amended the law, Washington argued that

the case was moot and should be dismissed by the Supreme Court.

In delivering the Supreme Court’s opinion, Justice Stephen Breyer said that the Washington state law is unconstitutional under the Supremacy Clause, which “generally immunizes the federal government from state laws that directly regulate or discriminate against it.” Breyer further added that the law does not fall under a congressionally mandated waiver of immunity.

As for the state’s argument of mootness, Breyer said, “If there is money at stake, the case is not moot.” Breyer

An aerial view of Hanford’s Waste Treatment and Immobilization Plant in 2021. (Photo: Bechtel National)



noted that, in winning the case, the U.S. government stands to recoup or avoid paying between \$17 million and \$37 million in workers' compensation claims awarded under the 2018 law.

Following the Supreme Court's decision, Bob Ferguson, attorney general for the state of Washington, said that the court's ruling does not affect the state's amended 2022 law, which will remain in place.

"Because the legislature already fixed the issues the federal government raised, there is little practical impact in Washington as a result of this ruling," Ferguson said. "Hanford workers, and all others working with dangerous radioactive waste, remain protected. The federal government has not challenged this new law. If they do, we will defend these protections all the way back up to the Supreme Court again if we have to."

Cocooning begins on K East Reactor

The Department of Energy's Office of Environmental Management (EM) reported that construction is well underway on a protective enclosure, or cocoon, for the K East Reactor building at the Hanford Site. EM states that it has achieved one of its key construction priorities for 2022 by beginning construction of the enclosure, which is designed to protect the reactor building while the radioactivity in the deactivated reactor core decays over the next several decades, making it safer and easier to decommission.

Last summer, EM contractor Central Plateau Cleanup Company was awarded a subcontract for the installation of the steel frame, and crews broke ground on the site last fall. Earlier this year, workers finished backfilling and compacting the area around the former reactor with approximately 34,000 cubic yards of sand and gravel to level the site before pouring a 6-foot-thick concrete foundation to support construction of the cocoon. The first steel columns for the enclosure were placed in mid-May.



Construction activities were to continue through the summer, with workers expected to finish the structural steel skeleton and install metal siding on the walls and roof to fully enclose the building by fall. The completed structure will be more than 150 feet wide and 120 feet tall. The design allows for routine inspections of the reactor every five years. Additional safety features include new lighting between the structure and the reactor building, as well as upgraded lighting inside the building.

The first steel columns, each weighing up to 28 tons, were placed for a cocoon over the former K East Reactor building at the Hanford Site. (Photo: DOE-EM)

CANADA

NWMO moves closer to selecting spent fuel repository site

Canada's Nuclear Waste Management Organization (NWMO) has completed a deep borehole drilling program at the two sites in Ontario under investigation for potentially hosting a deep geological repository to hold the country's spent nuclear fuel. The NWMO said that Canada's top geoscientists are leading the studies, in which

approximately eight kilometers of core samples were pulled from the bedrock in the Wabigoon-Ignace area and the Saugeen Ojibway Nation (SON)—South Bruce area.

The township of Ignace and municipality of South Bruce are the remaining two communities under consideration for hosting a geological

Source Points continues

Source Points

An NWMO geoscientist examines core samples pulled from rock in South Bruce, Ontario, as part of investigations of a potential deep geological repository. (Photo: NWMO)

repository from the initial 22 communities that expressed interest when the NWMO began its site selection process in 2010. The NWMO gradually narrowed its focus to fewer areas through technical site evaluations and working with the interested communities. The organization said in August that it expects to select a final site in the

fall of 2024.

The completion of the last borehole at the potential site in the South Bruce area follows on work in the Ignace area, which wrapped up in November 2021 after five years of field study that started in 2017. Borehole drilling and testing up to 1,000 meters below the surface is part of the NWMO's

broader site investigation work to ensure the site will meet Canada's regulatory requirements.

"Completion of this drilling program is a significant step forward in our geoscience work," Lise Morton, NWMO vice president of site selection, said on April 7. "In addition to informing the safety case for the project, the resulting data will also provide important insights to the communities that are considering hosting the project in their area." ☒



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The Future of Diablo Canyon

While many Californians are hopeful the state's last nuclear power reactor can be saved . . .

By Tim Gregoire

PG&E is actively preparing for decommissioning.

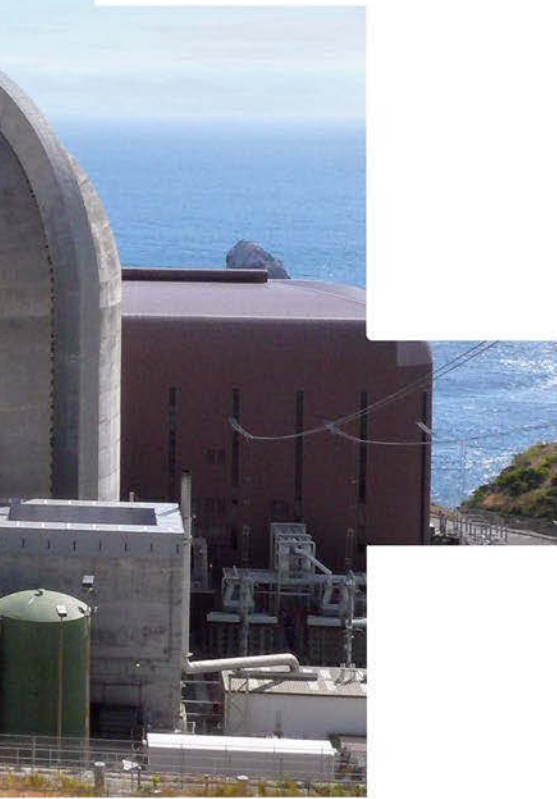
The reports of the death of the Diablo Canyon nuclear power plant may be greatly exaggerated. While Pacific Gas and Electric (PG&E) announced as early as 2016 that it would be closing California's last operating nuclear power plant at the end of its current operating license, there has been growing political pressure to keep the plant, and its 2,200 MWe of carbon-free energy, running.

Both nuclear energy and environmental advocates have called for continued operation of the two-unit Westinghouse pressurized water reactor. On August 11, California Gov. Gavin Newsom proposed allocating up to \$1.4 billion for a forgivable loan to PG&E to keep Diablo Canyon operating for another five to 10 years.

PG&E, likewise, has shown a willingness to keep Diablo Canyon open, saying this summer that it expected to submit an application to the Department of Energy for funding through the department's \$6 billion Civil Nuclear Credit Program. As of this writing, PG&E has not yet applied for the credit.

The company, however, has not been sitting idly by hoping for an 11th-hour reprieve. For the past six years the company has been drawing up a road map for the decommissioning of Diablo Canyon. Should the plant close, PG&E expects this early planning will accelerate the decommissioning schedule and save the company a significant amount of money in decontamination and dismantlement costs, all while increasing safety and efficiency.

How much money? Speaking at the 2022 Annual Meeting of the American Nuclear Society in June, Tom Jones, PG&E director of government relations, said that "between repurposing and early planning, we have driven over a billion dollars out of the project so far."



The Diablo Canyon nuclear power plant in San Luis Obispo County, Calif.
(Photo: Wikimedia Commons)

Continued

the company estimated the cost of decommissioning Diablo Canyon to be \$4.1 billion in 2020 dollars.

The Economics

In November 2018, PG&E officially notified the Nuclear Regulatory Commission that it intended to permanently cease power operations at Diablo Can-

yon at the expiration of its existing operating licenses. (PG&E withdrew its 20-year license renewal application with the NRC in 2018.) Diablo Canyon's Unit 1 is to shut down on November 2, 2024, followed by Unit 2 on August 26, 2025. The notification to the NRC followed PG&E's August 2016 filing with the California Public Utilities Commission (CPUC) of a joint proposal with labor and environmental groups in which the company agreed to phase out nuclear power.

In making the decision to close the plant, PG&E said there were several contributing factors, including the increase of California's Renewable Portfolio Standard to 50 percent by 2030, doubling of energy efficiency goals under the state's Clean Energy and Pollution Reduction Act, the challenge of managing overgeneration and intermittency conditions under a resource portfolio increasingly influenced by solar and wind production, the growth rate of distributed energy resources, and the potential increases in the departure of the company's retail load customers to Community Choice Aggregation.

Following notification to the NRC, PG&E submitted an updated post-shutdown decommissioning activities report (PSDAR) to the agency in December 2019. In that report, PG&E said it planned to decommission Diablo

Canyon using the NRC's DECON method, with the majority of decommissioning work beginning soon after Unit 2 is shut down. PG&E's schedule aims at having the plant fully decommissioned, the site (excluding the independent spent fuel storage installation) restored, and its license terminated by 2038.

Included in the PSDAR is PG&E's decommissioning cost estimate of \$5.1 billion in 2019 dollars. That estimate includes the cost of storing the spent fuel and greater-than-Class C waste until it can be transferred to the Department of Energy, completing site restoration work, and terminating the NRC license.

More recently, in PG&E's 2021 Nuclear Decommissioning Cost Triennial Proceeding, which is updated and filed with the CPUC every three years, the company estimated the cost of decommissioning Diablo Canyon to be \$4.1 billion in 2020 dollars.

To conduct the decommissioning, PG&E's Tom Jones said that the company will pursue a "hybrid model," where PG&E will retain the Diablo Canyon license and oversight of the plant but contract out the decommissioning work to an outside contractor. This is similar to the model being used by the San Onofre Nuclear Generating Station in Southern California, where California Edison selected a joint venture of AECOM and EnergySolutions as the plant's decommissioning general contractor.

Given California's regulatory environment, Jones said that this contract model makes more sense for PG&E than methods used by plants such as New York's Indian Point nuclear power plant, where the plant's assets and license were wholly acquired by Holtec International for the purpose of decommissioning. "It is the best model to protect potential future liabilities, maintain your revenue stream, and get the work done efficiently," he said.

Stakeholder Engagement

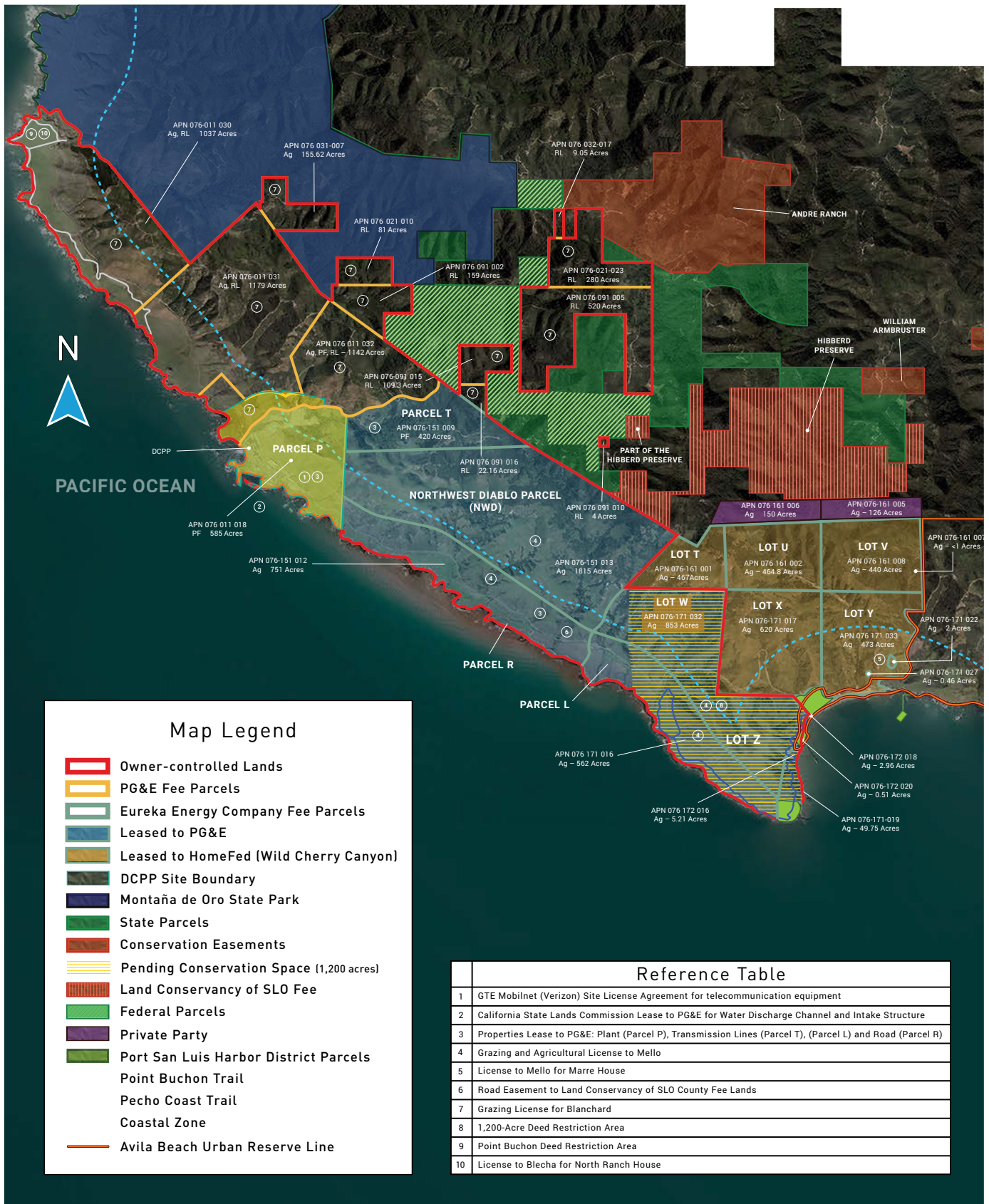
Jones, describing PG&E's efforts to reduce costs and accelerate the decommissioning schedule, said that part of the early planning his company did was to engage with state and federal regulators, along with the surrounding community, to find out what they wanted to see happen at the site. "We knew that if we could drive that process early, we could get alignment with key stakeholders and drive contention out of the regulatory process, preserving our schedule," he said.

Soon after PG&E announced plans to close Diablo Canyon, the company established the Diablo Canyon Decommissioning Engagement Panel, a group of 11 volunteers who review information and provide direct input on behalf of the local community on decommissioning activities.

Jones said the panel membership broadly reflects the community, with knowledgeable members with differing interests and areas of expertise. This includes a radiologist, a member of the local labor union, a representative of the Northern Chumash Tribe, and local officials, as well as a spokesperson for the antinuclear group San Luis Obispo Mothers for Peace.

A spent fuel cask is moved to Diablo Canyon's ISFSI in this screen shot from a video showing a previous campaign to transfer spent fuel to dry storage. (Image: PG&E)





A map of the lands surrounding Diablo Canyon. The reactor campus is located in Parcel P. (Image: PG&E)

“They are not just interested in land use,” Jones said of the panel members. “They are talking about fuel management, labor strategies, and transportation of the waste products. They are also focused on the economic activities, ensuring that we are hiring local skilled labor.”

Jones added that the panel was interested in PG&E’s intended handling of the spent nuclear fuel and the design of its independent spent fuel storage installation. Given Diablo Canyon’s location in a marine environment with seismic activity, community members were concerned about the potential for chloride stress corrosion cracking and earthquake damage.

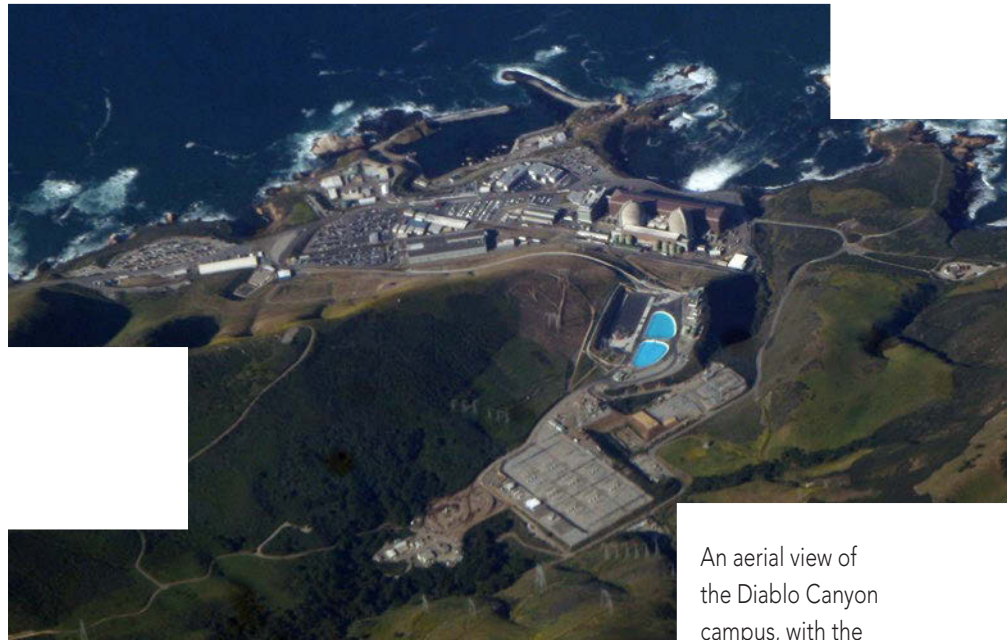
To build trust with the community, and to ensure transparency, Jones said that PG&E had some of its systems and processes independently evaluated, even though such reviews are not required by the NRC. This included having Diablo Canyon’s dry cask storage design evaluated by the California Energy Commission.

The company also worked with the B. John Garrick Institute for the Risk Sciences at the University of California at Los Angeles on developing a methodology for probabilistic risk assessment of spent nuclear fuel handling and storage programs, assessing the radiological risks associated with storing and moving spent fuel from Diablo Canyon’s two spent fuel pools to its ISFSI.

Jones also noted that PG&E works closely with state and local agencies in planning Diablo Canyon’s decommissioning. Several government entities share jurisdiction over Diablo Canyon’s 750-acre plant site. This includes the NRC, the California Coastal Commission, and San Luis Obispo County. Federal, state, and local permits and approvals are required to

perform nearly every decommissioning activity.

“We have at least one and usually two regulators in California for every single action we want to do,” Jones said. “That is why we do so much stakeholder engagement up front, to keep those issues narrow, build a robust administrative record, and hopefully get through the process a bit easier.”

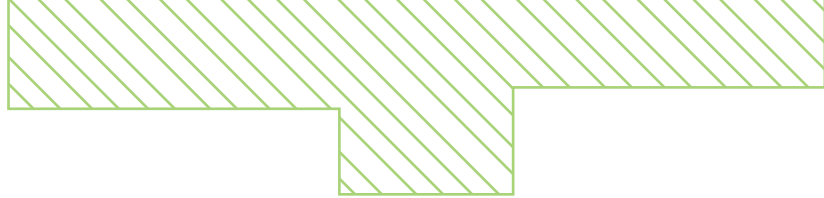


An aerial view of the Diablo Canyon campus, with the ISFSI visible to the left of the site’s two reservoirs, situated more than 300 feet above sea level. (Photo: Wikimedia Commons)

Cost and Schedule

Located along 14 miles of pristine coastline on 12,000 acres of PG&E-owned land, the remote Diablo Canyon nuclear power site acts as its own little city, with its own water desalination facility, sewage system, and police and fire departments. With all of the auxiliary structures and systems at the site, PG&E has looked into repurposing some of the plant’s infrastructure, saving the cost and time of demolishing and removing otherwise useful assets.

This includes Diablo Canyon’s breakwater and marina. The only protected marina on the coast between Morro Bay and Avila Beach, the marina currently hosts the reactor’s intake



structure and a marine vessel operations center. The breakwater contains twice the amount of material as the rest of the entire reactor complex, Jones said, adding that it would all have to be shipped out of state if it were to be removed.

Instead, PG&E is communicating with outside parties that may be interested in keeping the marina and intake structure and repurposing it for recreational and commercial activities, including supporting the development of offshore wind energy. Retaining the marina would save PG&E about \$400 million in decommissioning costs, Jones said.

PG&E is also developing plans to use the marina to transport waste off-site by barge, which the company says will significantly reduce risk and environmental

impact while also reducing total costs. Using barges along with trucks to ship bulk waste will enable large volumes of demolition waste to be shipped for disposal in a short period of time.

Another area Jones said PG&E has been able to reduce schedule and cost is in spent fuel handling. This spring, PG&E announced that it has contracted Orano to transfer Diablo Canyon's spent fuel to dry storage using its Extended Optimized Storage NUHOMS system. According to PG&E, the increased thermal and seismic capabilities of the NUHOMS system will allow the company to complete the transfer of the spent fuel to the ISFSI soon after the plant's scheduled closure.

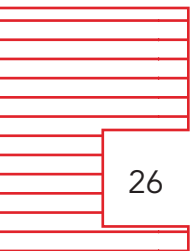
In its initial filings with the NRC, PG&E assumed a seven-year cooling period before transferring the spent fuel to dry storage. The company later concluded that a four-year cool-

ing period would be adequate. Now, with the new Orano system, the company plans to begin transferring spent fuel to the ISFSI after 3.25 years of cooling, at a savings of \$300 million.

Finally, in 2019, the NRC granted PG&E exemptions from 10 CFR 50.82 regulations, allowing the company to withdraw nearly \$188 million from Diablo Canyon's decommissioning trust fund for decommissioning planning prior to shutdown. This was instead of the 3 percent of the generic amount the NRC allows under 10 CFR 50.75. "It worked out very well for us," Jones said of the exemption.

Accessing the funds allowed PG&E to do preplanning work associated with spent fuel management and site restoration, and according to the company, has allowed it to streamline the decommissioning effort, reduce costs, and accelerate the decommissioning schedule while still enhancing safety and efficiency. ☒

PG&E announced that it has contracted Orano to transfer Diablo Canyon's spent fuel to dry storage using its Extended Optimized Storage NUHOMS system.



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The Decommissioning of Portsmouth's X-326

Demolition and disposal shifted into high gear this spring at the DOE's former uranium enrichment plant in Ohio.

In the 1950s, the U.S. Department of Energy constructed the Portsmouth Gaseous Diffusion Plant in rural southern Ohio to enrich uranium, alongside two other federally owned and managed facilities in Oak Ridge, Tenn., and Paducah, Ky. The Cold War-era plant was built as a self-sufficient industrial city with more than 400 buildings and facilities centered around three massive gaseous diffusion process buildings that could enrich the level of the uranium-235 isotope for nuclear fuel in the defense and energy sectors.

Gaseous diffusion enrichment operations ended at Portsmouth in 2001. Subsequent work has turned to environmental cleanup, waste management, and demolition of facilities and buildings that were no longer needed. It has been a methodical process, and progress has been steady but largely unnoticed, until recently when demolition and

disposal activities shifted into high gear under the DOE's Decontamination and Decommissioning contract, managed by Fluor-BWXT Portsmouth (FBP).

In June of this year, the most significant accomplishment occurred in the D&D era at Portsmouth when the first of the three huge uranium enrichment process buildings, X-326, was safely demolished. The result is 135,000 cubic yards of debris that will be disposed of at the newly constructed On-Site Waste Disposal Facility (OSWDF).

"Our goal is to place all demolition debris from the X-326 into our On-Site Waste Disposal Facility by the end of the year," said Portsmouth Site Project Director Greg Wilkett. "This requires significant project coordination across multiple disciplines and support organizations."

The massive X-326 gaseous diffusion process building (pictured below) was one of three similar large structures



Right: Prior to demolition, thousands of process components were removed from the X-326 building for shipment and disposal off-site. Photos: Fluor-BWXT Portsmouth

at the DOE's Portsmouth Site in Ohio that were used to enrich uranium. Construction of the X-326 building was completed in 1956. It measured 2,280 feet long, 552 ft wide, and 62 ft tall and contained 2,340 separation stages to enrich uranium to its highest levels. With a footprint of approximately 29 acres, the X-326 building was the smallest of the three large process buildings at Portsmouth. The uranium processing performed in the X-326 building was capable of enriching uranium product to an assay of nearly 97 percent U-235. Well over half of the enrichment stages at Portsmouth were housed in the X-326 process building.



Preparing for Demolition

Demolition of the half-mile-long X-326 building took less than 13 months, but the process of preparing the building to be torn down took nearly a decade. From 2011 to 2020, the DOE and FBP conducted a lengthy and thorough deactivation effort to identify, characterize, and remove the majority of radiological and chemical hazards.

Deactivation included more than 1 million measurements on the process piping and components to determine if the material would exceed the waste acceptance criteria (WAC) for the OSWDF. If located, the contaminated items were carefully removed and staged for further evaluation or decontamination. Deactivation also included the removal of more than 7,000 process components, which were safely shipped off-site for disposal. What remained in the building was determined to be safe for demolition and disposal into the OSWDF if it meets the regulator-approved WAC.

Finally, all utilities were safely removed from the X-326 building including electrical power, water, sewer, and alarms and the building was declared ready for demolition in late 2020.

The demolition project used lessons learned from similar projects in the DOE complex—specifically the successful demolition of the K-25 gaseous diffusion plant in Oak Ridge, Tenn. That project included five uranium enrichment process buildings similar to the X-326 building at Portsmouth.

Continued



Structural demolition of the X-326 building was completed June 10, 2022. The focus of the project has since turned to safely disposing the debris left from demolition work at a recently constructed waste facility constructed on site.

Protecting Workers, Public, and Environment

During demolition and disposal, a prominent concern is the potential spread of airborne contamination. This is controlled through a number of methods, including the following:

- Adhesive fixative was applied to the exterior and interior of the X-326 building prior to and during demolition. This substance “locks down” potential loose contamination that could be disturbed during the demolition.
- Water misters were used to suppress dust during demolition and disposal, a standard practice in industrial settings.
- Fixative was also applied to the piles of demolition debris on the ground.
- Demolition work was not conducted if wind speed reached a sustained velocity of 15 miles per hour.

To ensure that contamination controls were working, a comprehensive network of air monitors and alarms were

put in place to detect if levels of airborne radiological gases or particulates exceeded the safety levels of the Ohio Environmental Protection Agency and Ohio Department of Health. Real-time air monitors collect data and have alarms to provide a warning if elevated radiation levels are detected. Other monitors collect air-filter samples on a daily or weekly basis for laboratory analyses to detect specific particulate contamination in the air.

Monitors were located in various directions and distances from the X-326 building demolition site to provide sufficient coverage under a wide range of wind conditions. Monitoring data was discussed with the public through regular public meetings and was shared on websites and the Annual Site Environmental Report. Data collected to date have shown that dust control measures have been effective, and any detections have been far below regulatory limits.

Through a balanced approach, the highly contaminated waste from the X-326 building demolition has been



Above: The tracked Prinoth Panther T16 crawler carrier features a zero-degree turn radius and is able to adapt to irregular terrain. It traverses the X-326 demolition area daily, spraying fixative on building debris with an onboard Dust Demolisher and 2,700-gallon tank of fixative to lock down dust.

removed and is in the next stage of being shipped off-site for disposal. The remaining waste and demolition debris is placed into the 100-acre OSWDF, which began accepting waste in 2021.

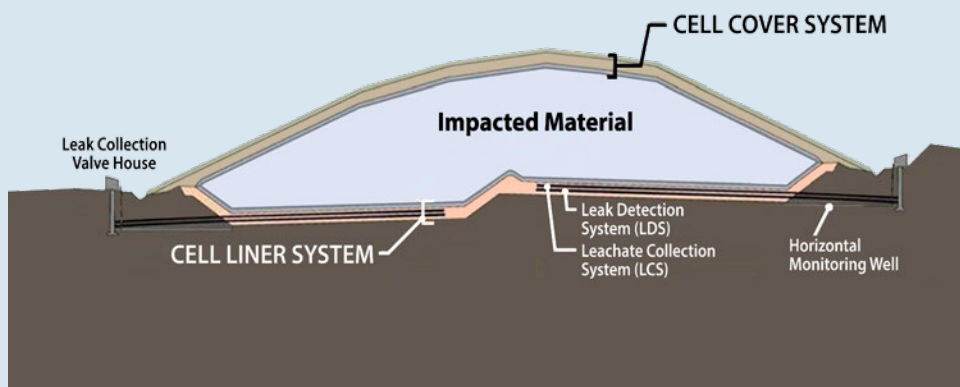
The OSWDF is an engineered disposal site with a multi-layer line and cap system designed to consolidate demolition debris and rubble into one centralized confined space that protects public health and the environment. It is constructed to meet strict state and federal environmental laws and has been proven to be safe based on similar successful operations and closed on-site disposal facilities at other DOE sites in the United States.

Located in the northeast portion of the 3,700-acre Portsmouth Site, the OSWDF is accessed by a dedicated haul road that runs directly from the X-326 building demolition site. Only trucks hauling waste to the OSWDF are permitted on the haul road. Site and public traffic are prohibited.

The entire OSWDF design includes 12 individual cells. The first three cells have been constructed and are currently accepting debris from the X-326 building, as well as engineered fill to meet the waste compaction requirements. Additional cells will be constructed as more demolition debris is generated in the future.

Continued

The OSWDF is a specially engineered disposal site with a multilayer liner and cap system designed to consolidate demolition debris and rubble into one centralized confined space that protects public health and the environment. The final impacted material disposal area footprint will occupy about 100 acres in the northeast portion of the DOE reservation.



Debris from the demolition of the X-326 building is loaded onto a truck for disposal.

Cross-Functional Coordination

Achieving the goal of placing all X-326 building debris by the end of the calendar year requires more of everything—workers, equipment, trucks, waste capacity, and compaction soil. FBP’s director of disposal integration, Frank Miller, is leading the effort to ensure that everything is done compliantly and, above all else, safely.

“This project has always been referred to as a three-legged stool with D&D, soil excavation, and On-Site Waste Disposal Facility operations,” said Miller. “With any stable piece of furniture, there are bolts, pins, and glue that keep it all together. That is where ESH&Q [Environment, Safety, Health, and Quality], WAO [Waste Acceptance Organization], Engineering, Construction, Waste Management,



Nuclear Safety, and nearly every other organization plays a key role.”

With debris disposal comes a need for a lot of engineered fill soil, more than twice as much soil as waste is needed. The OSWDF requires a 2.4–1 ratio of fill material to waste. To achieve this, soils are excavated from legacy groundwater plumes and old landfills on site. “With this approach, we avoid buying clean fill for the OSWDF, expedite the environmental cleanup of the site, and provide more land for future reuse,” said Project Director Wilkett. “It’s a win, win, win for the site.”

Since the 1990s, plume contaminants, mainly industrial solvent trichloroethylene (TCE) used during plant operations, have been extracted from the ground with traditional groundwater pump-and-treat operations. It is a slow

process, however, that can be costly over time. By digging up the remaining contaminant sources and contaminated soils, the cleanup of the groundwater plumes is significantly accelerated.

Removal and consolidation of legacy environmental concerns, including groundwater plumes and old landfills, also make more land available for future community reuse and reindustrialization—a benefit for stakeholders who want to build a sustainable economic future at the site post-cleanup. The DOE has already begun the process of transferring clean parcels of land to the designated community reuse organization, the Southern Ohio Diversification Initiative (SODI). The first parcel, 80 acres, was transferred to SODI in 2018, and another 220 acres are scheduled to be transferred this year.

Continued



The work is performed with regulatory approval under a Natural Resources Damage Act settlement and Director's Final Finding and Order authorizing excavation of five existing groundwater plumes as well as five closed waste units (i.e., landfills). Each individual waste unit or plume then needs an approved excavation work plan before excavation can be initiated, ensuring that excavation can be done safely, protectively, and compliant with all applicable or relevant and appropriate requirements. The excavated materials are then used as engineered fill in the OSWDF according to the approved WAC.

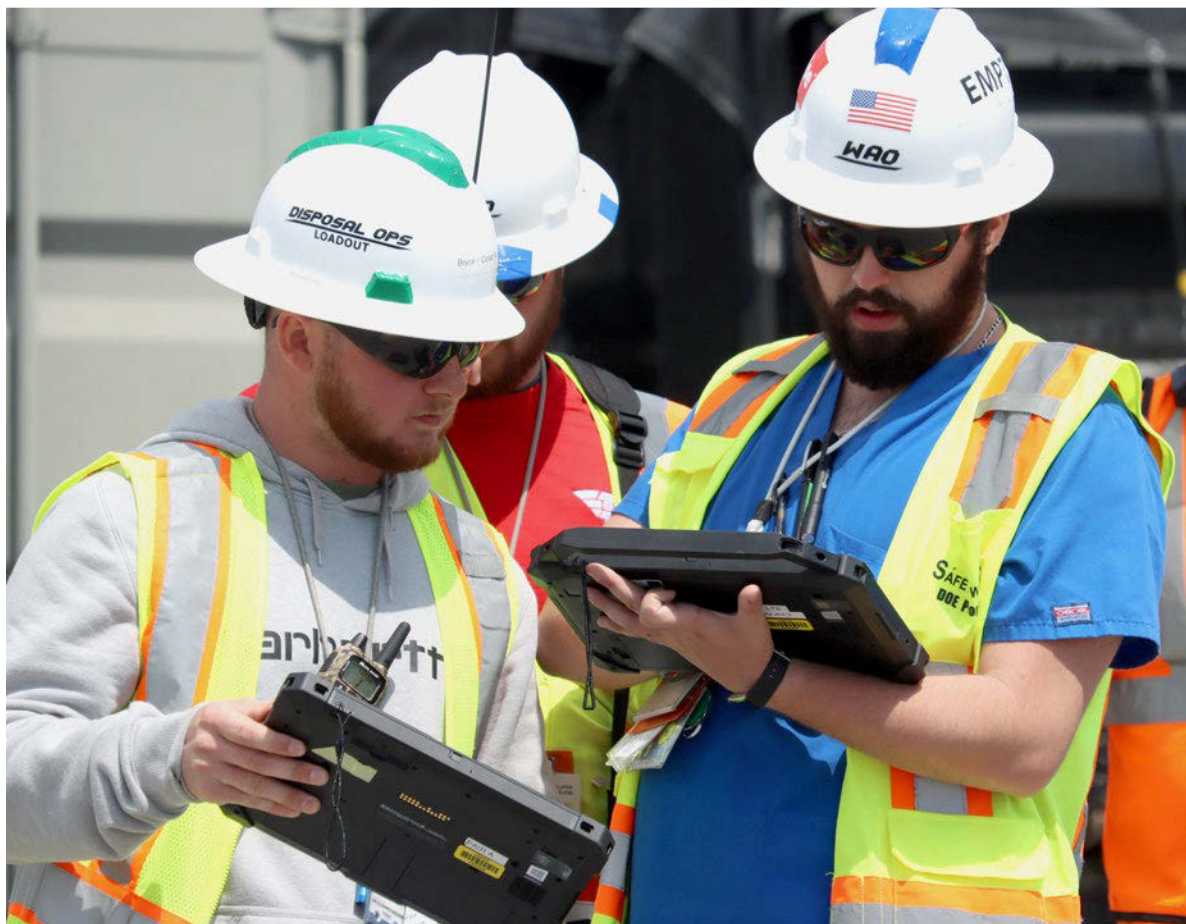
Since the first load of soil and waste was put into the cell in May 2021, more than 22,000 cubic yards of debris and 44,000 cubic yards of soil have been placed into the OSWDF. This summer, crews shifted into high gear to meet the year-end timeline. At the peak of hauling, crews were expected to move about 1,500 cubic yards of waste and 3,600 cubic yards of soil a week. That takes a lot of trucks and means sticking to a strict schedule.

"We have increased our fleet to 60 triaxle trucks in the rotation with 20 dedicated to debris and 40 to soil," said Miller. "At peak, we will be running around 400 truckloads a day: 130 will be filled with debris and 260 with soil."



As part of their independent oversight of the demolition and waste placement operations, the Ohio EPA and the Ohio Department of Health set up 23 air monitoring stations on and around the Portsmouth Site to provide verification of DOE air monitoring data.

Technicians verify truck shipment information going to the OSWDF.





Demolition debris from the X-326 building is disposed of at the Portsmouth On-Site Waste Disposal Facility. Nearly 600 employees are working at the OSWDF currently in a variety of capacities to safely dispose of the debris from the X-326 building demolition.

Adding More Staff

A project of this magnitude requires a significant workforce. So far this year, 250 new workers have been hired for a wide range of jobs. One of those is the Waste Acceptance Organization (WAO).

All demolition debris and waste must meet the strict requirements of Ohio and U.S. environmental laws before it can be placed into the OSWDF. This set of requirements, the WAC, is a strict and systematic approach for choosing the right types of waste and the right disposal methods to protect the public, environment, and wildlife.

“WAO is a compliance organization within the environmental protection organization tasked with independent oversight of compliance with the waste acceptance criteria implementation plan for wastes dispositioned to the OSWDF,” said Bridget Eslinger, waste acceptance manager. “WAO provides oversight during the waste generation and handling process until the waste is disposed of in the OSWDF by the project team.”

While a project of this size would seem to be the DOE’s main focus at Portsmouth, it is just one of many projects taking place at the site. As crews work through the X-326 building demolition project, work is already underway preparing the next building D&D project, the X-333 building, along with the construction of three more cells at the OSWDF.

“The single reason this project will be successful this year is integration,” said Miller. “The caliber of people involved from all organizations across FBP provides me the confidence that the integration will prove true.” ☒

This article appears courtesy of Flour-BWXT Portsmouth.







Oak Ridge's Changing Skyline

The decommissioning of ORNL's aging research reactors is clearing the stage for future missions at the site.

By Carol Hendrycks

An aerial photograph of Oak Ridge National Laboratory's "Reactor Hill," with, from left to right, reactor buildings 3042, 3005, and 3010. The DOE and its contractors are removing these excess contaminated facilities to eliminate risks and clear land for future research missions. (Photos: UCOR)



The Bulk Shielding Reactor was constructed in 1950 to lead groundbreaking aircraft radiation protection research as part of the federal government's Aircraft Nuclear Propulsion Program. The core structure was suspended from a movable bridge that spanned a 20-foot by 40-foot pool. A second bridge was available as a working platform and to hold special equipment.



To prepare the 3010 Bulk Shielding Reactor building for demolition, the 27-foot-deep reactor pool inside the building was filled with a concrete mixture.



Workers remove materials and complete characterization at the 3005 Low Intensity Testing Reactor building. The reactor operated from 1951 to 1968 as a water-moderated and -cooled reactor that used enriched uranium as fuel and beryllium as a reflector. It became world-famous when, for the first time, a photographer captured the blue glow caused by Cherenkov radiation in the pool above the reactor. That photo appeared on the cover of the October 1951 issue of *Scientific American*.

The Department of Energy and its environmental cleanup contractor United Cleanup Oak Ridge (UCOR) are poised to meet critical milestones as they continue to move to the next generation of cleanup at Oak Ridge National Laboratory in Tennessee. On ORNL's main campus, crews on "Reactor Hill"—so named because of the four remaining reactor facilities on that hillside—and at the Experimental Gas-Cooled Reactor (EGCR) just east of the campus continue rigorous schedules as they enter a new phase of progress in the cleanup program.

The ORNL campus skyline will change dramatically this year with demolition of the 3010 Bulk Shielding Reactor complex and the 3005 Low Intensity Test Reactor facility. Safely removing these and other highly contaminated facilities will make way for expanding future missions at one of the nation's leading research and development sites.

"We have been working toward the demolition plan of 3010 and 3005 since 2018," said Kent Ridenour, UCOR's ORNL reactors project manager. "To finally see the end in sight is impressive knowing the accomplishments and the challenges we faced over the last four years, but the craft crews and support groups worked together to make it possible."

The 3010 Bulk Shielding Reactor complex was built in the

1950s for radiation shielding studies as part of the Aircraft Nuclear Propulsion Program. Crews have just completed filling the 27-foot-deep reactor pool with a concrete mixture, permanently entombing the pool as workers prepare to demolish the building.

Other final deactivation activities include asbestos removal on the degasification tank and pipes on the outside perimeter of the complex. Once this work is completed, crews will begin demo site preparations and mobilizing equipment. Demolition is planned for early fall.

Next door to Building 3010 stands the ORNL 3005 Low Intensity Test Reactor (LITR). It started operation as a 500-kW training reactor in 1951 and reached its final 3,000-kW level as a test reactor in 1953. It was shut down in 1968. Crews have completed characterization of the facility using a gamma camera lowered into the reactor to measure the levels of radiation. Other pre-demolition activities are underway to prepare this structure for teardown later in the fall.

Nearby is the Oak Ridge Research Reactor, known as Building 3042. Constructed in 1955, this isotope production and irradiation facility operated from 1958 through 1987 and was defueled in 1989. Upon discovering a slow seep from the reactor pool, workers removed highly irradiated components

Continued



The Oak Ridge Research Reactor (Building 3042), was constructed as a three-story building with a basement in 1955 and completed in 1958. Among the many uses of the 30-MW reactor were neutron scattering research, fundamental investigations of the behavior of metals and ceramics under radiation, and the testing of materials for reactor fuel elements and for fusion devices. It also became the major world supplier of radioisotopes.

along with the pool water and sprayed the pool walls with a nonhazardous fixative to prevent contamination migration.

Today, crews are back at the 3042 Building site working on the next phase of deactivation—refilling the pool with approximately 116,000 gallons of demineralized water and inspecting the facility's existing crane, which will be used to remove the concrete shield caps and any remaining items in the reactor pool. Hazardous waste, including pipes and fixtures along the walls, will be removed from inside and outside the structure. The demolition date will be determined once these activities have been finalized.

East of the main ORNL central campus is the EGCR. Construction of this facility began in the late 1950s but was halted in 1966 when it was approximately 95 percent complete. The reactor never went operational. The facility is an eight-level, 107,922 square-foot-building constructed of steel and concrete, 114 feet in diameter and 216 feet high with approximately 50 feet below grade.

In the past six months, crews prepped the building for installation of a lift system, the Transport Platform Car System (TPCS). The TPCS will be used to mobilize both personnel and equipment into and out of the facility as well as aid in deactivation activities, which include universal/hazardous waste removal and asbestos abatement.

This system was previously used to support deactivation activities at the Biology Complex at Oak Ridge's Y-12 National Security Complex. Reusing the equipment avoided the cost of purchasing a new system. This project involved erecting and mounting a 110-foot mast with a large platform cart to the outside of the structure and required coordinated efforts among specialty trades, including iron workers, welders, laborers, carpenters, and the help of an 80-ton crane.

The TPCS will be put in service once crews begin deactivation on the upper levels of the EGCR. Remaining work consists of characterization, universal/hazardous waste removal, piping and equipment removal, asbestos abatement, and filling underground tunnels with a concrete mixture to seal off experimental cells. Much additional work will be required before EGCR can be demolished.

Each reactor poses unique challenges and pushes the workforce to be even more innovative in identifying technology solutions, broadening perspectives, and strengthening problem solving. Cleanup activities are focused on eliminating some the most contaminated structures in the world while modernizing and adapting others to make way for new missions and support a new era of scientific discovery. ☒

Carol Hendrycks is a communications strategist with UCOR.



The Transport Platform Car System is erected at Oak Ridge's eight-story Experimental Gas-Cooled Reactor building. The system will be used to move crews and equipment into and out of the facility during deactivation and demolition. The reactor, which was never completed, was intended to be a prototype for the Tennessee Valley Authority's nuclear power generation. The facility later housed ORNL's fuel recycle division.

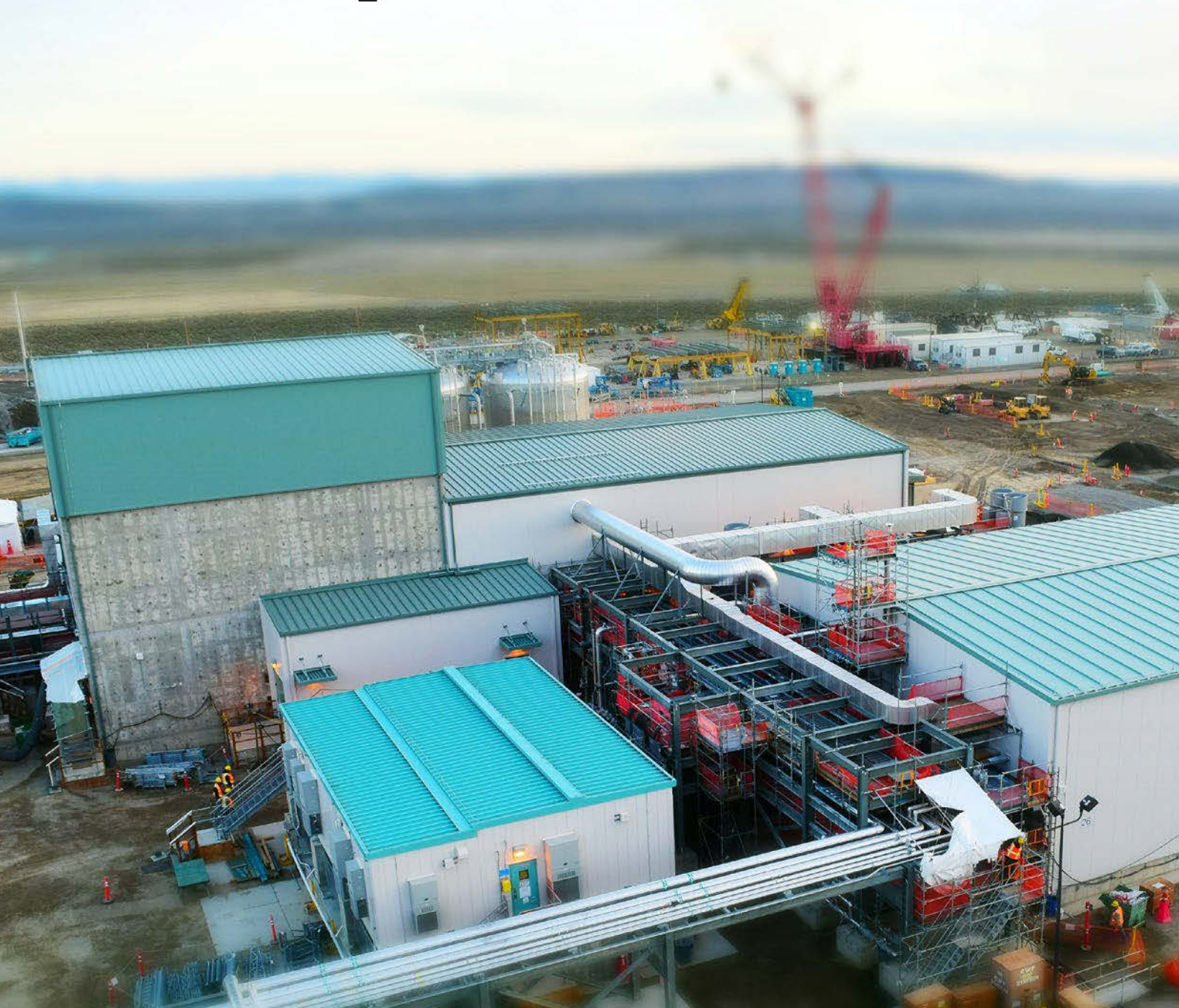


The TPCS tower units are secured together and set for final inspections.



ENVIRONMENTAL

GAO Report Shows Mission



The Effluent Management Facility, part of the Waste Treatment and Immobilization Plant at the Hanford Site. (Photo: Bechtel National)

MANAGEMENT:

Far From Complete

By Sarah Templeton

This spring, the U.S. Government Accountability Office (GAO) released an insightful report reviewing and summarizing the status and performance of the largest projects and operations within the Department of Energy's Office of Environmental Management (EM), which is responsible for the cleanup of hazardous and radioactive waste at sites and facilities that have been contaminated from decades of nuclear weapons production and nuclear energy research.

The Energy Communities Alliance, a membership organization of local governments adjacent to or impacted by DOE activities, reviewed the report, "Environmental Cleanup: Status of Major DOE Projects and Operations," and made the following remarks.

- EM estimates that the total life-cycle cost of the complex's 15 active sites is over \$525 billion.
- In total, EM (based on its own estimates) has over \$392 billion in cleanup of the nation's former weapons complex remaining.
- The completion schedule for all EM work is projected to last until 2082, assuming that funding is available and that unforeseen schedule overruns do not occur (for example, there is currently no place to ship high-level radioactive waste in the EM complex).
- Multiple factors—including the lack of a permanent waste disposition pathway, potential additional analysis of known and unknown waste sites, change in cleanup decisions, sufficient appropriations levels, adequate workforce, change in administration policy on priorities, and risks—will likely contribute to cost and schedule increases beyond the reported estimates.

The GAO report covers only known cleanup issues and excludes sites still under characterization by EM. The data comes from the DOE's Project Assessment and Reporting System and the department's Integrated Planning, Accounting, and Budgeting System, which the GAO reviewed.

Relying on DOE estimates suggests that there are likely more sites in need of cleanup than are included in the report. EM has not undertaken a risk assessment to move waste at all sites and has assumed "cap-in-place" will be the solution, even though host communities, stakeholders, and some states across the complex have been asking for different cleanup solutions or at least the cost of options.

Continued

Cleanup costs and activities at the Office of Environmental Management's 16 cleanup sites, including Brookhaven National Laboratory, which has since been completed. (GAO-22-104662)

Implications for Communities and Contractors

The report provides significant data and insights for each EM site, highlighting the work that has been completed in the complex and reminding us of the cleanup challenges ahead in the near- and long-term. It is important to remember that these are estimates that are rarely correct, and the scope of the hazardous and nuclear cleanup program is likely much larger than the numbers indicate.

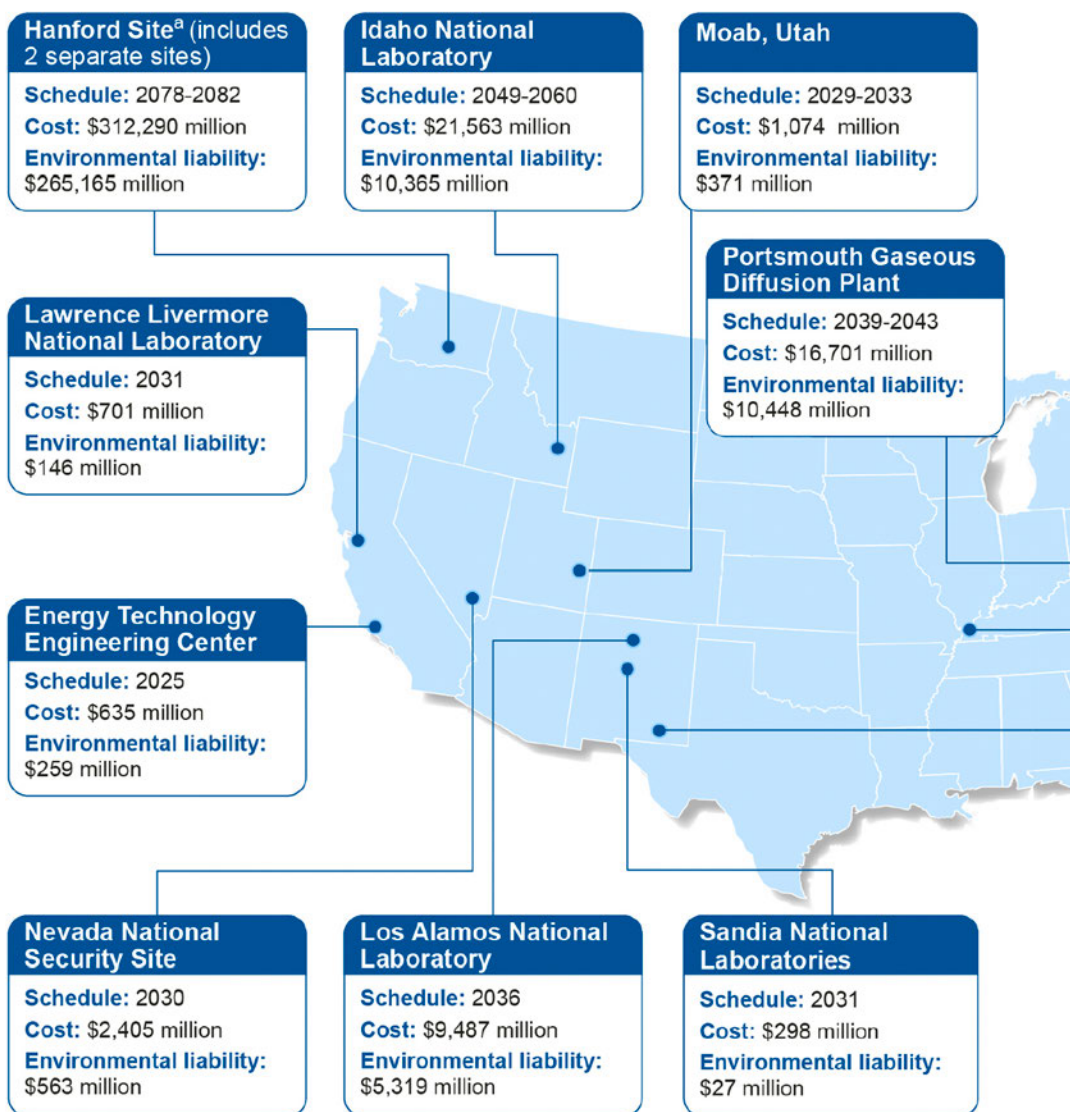
Adequate funding, both now and in the future, is equally critical for cleanup to be completed in a timely and effective manner. Collaboration between community leaders, the workforce, state, local and tribal governments, stakeholders, and Congressional champions is needed to tell the story and highlight the impact funding (or lack thereof) has on whether a cleanup project will be completed within estimated time frames and budgets.

The report also points to the need for a permanent repository or interim storage facility for defense high-level waste from EM sites. Cleanup at many of the largest sites cannot be completed without a disposition pathway, indicating that the total cleanup figure and time frames in the report will likely be even higher than estimated.

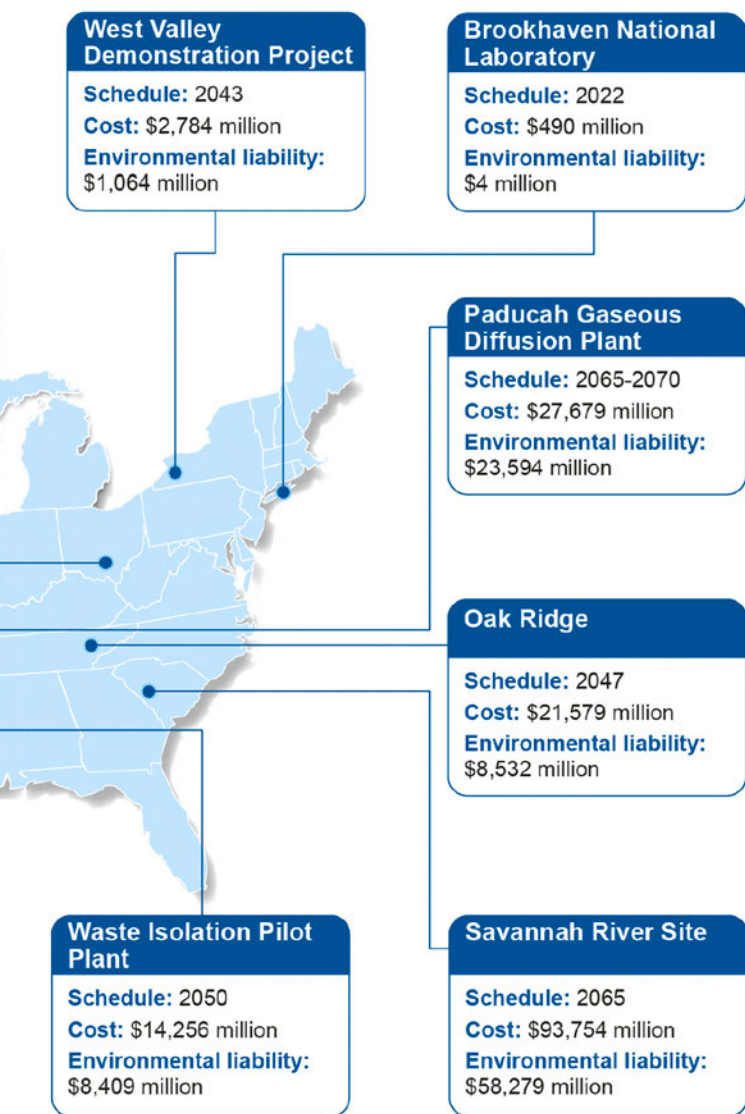
The lack of disposition pathway also suggests that sites may continue to serve as *de facto* waste storage sites for decades beyond what was originally envisioned. Communities want to support and be a part of making nuclear a successful element of the national "all of the above" energy

strategy. Failure to address legacy defense waste, however, may create social equity and environmental justice issues in existing host communities and could perhaps undermine the confidence that a future host community can trust the DOE to prioritize the sites that host federal nuclear waste missions over time.

A track toward permanent storage would help to solve the critical question of what to do with our nation's nuclear waste, work to ensure cleanup can be completed at sites within cost and schedule estimates, and foster community trust and support in the cleanup mission. This community support is crucial to successfully meeting cleanup goals in a way that will permit the sites to



Sources: GAO analysis of Department of Energy information; Map Resources (map). | GAO-22-104662



remain, or once again become, assets.

Finally, cleanup will be ongoing at some sites for decades. In the case of the Hanford Site in Washington state, it is projected to take nearly 60 more years, underscoring the need for increased engagement with the next generation of workforce. In several communities the cleanup will be a multigenerational endeavor. Many long-time workers, and their institutional knowledge, are exiting the industry; it will be important for EM, contractors, and communities alike to determine how to recruit and retain new talent. Without this critical workforce, cleanup at sites will invariably be further delayed.

Capital Assets and Operations Activities

EM divides its cleanup work into capital asset projects, which have a defined start and end point and can include the construction of new facilities for treating and disposing of waste, and operations activities, which include recurring facility or environmental operations, as well as activities that are project-like, with defined start and end dates.

As of December 2020, EM was actively managing 23 capital asset projects. Of these 23 projects, 15 had an estimated total project cost of at least \$100 million and had reached at least the critical decision 1 milestone (CD-1). CD-1 represents the point at which there is an approved alternative selection and cost range for a project.

Project cost estimates quoted in the report reflect baseline costs for the capital asset projects plus an accounting for risk, both for contractor and EM controlled risks. All other project costs include costs for performing the work, EM administrative costs, and contractor award fee.

Most of these 15 projects involve ongoing cleanup work in one of three areas: treatment and disposal of radioactive liquid waste, demolition of excess facilities, or waste disposal. Individual project costs ranged from \$127 million to \$16.8 billion each. The total combined project cost estimate for these 15 projects ranges from \$20.11 billion to \$20.36 billion, depending on the final cost estimates for two projects that had not started work at the Oak Ridge Reservation (ORR) in Tennessee.

The report also includes information on 11 EM sites that have an ongoing operations activity with a life-cycle cost of at least \$1 billion each. The life-cycle costs for these 11 operations activities range from around \$1 billion (Moab Site) to \$180.5 billion (Hanford Site).

Based on the review of EM's 15 largest capital asset projects and 11 selected operations activities, the GAO made the following observations:

Observation 1: The GAO identified that nine of EM's largest capital asset projects were completed or are expected to be completed within their initial baseline cost and schedule estimates.

Continued

Of the 15 EM capital asset projects reviewed, 13 had progressed far enough to have established cost and schedule baselines, and nine are expected to be completed within those baselines. Four projects are expected to exceed estimates.

The GAO found that, of the four projects that are not expected to be completed within their baselines, the Waste Treatment and Immobilization Plant (WTP) project and the Plutonium Finishing Plant project, both at Hanford, have completed the baseline change proposal process, and EM has approved updated cost and schedule estimates for these two projects.

EM officials stated that two projects at the Waste Isolation Pilot Plant (WIPP)—the Safety Significant Confinement Ventilation System (SSCVS) and the Utility Shaft—will not be completed within their baselines, and baseline change proposals are under review for both projects

Observation 2: The GAO identified that EM did not have sufficient staffing capacity to properly manage three capital asset projects, two of which are expected to overrun their cost and schedule baselines.

Three capital asset projects—two at WIPP and one at ORR—experienced issues during either their design or construction phases that were, in part, due to the capacity of federal and contractor staff, according to EM officials.

The GAO has previously reported that the Carlsbad Field Office, which oversees WIPP, had experienced staffing shortages for multiple years, and an EM document cited this problem as a factor contributing to problems with the SSCVS project. The flaws in the Utility Shaft project were also attributed to a limited number of staff with sufficient experience at the Carlsbad Field Office.

The Outfall 200 Mercury Treatment Facility project at ORR encountered bedrock and soils problems during

Table 1: Office of Environmental Management (EM) Capital Asset Projects with Estimated Costs of at Least \$100 million, by EM Site

| EM site | Capital asset projects | Project cost estimate as of December 2021 (costs in millions of dollars) |
|--|--|--|
| Hanford Site: Office of River Protection | Waste Treatment and Immobilization Plant(WTP)/WTP LBL Direct-Feed Low-Activity Waste | 16,813 ^a |
| Hanford Site: Office of River Protection | Tank-Side Cesium Removal System | 164 |
| Hanford Site: Richland Operations Office | Plutonium Finishing Plant | 209 |
| Oak Ridge Reservation | Sludge Processing Facility Buildouts | 127-171 ^b |
| Oak Ridge Reservation | On-Site Waste Disposal Facility | 175-375 ^b |
| Oak Ridge Reservation | Outfall 200 Mercury Treatment Facility | 224 |
| Portsmouth Site | X-326 Process Building Demolition Project | 160 |
| Portsmouth Site | On-Site Waste Disposal Facility (CAP-1) | 275 |
| Portsmouth Site | On-Site Waste Disposal Facility (CAP-2) | 373 |
| Savannah River Site | Saltstone Disposal Unit 7 | 127 |
| Savannah River Site | Saltstone Disposal Units 8 and 9 | 280 |
| Savannah River Site | Saltstone Disposal Units 10 through 12 | 496 |
| Waste Isolation Pilot Plant | Safety Significant Confinement Ventilation System | 288 |
| Waste Isolation Pilot Plant | Utility Shaft | 197 |
| West Valley Site | Main Plant Processing Building | 206 |

(GAO-22-104662)

Table 2: Office of Environmental Management (EM) Nuclear Cleanup Sites with an Operations Activity with an Estimated Cost over \$1 Billion

| EM Site | Name of Operations Activity | Life-cycle cost estimate as of December 2021 (in billions of dollars) |
|--|--|---|
| Hanford Site: Office of River Protection | Radioactive Liquid Tank Waste Stabilization and Disposition | 180.5 |
| Hanford Site: Richland Operations Office | Hanford Central Plateau | 22.9 |
| Idaho National Laboratory | Idaho Nuclear Technology and Engineering Center Infrastructure | 2.2 |
| Los Alamos National Laboratory | Los Alamos Soil and Water Remediation | 3.8 |
| Moab Site | Moab Uranium Mill Tailings Project | 0.93 |
| Oak Ridge Reservation | Nuclear Facility Deactivation and Decommissioning-Y-12 | 3.08 |
| Paducah Site | Paducah Gaseous Diffusion Plant Deactivation and Decommissioning | 35 |
| Portsmouth Site | Nuclear Facility Deactivation and Decommissioning | 12.2 |
| Savannah River Site | Radioactive Liquid Waste Stabilization and Disposition | 43.3 |
| Waste Isolation Pilot Plant | Waste Disposal Facility Operations | 2.94 |
| West Valley Site | West Valley Nuclear Facility Deactivation and Decommissioning | 2.8 |

(GAO-22-104662)

Construction takes place on the Mercury Treatment Facility at the Y-12 National Security Complex in Oak Ridge, Tenn. (Photo: DOE)



construction of the foundations of the project's two main buildings. EM officials said that the project staff did not have the necessary technical expertise to address these problems, so outside contractors were brought in with the necessary technical experience.

Observation 3: The GAO identified that EM has not completed updates to life-cycle estimates for operations activities, and prior data have limitations, which impacts EM's ability to accurately measure operations activities' performance.

A recent EM protocol requires sites to update their life-cycle estimates for operations activities annually as part of a broader process for maintaining the over-all life-cycle cost and schedule estimates for completing cleanup at each site. Officials at 10 of the 11 sites reviewed told the GAO that they were in the process of updating their cost and schedule estimates for their operations activities.

The EM sites included in the report had not yet completed new estimates using the process established in the new protocol. Several of the estimates that the GAO collected had not been updated in several years, though there have been significant changes to the conditions at certain

sites. For example, the estimate for the operations activity at WIPP has not been updated since 2013, and EM officials stated that the estimate does not take into account how operations at the site have changed following a radiological release in 2014.

In 2019, the GAO reported that the tools EM uses to measure contractors' performance on operations activities do not provide a clear picture of performance for EM leadership, Congress, and other stakeholders. EM's ability to have the information EM needs to assess the performance of cleanup work managed as operations activities will depend, in part, on whether updates to the cost and schedule estimates for all operations activities are completed in accordance with EM's protocol.

Observation 4: The GAO identified that EM officials at multiple sites identified examples of ways in which current and future EM cleanup funding could affect cleanup costs.

The report gives examples of scenarios in which funding increases or shortfalls could have significant impacts on the costs for completing cleanup work at the Hanford Site, the Portsmouth Site, ORR, and Idaho National Laboratory (INL).

Continued

At the Hanford Site, EM officials stated that annual appropriations are not sufficient to meet certain legal requirements for high-level waste treatment. Various analyses indicate that achieving certain milestones for the HLW and pretreatment facilities are improbable given the imbalance of reasonably anticipated Congressional appropriations and the current anticipated funding requirements to complete the WTP project. EM officials also said that the Hanford Lifecycle Scope, Schedule, and Cost Report forecasts a significant increase in life-cycle cost and schedule for completing the cleanup of the entire Hanford Site.

EM officials at the Portsmouth Site stated that funding to support the timely transition of experienced contractors from one decontamination or demolition project to the next is not always available when work on one project is completed. As a result, some of the experienced workforce has to be demobilized and is potentially lost to other work. In this case, EM will likely incur additional costs to transition a contractor to other projects once funds become available.

EM officials at both ORR and INL stated that the life-cycle cost and schedule estimates for site operations activities are directly dependent on the schedule for completing the cleanup activities they are supporting. For example, if additional funding were prioritized for completing deactivation and decommissioning of excess facilities at ORR, the cost for that work would likely decrease, as the schedule could be accelerated. This would also likely reduce the life-cycle cost for the operations activity with the highest estimated cost because EM would likely shorten the period it had to maintain surveillance and maintenance activities, according to EM officials.

Observation 5: The GAO identified that the extent of cost increases for EM capital asset projects and operations activities due to COVID-19 are not fully known.

According to EM officials at multiple sites, contractors have tracked the costs incurred from implementing safety measures to address COVID-19, and EM had reimbursed contractors for some of these costs. EM officials interviewed at several sites told the GAO that EM incurred other costs as a result of COVID-19, such as costs from new sanitization programs, installing new workspaces for social distancing, and higher commodity prices, and that the full extent of these other costs is not yet known. Additionally, a COVID-19 reemergence leading to a return to minimum on-site work is possible.

Life-Cycle Costs

Life-cycle costs as described in the report include the scope, cost, and schedule profiles for the work activities required to complete EM's mission at specific sites, including costs that have already been incurred. Life-cycle costs also include a risk management plan, which defines the scope and process for the identification, assessment, and management of risks to a program, and a risk register, which includes information on the type of risks or opportunities, their probability, and the potential magnitude of the consequences if they were to be realized.

The total estimated life-cycle cost of the 15 currently active sites is over \$525 billion. The greatest contributor to this total is the Hanford Site, which represents \$312 billion and where cleanup is scheduled to be completed between 2078 and 2082.

The GAO found that most projects across the cleanup complex were expected to be completed within initial cost and schedule estimates. However, officials at several projects that experienced cost overruns and schedule delays cited staffing shortages as a contributing factor. In addition, the GAO found that the life-cycle estimates for cleanup operations were frequently out of date, and the DOE was in the process of implementing a new policy to require annual updated estimates at the time the report was created.

The report also does not appear to consider the lack of disposition pathway for defense waste in its estimates of life-cycle costs. A repository is likely decades away from being positioned to start taking waste, and in the interim, there is no place to store high-level waste for several sites. The report fails to account for the cost of on-site storage of waste in a manner not meant for long periods of time. It is also unclear if the report includes cost of transportation to a final disposal site, among other important considerations.



Environmental Liability

The report also provides estimates of environmental liability at each site, which is EM's evaluation of the probable costs for the future cleanup of legacy defense waste. The current total of environmental liabilities across the complex's 15 active sites is \$392 billion. The environmental liability for each site includes only the remaining costs for future work and largely reflects approximations of future costs to clean up legacy radioactive tank waste and contaminated facilities and soil.

Broadly, the DOE's environmental liability is based on:

- Estimate updates.
- Schedule slippage.
- Changes in assumptions.
- Plan changes.
- Funding shortfalls.
- New scope.
- Nonmonetary loss contingencies, among other factors.

In recent years, EM's environmental liability has increased. A 2019 GAO report ("Department of Energy: Program-Wide Strategy and Better Reporting Needed to Address Growing Environmental Cleanup Liability") addressed key factors in this growth, which include:

- Contract and project management problems.
- Regulator changes.
- Accidents, work stoppages, or disruptions.
- Technical challenges.
- Scope, cost, or schedule changes.
- Repository uncertainty.

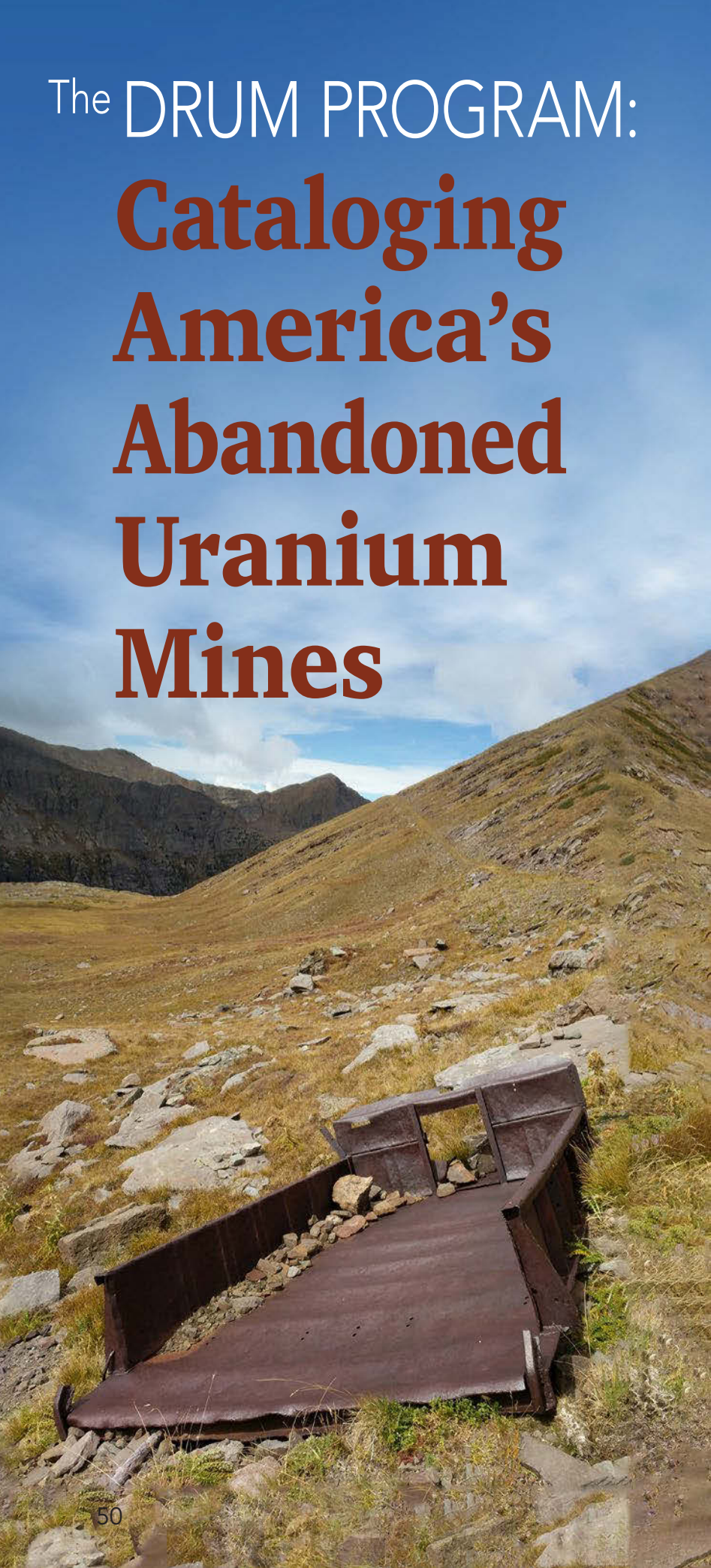
As previously noted, however, the figures given for EM's environmental liability do not appear to account for the lack of a permanent disposition pathway and the possible increase in costs resulting from continued on-site waste storage, transportation to a repository, etc. The report also notes future risks that could impact cost and schedule of operations activities at sites but does not indicate a potential dollar figure increase or the extent to which these risks could delay projects if they are realized. ☒

Sarah Templeton is program manager for the Energy Communities Alliance.

Concrete is poured on the New Filter Building at the Waste Isolation Pilot Plant in New Mexico in early 2022. The building is part of the new Safety Significant Confinement Ventilation System capital asset project. (Photo: DOE)



The DRUM PROGRAM: Cataloging America's Abandoned Uranium Mines



Based on a review of U.S. Atomic Energy Commission (AEC) records and available data from numerous agencies, there are an estimated 4,225 mines across the country that provided uranium ore to the U.S. government for defense-related purposes between 1947 and 1970. To aid in the cleanup of these legacy uranium mines and establish a record of their locations and current conditions, the Defense-Related Uranium Mines (DRUM) program was established within the Department of Energy's Office of Legacy Management (LM).

A partnership between the DOE, federal land management agencies, and state and tribal abandoned mine lands, the DRUM program is tasked with verifying and validating the condition of abandoned uranium mines in the United States and assessing their potential risk to the health and safety of the public and the environment.

According to the DOE, approximately 69 percent of the legacy uranium mines are in Colorado (1,539) and Utah (1,380), with another 23 percent located in Arizona (413), Wyoming (319), and New Mexico (247). Out of the 75.9 million tons of uranium ore produced for defense-related purposes, New Mexico mines produced over 35 million tons, followed by Colorado, Utah, and Wyoming, each with more than 11 million tons.

◀ A dump bed from an ore truck remains at the Mercury 1 Mine in the Sangre de Cristo Range of southern Colorado. (Photos: LM)

Initiated in 2017, DRUM Campaign 1 focused on approximately 2,500 legacy mines located on public land and administered by federal and state agencies. Field work on Campaign 2 began in fiscal year 2022 and assessed DRUM sites on tribal land. Campaign 3, which will address DRUM sites on private property, is scheduled to begin field work in FY 2024.

LM implements the program by conducting verification and validation (V&V) activities, which include:

- Exchanging program results and information with other federal, state, and tribal governments.
- Performing field inventories to document mining-related features at DRUM sites for safety risks.
- Conducting environmental sampling to evaluate health and environmental risks.
- Producing mine-specific reports that document conditions at DRUM sites.
- Working with partner agencies to leverage resources to address mines with physical safety hazards.

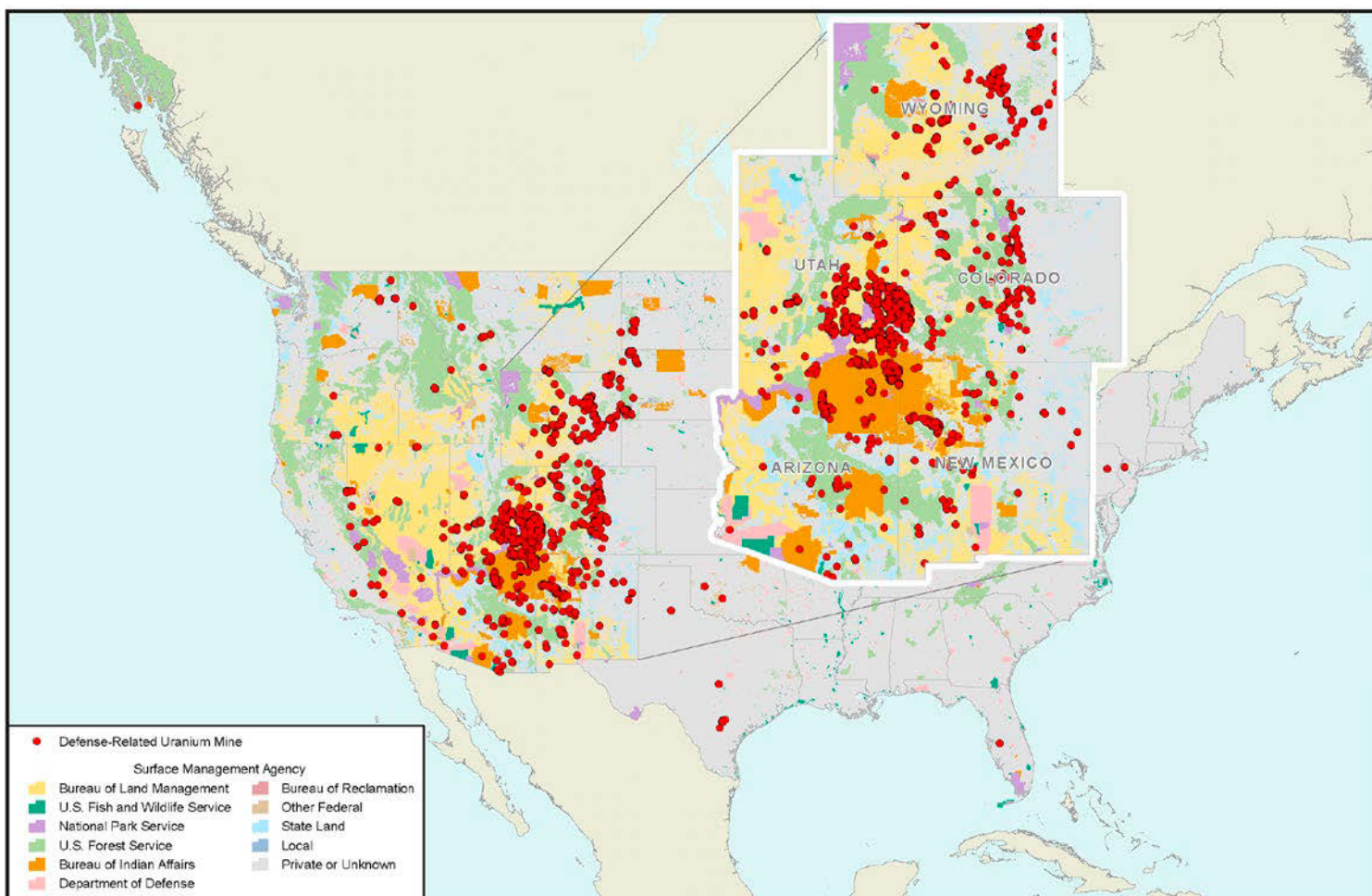
REPORT TO CONGRESS

The DOE obtained its authority for the DRUM program under Section 3151 of the National Defense Authorization Act for FY 2013, which mandated that the secretary of energy conduct a review of and prepare a report on abandoned uranium mines that provided uranium ore for defense-related activities. To develop the report, the DOE consulted with other federal agencies, affected states and tribes, and the public.

In August 2014, the DOE submitted the *Defense-Related Uranium Mines Report to Congress*, which found that records were frequently inaccurate regarding the locations and descriptions of mines at which uranium ore was extracted for defense-related atomic energy activities. Information about the status of these mines was likewise largely unknown or not well documented.

The report to Congress addressed the location of mines

Continued



Distribution of defense-related uranium mines across the U.S. (Image: LM)

on federal, state, tribal, and private land and the status of efforts to remediate or reclaim these mines; the extent to which mines pose a significant radiation hazard or other public health and safety threat and cause, or have caused, water contamination or other environmental degradation; a priority ranking for the reclamation and remediation of mines; and the potential cost and feasibility of reclamation and remediation in accordance with federal law.

While the report noted that different government agencies have made varying levels of progress on the reclamation and remediation of abandoned U.S. mines, the cleanup status of only 15 percent of defense-related uranium mines could be confirmed. The report also noted that all of the very large mines (over 500,000 tons of ore produced) have been or are in the process of being reclaimed or remediated.

In terms of risk to human health, the report concluded that for all receptor scenarios evaluated, radon inhalation was the largest contributor to radiological risk, followed by exposure to external gamma radiation. According to the DOE, reclamation that includes stabilizing and covering the waste pile helps mitigate radon and gamma emissions. Sealing mine adits (portals) and shafts can also provide significant reductions in potential radon exposure, the DOE said.

THE WORKING GROUP

After the 2014 report to Congress, LM continued its collaboration with other federal agencies and formed the Abandoned Uranium Mines Working Group (AUMWG), which is composed of representatives from the DOE, the Environmental Protection Agency, the Bureau of Land Management, the Department of the Interior, the Forest Service, the Department of Agriculture, and the U.S. Bureau of Indian Affairs.

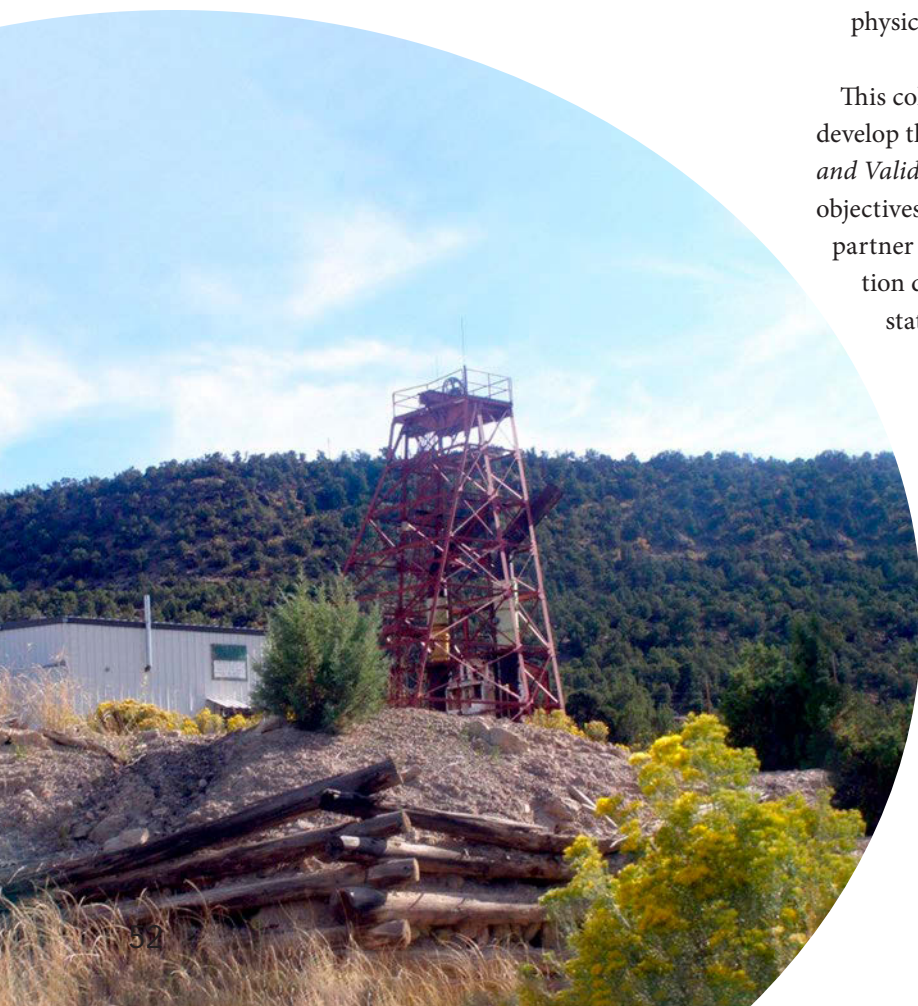
Through the AUMWG collaboration, the DOE, BLM, and USFS determined that many unknowns (e.g., status, location, and ownership) still exist for the approximately 2,500 mines on public land. As a result, the DOE entered agreements with various federal and state agencies to fill existing data and information gaps surrounding DRUM sites.

According to the DOE, the purpose of these agreements is threefold:

- Facilitate the DOE's capability to conduct V&V evaluations of the mines on public land.
- Evaluate and document potential hazards to human health and safety posed by mining features at the mines visited.
- Facilitate safeguarding the public from the identified physical safety hazards at the mines visited.

This collaborative effort with partner agencies led LM to develop the *Defense-Related Uranium Mines Verification and Validation Work Plan* in 2021, which provides the objectives, direction, and methodologies for how LM and partner agencies will collect, store, and report information during V&V activities at mines on federal- and state-managed public land.

Mine wastes outside the Davis
Uranium Mine in Colorado.
(Photo: EPA)



The secured entry to a hazardous abandoned uranium mine in the Red Canyon area of southeastern Utah.



PRIMARY OBJECTIVES

As stated in LM's 2021 V&V work plan, the primary objective of the DRUM program is to verify the location, production records, and status of reclamation or remediation, and validate current site conditions of legacy uranium mines. The data gathered will further be used to evaluate mines' human health and environmental risks and physical hazards using a combination of weight-of-evidence and risk screening approaches that will help land management agencies recognize and prioritize mines for possible future actions.

To accomplish these objectives, the DOE is assessing various data sets and collecting new data to make determinations on a mine-specific basis and perform risk scoring assessments of these mines. Most of the data will be observational and descriptive in nature (e.g., the location, complexity, and general condition of mine features); however, some are newly acquired analytical data.

The objectives and data inputs for the observational and analytical data consist of the following:

1. Existing information garnered from AEC historical records, including mine location; historical production; partner agency records; status of permitted mines; and other resources (e.g., the U.S. Fish and Wildlife Service's Information for Planning and Consultation System) pertaining to habitat for ecological resources that include sensitive species and game animals, area geology, watersheds, and the presence of surface water.
2. Observational data will be collected during inventory efforts by partner agencies or by LM's contractor. Data will include, but not be limited to, the following: the

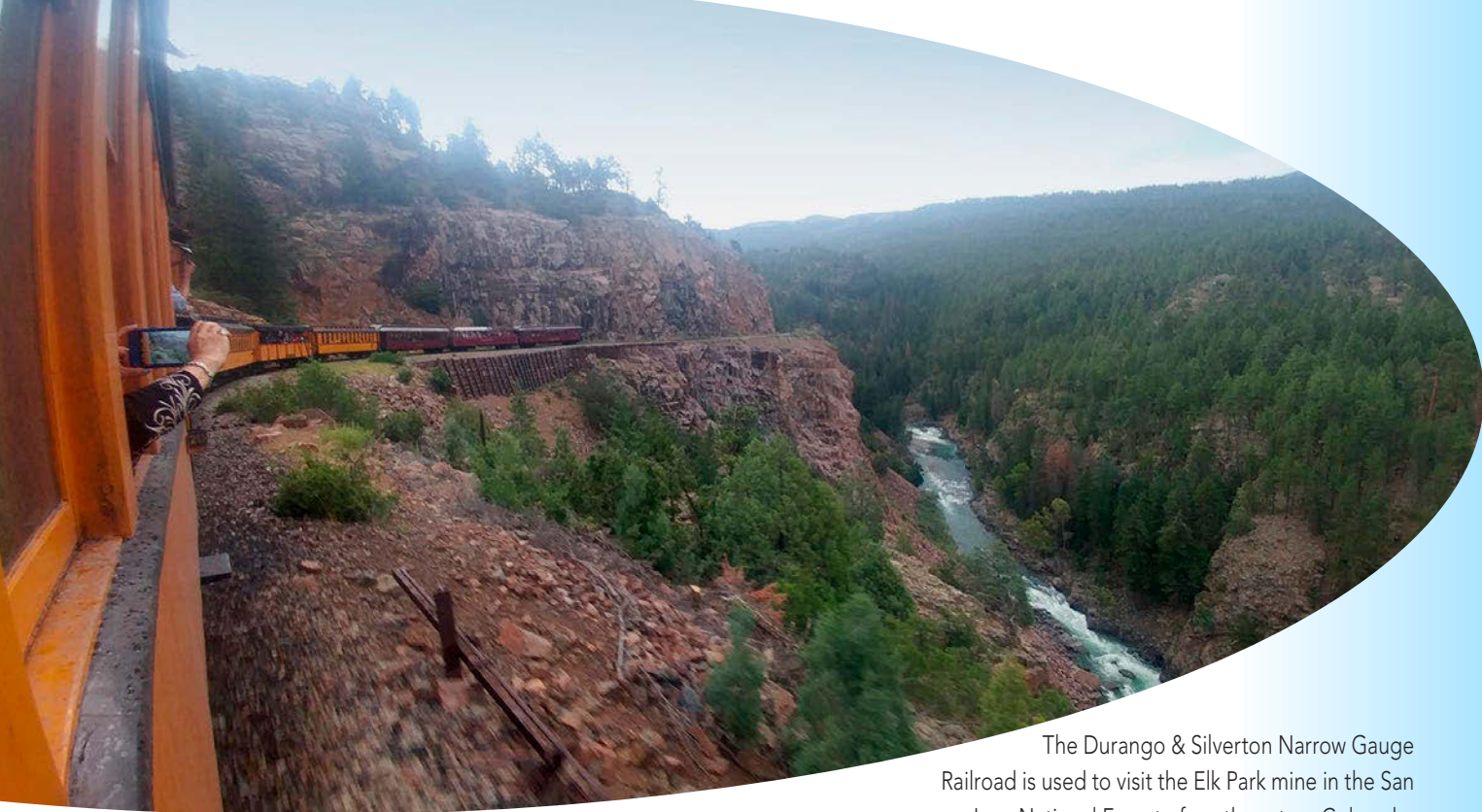
mine location; physical hazard locations and photographs; evidence of human use or visitation of the mine; evaluation of the potential for human access to the mine; location of significant mine features, including the footprint and volume of waste rock piles; and evidence of the presence of sensitive flora or fauna species or their potential habitat.

3. Analytical data regarding metals and radiological activity are obtained through gamma radiation measurements, radiological screening, and soil and sediment shed sampling. Such data are compared with benchmarks established by the BLM and the DOE and will be used to screen for potential human health risks.

The DRUM program comprises five teams, with four individuals per team to handle each of these tasks: a field team lead, a geologist, an ecologist, and a safety specialist/radiological control technician. According to the DOE, these teams visit a variety of different mine sites across the country every year, many of which are in remote locations.

DRUM field team members say that one of the biggest challenges of the job is the logistics of accessing the remote sites. Not only do four team members need to access each mine site, but they each carry a fair amount of work-related gear. Although most sites can be accessed through the combined use of a four-wheel-drive truck, a utility terrain vehicle, and a short hike, others prove to be more challenging. Team members also try to minimize their impact on resources, wildlife, and native flora when visiting mine sites.

Continued



The Durango & Silverton Narrow Gauge Railroad is used to visit the Elk Park mine in the San Juan National Forest of southwestern Colorado.

CURRENT MILESTONES

Earlier this year, LM announced that DRUM program teams completed a major milestone on March 28 by delivering 507 V&V mine visits during the field season running from April 1, 2021, to March 31, 2022. The V&V work was completed by LM support contractor RSI EnTech.

“This goal was a crucial step in reaching the program’s milestone of completing approximately 2,500 mines on public land by September 30, 2023,” said LM’s DRUM team technical lead William Burns. “Approximately 1,830 mines have been completed to date.”

Most of the 507 mines the DRUM teams visited are in Utah and Colorado. According to LM, DRUM teams efficiently coordinated and planned efforts with multiple land management agencies to reach this important milestone.

“Reaching this milestone while navigating harsh weather, personnel changes, and a global pandemic speaks volumes to the focus and dedication of the DRUM field teams,” Burns said.

DRUM was expected to continue additional field work on public lands and tribal lands in 2022. DRUM project managers are in contact with tribal abandoned mine lands programs to develop cooperative agreements, establish risk screening scenarios, and conduct environmental reviews.

“Mines on private lands will be visited by DRUM field teams starting in 2024,” Burns said. “These efforts come together into the DRUM safeguarding program where DRUM works with multiple stakeholders to continue to protect human health and the environment.”

In May of this year, representatives of the Navajo Nation Abandoned Mine Lands Reclamation Department (NNAMLRD) and members of the DRUM program led two days of tours of sites near Cortez in southwestern Colorado and mines in the Tse Tah and Red Mesa regions in northeastern Arizona. LM said the tour in the Navajo Nation gave agencies a chance to see how such mines have been successfully reclaimed and safeguarded.

According to LM, the NNAML RD team has used several different methods of safeguarding and reclaiming adits and waste rock. Most projects entail the use of explosives to collapse the adits, adding waste rock to the hole, then covering the site with soil cover. In many instances, waste rock from the site was used to provide top cover and to create retaining walls to manage surface water runoff. In most cases, the earthen structures, constructed to contain the mine waste rock, have been meticulously blended into the topography and are barely noticeable, even to the trained eye.

At one of the sites, the NNAML RD conducted an environmental monitoring project to evaluate water runoff above the cell and observed the hydrologic cycle in association with mine waste leachability, LM said.

“We wanted to know if there was enough surface moisture from rain and/or snow to leach contaminants from the mine waste or was the moisture evaporating before it reaches the mine waste,” said Melvin Yazzie of NNAML RD. “From our short time, we showed that in this arid region, the moisture does evaporate or transpire before leaching the mine waste.” ☒

Edited by Tim Gregoire

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DRUM team members at the Telluride 18 mine in the Yellow Cat area of southwest Colorado.

Index to Categories

The following categories are included in Section I of the Buyers Guide, “Products, Materials & Services Directory,” which begins on page 63. Categories are listed there in alphabetical order, and each category is identified with a code number—for example, “Absorbers, Nuclear Radiation,” code number 00400; “Work Platforms,” 96200. Section II, the “Directory of Suppliers,” begins on page 107 and provides the phone numbers and contacts of the companies listed in Section I. Extensive cross references are included here, but not in Section I.

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| | Valve Testing— <i>see</i> Maintenance Services; Test Equipment | | Valves, Plastic-Lined— <i>see</i> Valves, Other | Waste Storage Facilities, Radioactive, On-Site— <i>see</i> Rad. Waste Handling & Treatment Equip. |
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| 90800 | Valves, Control | 102 | Valves, Ram-Type— <i>see</i> Valves, Other | 93900 Welding Services— <i>also see</i> Diving Services |
| | Valves, Controlled-Closure— <i>see</i> Valves, Check; Valves, Other (Line-Blind) | | Valves, Relief, Safety— <i>see</i> Valves, Other | 105 |
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| | Valves, Excess-Flow— <i>see</i> Valves, Other | | Valves, Solenoid— <i>see</i> Valves, Other | Whole-Body Counting Services— <i>see</i> Health Physics Services |
| | Valves, Fail-Safe— <i>see</i> Valves, Other | 92300 | Valves, Vacuum— <i>see</i> Valves, Other | Whole-Body Monitors— <i>see</i> Equipment Rental; Monitors, Radiation, Personnel |
| | Valves, Feedwater Isolation— <i>see</i> Valves, Other | | 92300 Vessels— <i>also see</i> Respiratory Protection Equipment | 103 |
| | Valves, Filter, In-Line— <i>see</i> Valves, Other | | Vests, Bullet-Resistant— <i>see</i> Security Systems & Devices | Wind Monitoring— <i>see</i> Environmental Monitoring Serv. |
| | Valves, Fire Deluge— <i>see</i> Valves, Other | | Video Displays— <i>see</i> Computers; Data Readout Devices; Security Systems; Television Systems | Window Reducers— <i>see</i> Solid Waste Reduction Equipment |
| | Valves, Flow Monitoring/Alarm System— <i>see</i> Valves, Other | 92800 | Video Services | 103 |
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| | Valves, Instrumentation Manifold— <i>see</i> Valves, Other | | | 105 |
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U. L.-Rated, 3 Hour
Glove Boxes
Sealed Enclosures
Seismic Supports
Cooling Coils
Heating Coils
Heat Exchangers
Tanks

QUALITY CERTIFICATIONS

NQA-1
ASME AG-1
10CFR50
Appendix B
ASME R, S, U
AWS



For more information please contact:

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(412) 777-5101 • ssmi.biz

Radwaste Solutions

2022



Buyers Guide

Nearly 500 companies listed throughout 171 categories of products and services related to the handling, treatment, cleanup, transportation, storage, and disposal of radioactive waste.

00300 Abrasives—also see *Cleaning Equipment*

B Bonded
C Coated
LP Lapping & Polishing Grits
NW Non-Woven Fiber
Bakelite Synthetics, Louisville, KY (C)
EFCO USA, Inc., Charlotte, NC (LP)

Free Form Fibers, Saratoga Springs, NY (LP, NW)
Springs Advanced Technology Group (ATG), LLC,
Westminster, CO (C)

00400 Absorbers, Nuclear Radiation— also see *Neutron Absorbers; Sorbents*

Ellis & Watts Global Industries, Inc., Batavia, OH

Framatome Inc., (North American Headquarters),
Lynchburg, VA
Hopewell Designs, Inc., Alpharetta, GA
ISO FLEX USA, San Francisco, CA
METOIL, Praha, Czech Republic
Roberts Engineering Services, Inc., Stuart, FL
Westinghouse Electric Co. LLC, Cranberry
Township, PA

03000 Air-Conditioning & Ventilation Equip.—also see *Dampers; Filter Housings; Filters; Training*

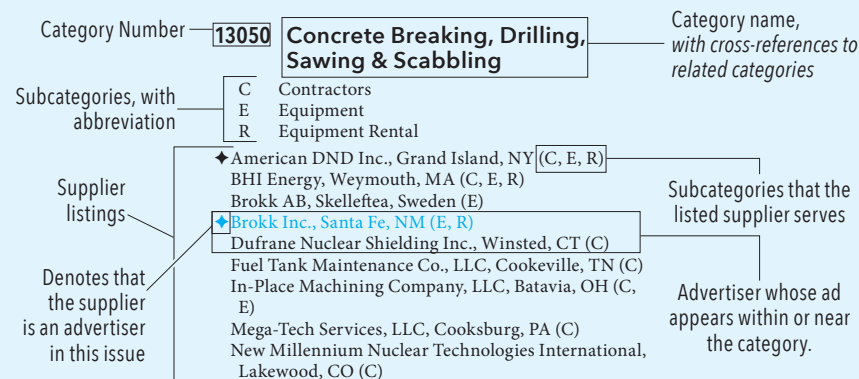
AC Air-Conditioning
AN Air Distribution Nozzles
AD Air Dryers
AF Air Filtration Units
AH Air Handling
C Chillers
CO Condensing Units
DH Dehumidifiers
D Ductwork
EC Evaporative Coolers
F Fans & Blowers
L Louvers
V Ventilation
VP Ventilation, Portable
VT Ventilation, Test Equipment

BHI Energy, Weymouth, MA (V, VP)
Curtiss-Wright Nuclear Division, QualTech NP,
Cincinnati, OH (AC, AN, AD, AF, AH, C, CO,
DH, D, EC, F, L, V)
DC Fabricators Inc., Florence, NJ (CO)
Ellis & Watts Global Industries, Inc., Batavia, OH
(AC, AD, AF, AH, C, CO, DH, D, EC, F, L, V, VP)
E.S. Fox Limited, Niagara Falls, Ontario, Canada
(AC)
Framatome Inc., (North American Headquarters),
Lynchburg, VA (C, V)
Fram Safety Products, Inc., Nashville, TN (AD,
AF)
New York Blower Company, Willowbrook, IL (AH,
F, V)
NuSource LLC, Alexandria, VA (AD, AF, AH, C,
CO, F)
Pajarito Scientific Corp. (PSC), (Pajarito Scientific
Security Corp.) (PSSC), Santa Fe, NM (V, VP)

This section contains an alphabetical listing of nuclear products, materials, and services, with the companies that supply these items. Exactly 171 categories are included (see “Index to Categories,” pp. 56–61). Extensive cross references are not included in this section, but can be found in the Index to Categories.

The supplier listings in each category are based on annual updates made by the individual companies to their online verification forms. Nearly 500 companies are represented throughout these pages. **Those companies whose names are preceded by a diamond (◆) have an advertisement in the 2022 Radwaste Solutions Buyers Guide. Companies highlighted in blue have an advertisement within or near that category.**

Anatomy of a Radwaste Solutions Buyers Guide listing



◆Paragon Energy Solutions, Fort Worth, TX (AC, AF, C, EC, F, V)
 PMT Nuclear, Woodridge, IL (AC, AN, AD, AF, AH, C, CO, DH, D, EC, F, L, V, VP)
 River Technologies, LLC, Forest, VA (AF, D, F, V, VP)
 Springs Advanced Technology Group (ATG), LLC, Westminster, CO (AH)
 SPX Cooling Technologies, Inc., Overland Park, KS (EC, F, L)
 ◆SSM Industries, Inc., Pittsburgh, PA (AC, AD, AF, AH, C, CO, DH, D, EC, F, L, V)
See advertisement on page 62
 Super Radiator Coils, Chaska, MN (AC)
 TEiC, Duncan, SC (C)
 Unified Engineering, Hamilton, Ontario, Canada (L)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (V, VT)

03180 Alarm Status Reporting & Control Systems

Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID
 Mirion Technologies, Inc., Atlanta, GA
 Power System Sentinel Technologies, LLC, Warrior, AL
 Radiation Safety & Control Services, Inc., Seabrook, NH
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom
 Westinghouse Electric Co. LLC, Cranberry Township, PA

03200 Alarm Systems—also see Emergency Warning Systems; Security Systems

AI Anti-Intrusion
 AS Audible Signal
 C Criticality
 F Fire
 FR Flow Rate
 LE Level
 LI Limit
 P Pressure
 R Radiation
 RT Reactivity Transient
 RV Recorded Voice, Digital (Multiple Messages)
 V Visual Signal
 Acromag Inc., Wixom, MI (LE, LI, P)
 Alison Control Inc., Fairfield, NJ (F)
 CAEN SyS, Viareggio, LU, Italy (R)
 FCI-Fluid Components International LLC, San Marcos, CA (FR, LE)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (F, LE, R, RT)
 General Atomics Electromagnetic Systems, San Diego, CA (R)
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (FR, LE, LI, P, R, RT)
 Hoskin Scientific, Oakville, Ontario, Canada (FR, LE, LI, P)
 Intek, Inc., Westerville, OH (FR)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (C)
 KROHNE, Inc., Beverly, MA (FR, LE, P)
 LabLogic Systems, Inc., Tampa, FL (R)
 Magnetrol International, Aurora, IL (LE)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (R)
 Mirion Technologies, Inc., Atlanta, GA (R)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (FR, LE, LI, P)
 NuclearConsultants.com, Ann Arbor, MI (C)
 ORTEC, Oak Ridge, TN (R)
 Overhoff Technology Corp., (A Div. of US Nuclear Corp.), Milford, OH (R)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (C, R)
 Paschal Solutions, Inc., Knoxville, KY (C)

Pylon Electronics Inc., (Instrumentation Dept.), Ottawa, Ontario, Canada (R)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AI, AS, C, F, FR, LE, LI, P, R, RT, RV, V)
 Rosemount Nuclear Instruments, Inc., Chanhassen, MN (FR, LE, P)
 Technology for Energy Corp., Knoxville, TN (AS, FR, V)
 Timesoft, Long Beach, CA (AS)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (R)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (RT)
 Yokogawa Corporation of America, Newnan, GA (FR, LE, LI, P)

03800 Analysis

C Chemical
 DE Design Basis
 DD Due Diligence
 EL Elemental, Isotopic
 E Environmental
 EQ Equipment Qualification
 FE Failure, Electrical/Electronic
 FM Failure, Metallurgical
 FI Finite Element
 FP Fuel Cycle & Fuel Performance
 G Geotechnical
 GM Groundwater Modeling
 HE Helium
 H Hydrological
 LA Laser-Based
 LP Loose Parts
 L Lubrication
 M Materials
 RS Risk
 SE Seismic
 SH Shielding
 SC Site Characterization
 SI Siting
 ST Stress
 SS Sump/Strainer Blockage (Reg. Guide 1.82)
 T Thermal
 V Vibration
 W Waste

Advanced Consulting Group, Inc., Chicago, IL (ST)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (EL, M, SC, W)
 Analysis and Measurement Services Corp. (AMS), (Including CHAR Services), Knoxville, TN (EQ, FE, SC)
 Anamet, (a Div. of Acuren Inspection, Inc.), Hayward, CA (C, FM, M)
 F.N. Anderson & Assoc., Forest, VA (EL, E, EQ, FI, FP, SH, ST)
 Anvil International, LLC, North Kingstown, RI
 Applied Analysis Corp., Reading, PA (DE, EQ, SH, SI, T)
 Applied Science Professionals, LLC, (ASP-LLC), Salt Lake City, UT (SC)
 ◆Attention IT, Inc., Knoxville, TN (E)
 Attenuation Environmental Co., Seattle, WA (E, W)
 Bevelacqua Resources, Richland, WA (E, RS, SH)
 Black & Veatch, Overland Park, KS (C, DE, DD, E, EQ, G, H, RS, SE, SH, SC, SI, ST, T)
 Boston Government Services, LLC (BGS), Oak Ridge, TN (DE, EQ, FE, FI, RS, ST, T)
 Burns & McDonnell, Kansas City, MO (DE, DD, E, EQ, FE, FM, FI, G, H, M, SE, SH, SC, SI, ST, SS, T, V, W)
 Cabrera Services Inc., East Hartford, CT (EL, H, M, RS, SC)
 CAEN SyS, Viareggio, LU, Italy (E, FP, W)
 ◆Container Technologies Industries, LLC, Helenwood, TN (M, RS, ST)
 CS-2 Inc., Grand Island, NY (E, RS, SC, T, W)
 CTR Technical Services, Inc., Manitou Springs, CO (RS, SH)

Curie Environmental Services, Albuquerque, NM (W)
 Curtiss-Wright Nuclear Division, Energetech, Brea, CA (DE, L, RS, SE)
 Curtiss-Wright Nuclear Division, NETCO, Danbury, CT (EL, T)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (DE, E, EQ, SE, SH, ST, V)
 Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (C, DD, EQ, FI, FP, M, RS, SE, SH, SC, ST, T, V)
 DCS Systems, Inc., Simsbury, CT (FP)
 Decidia Research & Consulting, Sabadell, Barcelona, Spain (E, RS, SI)
 The Delphi Groupe, Inc., Austin, TX (E, RS)
 Deytec, Inc., Ashburn, VA (RS)
 Dominion Engineering, Inc., Reston, VA (C, FM, FI, M, SE, ST, W)
 Dufrane Nuclear Shielding Inc., Winsted, CT (SH, W)
 Elcometer Inc., Warren, MI (E)
 Electric Motor and Contracting Company Inc., Chesapeake, VA (DD, FE, V)
 Enercon Services, Inc., (Talisman Div.), Kennesaw, GA (E, RS, SI, W)
 Energy Resources International Inc., Washington, DC (FP, W)
 ◆EnergySolutions LLC, Salt Lake City, UT (C, DE, EL, FM, M, RS, SE, SH, SC, SI, ST, T, V, W)
 Engineering Planning and Management, Inc., Framingham, MA (DE, DD, EQ, RS)
 ETAP - Operation Technology, Inc., Irvine, CA (DD)
 EXCEL Services Corporation, Rockville, MD (DE, E, EQ, FI, FP, RS, SH, SI, T)
 Exelon PowerLabs, Coatesville, PA (C, EL, E, EQ, FE, FM, M)
 Fortum Power & Heat Oy, Nuclear Services, Espoo, Finland, Finland (E, FP, M, RS, SE, SH, ST, SS, T)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (C, DE, DD, EL, E, EQ, FE, FM, FI, FP, LP, M, RS, SE, SH, SC, ST, SS, T, V, W)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (FP)
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC (E)
 The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC (C, E, SC)
 GEL Solutions, LLC, (A Member of The GEL Group, Inc.), Charleston, SC (SE)
 General Atomics Electromagnetic Systems, San Diego, CA (EQ)
 Gen IV Nuclear Energy Systems Services, Rockville, MD (DE, FP, RS)
 GoldSim Technology Group, Seattle, WA (RS)
 GSE DP, (DP Engineering), Fort Worth, TX (DE, DD, E, EQ, FE, FM, FP, RS, ST, T, V, W)
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (EQ, SE)
 ◆Holtec International, Camden, NJ (EQ, SE, SH, ST, T, V)
 Hoskin Scientific, Oakville, Ontario, Canada (E, G, ST, T)
 Idom Consulting, Engineering, Architecture S.A.U., Bilbao, Spain (DE, DD, FI, G, M, SE, SH, SC, ST, T)
 ILD, Inc., Baton Rouge, LA (SE, T, V)
 Imperia Engineering Partners LLC, Bordentown, NJ (DE, DD, E, EQ, FE, FM, FI, M, RS, SE, SI, ST, SS, T, V)
 INGEROP Conseil et Ingenierie, (a company of INGEROP Group), Cebazat, France (FI, G, SC)
 Interdevelopment, Inc., Washington, DC (RS)
 ISOFLEX USA, San Francisco, CA (EL, FP)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (EL, SH)
 Joseph Oat Corp., Camden, NJ (H, M, ST, T, V)
 Kinectrics Inc., Toronto, Ontario, Canada (C, DE, DD, EL, E, EQ, FE, FM, FP, H, LP, L, M, RS, SE, SH, ST, T, V, W)
 Kinometrics, Inc., Pasadena, CA (SE)

LabLogic Systems, Inc., Tampa, FL (SH)
 Lambda Technologies, Cincinnati, OH (FM, FI, ST)
 Liburdi Automation Inc., Dundas, Ontario, Canada (FM)
 Lucideon, Durham, NC (C, DE, EL, FM, FI, M, T)
 LUDECA, Inc., Doral, FL (V)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (M, W)
 Materials and Chemistry Laboratory, Inc., (MCLinc), Oak Ridge, TN (C, EL, E, FM, M, W)
 Matom Ltd., North Wales, United Kingdom (DE, EL, FM, M, SC)
 Mega-Tech Services, LLC, Cooksburg, PA (RS)
 MillenniTEK, LLC, Knoxville, TN (C, EQ)
 Mirion Technologies, Inc., Atlanta, GA (SH, W)
 ◆ NAC International Inc., Peachtree Corners, GA (FP, SH, ST, T)
 ◆ NAC LPT LLC, Mars, PA (E, SC, W)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (EQ, FI, M, T)
 Navarro Research and Engineering, Inc., Oak Ridge, TN (DE, DD, E, GM, H, RS, SC, W)
 Neptune and Company, Inc., Lakewood, CO (C, E, FI, GM, H, RS)
 Netzsch Instruments North America LLC, Burlington, MA (C, EL, FP, ST, T)
 North Wind Group, Idaho Falls, ID (E, GM, SC, SI, W)
 NuclearConsultants.com, Ann Arbor, MI (FP, SH)
 NuSource LLC, Alexandria, VA (DE, FI, SE, T)
 NV5/Dade Moeller, Richland, WA (DD, G, H, SH)
 ORTEC, Oak Ridge, TN (EL, E, SC, W)
 ◆ Paragon Energy Solutions, Fort Worth, TX (SE)
 PAR Systems, LLC, Shoreview, MN (EQ, SE)
 Paschal Solutions, Inc., Knoxville, KY (DE, SH)
 Pioneer Motor Bearing Co., Kings Mountain, NC (V)
 Platom Oy, Mikkeli, Finland
 PMT Nuclear, Woodridge, IL (FI, SE, SH)
 Power & Energy Systems Services, Oradell, NJ (T)
 Power System Sentinel Technologies, LLC, Warrior, AL (DD, EQ, FE)
 ◆ Precision Custom Components, LLC, York, PA (FM, ST, T, V)
 Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (C, FI, M, SE)
 Promotion Nuclear, Oakville, Ontario, Canada (DE, EQ, FE, FI, M, RS, SE, SH, ST, T, W)
 Red Wolf Associates, Cary, NC (C, DE, EL, EQ, FI, RS, SH, ST, SS, T)
 REEL COH Inc., Boisbriand, Quebec, Canada (SE)
 R&G Laboratories, Inc., Tampa, FL (C, L)
 Right Brain Sekurity, Oswego, IL (RS)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (EQ)
 Sargent & Lundy, Chicago, IL (C, DE, DD, E, EQ, FE, FM, FI, G, H, LP, L, M, RS, SE, SH, SC, SI, ST, SS, T, V, W)
 Schulz Electric, Timken Power Systems, New Haven, CT (EQ, FE, M, SE, V)
 SDT Ultrasound Solutions, Cobourg, Ontario, Canada (L, V)
 SIET, Piacenza, Italy (EQ, T, V)
 Sigma Science, Albuquerque, NM (E, RS, W)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (DE, DD, EQ, FM, FI, G, H, M, RS, SE, SC, ST, T, V)
 SKODA JS a.s., Plzen, Bolevec, Czech Republic (FI, SE, ST)
 Southwest Research Institute, San Antonio, TX (C, EL, E, EQ, FE, FM, FI, G, GM, H, L, M, RS, SE, SH, SC, SI, ST, SS, T, V, W)
 ◆ SSM Industries, Inc., Pittsburgh, PA (SE)
 Structural Integrity Assoc., Inc., San Jose, CA (FM, FI, SE, ST, V)
 Talisman Div. of Enercon, Kennesaw, GA (DD, E, RS, SC, SI, W)
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL (E, SC, W)
 Thermal Engineering International (TEi), Cerritos, CA (T, V)

Unified Engineering, Hamilton, Ontario, Canada (FI, H)
 Unique Technical Resources, Wayne, PA (DE, DD, EQ)
 UxC, LLC, Roswell, GA (FP)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (C, SC, W)
 Volian Enterprises, Inc., Murrysville, PA (EQ, T)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (C, DE, EL, E, EQ, FE, FI, FP, H, LP, L, M, RS, SE, SH, ST, T, V, W)
 ◆ WMG, Inc., Peekskill, NY (EL, SH, SC, W)

04000 Analyzers

A Air
 CA Coincidence & Anti-Coincidence
 D Density
 DH Dissolved Hydrogen
 DO Dissolved Oxygen
 E Effluent
 G Gas
 CG Gas, Containment
 H Hydrazine
 MP Multi-Parameter
 OG Off-Gas Hydrogen
 OX Oxygen
 PO Portable Multichannel
 PA Post-Accident Sampling (O2 & H2)
 PM Pulse-Height, Multi-Channel
 PH Phosphorescence
 PS Pulse-Height, Single-Channel
 SI Silica
 SL Sludge
 SO Sodium
 ST Steam
 TF Time-of-Flight
 TO Total Organic Carbon
 V Viscosity
 WG Waste-Gas, Oxygen & Hydrogen
 W Water
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (PO, SL)
 Automation Products, Inc., (Dynatrol® Div.), Houston, TX (D, V, W)
 AVANTech, LLC, Knoxville, TN (DO, E, OX, SI, SO, W)
 AVANTech, LLC, Columbia, SC (DO, E, OX, SI, SO, W)
 Bot Engineering Ltd, Campbellville, Ontario, Canada (A, CA, D, E, G, CG, PO, PM, PS, TO, W)
 CAEN SyS, Viareggio, LU, Italy (CA, E, PO, PS, SL, TF)
 Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (MP)
 Elcometer Inc., Warren, MI (V)
 ◆ EnergySolutions LLC, Salt Lake City, UT (SL, W)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (OG, SL)
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC (A, DO, E, G, CG, W)
 The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC (A, DO, E, G, CG, W)
 Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA (PO)
 HI-Q Environmental Products Co., Inc., San Diego, CA (A)
 Hoskin Scientific, Oakville, Ontario, Canada (DO, V)
 LabLogic Systems, Inc., Tampa, FL (W)
 LND, Inc., Oceanside, NY (CA, MP)
 Ludlum Measurements, Inc., Sweetwater, TX (PS)
 M. Braun Inc., Stratham, NH (OX, W)
 Mirion Technologies, Inc., Atlanta, GA (A, E, G, PS, ST, W)
 Mound Technical Solutions, Inc., Miamisburg, OH (A, G, CG)
 Netzsch Instruments North America LLC, Burlington, MA (G)
 NUCON International, Inc., Columbus, OH (G)

ORTEC, Oak Ridge, TN (CA, E, MP, PO, PM, PS)
 Radiation Safety & Control Services, Inc., Seabrook, NH (PO, PM)
 Radiological Solutions Inc., Rockdale, IL (W)
 Sentry Equipment, Oconomowoc, WI (DO, H, OX, PA, SI, SO, ST, W)
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL (CG, OG, OX, PA, TO, WG)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (A, E, PM, PS, W)
 VTT Technical Research Centre of Finland, VTT, Finland (A, E, G, CG, MP, PA, PH, SI, SL, SO, TO, V, WG, W)
 Yokogawa Corporation of America, Newnan, GA (D, DO, E, OG, OX, PA, ST, TO, W)

06790 Asbestos Abatement/Removal Products & Services

Advanced Nuclear LLC, East Petersburg, PA
 ◆ American DND Inc., Grand Island, NY
 CS-2 Inc., Grand Island, NY
 Fuel Tank Maintenance Co., LLC, Cookeville, TN
 North Wind Group, Idaho Falls, ID

06950 Bar-Coding Devices & Supplies

◆ Attention IT, Inc., Knoxville, TN
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH
 InfoSight Corp., Chillicothe, OH
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada

08800 Cable, Electrical—also see Connectors; Wire

CO Coaxial
 C Control
 DC Data Communications
 FI Fiber Optic
 FR Flame-Resistant
 HT High-Temperature
 I Instrumentation
 MI Mineral-Insulated, Metal-Jacketed
 P Power
 PA Prefabricated Assemblies
 RR Radiation-Resistant
 R Repair, In-Site
 UC Umbilical Cord, Nuclear Grade (Robotic)
 U Underwater
 AVANTech, LLC, Knoxville, TN (C, DC, I, P)
 AVANTech, LLC, Columbia, SC (C, DC, I, P)
 Bot Engineering Ltd, Campbellville, Ontario, Canada (RR)
 C.J. Enterprises, (Div. of C.J. Instruments, Inc.), Tarzana, CA (HT, RR)
 CM Technologies Corp., Coraopolis, PA (I)
 Coastel Cable Tools, Inc., East Syracuse, NY (CO, C, DC, P, RR)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (CO, C, FR, HT, I, MI, P, PA, RR, R)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (HT, I, MI, PA, RR)
 Hoskin Scientific, Oakville, Ontario, Canada (C, I)
 Kanata Electronic Services Ltd., Toronto, Ontario, Canada (I, PA, RR)
 Mirion Technologies, Inc., Atlanta, GA (CO, C, FR, HT, I, MI, PA, RR)
 Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (MI, PA, RR)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (RR)
 Nu-Energy Technologies, Inc., Providence Forge, VA (CO, C, DC, FR, HT, U)
 NuSource LLC, Alexandria, VA (CO, C, I)
 PAR Systems, LLC, Shoreview, MN (RR, UC)
 Promotion Nuclear, Oakville, Ontario, Canada (CO, C, DC, FR, I, P, PA, RR, UC)
 ◆ Reef Industries, Inc., Houston, TX (FR, PA)
 Rolls-Royce Civil Nuclear SAS, Meylan, France (I)

Rolls-Royce Nuclear I&C, Pittsburgh, PA (I)
 Schulz Electric, Timken Power Systems, New Haven, CT (HT, RR)
 Sidus Solutions LLC, San Diego, CA (UC, U)
 ♦Teledyne Brown Engineering, Inc., Huntsville, AL (CO, C, DC, I, U)
 VTT Technical Research Centre of Finland, VTT, Finland (C, DC, FI, FR, HT, I, RR)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (I, PA)

09730 Calciners—also see Radioactive Waste Handling & Treatment Equipment

Framatome Inc., (North American Headquarters), Lynchburg, VA
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA
 ♦Petersen Inc., Ogden, UT

09750 Calibration Equipment & Systems

D Dose, Nuclear Medicine
 E Electrical Test Equipment
 ET Electrical Test Equipment
 IC Instrumentation and Control
 LF Laminar Flow
 P Pressure
 R Radiation Measuring
 Bot Engineering Ltd, Campbellville, Ontario, Canada (IC, R)
 Cabrera Services Inc., East Hartford, CT (R)
 CM Technologies Corp., Coraopolis, PA (E, ET, IC)
 Coastal Cable Tools, Inc., East Syracuse, NY (IC)
 Exelon PowerLabs, Coatesville, PA (E, ET, IC, LF, P, R)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (D, IC, P, R)
 General Atomics Electromagnetic Systems, San Diego, CA (IC, R)
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (D, E, ET, IC, LF, P, R)
 Hoskin Scientific, Oakville, Ontario, Canada (IC, P)
 Mirion Technologies, Inc., Atlanta, GA (D, IC, R)
 North Wind Group, Idaho Falls, ID (R)
 ORTEC, Oak Ridge, TN (R)
 ♦Perma-Fix Environmental Services, Inc., Oak Ridge, TN (R)
 Promatom Nuclear, Oakville, Ontario, Canada (D, E, ET, IC, P)
 RADeCO, Inc., Plainfield, CT (LF)
 Rolls-Royce Civil Nuclear SAS, Meylan, France (IC, P)
 Rolls-Royce Nuclear I&C, Pittsburgh, PA (IC, P)
 System One, Pittsburgh, PA (E, ET, IC)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (D, R)

09800 Calibration Services—also see Health Physics Services

E Electrical Test Equipment
 ET Electronic Test Equipment
 F Flow
 IC Instrumentation & Control
 PT Pressure, Temperature, Humidity
 R Radiation Measuring
 T Tools, Physical/Dimensional/Mechanical
 Acromag Inc., Wixom, MI (IC)
 Berkeley Nucleonics Corp., San Rafael, CA (ET)
 Cabrera Services Inc., East Hartford, CT (R)
 Coastal Cable Tools, Inc., East Syracuse, NY (ET)
 Curtiss-Wright Nuclear Division, Energetech, Brea, CA (F)
 ♦EnergySolutions LLC, Salt Lake City, UT (IC, R)
 Environmental Restoration Group, Inc., Albuquerque, NM (R)

Exelon PowerLabs, Coatesville, PA (E, ET, F, IC, PT, R, T)
 FCI-Fluid Components International LLC, San Marcos, CA (F)
 F&J SPECIALTY PRODUCTS, INC., Ocala, FL (F)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (E, ET, IC, PT, R, T)
 General Atomics Electromagnetic Systems, San Diego, CA (ET, R)
 Health Physics Instruments, (Div. of Far West Technology, Inc.), Goleta, CA (R)
 HI-Q Environmental Products Co., Inc., San Diego, CA (F)
 Hopewell Designs, Inc., Alpharetta, GA (R, T)
 Hoskin Scientific, Oakville, Ontario, Canada (F, PT)
 International Isotopes Idaho Inc., (Sub. of International Isotopes Inc.), Idaho Falls, ID (R)
 Kinectrics Inc., Toronto, Ontario, Canada (E, ET, IC)
 Kinometrics, Inc., Pasadena, CA (IC)
 Mirion Technologies, Inc., Atlanta, GA (IC, R)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (E, ET, PT, T)
 North Wind Group, Idaho Falls, ID (R)
 NUCON International, Inc., Columbus, OH (E, ET, F, IC, PT, R, T)
 ORTEC, Oak Ridge, TN (R)
 ♦Perma-Fix Environmental Services, Inc., Oak Ridge, TN (PT)
 ♦Precision Custom Components, LLC, York, PA (T)
 Promatom Nuclear, Oakville, Ontario, Canada (E, ET, IC, PT)
 RADeCO, Inc., Plainfield, CT (F)
 Rolls-Royce Civil Nuclear SAS, Meylan, France (ET, F, IC, PT)
 Rolls-Royce Nuclear I&C, Pittsburgh, PA (ET, F, IC, PT)
 RSO, Inc./Radiation Service Organization, Laurel, MD (R)
 Sentry Equipment, Oconomowoc, WI (F, IC, PT, R)
 SIET, Piacenza, Italy (E, ET, F, IC, PT, T)
 Southwest Research Institute, San Antonio, TX (E, ET, F, IC, PT, R, T)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (R)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (R)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (T)

09950 Cars, Railroad

CH Cask-Handling
 L Liners
 AVANTech, LLC, Knoxville, TN (L)
 AVANTech, LLC, Columbia, SC (L)
 Dufrane Nuclear Shielding Inc., Winsted, CT (CH, L)
 ♦EnergySolutions LLC, Salt Lake City, UT (L)
 ♦I.C.E. Service Group, Inc., Moon Township, PA (CH, L)
 Joseph Oat Corp., Camden, NJ (L)
 Konecranes Nuclear Equipment & Services LLC, New Berlin, WI (CH)
 ♦NAC LPT LLC, Mars, PA (CH, L)
 ♦PacTec, Inc., Clinton, LA (L)
 REEL COH Inc., Boisbriand, Quebec, Canada (CH)

10780 Cleaning Equipment—also see Decon. Chem. & Equip.; Health Phys. Equip.

A Abrasive
 CP Cavity Pool
 CS Chemical Services
 P Parts Washers
 PC Pipe Cleaning
 PW Pressure Washing

R Robotic
 S Steam
 TC Tube Cleaning
 U Ultrasonic
 UW Underwater
 V Vacuum
 VB Vacuum Blasting, Abrasive
 WJ Water Jetting, High-Pressure
 WA Water Jetting, High-Pressure, Abrasive
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (R)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (R)
 ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (R)
 AVANTech, LLC, Knoxville, TN (CP, P, R, UW, V)
 AVANTech, LLC, Columbia, SC (CP, P, R, UW, V)
 BHI Energy, Weymouth, MA (A, PW, V, WJ)
 Brokk AB, Skelleftea, Sweden (R)
 Container Products Corp., Wilmington, NC (PW)
 ♦Container Technologies Industries, LLC, Helenwood, TN (A)
 CYCLIFE, (Brand of EDF Group), Puteaux, France (A, CS, PC, R, TC)
 Day & Zimmermann, Philadelphia, PA (TC)
 Deep Trekker, Kitchener, Ontario, Canada (R)
 Desco Mfg. Co., Inc., Rancho Santa Margarita, CA (A, PC, PW, V)
 Dominion Engineering, Inc., Reston, VA (U)
 ♦EnergySolutions LLC, Salt Lake City, UT (CP, V)
 Environmental Alternatives, Inc., Swanzey, NH (A, CP, CS, PC, R, S, TC, U, V, VB, WJ)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (A, CP, CS, PC, PW, R, TC, U, UW, WJ, WA)
 Frham Safety Products, Inc., Nashville, TN (V, VB)
 GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (UW)
 Heat Exchanger Products Corp. (HEPCO), Hingham, MA (TC)
 Hennigan Engineering LLC, Hingham, MA (PC, PW, TC, WJ, WA)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (R)
 Master-Lee Engineered Products Inc., Latrobe, PA (V)
 Nu-Energy Technologies, Inc., Providence Forge, VA (CP, CS, P, PC, TC)
 NuVision-HWM, Pittsburgh, PA (R)
 PAR Systems, LLC, Shoreview, MN (R, WJ, WA)
 Powerfect Service, Inc., Brick, NJ (PW, S, TC)
 ♦Precision Custom Components, LLC, York, PA (A)
 PROTEM USA, Evergreen, CO (PC, TC, UW)
 River Technologies, LLC, Forest, VA (A, CP, P, PC, R, TC, V, VB, WJ)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (PC, PW, R, TC, UW)
 TEiC, Duncan, SC (TC)
 Teledyne FLIR, Chelmsford, MA (R)
 Tri Nuclear Corp., Ballston Lake, NY (CP, UW, V)
 Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (A, PW, UW)
 ♦UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (A, P, PW, VB, WJ)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (R, WJ)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (CS, U, UW, V)
 Wälschmiller Engineering GmbH, Markdorf, Baden-Württemberg, Germany (R)

10850 Clothing, Protective, Anti-Contamination—also see Respiratory Protection Equipment

BS Bubble Suits
 C Coveralls
 CL Coveralls, Lightweight, Breathable
 D Disposable
 DS Dissolvable
 G Gloves
 H Head Coverings
 L Lab Coats

MG Modesty Garments, Lightweight, Breathable
 SP Scrub Shirts & Pants
 SC Shoe Covers
 Coastal Network, Inc., Charlottesville, VA (C, CL, D, G, L, SP, SC)
 Elcometer Inc., Warren, MI (C, CL, G, H)
 ◆EnergySolutions LLC, Salt Lake City, UT (D)
 Frham Safety Products, Inc., Nashville, TN (BS, C, CL, D, DS, G, H, L, MG, SP, SC)
 JSM Protective, Inc., Vero Beach, FL (C, D, G, H, L, SC)
 Mohawk Safety, Manchester, CT (D, SC)
 Protective Plastics, Inc., Greenville, SC (C, CL, D, SC)
 Radiation Safety & Control Services, Inc., Seabrook, NH (C, D, G, H, SC)
 Radium Inc., Waynesboro, VA (BS, D)
 Rich Industries Inc., New Philadelphia, OH (BS, C, CL, D, G, H, L, MG, SP, SC)
 RSO, Inc./Radiation Service Organization, Laurel, MD (D)
 ◆UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (BS, C, CL, D, G, H, L, MG, SP, SC)
 Weldstar, Aurora, IL (G)

10900 Clothing, Protective, Other Than Anti-Contamination—also see Respiratory Protection Equip.


B Bibs & Aprons
 C Coveralls
 CL Coveralls, Lightweight, Breathable
 FS Face Shields
 F Footwear
 GG Gloves, Grinding
 GW Gloves, Welding
 GS Goggles/Spectacles
 HH Hard Hats
 HL Hat Liners
 HP Hearing Protection Devices
 HF Helmets, Fire
 LC Lab Coats
 MG Modesty Garments, Lightweight, Breathable
 RW Rainwear
 RF RF Shielding
 SC Scrub Suits
 SS Splash Sleeves
 V Vests, Cool
 Coastal Network, Inc., Charlottesville, VA (FS, GS, HH, MG, RW, V)
 Elcometer Inc., Warren, MI (B, C, CL)
 Frham Safety Products, Inc., Nashville, TN (B, C, CL, FS, F, GG, GW, GS, HH, HL, HP, LC, MG, RW, SC, SS, V)
 JSM Protective, Inc., Vero Beach, FL (C, FS, F, GW, GS, RW, SS, V)
 Lancs Industries, Albuquerque, NM (RW)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (RF)
 Mohawk Safety, Manchester, CT (C, GW, GS, HH, HL)
 Protective Plastics, Inc., Greenville, SC (C, CL, FS, F, GG, GW, GS, HH, HL, HP, LC, RW)
 Radium Inc., Waynesboro, VA (FS, V)
 Rich Industries Inc., New Philadelphia, OH (B, C, CL, F, HL, LC, MG, RW, SC, SS)
 ◆UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (B, C, F, RF, V)
 Weldstar, Aurora, IL (FS, GW, HH)

11400 Coatings—also see Consultants; Corrosion Inhibitors; Testing Serv.

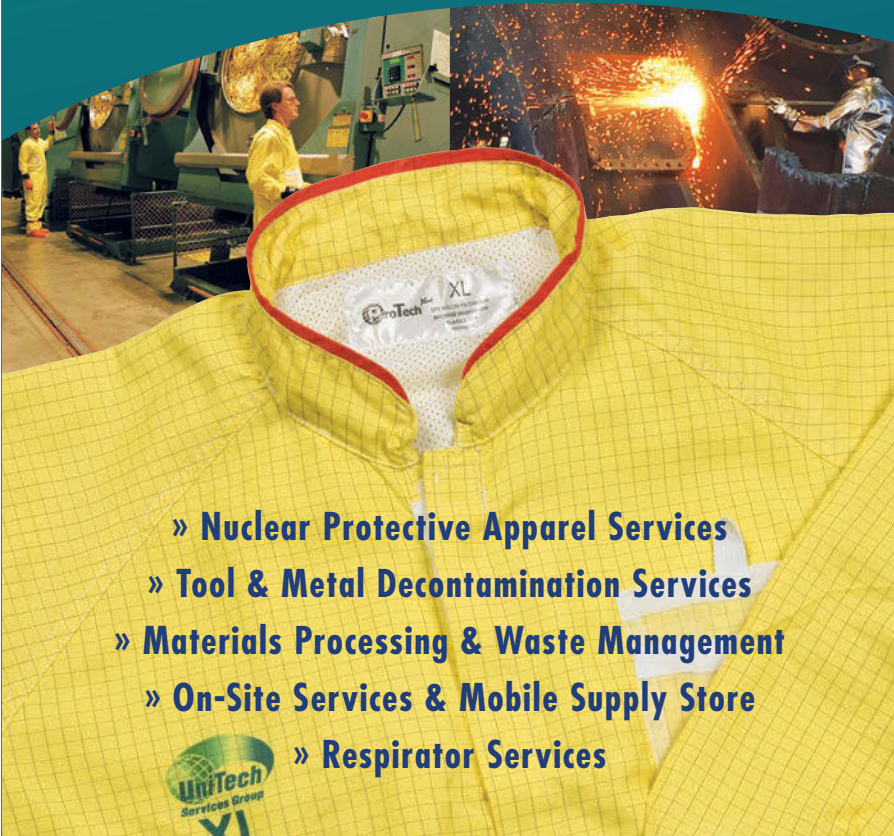
C Cable
 CS Concrete Sealing/Restoration/Contamination Control
 CR Corrosion-Resistant
 FT Floor Toppings
 IR Insulation-Related
 LC Low-Chloride
 S Strippable

Advanced Nuclear LLC, East Petersburg, PA (IR)
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (CR)
 Arkema Inc., (formerly ATOFINA Chemicals, Inc.), King of Prussia, PA (CR, IR)
 Bakelite Synthetics, Louisville, KY (CS, CR, IR)
 BHI Energy, Weymouth, MA (CS, S)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (C, CR)
 Cortec Corporation, Saint Paul, MN (CS, CR, S)
 Electric Motor and Contracting Company Inc., Chesapeake, VA (CR)
 FEVDI Nuclear Decontamination, Corbas, France (S)

Framatome Inc., (North American Headquarters), Lynchburg, VA (CS, CR, IR)
 Frham Safety Products, Inc., Nashville, TN (S)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (CS, CR, FT)
 Hennigan Engineering LLC, Hingham, MA (CS, CR, S)
 Hexion Inc., Columbus, OH (CS, CR, IR)
 Plastocor, Inc., Hingham, MA (CR)
 ◆Reef Industries, Inc., Houston, TX (FT)
 Southwest Research Institute, San Antonio, TX (CR, IR)
 VTT Technical Research Centre of Finland, VTT, Finland (CS, CR)



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11650 Communication Systems—also see Emergency Warning Systems; Security Systems

F Face Mask Accessories
 H Headsets
 P Paging
 RM Repeated Message Tape/Speaker Boxes
 T Telephone Conferencing (Audio)
 TV Telephone Conferencing (Video)
 T Telephonic (Computerized Calling/Answering)
 TW Two-Way Radio
 Cobalt Audio Video, (A div. of Comtronics), Lexington, KY (F, H, T, TV, TW)
 Comtronics, Lexington, KY (F, H, T, TV, TW)
 Dufrane Nuclear Shielding Inc., Winsted, CT (H, T, TW)
 Frham Safety Products, Inc., Nashville, TN (F, H)
 Radium Inc., Waynesboro, VA (H)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (H, P, RM)

11680 Compactor Disks, for Drums

S&G Enterprises, Inc., Germantown, WI

11700 Compactors—also see Radioactive Waste Treatment Equipment; Solid Waste Reduction Equip.

Container Products Corp., Wilmington, NC
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 S&G Enterprises, Inc., Germantown, WI
 Waste Control Systems, Inc., Phoenix, MD

12800 Computer Software—also see Imaging, Digital; Records Management Sys.

AI Artificial Intelligence
 CB Cable Management
 CF Configuration Management/Control
 CA Contract Administration
 CP Critical Path Scheduling
 CD Custom Development
 DB Data Base Management
 DM Decontamination Management
 D Dosimetry
 DD Drawing & Document Control
 EC Economic Analysis
 ET Education/Training
 E Electrical Analysis
 EP Emergency Planning
 ER Emergency Response (In-Plant)
 EA Engineering Analysis
 EM Environmental Monitoring
 EQ Equipment Status/Tagout Tracking
 ES Expert Systems
 FT Fault-Tolerant Automatic Control
 FR Failure/Root Cause Trending
 FS Fire/Safety
 IN Instrument Calibration
 IC Inventory Control (Equipment, Supplies, etc.)
 MC Maintenance Control
 OS Operator Scheduling
 P Piping System Design & Analysis
 PD Plant Design
 PS Procedure Status/Tracking
 PM Project Management
 QA Quality Assurance/Quality Control
 RC Radiological Control/Health Physics

R Reliability Analysis
 RE Reportability Evaluation
 RI Risk Analysis
 SE Security
 SI Simulation
 SM Software Maintenance/Control
 SP Software Packages
 SN Special Nuclear Material Tracking
 S Spectroscopy
 TS Technical Specification Systems
 TE Telerobotics
 TR Trending
 WM Waste Management
 WC Water Chemistry Management
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (S)
 Applied Analysis Corp., Reading, PA (CD, EA, P, QA, SI, SM)
 ARES Security Corp., Vienna, VA (EP, ER, SE, SI)
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (TE)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (TE)
 ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (TE)
 ♦ Attention IT, Inc., Knoxville, TN (CF, CD, DB, PS, PM, QA, SP, WM)
 The Austin Company, Cleveland, OH (CA, DD, EA, PD, PS)
 AVANTech, LLC, Knoxville, TN (EA, WM, WC)
 AVANTech, LLC, Columbia, SC (EA, WM, WC)
 ♦ Banda Group International, LLC, Mesa, AZ (CA)
 Bevelacqua Resources, Richland, WA (DM, D, ET, EP, ER, EM, RC, RI, SI, SM, SP, SN, S)
 Black & Veatch, Overland Park, KS (CF, CA, CP, DB, DD, EC, E, EA, EQ, FS, P, PD, PM, QA, R)



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- Decaying to Daughter Nuclides
- Inventory Control and Tracking
- Print complete Radiological and Hazardous Waste Manifest Paperwork
- Automatic generation of electronic e-files for waste manifest
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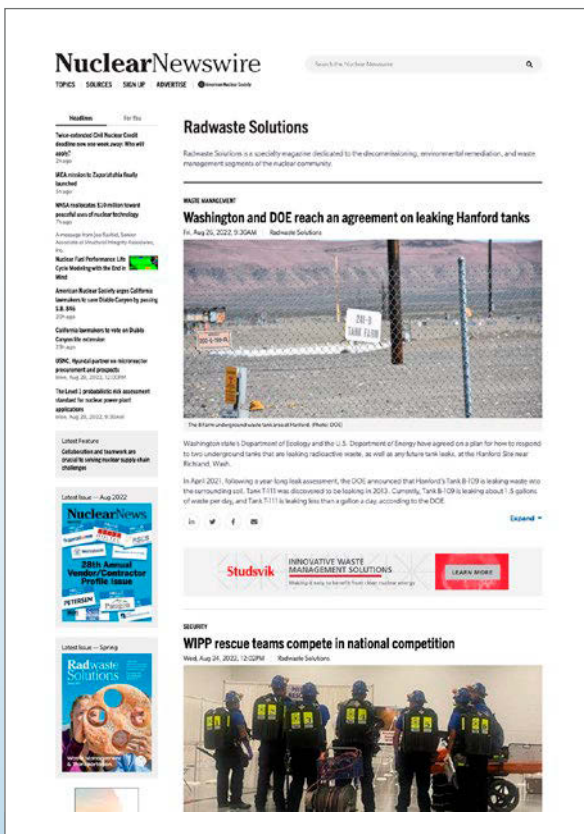
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Attention IT has a proven track record in the **US, UK, and Canada**, and has developed software backed by over **75 years of experience**. Our company focuses on your **environmental issues to ensure compliance** when building waste and material records.

Boston Government Services, LLC (BGS), Oak Ridge, TN (CF, CP, CD, DB, DM, DD, EC, ET, E, EP, ER, EA, P, PD, PM, QA, R, RI, SE, SI, SM, SP, SN)
 CAEN SyS, Viareggio, LU, Italy (SN, S, WM)
 Campoverde srl, Milano, Italy (D)
 CHP Consultants/Counts.Pro, Oak Ridge, TN (CD, DM, D, EP, ER, EM, QA, RC, WM)
 CM Technologies Corp., Coraopolis, PA (ES, QA)
 Coastal Cable Tools, Inc., East Syracuse, NY (IN, MC)
 Computer Engineering Services, Inc., Chattanooga, TN (CD, ER, EA, EM)
 Copperleaf Technologies Inc., Vancouver, British Columbia, Canada (RI)
 Cragg Consulting, Grapevine, TX (RI)
 CTR Technical Services, Inc., Manitou Springs, CO (CD, EA, RI, SI, SP)
 Curtiss-Wright Nuclear Division, NETCO, Danbury, CT (CD, DB, EA, SP)
 Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (CF, CD, DB, D, EP, EA, EQ, FR, FS, IC, MC, P, PM, R, RI, SE, SP, SN, TS, TR, WC)
 CYCLIFE, (Brand of EDF Group), Puteaux, France (PM, RC, R, RI, SI, TE, WM)
 Deytec, Inc., Ashburn, VA (ET, EA, FS, RI, SI)
 Ebersen, Inc., Minneapolis, MN (WM)
 Energy Resources International Inc., Washington, DC (CD)
 Engineering Planning and Management, Inc., Framingham, MA (CB, DB, FS, QA, SP)
 ENVINET GmbH, Munich/Haar, Germany (EM, SP)
 ETAP - Operation Technology, Inc., Irvine, CA (CB, ET, E, R, SI)

Framatome Inc., (North American Headquarters), Lynchburg, VA (CP, CD, DM, DD, EC, E, EP, ER, EA, FS, PD, QA, RI, SE, SI, TR, WM, WC)
 General Atomics Electromagnetic Systems, San Diego, CA (EM, RC)
 GSE Hyperspring, Columbia, MD (CF, CP, DB, EP, ER, EA, EM, ES, MC, P, PD, WC)
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (DD, FT, SI)
 Hoskin Scientific, Oakville, Ontario, Canada (EM)
 HukariAscendent, Wheat Ridge, CO (CF, DM, EP, ER, EA, FR, FS, MC, P, PS, PM, QA, RC, R, RI, SN, TS, WM)
 Huxtable Consulting LLC, Lexington, SC (CD, EC, EA, SP)
 ◆I.C.E. Service Group, Inc., Moon Township, PA (WM)
 InVizion LLC, Bala Cynwyd, PA (EC, PM)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (DM, EM, RC, SN)
 Kinectrics Inc., Toronto, Ontario, Canada (D)
 L3Harris, (Power Systems and Simulation), Montreal, Quebec, Canada (PD, QA)
 Mirion Technologies, Inc., Atlanta, GA (CF, DB, ET, EM, IN, RC, SI, SP, S)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL
 Neptune and Company, Inc., Lakewood, CO (AI, CD, DB, EC, EM, ES, PM, QA, RI, SI, SP, TR, WM)
 NextAxiom Technology, Inc., San Francisco, CA (CD, PS, SP)
 NuclearConsultants.com, Ann Arbor, MI
 Nuclear-21, Waasmunster, Belgium (ET, ES)
 Nucleonova S.L., Valencia, Spain (EA, QA)
 NuVision-HWM, Pittsburgh, PA (TE)

PAR Systems, LLC, Shoreview, MN (R, TE)
 Power & Energy Systems Services, Oradell, NJ (EA, PD, TS)
 Primm Consulting, LLC, Knoxville, TN (EC, SI, SP)
 Promatom Nuclear, Oakville, Ontario, Canada (AI, EA, QA, TE)
 RadComm Systems Corp., Oakville, Ontario, Canada (RC)
 Radium Inc., Waynesboro, VA (CP, CD, EQ, IC, MC, OS, PD, PS, PM)
 Red Wolf Associates, Cary, NC (CD, EA, FS, P, PD, PM, QA, RI, SI, SP)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AI, CB, CF, CA, CP, CD, DB, DM, D, DD, EC, ET, E, EP, ER, EA, EM, EQ, ES, FT, FR, FS, IN, IC, MC, OS, P, PD, PS, PM, QA, RC, R, RE, RI, SE, SI, SM, SP, SN, S, TS, TE, TR, WM, WC)
 Sargent & Lundy, Chicago, IL (CB, CF, CP, DB, DD, ET, E, EP, EA, ES, FR, IC, MC, P, PD, PM, QA, RC, R, RI, SE, SM, TS, WC)
 Southwest Research Institute, San Antonio, TX (AI, DB, ET, EA, ES, FS, RC, R, RI, SI, S, TE, WM)
 ◆SSM Industries, Inc., Pittsburgh, PA (EA)
 Studsvik, Inc., Sandy Springs, GA (P, PD, PM, SI)
 Tap Report, Toronto, Ontario, Canada (FS)
 TEiC, Duncan, SC
 ◆Teledyne Brown Engineering, Inc., Huntsville, AL (EM)
 Timesoft, Long Beach, CA (CD, R)
 Unique Technical Resources, Wayne, PA (CB, CF, FS, PD, PM)
 UxC, LLC, Roswell, GA (EC)
 Volian Enterprises, Inc., Murrys ville, PA (CD, DB, ER, MC, SP, TS)



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Westinghouse Electric Co. LLC, Cranberry Township, PA (CF, CD, EA, PS, SI, SN, TS, WM)
 Wälischmiller Engineering GmbH, Markdorf, Baden-Württemberg, Germany (TE)

♦ **WMG, Inc., Peekskill, NY (SN, WM)**

See advertisement on Cover 3

12900 Computers & Accessories—also see *Data Acq. Sys.; Data Readout*

A Analog
 AI Artificial Intelligence Systems
 CG Color Graphics
 C Converters
 D Digital
 DD Disk Drives
 ES Expert Systems
 HH Hand-Held
 H Hybrid
 IO Input/Output Interface Units
 MF Main Frame
 MS Mass Storage Units
 M Memory Units
 MC Micro
 MP Microprocessor Circuit Boards
 MN Mini
 PR Printers
 TD Tape Drives
 VD Video Display Units

Acromag Inc., Wixom, MI (A, C, IO)
 AVANTech, LLC, Knoxville, TN (A, CG, D, IO)
 AVANTech, LLC, Columbia, SC (A, CG, D, IO)
 Bot Engineering Ltd, Campbellville, Ontario, Canada (A, C, D, H, MP)
 CHP Consultants/Counts.Pro, Oak Ridge, TN (HH)
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (D, MC, MN)
 CYCLIFE, (Brand of EDF Group), Puteaux, France (D)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (CG, IO, MP, VD)
 GLSEQ, LLC, Huntsville, AL (HH)
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (A, IO, MP)
 Labor Sync, Dumont, NJ (HH)
 Mirion Technologies (Canberra) Inc., Meriden, CT (D, MC, MN)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (D, IO, VD)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AI, D, ES, HH, H, IO, MF, MS, MC, MP, MN, PR, TD, VD)
 Timesoft, Long Beach, CA (ES)

13050 Concrete Breaking, Drilling, Sawing & Scabbling

C Contractors
 E Equipment
 R Equipment Rental

♦ **American DND Inc., Grand Island, NY (C, E, R)**
 BHI Energy, Weymouth, MA (C, E, R)
 Brokk AB, Skelleftea, Sweden (E)

♦ **Brokk Inc., Santa Fe, NM (E, R)**

Dufrane Nuclear Shielding Inc., Winsted, CT (C)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (C)
 In-Place Machining Company, LLC, Batavia, OH (C, E)
 Mega-Tech Services, LLC, Cooksburg, PA (C)
 New Millennium Nuclear Technologies International, Lakewood, CO (C)

13400 Connectors—also see *Feedthroughs*

DC Data Communications
 E Electrical
 EG Electrical, Glovebox
 EQ Electrical, Quick Disconnect
 FO Fiber Optic
 T Thermocouple

Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (E, EQ, FO, T)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (T)
 Glenair, Inc., Wallingford, CT (E, EQ, FO, T)
 Kanata Electronic Services Ltd., Toronto, Ontario, Canada (EQ)
 Mirion Technologies, Inc., Atlanta, GA (E, FO, T)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (DC, E, EG, EQ, FO)
 ♦ **Teledyne Brown Engineering, Inc., Huntsville, AL (E, EG)**
 Timesoft, Long Beach, CA (DC)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (E, EQ, FO, T)

13600 Consoles, Control

AVANTech, LLC, Knoxville, TN
 AVANTech, LLC, Columbia, SC
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX
 Nu-Energy Technologies, Inc., Providence Forge, VA
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom
 Sylvan Automation Ltd., Oakville, Ontario, Canada

13700 Construction Materials

AE Anchors, Chemical (Epoxy)
 A Anchors, Concrete
 AF Asbestos-Free Fiber Cement
 CG Commercial Grade Dedication
 C Concrete
 RB Concrete Reinforcement, Bar (Rebar)
 RM Concrete Reinforcement, Mesh
 LF Lumber, Fire-Retardant-Treated
 R Refractory
 SP Splices, Rebar
 SS Steel, Structural—also see *Metals, Steel*
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (SS)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (A, RB, RM, SP, SS)

♦ **Container Technologies Industries, LLC, Helenwood, TN (SS)**
 Curtiss-Wright Nuclear Division, Nova, Middleburg Heights, OH (A)
 Dubose National Energy Services, Inc., Clinton, NC (A, RB, SS)
 Dufrane Nuclear Shielding Inc., Winsted, CT (C, RB)
 Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (A, SP, SS)
 Joseph Oat Corp., Camden, NJ (SS)
 MillenniTEK, LLC, Knoxville, TN (R)
 Nuclear Shielding Supplies & Service, Tucson, AZ (C)
 PMT Nuclear, Woodridge, IL (AE, A, SS)
 Unified Engineering, Hamilton, Ontario, Canada (SS)

13850 Construction/Engineering Services—also see *Consultants; Maintenance Services*

AE Architect-Engineers
 CE Civil Engineers
 CS Construction Services
 EC Engineer-Constructors
 ES Erection Services

Advanced Nuclear LLC, East Petersburg, PA (ES)
 The Austin Company, Cleveland, OH (AE, CE, CS, EC)
 Barge Design Solutions, Nashville, TN (AE, CE)
 Barnhart Nuclear Services, Fairhope, AL (CS, ES)
 Bigge Power Constructors, (Affl. of Bigge Crane and Rigging Co.), San Leandro, CA (CS, EC, ES)

Black & Veatch, Overland Park, KS (AE, CE, CS, EC, ES)
 Boston Government Services, LLC (BGS), Oak Ridge, TN (AE, CE)
 Burns & McDonnell, Kansas City, MO (AE, CE, CS, EC, ES)
 Dufrane Nuclear Shielding Inc., Winsted, CT (CS, EC, ES)
 EKIUM, Bron, France (AE, CE, CS)
 Engineered Rigging, Russellville, AR (AE, CE, CS, EC)
 Engineered Rigging, Valparaiso, IN (AE, CE, CS, EC)
 E.S. Fox Limited, Niagara Falls, Ontario, Canada (CS, EC, ES)
 Garney Construction, North Kansas City, MO (CS)
 GSE DP, (DP Engineering), Fort Worth, TX (AE, CE, CS, EC, ES)
 HukariAscendant, Wheat Ridge, CO (AE, CE)
 ibeX - Energy Solutions, McLean, VA (EC)
 Idom Consulting, Engineering, Architecture S.A.U., Bilbao, Spain (AE, CE, CS, EC)
 Imperia Engineering Partners LLC, Bordentown, NJ (CE, CS, EC)
 INGEROP Conseil et Ingenierie, (a company of INGEROP Group), Cebazat, France (AE, CE)
 Kinectrics Inc., Toronto, Ontario, Canada (CE)
 Leak Testing Specialists, Inc., Orlando, FL (EC)
 L Rettinger Energy Technology Solutions, Collier Township, PA (EC, ES)
 Manafort Brothers Inc., Plainville, CT (CS)
 Miller Pipeline, Indianapolis, IN (CS)
 North Wind Group, Idaho Falls, ID (AE, CE, CS, EC)
 NV5/Dade Moeller, Richland, WA (CE, CS)
 Orano Federal Services, Charlotte, NC (AE)
 PMT Nuclear, Woodridge, IL (CS, ES)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AE, CE, CS, EC)
 Sargent & Lundy, Chicago, IL (AE, CE)
 SKODA JS a.s., Plzen, Bolevec, Czech Republic (EC, ES)
 Studsvik, Inc., Sandy Springs, GA (AE)
 System One, Pittsburgh, PA (AE, CE, CS, EC)
 TradeWind Services LLC, Richland, WA (AE, CE, CS, EC)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (CE, EC)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (AE, CE, CS, EC)

14000 Consultants—also see *Analysis; Training*

AC Air Cleaning, Filtration
 AU Auditing
 C Chemical Process Design
 CO Coatings/Corrosion
 CM Communications, Management-Employee
 CD Component/System Design & Analysis
 CS Computer Systems & Software
 CC Configuration Control
 CA Contract Administration
 CH Cranes & Hoists
 CE Criticality Hazard Evaluation
 DC Decontamination
 DE Decommissioning
 ES Earth Science Services
 EA Economic Analysis, Trade-off Studies
 EP Emergency Planning & Response
 E Environmental
 EC Equipment Condition Monitoring
 FP Fire Protection
 FT Fuel Transport/Storage
 LP Lightning Protection
 MN Maintenance
 MA Management Audit
 MI Management Information & Control Systems
 M Meteorology
 N Noise Abatement
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| | | |
|---|--|---|
| PE Performance Measurement | Campoverde srl, Milano, Italy (DC, DE, RE) | Equipos Nuclear S.A., S.M.E, Maliaño (Cantabria), Spain (P) |
| PH Personnel Stress/Health | Carignan & Associates LLC, Chattanooga, TN (DE, PP) | E.S. Fox Limited, Niagara Falls, Ontario, Canada (MN, P, QA) |
| P Piping | CBS Nuclear Services, Inc., Matthews, NC | EXCEL Services Corporation, Rockville, MD (DC, DE, EP, E, FP, MA, OD, PP, QA, RO, RC, RA, S, SI, TE, WM) |
| PS Procurement Support | CHP Consultants/Counts.Pro, Oak Ridge, TN (CD, CS, DC, DE, EP, E, RD, RM, SH, TA, WM) | FEVDI Nuclear Decontamination, Corbas, France (DC, DE) |
| PP Project Planning & Management | COFRIEND, Paris, France (MA) | Framatome Inc., (North American Headquarters), Lynchburg, VA (C, CO, CD, CS, CC, CE, DC, EP, E, FP, MN, PE, P, PS, PP, QA, RD, RE, RM, RC, RA, S, SE, SH, SS, SY, ST, TE, TA, WM, WT) |
| QA Quality Assurance/Quality Control | Computer Engineering Services, Inc., Chattanooga, TN (CS, RD, RC) | Fuel Tank Maintenance Co., LLC, Cookeville, TN (CO, DC, DE, FP, FT, P, WT) |
| RD Radiation Management | Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (CO, CD, SY) | Full On Communications, Woodstock, VT (CM) |
| RE Radiological Engineering | Container Products Corp., Wilmington, NC (DC) | The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC (EP, E) |
| RM Records Management Systems | Copperleaf Technologies Inc., Vancouver, British Columbia, Canada (CS, PP, RA) | The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC (EP, E) |
| RO Reengineering, Organization | Cortec Corporation, Saint Paul, MN (CO) | GEL Solutions, LLC, (A Member of The GEL Group, Inc.), Charleston, SC (SE) |
| RC Regulatory Compliance | Cragg Consulting, Grapevine, TX (RA) | General Atomics Electromagnetic Systems, San Diego, CA (CD, CS, E, PP, RD, RE, RC, SS, ST) |
| RA Risk Analysis | CS-2 Inc., Grand Island, NY (CA, DC, DE, E, PS, PP, QA, WM) | Gen IV Nuclear Energy Systems Services, Rockville, MD (CS, RA, SY) |
| S Security | CTR Technical Services, Inc., Manitou Springs, CO (CE, SH) | Global Quality Management Advisors, Lynchburg, VA (CC, E, MA, PP, QA, RM, RC, SE, TE, TA) |
| SE Seismic | Curtiss-Wright Nuclear Division, AP Services, Middleburg Heights, OH | GLSEQ, LLC, Huntsville, AL (PS) |
| SH Shielding | Curtiss-Wright Nuclear Division, Enertech, Brea, CA (CD, EC, MN, PS, QA, RA, SE, TE) | GoldSim Technology Group, Seattle, WA (E, RC, RA, WM) |
| SS Simulation Services | Curtiss-Wright Nuclear Division, NETCO, Danbury, CT (CS, WM) | Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA (AU, RD, RC, WM) |
| SI Siting | Curtiss-Wright Nuclear Division, Nova, Middleburg Heights, OH | GSE DP, (DP Engineering), Fort Worth, TX (CC, EC, FP, FT, MN, MA, MI, PE, PH, P, PS, QA, RO, RC, SS, TA) |
| SY System Engineering-Requirements Analysis | Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (E, MN, PS, QA, RC, SE, SH) | GSE Hyperspring, Columbia, MD (SS, TE) |
| ST Systems Testing | Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (C, CD, CS, CC, CH, CE, EP, EC, FT, MN, MA, MI, P, PS, PP, QA, RD, RM, RC, RA, S, SE, SH, SS, ST, TE) | GSE TrueNorth, Montrose, CO (CD, CS, CC, EA, E, EC, FT, MN, MA, MI, PE, PS, QA, RO, RC, RA, SS, SY, ST, TE, TA, WM) |
| TE Training Evaluation, Management | CYCLIFE, (Brand of EDF Group), Puteaux, France (RA, SH) | HealthPhysics.com, Amarillo, TX (AC, CD, EP, PH, TA) |
| TA Trend Analysis & Corrective Action Programs | DB2 Consulting Inc., Baltimore, Ontario, Canada (AU, CA, OD) | Hexion Inc., Columbus, OH (CO) |
| WM Waste Management | DCS Systems, Inc., Simsbury, CT (CS, MA, QA, TA) | HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (QA, RC, SE, ST) |
| WT Water Treatment | Decidia Research & Consulting, Sabadell, Barcelona, Spain (AU, EA, E, PE, QA, RA, SI, WM) | Highland TEMS, LLC, Marietta, GA (CD, CC, MI, OD, PP, RO, RA, SY) |
| Adam Brown Consulting, Inc., Cary, IL (AU, CO, DE, FP, MN, MA, OD, PE, PP, QA) | The Delphi Groupe, Inc., Austin, TX (CM, CS, CC, CA, DC, DE, EP, E, FP, MA, PP, RD, RE, RM, RC, SH, SI, TE, WM) | ◆ Holtec International, Camden, NJ (CE, DE, FT, P, QA, RC, SE) |
| Advanced Consulting Group, Inc., Chicago, IL (DE, MN, PP) | Deytec, Inc., Ashburn, VA (FP, PP, RC, RA) | Hukari Ascendent, Wheat Ridge, CO (AC, C, CO, EP, E, FT, MA, MI, PE, RD, RE, RC, RA, SS) |
| AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (DE) | Dominion Engineering, Inc., Reston, VA (C, CO, WM) | ibex - Energy Solutions, McLean, VA (PP, WM) |
| ◆ American Crane & Equipment Corp., Douglassville, PA (CH) | Duffrane Nuclear Shielding Inc., Winsted, CT (AU, CD, MN, PP, RD, RE, SH, WM, WT) | ◆ I.C.E. Service Group, Inc., Moon Township, PA (DE, E, PP, QA, RD, WM) |
| ◆ American DND Inc., Grand Island, NY (CA, CH, DC, DE, E, PP, WM) | DW James Consulting, North Oaks, MN (DE, RE, SH, WM) | Idom Consulting, Engineering, Architecture S.A.U., Bilbao, Spain (AC, CO, CD, CC, DE, EA, EP, FP, LP, MA, M, P, PS, PP, QA, RE, RA, S, SE, SH, SS) |
| Anamet, (a Div. of Acuren Inspection, Inc.), Hayward, CA (CO) | Ebersen, Inc., Minneapolis, MN (E, MA) | ILD, Inc., Baton Rouge, LA (P, ST) |
| F.N. Anderson & Assoc., Forest, VA (CD, CE, DE, E, FT, QA, SH, WM) | EKIUM, Bron, France (AC, C, CD, CS, CC, CE, DE, EP, EC, FP, LP, MN, MI, P, PS, PP, RO, RA, S, SE, SS, SY, ST) | Imperia Engineering Partners LLC, Bordentown, NJ (CO, CD, CS, CC, CA, DE, E, EC, FT, LP, MA, N, P, PS, PP, QA, RC, RA, S, SE, SH, SI, SY, ST, TA) |
| Anvil International, LLC, North Kingstown, RI (P) | Ellis & Watts Global Industries, Inc., Batavia, OH (AC) | INGEROP Conseil et Ingenierie, (a company of INGEROP Group), Cebazat, France (AC, C, CH, DE, ES, E, PP, SE, SI, WM) |
| Applied Analysis Corp., Reading, PA (CD, FT, M, QA, RE, RC, SH, SS, SI) | Empyrean Services, Sewickley, PA (AU, CM, CD, CC, CA, CE, DC, DE, ES, EA, EP, E, EC, FP, FT, LP, MN, MA, MI, N, OD, PE, RD, RE, RM, RO, RC, RA, S, SE, SH, SS, SI, SY, ST, TE, TA, WM) | In-Place Machining Company, LLC, Batavia, OH (DE) |
| ARES Security Corp., Vienna, VA (EP, S) | Enercon Services, Inc., (Talisman Div.), Kennesaw, GA (DE, EP, E, FT, MA, PE, PP, RD, RC, RA, S, SI, WM) | Intek, Inc., Westerville, OH |
| ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (DE, WM) | Energy Resources International Inc., Washington, DC (CS, EA, MA, PS, WM) | Interdevelopment, Inc., Washington, DC (EA, PS, PP) |
| ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (DE, WM) | Energy, Technology and Environmental Business Association, Oak Ridge, TN (WM) | ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (CS, CE, DC, DE, RD, RE, SH) |
| ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (DE, WM) | Engineered Rigging, Russellville, AR (CH, MN, PP, QA) | Jacobi Consulting, Austin, TX (AU, RD, RE, RC, SI, TE, WM) |
| ◆ Attention IT, Inc., Knoxville, TN (CS, MI, WM) | Engineered Rigging, Valparaiso, IN (CH, MN, PP, QA) | Joseph Oat Corp., Camden, NJ (E, P, PS, QA) |
| Attenuation Environmental Co., Seattle, WA (DE, E, RE, RC, WM) | Engineering Planning and Management, Inc., Framingham, MA (CD, CS, CC, FP, MA, PS, RC, RA, SY, TE) | KEPCO E&C, Port Elgin, Ontario, Canada |
| The Austin Company, Cleveland, OH (CA, PS, PP, QA, RO) | ENVINET GmbH, Munich/Haar, Germany (E) | Kinectrics Inc., Toronto, Ontario, Canada (C, CO, CD, DC, DE, E, EC, LP, MN, RD, RE, RC, RA, SE, SH, ST, TE, WM) |
| AVANTech, LLC, Knoxville, TN (C, E, SH, WM, WT) | Environmental Alternatives, Inc., Swanzy, NH (DC) | |
| AVANTech, LLC, Columbia, SC (C, E, SH, WM, WT) | Environmental Restoration Group, Inc., Albuquerque, NM (DE, E, RA) | |
| Bakelite Synthetics, Louisville, KY (CO) | | |
| Barnhart Nuclear Services, Fairhope, AL (CH) | | |
| ◆ Bechtel Nuclear, Security & Environmental, Reston, VA (CD, DC, DE, E, MI, PS, PP, QA, RC, S, SI, WM, WT) | | |
| Bevelacqua Resources, Richland, WA (CE, DC, DE, E, RD, RE, RA, TE, WM) | | |
| BHI Energy, Weymouth, MA (AC, CO, CD, CC, DC, DE, EP, E, MN, MA, PP, QA, RD, RE, RC, RA, SH, TE, TA) | | |
| Bigge Power Constructors, (Affl. of Bigge Crane and Rigging Co.), San Leandro, CA (CH, DE, FT) | | |
| Black & Veatch, Overland Park, KS (AC, C, CM, CD, CS, CC, CA, DE, ES, EA, E, EC, FP, FT, LP, MA, MI, N, OD, P, PS, PP, QA, RE, RM, RO, RC, RA, S, SE, SI, ST, TE, TA, WT) | | |
| Boston Government Services, LLC (BGS), Oak Ridge, TN (CD, CS, CC, CE, DC, DE, FP, PP, QA, RC, RA, S, SH, SS, SY, ST, TE, TA) | | |
| Burns & McDonnell, Kansas City, MO (AC, C, CO, CM, CD, CS, CC, CA, CH, CE, DC, DE, ES, EA, E, FP, OD, PE, P, PS, PP, QA, S, SE, SH, SI, SY, ST, TE, TA, WM, WT) | | |
| Cabrera Services Inc., East Hartford, CT (CE, DC, DE, EP, E, PP, QA, RD, RE, RC, RA, WM) | | |

Kinematics, Inc., Pasadena, CA (SE)
 Klein Consulting LLC, Norwich, CT (AU, QA)
 Leak Testing Specialists, Inc., Orlando, FL (QA)
 LeBlond and Associates, LLC, Libertyville, IL (CC, RC)
 Lightbridge Corp., Reston, VA (PP, RC)
 Lucideon, Durham, NC (WM)
 LUDECA, Inc., Doral, FL (EC)
 A. C. Macris, Consultants, Mystic, CT (MI, PP, TE)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (SH, WM)
 Materials and Chemistry Laboratory, Inc., (MCLinc), Oak Ridge, TN (E)
 Matom Ltd., North Wales, United Kingdom (C, CD, DE, RD, RE, RC, WM, WT)
 McWane and Assoc., San Jose, CA (WT)
 Mega-Tech Services, LLC, Cooksburg, PA (DC, MN)
 METOIL, Praha, Czech Republic (C)
 MillenniTEK, LLC, Knoxville, TN (FT, MI)
 Mirion Technologies (Canberra) Inc., Meriden, CT (CE, DC, DE, EP, E, MI, PP, RD, RE, RM, SI, WM)
 Morson International Inc., (Morson Canada), Toronto, Ontario, Canada (DE, EP, FP, FT, MN, PS, PP, QA, RD, RA)
 ◆ NAC International Inc., Peachtree Corners, GA (CD, CE, EA, FT, RM, WM)
 ◆ NAC LPT LLC, Mars, PA (E, WM)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL
 Navarro Research and Engineering, Inc., Oak Ridge, TN (CE, DC, DE, ES, EP, E, FP, QA, RD, RE, RM, RC, RA, WM, WT)
 Neptune and Company, Inc., Lakewood, CO (CS, ES, EA, E, QA, RM, RC, RA, TA, WM)
 Netzsch Instruments North America LLC, Burlington, MA (ES)
 NuclearConsultants.com, Ann Arbor, MI (CD, CS, CE, FT, SH, WM)
 Nuclear Economics Consulting Group (NECG), Alexandria, VA (EA, PS, RA)
 Nuclear Shielding Supplies & Service, Tucson, AZ (SH)
 Nuclear Systems Associates, Inc., Brea, CA (CD, MN, SY, ST, WM)
 Nuclear Training Institute, Norcross, GA (CM, CA, MA, OD, QA, TE)
 Nuclear-21, Waasmunster, Belgium (AU, OD, RC)
 Nucleonova S.L., Valencia, Spain (CD, MA, PS, QA, RO, SY)
 NUCON International, Inc., Columbus, OH (AC, C, CD, WM, WT)
 NuSource LLC, Alexandria, VA (CD)
 NV5/Dade Moeller, Richland, WA (CA, DC, DE, EP, E, FP, MA, N, RD, RE, RM, RC, SH, TE, WM)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (CE, DC, DE, RE, WM)
 PAR Systems, LLC, Shoreview, MN (CD, CH, SE, SY, WM)
 Paschal Solutions, Inc., Knoxville, KY (CE, FP, MA, PP, RE, RC, SH, TA)
 ◆ Perma-Fix Environmental Services, Inc., Oak Ridge, TN (RE)
 Pioneer Motor Bearing Co., Kings Mountain, NC
 Platom Oy, Mikkeli, Finland
 PMT Nuclear, Woodridge, IL (AC, P, QA, SE, SH)
 Power & Energy Systems Services, Oradell, NJ (CD, EC, TE, TA)
 Powerfect Service, Inc., Brick, NJ (MN, QA)
 Power Generation Integrated Consulting Limited (PGICL), Etobicoke, Ontario, Canada (AU, CC, MI, OD, PP, QA, RC, SY, TE, WM)
 ◆ Precision Custom Components, LLC, York, PA (CD, SE)
 Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (CC, CH, FT, MN, SH)
 Primm Consulting, LLC, Knoxville, TN (CS, CE, EA, SH)

Promation Nuclear, Oakville, Ontario, Canada (AC, AU, CO, DE, QA)
 Prospect Law Ltd., London, United Kingdom (DE, E, RC, RA)
 PTP Spent Fuel Services, LLC, Grand Island, NY (DE, FT, PP, WM)
 RadComm Systems Corp., Oakville, Ontario, Canada (RD)
 Radiac Research Corp., Brooklyn, NY (RD)
 Radiation Control, Inc., Tallahassee, FL (AU, RD, RE, RC, TE, TA, WM)
 Radics LLC, Kropyvnytskyi, Ukraine (CD, CS, FP, MI, SE)
 Radiological Solutions Inc., Rockdale, IL (E, RE, TA, WM, WT)
 Radium Inc., Waynesboro, VA (CM, MN, PE, PP)
 Ray Termini & Associates LLC, Wheaton, IL (FT, PP)
 Red Wolf Associates, Cary, NC (FP, M, P, RE, RA, SH, SY, TE)
 RETAQS, Inc., Blue Bell, PA (PP)
 Right Brain Security, Oswego, IL (MA, RA, S, TE)
 Robatel Technologies, LLC, Roanoke, VA (FT, SH, WM)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AC, C, CO, CM, CD, CS, CC, CA, CH, CE, DC, DE, ES, EA, EP, E, EC, FP, FT, LP, MN, MA, MI, M, N, OD, PE, PH, P, PS, PP, QA, RD, RE, RM, RO, RC, RA, S, SE, SH, SS, SI, SY, ST, TE, TA, WM, WT)
 Rolls-Royce Civil Nuclear SAS, Meylan, France (CS, EC, MN, MI, RA, S)
 Rolls-Royce Nuclear I&C, Pittsburgh, PA (CS, EC, MN, MI, RA, S)
 RSO, Inc./Radiation Service Organization, Laurel, MD (DC, DE, E, RD, WM)
 Sargent & Lundy, Chicago, IL (AC, C, CO, CD, CS, CC, CA, CH, CE, DC, DE, ES, EA, EP, E, EC, FP, FT, LP, MN, MA, MI, M, N, PE, P, PS, PP, QA, RD, RE, RM, RC, RA, S, SE, SH, SS, SI, SY, ST, TE, TA, WM, WT)
 Schulz Electric, Timken Power Systems, New Haven, CT (CH, MN)
 SecurMAR, LLC, Zionsville, IN (S)
 Shipsrock Consulting, LLC, Westport, MA (CM, DC, DE, E, MA, OD, PP, RD, RO, RC)
 Sidus Solutions LLC, San Diego, CA (CH, S, TE, WM)
 Siempelkamp NIS, Alzenau, Germany (DE)
 SIET, Piacenza, Italy (PE, QA, ST)
 Sigma Science, Albuquerque, NM (CS, CE, E, FP, FT, LP, PP, QA, RD, RE, RA, SY, WM)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (AU, CO, CD, CH, DE, FP, FT, P, PS, PP, QA, RC, SE, WM)
 S&K Logistics Services, Byron, GA (PP)
 Southwest Research Institute, San Antonio, TX (AC, C, CO, CD, CS, CE, DC, DE, ES, E, EC, FP, FT, N, P, QA, RE, RC, RA, SE, SH, SY, ST, TE, WM)
 Springs Advanced Technology Group (ATG), LLC, Westminster, CO (DC, DE)
 Studsvik, Inc., Sandy Springs, GA (E, P, PP, SS, ST)
 Studsvik Scandpower, Wilmington, NC (CS, CE, SS)
 Switchgear Solutions, Inc., Tucson, AZ
 System One, Pittsburgh, PA (CO, CS, CC, CA, CE, DE, EP, E, EC, FP, FT, MN, MI, P, PS, PP, QA, RO, RC, RA, SI, SY, ST, TE, TA)
 Talisman Div. of Enercon, Kennesaw, GA (CE, DC, DE, EP, E, FT, MA, QA, RC, RA, S, SE, SI, TA, WM)
 TEiC, Duncan, SC (PP)
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL (SI, SY, ST)
 Thermal Engineering International (TEi), Cerritos, CA
 3 Bears Technical Services, LLC, Hixson, TN (AU, CC, DC, DE, FP, PE, PP, QA, RE, WM)
 Timesoft, Long Beach, CA (CM, PE, PP, SY)
 TradeWind Services LLC, Richland, WA (E)
 Transco Products Inc., Streator, IL (FP)

Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (CO, DE, MN)
 Unique Technical Resources, Wayne, PA (CD, CC, DE, FP)
 Utilities Service Alliance (USA), Overland Park, KS (PS)
 UxC, LLC, Roswell, GA (CD, EA, PS)
 VGSolutions, Mississauga, Ontario, Canada
 Volian Enterprises, Inc., Murrysville, PA (CC, EP, MI, TE)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (C, CO, CH, DC, DE, EC, FT, MN, P, PP, RD, RE, RC, RA, SE, SH, SS, SY, TE, WM, WT)
 ◆ WMG, Inc., Peekskill, NY (CS, DC, DE, E, FT, RD, RE, RC, SH, WM, WT)
 Women in Nuclear Canada, Toronto, Ontario, Canada (CM, PE, PP, TE)
 Wood, (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group), Grand Junction, CO (DC, DE, RD, RE, WM)

14300 Containers—also see *Radioactive Waste Handling; Shielding Materials*

B Bulk
 CR Casks, Radwaste
 SF Casks, Spent-Fuel Shipping
 CS Casks, Spent-Fuel Storage
 CO Component
 DB Drum Breather Filters
 DL Drum Liners/Inserts
 D Drums
 GA Gamma Source Shipping
 GS Gamma Source Storage
 G Groups 1, 2 and 3 Containers (per IAEA)
 HI High-Integrity (HIC)
 LI Liners/Inserts, LSA Containers
 IA LSA Containers, IAEA
 LS LSA Containers, Strong-Tight
 OH On-Site Storage Containers, High-Level
 OL On-Site Storage Containers, Low-Level
 O Overpacks
 SS Soft-Sided/Flexible
 S Soil
 TA Type A Containers
 TB Type B Containers
 TC Type C Containers
 AECON-WACHS, (U.S. Div. of Acon Nuclear), Jackson, SC (CO, D, OL, O, TA, TB)
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (LS, OL)
 F.N. Anderson & Assoc., Forest, VA (SF, CS, TA, TB)
 AVANTech, LLC, Knoxville, TN (CR, CO, DL, G, HI, LI, IA, LS, OH, OL, O, TA)
 AVANTech, LLC, Columbia, SC (CR, CO, DL, G, HI, LI, IA, LS, OH, OL, O, TA)
 Campoverde srl, Milano, Italy (GA)
 Coastal Network, Inc., Charlottesville, VA (D, LS)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (LI)
 Container Products Corp., Wilmington, NC (B, IA, LS, OL, O, S, TA)
 ◆ Container Technologies Industries, LLC, Helenwood, TN (B, CR, CO, G, HI, LI, IA, LS, OH, O, TA, TB, TC)
 Curtiss-Wright Nuclear Division, NETCO, Danbury, CT (SF)
 CYCLIFE, (Brand of EDF Group), Puteaux, France (CO)
 Dubose National Energy Services, Inc., Clinton, NC (B, CR, SF, CS, CO, D, GS, OL, O)
 Dufrane Nuclear Shielding Inc., Winsted, CT (CR, DL, D, GA, GS, HI, LI, LS, OH, OL, O, TA, TB)
 Enercon Services, Inc., (Talisman Div.), Kennesaw, GA (SF, CS)
 Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (CS)
 ◆ EnergySolutions LLC, Salt Lake City, UT (CR, SF, CS, CO, D, HI, LI, OH, OL, SS, TA, TB)
 E.S. Fox Limited, Niagara Falls, Ontario, Canada (B, OH, OL, O)

Framatome Inc., (North American Headquarters), Lynchburg, VA (O)
 Frontier Technology Corp., Xenia, OH (TA)
 FuseRing Inc., London, Canada (CS)
 Glidewell Specialties Foundry Co., Calera, AL (CR)
 GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (SF, CS, OH, OL)
 Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA (DL, D, LS, O, TA)
 ♦ Holtec International, Camden, NJ (CR, SF, CS, OH, OL, O, TA)
 ♦ I.C.E. Service Group, Inc., Moon Township, PA (B, CR, CO, DB, DL, D, LI, IA, LS, O, SS, S, TA)
 Joseph Oat Corp., Camden, NJ (CR, SF, CS, DL, D, GA, GS, G, LI, IA, LS, OH, OL, O, TA, TB)
 Leak Testing Specialists, Inc., Orlando, FL (TB)
 ♦ Major Tool & Machine, Inc., Indianapolis, IN (B, CR, SF, CS, CO, OH, OL, O, TA, TB)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (CR, SF, CS, D, GA, GS, G, OH, OL)
 Mohawk Safety, Manchester, CT (DB, DL, D, O)
 ♦ NAC International Inc., Peachtree Corners, GA (CR, SF, CS, OH, O, TB)
 ♦ NAC LPT LLC, Mars, PA (B, LS, OL, TA)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (CO)
 Niagara Energy Products (NEP), Niagara Falls, Ontario, Canada (B, CR, SF, CS, CO, GA, GS, G, OH, OL, O, TA, TB)
 NuclearConsultants.com, Ann Arbor, MI (SF, CS, O)
 Nuclear Shielding Supplies & Service, Tucson, AZ (OH, OL)
 NuSource LLC, Alexandria, VA (CR, CO)

Orano TN, Columbia, MD (CR, SF, CS, CO, OH, OL, O, TA, TB, TC)
 ♦ PacTec, Inc., Clinton, LA (B, DL, G, LI, IA, LS, OH, OL, O, SS, S, TA)

See advertisement on page 92

♦ Petersen Inc., Ogden, UT (B, CR, SF, CS, LS, OH, OL, O, TA, TB)

See advertisement on Cover 2

Porvair Filtration Group Inc., Ashland, VA (DB)
 ♦ Precision Custom Components, LLC, York, PA (CR, SF, CS, OH)
 Premier Technology, Inc., Blackfoot, ID (CR, SF, CS, TA, TB)
 Promation Nuclear, Oakville, Ontario, Canada (CR, TA, TB)
 PTP Spent Fuel Services, LLC, Grand Island, NY (CR, SF, CS, OH, OL)
 Radiation Safety & Control Services, Inc., Seabrook, NH (GA, TA)
 Radium Inc., Waynesboro, VA (B, CO, SS)
 ♦ Reef Industries, Inc., Houston, TX (B, DL, LI, LS, OL, O, SS, TA)
 Rich Industries Inc., New Philadelphia, OH (DL)
 Robatel Technologies, LLC, Roanoke, VA (CR, SF, CS, CO, GA, GS, G, IA, LS, OL, TA, TB)
 RSO, Inc./Radiation Service Organization, Laurel, MD (DL, D, LS, TA)
 Seafab Metals Co., (Div. of The Doe Run Co.), Casa Grande, AZ (CR, SF, CS, D, OH, OL, O)
 Siempelkamp NIS, Alzenau, Germany (CR)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (CR, SF, CS)
 SKODA JS a.s., Plzen, Bolevec, Czech Republic (CS)
 Skolnik Industries, Chicago, IL (D, O, TA)
 ♦ Strategic Packaging Systems, Madisonville, TN (B, CO, DL, IA, LS, O, SS, S)

Studsvik, Inc., Sandy Springs, GA (CR, LI, LS, S)
 Talisman Div. of Enercon, Kennesaw, GA (CR, SF, CS, OH, OL)
 ♦ Teledyne Brown Engineering, Inc., Huntsville, AL (B, CR, SF, CS, CO, DB, DL, D, GA, GS, G, HI, LI, IA, LS, OH, OL, O, SS, S, TA, TB)
 Unified Engineering, Hamilton, Ontario, Canada (B, CR, SF, CS, CO, DL, D, OL, O)
 ♦ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (IA, LS)
 VTT Technical Research Centre of Finland, VTT, Finland (CR, SF, CS)
 Wagstaff Applied Technologies, Spokane, WA (B, CR, SF, CS, CO, DL, GA, GS, HI, LI, OH, OL, O)
 Waste Control Specialists LLC, Andrews, TX (B, CR)
 Waste Control Systems, Inc., Phoenix, MD (DL, D, HI, IA, LS, O, TA)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (CO)
 ♦ WMG, Inc., Peekskill, NY (CO, LI, IA, LS, OH, OL, TA, TB)
 Worthington Industries, Columbus, OH (CR, CS, OH, OL, O, TA, TB)

17650 Corrosion Inhibitors

Arkema Inc., (formerly ATOFINA Chemicals, Inc.), King of Prussia, PA
 Bakelite Synthetics, Louisville, KY
 Cortec Corporation, Saint Paul, MN
 Fuel Tank Maintenance Co., LLC, Cookeville, TN
 Hexion Inc., Columbus, OH
 HydroPro Inc., Bourbon, MO
 Lambda Technologies, Cincinnati, OH
 Sentry Equipment, Oconomowoc, WI



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 FL Flow
 GM Geiger-Mueller Type
 G Germanium Detectors
 IC Ion Chamber Type
 IS Ion-Implanted Silicon Detectors
 LB Low-Background Alpha/Beta
 M Modular
 P Portable
 PC Proportional Counters
 SL Scintillation Counters, Liquid
 SR Scintillation Counters, Radioimmunoassay
 ST Scintillation Counters, Solid-State
 SS Solid-State Semiconductor Type
 WT Wipe Test Counters
 X X-ray

Alpha Spectra, Inc., Grand Junction, CO (A, B, G, C, LB, SR, ST, WT, X)

AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (C)

Bevelacqua Resources, Richland, WA (A, B, G, N, C, DT, ER, FS, FL, GM, G, IC, IS, LB, M, P, PC, SL, SR, ST, SS, WT, X)

Bot Engineering Ltd, Campbellville, Ontario, Canada (A, B, G, N, C, ER, FS, FL, IC, M, P, PC, SL, ST, SS, X)

CAEN SyS, Viareggio, LU, Italy (C)

♦EnergySolutions LLC, Salt Lake City, UT (A, B, G, N, ER, GM, G, IC, P, SL, SR)

ENVINET GmbH, Munich/Haar, Germany (G, ER, GM, M, P, PC, ST)

Environmental Restoration Group, Inc., Albuquerque, NM (A, B, G, C, DT, ER, FS, GM, IC, P, PC, WT)

FCI-Fluid Components International LLC, San Marcos, CA (FL)

General Atomics Electromagnetic Systems, San Diego, CA (B, G, ER, GM, IC, P, PC, SL, ST, SS)
 GLSEQ, LLC, Huntsville, AL (A, B, G, N, C, LB, P, SS)

Health Physics Instruments, (Div. of Far West Technology, Inc.), Goleta, CA (A, B, G, N, C, GM, IC, P, PC, ST, SS)

H3D, Inc., Ann Arbor, MI (G, N, C, DT, M, P, SS)

Intek, Inc., Westerville, OH (FL)

ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (A, B, N, ST)

LabLogic Systems, Inc., Tampa, FL (A, B, G, ER, GM, SL)

LND, Inc., Oceanside, NY (A, B, G, N, C, DT, ER, FS, FL, GM, IC, M, P, PC, WT, X)

Mazur Instruments, Castle Rock, CO (C, ER)

Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (G, N, C, IC, PC)

Mirion Technologies (Premium Analyse), Norroy Le Veneur, France (B)

Mohawk Safety, Manchester, CT (WT)

ORTEC, Oak Ridge, TN (A, B, G, N, C, DT, ER, FS, GM, G, IC, IS, LB, M, P, PC, ST, SS)

OTEK Corp., Tucson, AZ (FL, PC, SS)

Overhoff Technology Corp., (A Div. of US Nuclear Corp.), Milford, OH (A, B, G, IC, PC, SR, WT)

Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (G, N, C)

♦Paragon Energy Solutions, Fort Worth, TX (N)

See advertisement on page 1

♦Perma-Fix Environmental Services, Inc., Oak

Ridge, TN (A, B, G, C, GM, LB, P, WT)

PHDS Co., Knoxville, TN (G, G, M, P, SS)

Pylon Electronics Inc., (Instrumentation Dept.), Ottawa, Ontario, Canada (A, P, WT)

RadComm Systems Corp., Oakville, Ontario, Canada (G, N, C, DT, FS, P)

ReNuKe, Oak Ridge, TN (A, B, G, N, C, DT, GM, G, IC, LB, M, P, PC, ST)

Rexon Components, Inc., Beachwood, OH (A, B, G, N, C, ER, GM, IC, LB, P, PC, SR, ST, SS, WT, X)

Rolls-Royce Civil Nuclear SAS, Meylan, France (N, IC, PC)

Rolls-Royce Nuclear I&C, Pittsburgh, PA (N, IC, PC)

RSO, Inc./Radiation Service Organization, Laurel, MD (A, B, G, C, GM, IC, P, PC)

S.E. International, Inc., Summertown, TN (A, B, G, C, DT, ER, GM, P, ST, WT, X)

US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (A, B, G, N, C, DT, ER, FS, FL, GM, IC, LB, M, P, PC, SL, SR, ST, SS, WT, X)

Westinghouse Electric Co. LLC, Cranberry Township, PA (A, B, G, N, GM)

♦WMG, Inc., Peekskill, NY (A, B, G, C, DT, LB, M, P, SS)

18590 Crane Safety Systems

AT Anti-Two-Blocking (Conversion)

SF Single-Failure-Proof

♦American Crane & Equipment Corp.,

Douglassville, PA (AT, SF)

PAR Systems, LLC, Shoreview, MN (AT, SF)

REEL COH Inc., Boisbriand, Quebec, Canada (AT, SF)

Simpson Gumpertz & Heger (SGH), Chicago, IL (AT, SF)

18600 Cranes & Hoists

CS Control System Upgrade/Replacement

CO Controls, Radio

CC Cranes, Conventional, to 300-Ton Cap.

CR Cranes, Conventional, to 500-Ton Cap.

CH Cranes, Heavy-Lift, to 1000-Ton Cap.

CX Cranes, Heavy-Lift, to 2500-Ton Cap.

DG Double-Girder, Top-Riding

E Electric

FB Fuel Building Cranes (Cask Handling)

G Gantry

H Hand Chain-Operated

LM Lug-Mounted Hoists

MH Monorail Hoists

RS Radwaste Storage Facility

SG Semi-Gantry

SF Single-Failure-Proof

ST Single-Girder, Top-Riding

SU Single-Girder, Under-Riding

SP Spent Fuel Pool Cranes

♦American Crane & Equipment Corp.,

Douglassville, PA (CS, CO, CC, CR, DG, E, FB, G, H, LM, MH, RS, SG, SF, ST, SU, SP)

♦American DND Inc., Grand Island, NY (CR, CX, RS)

Barnhart Nuclear Services, Fairhope, AL (CR, CH, CX, G)

Bigge Power Constructors, (Affl. of Bigge Crane and Rigging Co.), San Leandro, CA (CC, CR, G, SF)

Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (E, H)

CYCLIFE, (Brand of EDF Group), Puteaux, France (RS)

Del Mar Avionics, (Hydra Set Div.), Irvine, CA (SP)

Engineered Rigging, Russellville, AR (CC, CR, CH)

Engineered Rigging, Valparaiso, IN (CC, CR, CH)

Framatome Inc., (North American Headquarters), Lynchburg, VA (CS, FB, SP)

HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (CS)

ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (CO)

LGH, Bridgeview, IL (E, G, H, MH)

L Rettinger Energy Technology Solutions, Collier Township, PA (CC, CR, CH, CX)

PAR Systems, LLC, Shoreview, MN (CS, CO, CC, CR, CH, CX, DG, E, FB, G, MH, RS, SG, SF, ST, SU, SP)

PTP Spent Fuel Services, LLC, Grand Island, NY (SP)

REEL COH Inc., Boisbriand, Quebec, Canada (CS, CO, CC, CR, CH, CX, DG, E, FB, G, H, LM, MH, RS, SG, SF, ST, SU, SP)

Schulz Electric, Timken Power Systems, New Haven, CT (CS, CO, CC, DG, E, G, H, LM, MH, RS, SG, SF, ST, SU, SP)

Simpson Gumpertz & Heger (SGH), Chicago, IL (CC, CR, CH, CX, DG, FB, G, H, LM, MH, RS, SG, SF, ST, SU, SP)

Unified Engineering, Hamilton, Ontario, Canada

Unique Technical Resources, Wayne, PA

Westinghouse Electric Co. LLC, Cranberry Township, PA (CS, FB, SP)

19450 Dampers

AF Air-Flow Control

B Backdraft

F Fire

HE High-Energy Line Break

I Isolation

IA Isolation, Bubble-tight

T Tornado Protection

V Volume

Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (AF, B, F, HE, I, IA, T, V)

Ellis & Watts Global Industries, Inc., Batavia, OH (AF, B, F, I, IA, T, V)

New York Blower Company, Willowbrook, IL (AF)

PMT Nuclear, Woodridge, IL (AF, B, F, HE, I, IA, T, V)

♦SSM Industries, Inc., Pittsburgh, PA (AF, B, F, HE, I, IA, T, V)

Unified Engineering, Hamilton, Ontario, Canada (AF)

19700 Data Acquisition/Handling Systems—also see Computers

A Analog

D Digital

Acromag Inc., Wixom, MI (A, D)

AVANTech, LLC, Knoxville, TN (A, D)

AVANTech, LLC, Columbia, SC (A, D)

CAEN SyS, Viareggio, LU, Italy (D)

CHP Consultants/Counts.Pro, Oak Ridge, TN (D)

Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (A, D)

Eddyfi Technologies, Nanaimo, British Columbia, Canada (D)

Framatome Inc., (North American Headquarters), Lynchburg, VA (A, D)

General Atomics Electromagnetic Systems, San Diego, CA (A, D)

HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (D)

Hoskin Scientific, Oakville, Ontario, Canada (A, D)

Knowledge Relay, Cypress, CA (A)

Mirion Technologies (Canberra) Inc., Meriden, CT (A, D)

National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (D)

ORTEC, Oak Ridge, TN (D)

Radics LLC, Kropyvnytskyi, Ukraine (D)

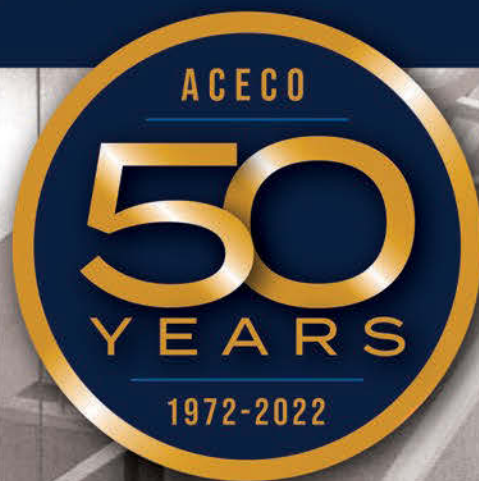
Rolls-Royce Civil Nuclear, Warrington, United Kingdom (D)

Timesoft, Long Beach, CA (D)

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CHP Consultants/Counts.Pro, Oak Ridge, TN (RC)

GLSEQ, LLC, Huntsville, AL (V)

HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (RC, SC, V)

Mirion Technologies (Canberra) Inc., Meriden, CT (PD, P, V)

National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (V)

Rolls-Royce Civil Nuclear, Warrington, United Kingdom (O, PD, PX, P, RC, RP, SC, V)

Advanced Consulting Group, Inc., Chicago, IL (DS, E)
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (DC, TI, TR)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (DM, DS, RS)
 ♦ **American DND Inc., Grand Island, NY (DC, DM, DS, E, TI, TR)**

See advertisement on page 7

American Integrated Services, Inc., Anaheim, CA (DC, DM, DS, TI)

♦ Argonne National Laboratory, (Decommissioning Training), (EOF Div.), Argonne, IL (E)
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (E)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (E)
 ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (E)
 AVANTech, LLC, Knoxville, TN (DC, E)
 AVANTech, LLC, Columbia, SC (DC, E)
 Barnhart Nuclear Services, Fairhope, AL (DS, TI, TR)

♦ **Bechtel Nuclear, Security & Environmental, Reston, VA (DC, DM, DS, E)**

See advertisement on page 18

Bevelacqua Resources, Richland, WA (DC, E, RS)
 BHI Energy, Weymouth, MA (DC, DM, DS, E, RS)
 Bigge Power Constructors, (Affl. of Bigge Crane and Rigging Co.), San Leandro, CA (DS, E)
 Black & Veatch, Overland Park, KS (E)
 Boston Government Services, LLC (BGS), Oak Ridge, TN (E)

♦ Brokk Inc., Santa Fe, NM (DS)
 Burns & McDonnell, Kansas City, MO (E, RS)
 Cabrera Services Inc., East Hartford, CT (DC, DS, E, RS)
 Carignan & Associates LLC, Chattanooga, TN (E)

Central Research Laboratories, Red Wing, MN (DC)
 CS-2 Inc., Grand Island, NY (E)
 CYCLIFE, (Brand of EDF Group), Puteaux, France (DC, DM, TI, TR)
 Day & Zimmermann, Philadelphia, PA (DC)
 The Delphi Groupe, Inc., Austin, TX (DC)
 Dufrane Nuclear Shielding Inc., Winsted, CT (DC, DS, E, SS)
 DW James Consulting, North Oaks, MN (E)
 E. H. Wachs, Lincolnshire, IL (DS, E)
 Encorus Group, (dba RJR Engineering, P.C.), Springville, NY (DC, DM, DS)
 Enercon Services, Inc., (Talisman Div.), Kennesaw, GA (DC, DS, E, RS, SS, TI, TR)
 ♦ **EnergySolutions LLC, Salt Lake City, UT (DC, DM, DS, E, RS, SS, TI, TR)**

See advertisement on pages 4-5

Environmental Alternatives, Inc., Swansey, NH (DC)
 Environmental Restoration Group, Inc., Albuquerque, NM (RS)
 E.S. Fox Limited, Niagara Falls, Ontario, Canada (DC, DS, E, RS, SS)
 EXCEL Services Corporation, Rockville, MD (E)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (DC, DM, DS, E)
 GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (DC, DS)
 Hennigan Engineering LLC, Hingham, MA (DC)
 High Bridge Assoc., (Meridian Services Group), Chattanooga, TN (E)
 Hopewell Designs, Inc., Alpharetta, GA (DS)
 H3D, Inc., Ann Arbor, MI (RS)
 ♦ **I.C.E. Service Group, Inc., Moon Township, PA (E, TI, TR)**
 Imperia Engineering Partners LLC, Bordentown, NJ (E)

20300 Decommissioning Services

- DC Decontamination
- DM Demolition
- DS Dismantling
- E Engineering Support Services
- RS Radiological Surveys
- SS SAFSTOR
- TI Transportation, Intermodal
- TR Transportation, Rail

Accelerated Decommissioning Partners - ADP, Dallas, TX (DC, DM, DS, E, RS, TR)

TRANSPORTATION (RAIL, TRUCK, MARINE)

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✉ Dennis Morgan, II | dmorgan@iceservicegroup.com

In-Place Machining Company, LLC, Batavia, OH (DS)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (DC)
 Kinectrics Inc., Toronto, Ontario, Canada (DC, E, RS)
 Manafort Brothers Inc., Plainville, CT (DC, DM)
 Matom Ltd., North Wales, United Kingdom (E, RS)
 Mega-Tech Services, LLC, Cooksburg, PA (E)
 Merrick & Company, Greenwood Village, CO (E)
 ◆ **NAC LPT LLC, Mars, PA (TI, TR)**
 Navarro Research and Engineering, Inc., Oak Ridge, TN (DC, DM, DS, E, RS)
 Nuclear-21, Waasmunster, Belgium (DC)
 NV5/Dade Moeller, Richland, WA (DC, RS)
 Orano Decommissioning Services, Hudson, MA (DC, DM, DS, E, RS, TR)
 Orano TN, Columbia, MD (TI, TR)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (E, RS)
 Paschal Solutions, Inc., Knoxville, KY (E)
 PD Design Group, LLC, Lake Villa, IL (DS, E)
 ◆ Perma-Fix Environmental Services, Inc., Oak Ridge, TN (DM)
 PHDS Co., Knoxville, TN (RS)
 Promotion Nuclear, Oakville, Ontario, Canada (E)
 PTP Spent Fuel Services, LLC, Grand Island, NY (DC, E, TI, TR)
 Red Wolf Associates, Cary, NC (E)
 RETAQS, Inc., Blue Bell, PA (E)
 Robatel Technologies, LLC, Roanoke, VA (E)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (E)
 RSO, Inc./Radiation Service Organization, Laurel, MD (DC, RS)
 Sargent & Lundy, Chicago, IL (E)

Shipsrock Consulting, LLC, Westport, MA (SS)
 Siempelkamp NIS, Alzenau, Germany (DC, DS, E)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (E)
 Sonic Systems International, Inc., Houston, TX (E)
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL (DS, E)
 3 Bears Technical Services, LLC, Hixson, TN (DC, E)
 ◆ Underwater Construction Corp., Essex, CT (DC, DS)
 ◆ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (DC, DS)
 US Ecology, Inc., Livonia, MI (DC)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (DC, DM, DS, E, RS, TI, TR)
 VTT Technical Research Centre of Finland, VTT, Finland (DS, E)
 Waste Control Specialists LLC, Andrews, TX (TI, TR)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (DC, DS, E, RS, SS, TI, TR)
 ◆ WMG, Inc., Peekskill, NY (DC, DS, E, RS)
 Wood, (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group), Grand Junction, CO (DC, DM, DS, E, RS)

EP Electropolishing
 E Equipment
 HS Hand Scrubbing
 HF High-Pressure Freon
 HW High-Pressure Water
 IB Ice Blasting (Wet Ice)
 LD Laser Decontamination
 PS Plugs & Seals
 S Services
 SW Soil Washing
 SC Strippable Coatings
 UW Ultra-High-Pressure Water
 U Ultrasonics
 VB Vacuum Blasting, Abrasive
 VF Vibratory Finishing
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (CD, S)
 ◆ American DND Inc., Grand Island, NY (CS, HS, S, UW)
 American Integrated Services, Inc., Anaheim, CA (AC, CS)
 Arkema Inc., (formerly ATOFINA Chemicals, Inc.), King of Prussia, PA (C)
 BHI Energy, Weymouth, MA (AC, CS, D, E, HS, HW, S, SC, UW)
 ◆ Brokk Inc., Santa Fe, NM (CS)
 Coastal Network, Inc., Charlottesville, VA (C, SC)
 Container Products Corp., Wilmington, NC (E)
 CYCLIFE, (Brand of EDF Group), Puteaux, France (AC, C)
 The Delphi Groupe, Inc., Austin, TX (S)
 Dominion Engineering, Inc., Reston, VA (CD, U)
 ◆ EnergySolutions LLC, Salt Lake City, UT (CS, S, SW)
 Environmental Alternatives, Inc., Swansey, NH (AC, CD, CS, CR, HW, S, U)

20350 Decontamination Chemicals, Equip. & Services—also see *Cleaning Equip.*; *Health Physics Equip.*

AC Abrasive Cleaning
 CD Chemical Decontamination
 C Chemicals
 CS Concrete Scabbling
 CR Cryogenic Cleaning (CO2)
 D Drainline



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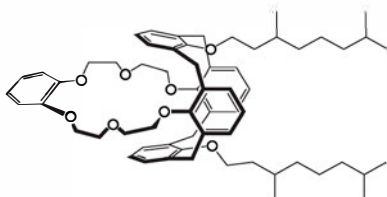
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20350 Decontamination Chemicals, Equip. & Services

FEVDI Nuclear Decontamination, Corbas, France (CD, C, SC)
Framatome Inc., (North American Headquarters), Lynchburg, VA (AC, CD, HS, HW, S, SC, UW, VB)
Fuel Tank Maintenance Co., LLC, Cookeville, TN (AC, CD, C, CS, CR, HS, HW, S, SC, UW)
GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (CD, E, S)
Heat Exchanger Products Corp. (HEPCO), Hingham, MA (PS)
Hennigan Engineering LLC, Hingham, MA (HW, UW)
Kinectrics Inc., Toronto, Ontario, Canada (CD, C, S)
♦ Marshallton Research Laboratories, Inc., King, NC (C)
Matom Ltd., North Wales, United Kingdom (CD)
Mega-Tech Services, LLC, Cooksburg, PA (E)
M2 Polymer Technologies, Inc., West Dundee, IL (C)
New Millennium Nuclear Technologies International, Lakewood, CO (CS)
North Wind Group, Idaho Falls, ID (CD)
Nuclear-21, Waasmunster, Belgium (AC, CD, CR, EP, E, LD, S, U)
PAR Systems, LLC, Shoreview, MN (E, HW, LD, UW)
♦ Perma-Fix Environmental Services, Inc., Oak Ridge, TN (S, SW)
Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (PS)
Promation Nuclear, Oakville, Ontario, Canada (SC)
Radiological Solutions Inc., Rockdale, IL (EP)
RSO, Inc./Radiation Service Organization, Laurel, MD (S)
Schulz Electric, Timken Power Systems, New Haven, CT (CR, HW, S)
Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (AC, E, HW, IB)
♦ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (AC, CR, E, HS, HW, S, VB)
US Ecology, Inc., Livonia, MI (CD, UW, VB)
Veolia Nuclear Solutions - Federal Services, Piketon, OH (CD, HW, LD)
Westinghouse Electric Co. LLC, Cranberry Township, PA (AC, CD, C, D, E, HW, S, UW, U)
♦ WMG, Inc., Peekskill, NY (S)

20700 Demolition and Dismantlement

American Integrated Services, Inc., Anaheim, CA
Campoverde srl, Milano, Italy
CYCLIFE, (Brand of EDF Group), Puteaux, France
Jacobs, (CH2M HILL, Inc.), (CH2M HILL Nuclear Business Group), (CH2M HILL International Nuclear Services, Ltd.), (CH2M HILL Constructors, Inc.), (Jacobs), (Jacobs Engineering), (Jacobs Technology), (Jacobs Solutions), Dallas, TX
Manafort Brothers Inc., Plainville, CT
Navarro Research and Engineering, Inc., Oak Ridge, TN
PAR Systems, LLC, Shoreview, MN
♦ Perma-Fix Environmental Services, Inc., Oak Ridge, TN
Shipsrock Consulting, LLC, Westport, MA
Siempelkamp NIS, Alzenau, Germany
Simpson Gumpertz & Heger (SGH), Chicago, IL
US Ecology, Inc., Livonia, MI
Veolia Nuclear Solutions - Federal Services, Piketon, OH

21270 Detector Heads, Sold Separately

BF BF3 Neutron Counters
GM Geiger-Mueller Tubes/Probes
HN He3 Neutron Counters
IC Ionization Chambers
PM Photomultiplier Tubes

PC Proportional Counters
SP Self-Powered Type
SL Scintillation Counters, Liquid
ST Scintillation Counters, Solid-State
SS Solid-State Semiconductor Type

Alpha Spectra, Inc., Grand Junction, CO (PM, ST)
ENVINET GmbH, Munich/Haar, Germany (GM, PC, SP, ST)
Health Physics Instruments, (Div. of Far West Technology, Inc.), Goleta, CA (BF, GM, HN, IC, PC, ST)
LND, Inc., Oceanside, NY (BF, GM, HN, IC, PC, SL, ST)
Mirion Technologies, Inc., Atlanta, GA (BF, GM, IC, PC, SP)
Mirion Technologies (Premium Analyse), Norroy Le Veneur, France (IC)
ORTEC, Oak Ridge, TN (PM, ST, SS)
Overhoff Technology Corp., (A Div. of US Nuclear Corp.), Milford, OH (IC)
♦ Paragon Energy Solutions, Fort Worth, TX (BF)
PHDS Co., Knoxville, TN (SS)
Rolls-Royce Civil Nuclear SAS, Meylan, France (IC, PC, SP)
Rolls-Royce Nuclear I&C, Pittsburgh, PA (IC, PC, SP)
Technology for Energy Corp., Knoxville, TN (PC)
US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (BF, GM, HN, IC, PM, PC, SP, SL, ST, SS)

21300 Detectors, Accelerator Beam

Mirion Technologies, Inc., Atlanta, GA
US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA

21310 Detectors, Aerosol/Particulate

ENVINET GmbH, Munich/Haar, Germany
Mirion Technologies, Inc., Atlanta, GA

21320 Detectors, Air Bubble (In Liquid)

Framatome Inc., (North American Headquarters), Lynchburg, VA

21370 Detectors, Explosives—also see Equipment Rental

H Hand-Held
W Walk-Through
GLSEQ, LLC, Huntsville, AL (H)
ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (H)

21400 Detectors, Leak—also see Tape, Moisture-Sensitive

A Acoustic
B Bubble Test
EC Electron Capture (SF/6)
G Gas
HE HEPA Filter
IL Integrated Leak Rate Testing
MS Mass Spectrometer (He)
PC Pressure Change
Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (HE)
Framatome Inc., (North American Headquarters), Lynchburg, VA (A, G, IL, MS, PC)
SDT Ultrasound Solutions, Cobourg, Ontario, Canada (A)

22200 Detectors, Valve Position

Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH
♦ Paragon Energy Solutions, Fort Worth, TX
Technology for Energy Corp., Knoxville, TN

22410 Dewatering Systems & Supplies—also see *Waste Mgmt. Services*

AVANTech, LLC, Knoxville, TN
 AVANTech, LLC, Columbia, SC
 Framatome Inc., (North American Headquarters),
 Lynchburg, VA
 GNS Gesellschaft für Nuklear-Service mbH, Essen,
 Germany
 North Wind Group, Idaho Falls, ID
 ◆PacTec, Inc., Clinton, LA
 Westinghouse Electric Co. LLC, Cranberry
 Township, PA

22700 Diving Services

CB Cutting/Burning
 D Decontamination
 EI Equipment Installation/Realignment
 G Grouting
 I Inspection
 M Maintenance
 MJ Metals Joining (Other Than Welding)
 WD Welding, Dry Box
 WW Welding, Wet

AVANTech, LLC, Knoxville, TN (D)
 AVANTech, LLC, Columbia, SC (D)
 CYCLIFE, (Brand of EDF Group), Puteaux, France
 (CB, D, I, M)
 ISO-PACIFIC Remediation Technologies, Inc.,
 Richland, WA (D)
 Promatom Nuclear, Oakville, Ontario, Canada (D)
 PROTOM USA, Evergreen, CO (CB, M, WD)
 TEiC, Duncan, SC (EI, M)

◆Underwater Construction Corp., Essex, CT (CB, D,
 EI, G, I, M, MJ, WD, WW)

See advertisement on Cover 4

24170 Dryers, Wet Solids—also see *Radioactive Waste Handling & Treatment Equipment*

AVANTech, LLC, Knoxville, TN
 AVANTech, LLC, Columbia, SC

25000 Electronic Instrumentation & Supplies—also see *Analysis*

Acromag Inc., Wixom, MI
 Automation Products, Inc., (Dynatrol® Div.),
 Houston, TX
 Bot Engineering Ltd, Campbellville, Ontario,
 Canada
 Curtiss-Wright Nuclear Division, QualTech NP,
 Cincinnati, OH
 Framatome Inc., (North American Headquarters),
 Lynchburg, VA
 General Atomics Electromagnetic Systems, San
 Diego, CA
 LND, Inc., Oceanside, NY
 ORTEC, Oak Ridge, TN
 OTEK Corp., Tucson, AZ
 Rolls-Royce Civil Nuclear, Warrington, United
 Kingdom
 Rolls-Royce Civil Nuclear SAS, Meylan, France
 Rolls-Royce Nuclear I&C, Pittsburgh, PA
 Rosemount Nuclear Instruments, Inc., Chanhassen,
 MN
 Westinghouse Electric Co. LLC, Cranberry
 Township, PA
 Yokogawa Corporation of America, Newnan, GA

25250 Emergency Response Equipment

RD Radiation Detection/Survey Meters
 AMEASOL - American Measurement Solutions
 LLC, Santa Fe, NM (RD)
 AVANTech, LLC, Knoxville, TN (RD)
 AVANTech, LLC, Columbia, SC (RD)
 BHI Energy, Weymouth, MA (RD)

Bot Engineering Ltd, Campbellville, Ontario,
 Canada (RD)
 Cabrera Services Inc., East Hartford, CT (RD)
 ENVINET GmbH, Munich/Haar, Germany (RD)
 Environmental Restoration Group, Inc.,
 Albuquerque, NM (RD)
 Framatome Inc., (North American Headquarters),
 Lynchburg, VA (RD)
 Frham Safety Products, Inc., Nashville, TN (RD)
 GLSEQ, LLC, Huntsville, AL (RD)
 H3D, Inc., Ann Arbor, MI (RD)
 ◆I.C.E. Service Group, Inc., Moon Township, PA
 (RD)
 LabLogic Systems, Inc., Tampa, FL (RD)
 ORTEC, Oak Ridge, TN (RD)

25300 Emergency Warning Systems (Public)—also see *Communications*

SE Sirens, Electronic
 SM Sirens, Mechanical
 SR System Readiness Reporting Systems
 TC Telephonic, Computerized
 TA Tone Alerting Radios
 V Voice Alert (Public Address)
 ARES Security Corp., Vienna, VA (SR)
 BHI Energy, Weymouth, MA (SE, TC)
 Bot Engineering Ltd, Campbellville, Ontario,
 Canada (TC)
 Genave Electronics, Rosemount, MN (SE, SM, SR,
 TA, V)

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Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (V)
Radiation Safety & Control Services, Inc., Seabrook, NH (SE)

25350 Emergency Warning Systems (Worker)

Framatome Inc., (North American Headquarters), Lynchburg, VA

25400 Employment/Personnel Support Services—also see Consultants

A Agencies
C Craft Labor Support, Temporary
E Executive Recruitment
FT Full-Time Permanent Personnel
TS Technical, Professional Support, Temporary

- ♦ American DND Inc., Grand Island, NY (C)
F.N. Anderson & Assoc., Forest, VA (FT, TS)
Applied Analysis Corp., Reading, PA (TS)
AVANTech, LLC, Knoxville, TN (TS)
AVANTech, LLC, Columbia, SC (TS)
- ♦ Banda Group International, LLC, Mesa, AZ (TS)
BHI Energy, Weymouth, MA (C, FT, TS)
Boston Government Services, LLC (BGS), Oak Ridge, TN (TS)
CS-2 Inc., Grand Island, NY (A, E, FT, TS)
DCS Systems, Inc., Simsbury, CT (TS)
The Delphi Groupe, Inc., Austin, TX (A, E, FT, TS)
Engineered Rigging, Russellville, AR (C, TS)
Engineered Rigging, Valparaiso, IN (C, TS)
EXCEL Services Corporation, Rockville, MD (TS)
Framatome Inc., (North American Headquarters), Lynchburg, VA (C, TS)

Fuel Tank Maintenance Co., LLC, Cookeville, TN (C)
Gen IV Nuclear Energy Systems Services, Rockville, MD (TS)
Gilbert Consulting Services, Inc., Arroyo Grande, CA (A, C, E, FT, TS)
GSE Absolute, (Absolute Consulting), Columbia, MD (A, C, E, FT, TS)
GSE Hyperspring, Columbia, MD (A, C, E, FT)
♦ I.C.E. Service Group, Inc., Moon Township, PA (TS)
Morson International Inc., (Morson Canada), Toronto, Ontario, Canada (A, E, TS)
Navarro Research and Engineering, Inc., Oak Ridge, TN (FT, TS)
NV5/Dade Moeller, Richland, WA (TS)
Radium Inc., Waynesboro, VA (A, C, E, FT, TS)
Sonic Systems International, Inc., Houston, TX (FT, TS)
System One, Pittsburgh, PA (A, C, FT, TS)
TradeWind Services LLC, Richland, WA (A, TS)
♦ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (C, TS)
Women in Nuclear Canada, Toronto, Ontario, Canada (E, TS)

25600 Encapsulation, Radioactive Source

Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA
AVANTech, LLC, Knoxville, TN
AVANTech, LLC, Columbia, SC
Frontier Technology Corp., Xenia, OH
Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA

International Isotopes Idaho Inc., (Sub. of International Isotopes Inc.), Idaho Falls, ID
ISO-PACIFIC Remediation Technologies, Inc., Richland, WA
Lucideon, Durham, NC
MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada
New Millennium Nuclear Technologies International, Lakewood, CO
Nu-Energy Technologies, Inc., Providence Forge, VA
Southwest Research Institute, San Antonio, TX
Waste Control Specialists LLC, Andrews, TX

26080 Environmental Monitoring Equipment—also see Monitors, Radiation, Area

AMEASOL - American Measurement Solutions LLC, Santa Fe, NM
Bot Engineering Ltd, Campbellville, Ontario, Canada
Cabrera Services Inc., East Hartford, CT
Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH
Eddyfi Technologies, Nanaimo, British Columbia, Canada
Elcometer Inc., Warren, MI
ENVINET GmbH, Munich/Haar, Germany
Environmental Restoration Group, Inc., Albuquerque, NM
Fram Safety Products, Inc., Nashville, TN
General Atomics Electromagnetic Systems, San Diego, CA
HI-Q Environmental Products Co., Inc., San Diego, CA
JSM Protective, Inc., Vero Beach, FL

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LND, Inc., Oceanside, NY
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL
 ORTEC, Oak Ridge, TN
 Overhoff Technology Corp., (A Div. of US Nuclear Corp.), Milford, OH
 ◆ Perma-Fix Environmental Services, Inc., Oak Ridge, TN
 RADeCO, Inc., Plainfield, CT
 Radiological Solutions Inc., Rockdale, IL
 Rolls-Royce Civil Nuclear SAS, Meylan, France
 Rolls-Royce Nuclear I&C, Pittsburgh, PA
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA

26100 Environmental Monitoring Services—also see Health Physics Serv.; Rad. Monitoring Serv.

◆ Banda Group International, LLC, Mesa, AZ
 See advertisement on page 19

BHI Energy, Weymouth, MA
 Cabrera Services Inc., East Hartford, CT
 Encorus Group, (dba RJR Engineering, P.C.), Springfield, NY
 ENVINET GmbH, Munich/Haar, Germany
 Environmental Restoration Group, Inc., Albuquerque, NM
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 Frham Safety Products, Inc., Nashville, TN
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC
 The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC
 Navarro Research and Engineering, Inc., Oak Ridge, TN
 New Millennium Nuclear Technologies International, Lakewood, CO
 NV5/Dade Moeller, Richland, WA
 ◆ Perma-Fix Environmental Services, Inc., Oak Ridge, TN
 RSO, Inc./Radiation Service Organization, Laurel, MD
 Sargent & Lundy, Chicago, IL
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL
 Veolia Nuclear Solutions - Federal Services, Piketon, OH
 VTT Technical Research Centre of Finland, VTT, Finland

26230 Equipment Rental

AC Air Conditioning
 C Chillers
 CN Containers
 CT Cooling Towers
 DE Detectors, Explosives
 DW Detectors, Weapons
 H Hydraulic Systems
 IR Instruments, Radiation Detection
 RL Radiochemistry Labs, Mobile
 RV Remote-Operated Vehicles
 S Scaffolding
 SC Spot-Coolers
 UC Underwater Cameras
 VA Vacuum Systems (HEPA Filtered)
 VT Valve Testers (Off-Line)
 VS Ventilation Systems, HEPA Filtered
 VI Video Inspection Systems
 WB Whole-Body Counting Units
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (CN)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (DE, IR, RV)
 ◆ American DND Inc., Grand Island, NY (S)
 BHI Energy, Weymouth, MA (S)
 ◆ Brokk Inc., Santa Fe, NM (RV)
 CHP Consultants/Counts.Pro, Oak Ridge, TN (IR, WB)

Curtiss-Wright EST Group, Hatfield, PA (H)
 Eddyfi Technologies, Nanaimo, British Columbia, Canada (IR, RV, UC, VI)
 EFCO USA, Inc., Charlotte, NC (VT)
 ◆ EnergySolutions LLC, Salt Lake City, UT (IR, RL)
 Engineered Rigging, Russellville, AR (H, RV)
 Engineered Rigging, Valparaiso, IN (H, RV)
 Environmental Restoration Group, Inc., Albuquerque, NM (IR)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (VT)
 ◆ I.C.E. Service Group, Inc., Moon Township, PA (CN)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (DE, DW, IR)
 Lenox Instrument Co., Inc., Trevose, PA (VI)
 LGH, Bridgeview, IL (H)
 Master-Lee Engineered Products Inc., Latrobe, PA (UC)
 Mirion Technologies (Canberra) Inc., Meriden, CT (IR, RL, WB)
 NUCON International, Inc., Columbus, OH (VS)
 ◆ Perma-Fix Environmental Services, Inc., Oak Ridge, TN (IR)
 Radium Inc., Waynesboro, VA (RV, UC, VI)
 RSO, Inc./Radiation Service Organization, Laurel, MD (IR)
 Transco Products Inc., Streator, IL (IR)
 ◆ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (IR)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (CT)

26240 Equipment Sales, Surplus

AVANTech, LLC, Knoxville, TN
 AVANTech, LLC, Columbia, SC
 Barnhart Nuclear Services, Fairhope, AL
 Curtiss-Wright Nuclear Division, Scittech, Idaho Falls, ID
 PD Design Group, LLC, Lake Villa, IL
 Thorburn Flex Inc., Pointe-Claire, Quebec, Canada
 UKM Management Consulting, Brampton, Ontario, Canada

26600 Fall Protection Equipment & Devices, Construction & Maintenance

Frham Safety Products, Inc., Nashville, TN

26900 Fasteners

B Bolts
 CG Commercial Grade Dedication
 N Nuts
 QT Quick Throw
 S Studs
 TR Threaded Rod
 W Washers
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (B, N, QT, S, TR, W)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (B, N, S, TR, W)
 Curtiss-Wright Nuclear Division, Nova, Middleburg Heights, OH (B, N, S, TR, W)
 Dubose National Energy Services, Inc., Clinton, NC (B, N, S, TR, W)
 Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (B, N, S, TR, W)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (B, N, S, TR, W)
 Mirion Technologies, Inc., Atlanta, GA (B, S, TR)
 Niagara Fasteners Inc., Niagara Falls, Ontario, Canada (B, N, QT, S, TR, W)
 Nord-Lock Inc., Clinton, PA (B, N, S, TR, W)
 NuSource LLC, Alexandria, VA (B, N, S)
 PMT Nuclear, Woodridge, IL (B, N, S, TR, W)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (B, CG, N, S, TR, W)
 T&T Enterprises, Corona, CA (B, N, S, TR, W)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (B, N, S, TR, W)

26910 Feedthroughs, Bulkhead—also see Sleeves, Wall

E Electrical
 F Fiber Optic
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (E, F)
 Mirion Technologies, Inc., Atlanta, GA (E, F)
 Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (E, F)
 SCHOTT Electronic Packaging, (A Div. of SCHOTT North America, Inc.), Southbridge, MA (E, F)
 ◆ Teledyne Brown Engineering, Inc., Huntsville, AL (E, F)

26970 Fiber Optic Components & Systems—also see Cable; Connectors; Feedthroughs; Remote-Viewing

AMEASOL - American Measurement Solutions LLC, Santa Fe, NM
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 Mirion Technologies, Inc., Atlanta, GA
 SCHOTT Electronic Packaging, (A Div. of SCHOTT North America, Inc.), Southbridge, MA
 Ultra Electronics, Energy, Round Rock, TX

27180 Filter Housings

B Bag In/Bag Out
 M Manual Changeout
 R Remote Changeout
 SA Side Access
 W Walk-In
 AVANTech, LLC, Knoxville, TN (B, M, R)
 AVANTech, LLC, Columbia, SC (B, M, R)
 Central Research Laboratories, Red Wing, MN (B, M, R)
 Ellis & Watts Global Industries, Inc., Batavia, OH (B, M, R, SA, W)
 NuSource LLC, Alexandria, VA (B, M)
 PMT Nuclear, Woodridge, IL (B, M, R, SA, W)
 Radiological Solutions Inc., Rockdale, IL (M)
 ◆ SSM Industries, Inc., Pittsburgh, PA (B, M, SA, W)
 Tri Nuclear Corp., Ballston Lake, NY (M, R)

27450 Filters—also see Containers

A Air
 C Carbon
 CL Cloth, Straining
 DE Debris
 D Disposable
 HE HEPA
 HY Hydraulic
 LO Lubricating Oil
 SB Stainless Steel, Porous, Backwash
 SU Stainless Steel, Porous, Backwash, Ultrasonic
 SP Stainless Steel, Porous, Blowback
 SS Stainless Steel, Sintered
 TF Thin-Film
 U Ultrafiltration
 V Vacuum (HEPA)
 W Water (Conventional)
 WP Water Purification
 WS Water/Steam, High-Pressure
 X X-ray
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (SB, SU, SP, SS)
 Arkema Inc., (formerly ATOFINA Chemicals, Inc.), King of Prussia, PA (C)
 AVANTech, LLC, Knoxville, TN (C, DE, D, LO, SB, U, W, WP)
 AVANTech, LLC, Columbia, SC (C, DE, D, LO, SB, U, W, WP)
 BHI Energy, Weymouth, MA (A, C, HE)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (SB, WS)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (A, C, HE, V)

Dominion Engineering, Inc., Reston, VA (SU, WP)
 Ellis & Watts Global Industries, Inc., Batavia, OH (A, C, HE)
 ♦ EnergySolutions LLC, Salt Lake City, UT (DE, D, U, W, WP)
 F&J SPECIALTY PRODUCTS, INC., Ocala, FL (A)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (A, D, U, W, WP, WS)
 Frham Safety Products, Inc., Nashville, TN (A, C, D, HE, V)
 Graver Technologies Inc., (A member of The Marmon Group of Companies), Glasgow, DE (C, D, SB, U, W, WP)
 Graver Water Systems, LLC, Warren, NJ (W, WP)
 HI-Q Environmental Products Co., Inc., San Diego, CA (A, C)
 Joseph Oat Corp., Camden, NJ (LO, W, WP, WS)
 M. Braun Inc., Stratham, NH (C, D, HE, V, WP)
 Mohawk Safety, Manchester, CT (HE, V)
 NUCON International, Inc., Columbus, OH (A, C, D, HE, WP)
 NuSource LLC, Alexandria, VA (A, CL, D, HE, HY, LO, SB, SU, SP, SS, TF, U, V, W, WP, WS)
 ♦ PacTec, Inc., Clinton, LA (CL)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (HE)
 ♦ Paragon Energy Solutions, Fort Worth, TX (A, W)
 PMT Nuclear, Woodridge, IL (A, C, D, HE, V, W, WP)
 Porvair Filtration Group Inc., Ashland, VA (A, C, DE, D, HE, HY, LO, SB, SU, SP, SS, WS)
 RADeCO, Inc., Plainfield, CT (C)
 Radiation Safety & Control Services, Inc., Seabrook, NH (A, C)
 Radiological Solutions Inc., Rockdale, IL (W, WP)
 Siempelkamp NIS, Alzenau, Germany (A, HE, WP)
 Tri Nuclear Corp., Ballston Lake, NY (C, D, SB, W, WP)
 Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (D, W)

27650 Filters, Neutron (CdS)—also see Neutron Absorbers

NuSource LLC, Alexandria, VA

30040 Fuel Element Consolidation (Spent Fuel)

SE Services
 SY Systems
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (SE, SY)
 ♦ EnergySolutions LLC, Salt Lake City, UT (SE, SY)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (SE, SY)
 ♦ NAC International Inc., Peachtree Corners, GA (SE, SY)
 NuclearConsultants.com, Ann Arbor, MI (SE, SY)
 Studsvik Scandpower, Wilmington, NC (SE)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (SE, SY)

30500 Fuel Handling Equipment & Systems

CC Computer Control Systems
 FT Fuel Transfer Equipment
 IP In-Pile Inspection & Manipulation
 QC Quick Closures, Fuel Transfer Tube
 R Refueling Equipment
 RS Refueling Shielding
 SP Service Platform Modification/Upgrade
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (IP)
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (R)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (R)
 ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (R)

Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (CC, FT, IP, QC, R)
 ♦ EnergySolutions LLC, Salt Lake City, UT (FT)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (CC, FT, IP, R, RS, SP)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (FT)
 ♦ Holtec International, Camden, NJ (FT, R, SP)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (SP)
 ♦ Major Tool & Machine, Inc., Indianapolis, IN (R)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (RS)
 Master-Lee Engineered Products Inc., Latrobe, PA (R)
 Merrick & Company, Greenwood Village, CO (IP, R, RS)
 ♦ NAC International Inc., Peachtree Corners, GA (FT)
 Nuclear Systems Associates, Inc., Brea, CA (FT, IP)
 PAR Systems, LLC, Shoreview, MN (CC, FT, IP, QC, R, RS, SP)
 Platom Oy, Mikkeli, Finland (FT)
 ♦ Precision Custom Components, LLC, York, PA (R)
 Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (FT, QC, RS, SP)
 PTP Spent Fuel Services, LLC, Grand Island, NY (FT)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (CC, FT, IP, QC, SP)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (FT, SP)
 SKODA JS a.s., Plzen, Bolevec, Czech Republic (FT)
 Sonic Systems International, Inc., Houston, TX (IP)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (FT, QC, R)

32250 Gas Handling Equipment—also see Analyzers, Gas; Filters

A Adsorbers
 C Circulators
 G Gas Generators
 HC Hydrogen Combiners
 MP Mixers, Proportioners
 OG Off-Gas Treatment Systems
 P Purifiers
 Ellis & Watts Global Industries, Inc., Batavia, OH (A, OG)
 FCI-Fluid Components International LLC, San Marcos, CA (MP)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (HC, OG)
 GLSEQ, LLC, Huntsville, AL (HC)
 M. Braun Inc., Stratham, NH (C, P)
 NUCON International, Inc., Columbus, OH (A, G, OG, P)
 Porvair Filtration Group Inc., Ashland, VA (OG)
 ♦ SSM Industries, Inc., Pittsburgh, PA (A)
 ♦ Teledyne Brown Engineering, Inc., Huntsville, AL (G, HC)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (HC)

36000 Gloveboxes & Accessories—also see Connectors, Electrical, Glovebox; Filters

B Base Units
 C Containers
 D Drain Assemblies
 GB Glovebag Containments
 GR Glovebag Rings
 G Gloves
 P Ports
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (B, C, D)
 Frham Safety Products, Inc., Nashville, TN (GB, GR, G)
 Joseph Oat Corp., Camden, NJ (B, C)
 ♦ Major Tool & Machine, Inc., Indianapolis, IN (B, C)
 M. Braun Inc., Stratham, NH (B, C, D, G, P)
 Mohawk Safety, Manchester, CT (B, C, D, GB, GR, G)
 Orano Federal Services, Charlotte, NC (B, GB, GR)

PMT Nuclear, Woodridge, IL (B, C, D, GB)
 Premier Technology, Inc., Blackfoot, ID (B, C, P)
 Protective Plastics, Inc., Greenville, SC (GB)
 Radium Inc., Waynesboro, VA (B, C, GB)
 Robatel Technologies, LLC, Roanoke, VA (B, C, D, GB, GR, P)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (B, GB)
 ♦ Teledyne Brown Engineering, Inc., Huntsville, AL (B)
 Wagstaff Applied Technologies, Spokane, WA (B, C, D, GR, G)

36900 Grouts

Five Star Products, Inc., Shelton, CT
 Nuclear Shielding Supplies & Service, Tucson, AZ
 Simpson Gumpertz & Heger (SGH), Chicago, IL

37130 Health Physics Equipment & Supplies—also see Counters; Monitors, Rad.; Resp. Prot.; Samplers

B Bags
 BM Biomedical Radiation-Counting Systems
 BC Body Cooling Systems
 DM Decon Mats
 DT Decon Trailers, Mobile
 DC Dosimeter Chargers
 DV Dosimeter Vests, Caps, Arm & Leg Bands
 DH Dosimeters, High-Range (Mega R)
 DP Dosimeters, Personnel
 DO Dosimetry Systems, Computerized
 DR Dosimetry Systems, Real-Time Remote
 DS Drain Socks
 EM Emergency Medical Equipment & Supplies
 E Enclosures, Radiological Containment (Temporary)
 FT Filter Test Equipment
 HS Heat Stress Monitors
 L Labels, Warning
 MS Metalized Sheetting
 MT Mops, Roll, Tacky
 PR Phantoms, Radiation-Dosimetry
 PC Planchet Changers, Automatic
 P Planchets, Counting
 RT Respirator Tracking Systems
 SI Scanners, Isotope Distribution
 S Sheetting, Plastic
 SW Signs, Warning, Radiation
 SS Smears, Swipes
 SF Stretch Wrap Film
 TW Tapes, Warning
 T Tubing, Plastic
 WC Wheel Covers
 WT Wipers, Tacky
 Alpha Spectra, Inc., Grand Junction, CO
 BHI Energy, Weymouth, MA (DT, DO, DR, E, T)
 CAEN SyS, Viareggio, LU, Italy (DR)
 Coastal Network, Inc., Charlottesville, VA (B, DM, DC, DV, DP, E, L, MT, P, S, SW, SS, TW, T, WT)
 Dufrane Nuclear Shielding Inc., Winsted, CT (E)
 Environmental Alternatives, Inc., Swanzey, NH (DT, E)
 Environmental Restoration Group, Inc., Albuquerque, NM (P, SS)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (DP, DO, SI)
 Frham Safety Products, Inc., Nashville, TN (B, BC, DM, DV, DS, E, MT, P, S, SW, SS, TW, WC, WT)
 Graphic Products, Beaverton, OR (L, SW, TW)
 HI-Q Environmental Products Co., Inc., San Diego, CA (P)
 Hopewell Designs, Inc., Alpharetta, GA (DC)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (DR, SI)
 JSM Protective, Inc., Vero Beach, FL (B, DM, S, TW, T, WT)
 LND, Inc., Oceanside, NY (BM, DH, DP, DR, P)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (EM, E)
 M. Braun Inc., Stratham, NH (E)

Mirion Technologies (Canberra) Inc., Meriden, CT (BM, DO, PR, PC, P, SI)
 Mirion Technologies Dosimetry Services, Irvine, CA (DH)
 Mohawk Safety, Manchester, CT (B, DM, DS, E, L, MT, P, S, SW, SS, TW, T, WT)
 North Wind Group, Idaho Falls, ID (DP)
 NV5/Dade Moeller, Richland, WA (HS)
 ORTEC, Oak Ridge, TN (BM, PC, P, SI)
 ♦PacTec, Inc., Clinton, LA (B, DM)
 ♦Perma-Fix Environmental Services, Inc., Oak Ridge, TN (HS)
 Protective Plastics, Inc., Greenville, SC (B, MT, S, SS, SF, TW, T)
 RAdDeCO, Inc., Plainfield, CT (DH, DP)
 Radium Inc., Waynesboro, VA (BC, HS, RT)
 ♦Reef Industries, Inc., Houston, TX (DM, DS, SW, TW, T)
 ReNuke, Oak Ridge, TN (DC)
 Rexon Components, Inc., Beachwood, OH (DP, DO, PR, P)
 Rich Industries Inc., New Philadelphia, OH (B, S, SW, SS, TW, T)
 RSO, Inc./Radiation Service Organization, Laurel, MD (B, L, P, SW, SS, TW)
 S.E. International, Inc., Summertown, TN (DP)
 Tech Products, Inc., Staten Island, NY (SW)
 Transco Products Inc., Streator, IL (DO)
 Ultra Electronics, Energy, Round Rock, TX (DP)
 ♦UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (B, BC, DM, DT, DV, DS, E, MT, S, SW, SS, TW, T, WT)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (BM, DC, DP, DO, DR, SI)

37160 Health Physics Equipment & Supplies, Disposable/Soluble

EF Equipment & Floor Covers
 MW Mops, Wet
 W Wipers
 FEVDI Nuclear Decontamination, Corbas, France (W)
 Frham Safety Products, Inc., Nashville, TN (EF, MW, W)
 Hopewell Designs, Inc., Alpharetta, GA (EF)
 Mohawk Safety, Manchester, CT (EF, W)
 Radiation Safety & Control Services, Inc., Seabrook, NH (EF)

37200 Health Physics Services—also see Decontamination; Rad. Monitoring Serv.; Waste Mgmt. Serv.

BF Badge Services, Film
 BT Badge Services, TLD
 BI Bioassay
 BA Breathing Air Quality Analysis
 C Calibration
 D Dosimetry Services
 EI Environmental Impact Analysis
 HC Hazard Communication (Employee)
 IH Industrial Hygiene Services
 IR Industrial Radiology
 IT Industrial Toxicology
 I In-Plant
 L Laboratory Services
 LD Laundry Services, Dry Cleaning
 LE Laundry Services, Extraction
 LW Laundry Services, Wet Wash
 MR Medical Review Officer Services
 PW Procedures Writing
 Q Quality Assurance, Quality Control
 RS Radiochemistry Services
 RE Radiological Engineering
 RI Radioimmunoassay Services
 RC Regulatory Compliance Support
 RF Respirator Fit Testing
 RT Respiratory Equipment Cleaning, Repair & Testing
 S Surveys
 TH Training, Health Physics

TM Training, Maintenance Support
 U Urinalysis
 WB Whole-Body Counting Services
 Applied Analysis Corp., Reading, PA (Q, RE)
 Attenuation Environmental Co., Seattle, WA (EI, PW, RE, RC)
 Berkeley Nucleonics Corp., San Rafael, CA (C)
 Bevelacqua Resources, Richland, WA (EI, TH)
 BHI Energy, Weymouth, MA (D, EI, IH, I, PW, Q, RS, RE, RC, RT, S, TH, TM)
 Cabrera Services Inc., East Hartford, CT (BI, C, D, EI, IH, L, Q, RS, RE, RC, S, TH)
 CHP Consultants/Counts.Pro, Oak Ridge, TN (PW)
 Decidia Research & Consulting, Sabadell, Barcelona, Spain (EI)
 The Delphi Groupe, Inc., Austin, TX (HC, IH, I, PW, Q, RS, RE, RC, TH, TM)
 Dufrane Nuclear Shielding Inc., Winsted, CT (RE)
 DW James Consulting, North Oaks, MN (RE)
 ♦EnergySolutions LLC, Salt Lake City, UT (RE, S)
 Environmental Restoration Group, Inc., Albuquerque, NM (S, TH)
 Exelon PowerLabs, Coatesville, PA (C, D)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (BI, D, EI, IR, I, L, Q, RS, RE, RC, WB)
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC (IH, L, RF)
 The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC (IH, L, RF, S)
 Health Physics Instruments, (Div. of Far West Technology, Inc.), Goleta, CA (C)
 HI-Q Environmental Products Co., Inc., San Diego, CA (BA, C)
 Hopewell Designs, Inc., Alpharetta, GA (C)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (IR)
 Kinectrics Inc., Toronto, Ontario, Canada (D, L, RS, RE, TM, U)
 Materials and Chemistry Laboratory, Inc., (MCLinc), Oak Ridge, TN (L)
 Mirion Technologies Dosimetry Services, Irvine, CA (BF)
 Navarro Research and Engineering, Inc., Oak Ridge, TN (HC, IH, PW, Q, RE, RC)
 North Wind Group, Idaho Falls, ID (BI, BA, EI, IH, TH)
 Nucleonova S.L., Valencia, Spain (Q)
 NV5/Dade Moeller, Richland, WA (EI, HC, IH, PW, RE, RC, S, TH)
 ♦Perma-Fix Environmental Services, Inc., Oak Ridge, TN (C)
 PHDS Co., Knoxville, TN (RS, RE)
 RAdDeCO, Inc., Plainfield, CT (C)
 Radiological Solutions Inc., Rockdale, IL (PW, RC)
 Red Wolf Associates, Cary, NC (RE)
 RSO, Inc./Radiation Service Organization, Laurel, MD (BI, C, D, L, RI, S, TH, U)
 Sargent & Lundy, Chicago, IL (EI, I, PW, Q, RE, RC, TH, TM)
 Schulz Electric, Timken Power Systems, New Haven, CT (S)
 Southwest Research Institute, San Antonio, TX (EI, L, RS, RC, TH)
 Standish Technologies International, Deerfield Beach, FL (RC)
 Technical Management Services, Inc., New Hartford, CT (TH)
 ♦Teledyne Brown Engineering, Inc., Huntsville, AL (BI, L, RS)
 Tetra Tech Inc., Richland, WA (Q, RE, RC, S)
 ♦UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (LD, LE, LW, RC, RF, RT, S)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (C)
 ♦WMG, Inc., Peekskill, NY (PW, RC)
 Wood, (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group), Grand Junction, CO (EI, RE, S)

37600 Heat Exchangers & Equipment—also see Computer Software

C Coil
 HP Heat Pipe
 P Plate/Tube
 RF Refacing Equipment (On-Site)
 S Shell/Tube
 SA Sodium/Air
 SS Sodium/Sodium
 SW Sodium/Water
 W Wet Surface Air Coolers
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (C, HP, P, RF, S)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (C, P, S)
 DC Fabricators Inc., Florence, NJ (C, P, S)
 Dubose National Energy Services, Inc., Clinton, NC (P, S)
 EFCO USA, Inc., Charlotte, NC (RF)
 Ellis & Watts Global Industries, Inc., Batavia, OH (C, S)
 E.S. Fox Limited, Niagara Falls, Ontario, Canada (C, HP, S)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (C, P, S, SW, W)
 Heat Exchanger Products Corp. (HEPCO), Hingham, MA (P)
 Hennigan Engineering LLC, Hingham, MA
 Intek, Inc., Westerville, OH (S)
 Joseph Oat Corp., Camden, NJ (C, S)
 NuSource LLC, Alexandria, VA (C, HP, P, S)
 ♦Paragon Energy Solutions, Fort Worth, TX (P, S)
 Plastacor, Inc., Hingham, MA (S)
 PMT Nuclear, Woodridge, IL (C, HP, P, S)
 Powerfect Service, Inc., Brick, NJ (S)
 Radiological Solutions Inc., Rockdale, IL (C)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (C, HP, P, RF, S, SA, SS, SW, W)
 Super Radiator Coils, Chaska, MN (C, P, S, W)
 ♦Teledyne Brown Engineering, Inc., Huntsville, AL (C, HP, P, S)
 Thermal Engineering International (TEI), Cerritos, CA (S, W)
 Wagstaff Applied Technologies, Spokane, WA (C, HP, P, S)
 Watlow, St. Louis, MO (C, S)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (S)

39650 Hydraulic Systems & Components—also see Consultants; Pumps, Other

Curtiss-Wright Nuclear Division, Nova, Middleburg Heights, OH
 Ellis & Watts Global Industries, Inc., Batavia, OH
 PAR Systems, LLC, Shoreview, MN

39960 Imaging, Digital

CS Consulting Services
 H Hardware
 RS Radiographic Scanning
 RT Real-Time
 S Software
 DimEye Corp., Calabasas, CA (CS, H, RT, S)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (CS, H, RS, RT, S)
 General Plastics MFG. Co., Tacoma, WA (CS)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (RT, S)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (CS, H, RS, RT, S)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (RS)

40050 Indicators

F Flow
 LF Laminar Flow
 LE LEDs
 L Level
 P Pressure
 T Temperature
 V Vibration

Automation Products, Inc., (Dynatrol® Div.), Houston, TX (L)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (F, L, P, T)
 Exelon PowerLabs, Coatesville, PA (F, LF, LE, L, P, T, V)
 FCI-Fluid Components International LLC, San Marcos, CA (F, L, T)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (F, L, P, T, V)
 Hoffer Flow Controls, Elizabeth City, NC (F)
 Intek, Inc., Westerville, OH (F, P, T)
 Kanata Electronic Services Ltd., Toronto, Ontario, Canada (T)
 KROHNE, Inc., Beverly, MA (F, L, P, T)
 LUDECA, Inc., Doral, FL (V)
 Magnetrol International, Aurora, IL (L)
 M. Braun Inc., Stratham, NH (LF)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (L, P)
 OTEK Corp., Tucson, AZ (F, L, P, T, V)
 ♦Paragon Energy Solutions, Fort Worth, TX (F, L, P, T)
 Rolls-Royce Civil Nuclear SAS, Meylan, France (P, T)
 Rolls-Royce Nuclear I&C, Pittsburgh, PA (P, T)
 SDT Ultrasound Solutions, Cobourg, Ontario, Canada (T, V)
 Technology for Energy Corp., Knoxville, TN (F)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (F, P)
 Yokogawa Corporation of America, Newnan, GA (F, L, P, T)

40700 Information Services

Black & Veatch, Overland Park, KS
 CHP Consultants/Counts.Pro, Oak Ridge, TN
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID
 Nuclear News Magazine, La Grange Park, IL
 OECD Nuclear Energy Agency (NEA), Paris, France
 Radwaste Solutions Magazine, La Grange Park, IL
 UxC, LLC, Roswell, GA

40900 Inspection Services—also see NDT; Video Services

CR Control Rods & Drives
 C Cranes & Hoists
 D Dimensional
 DS Diaphragms, Storage Tank
 EM Electric Motors
 EE Electrical, Electromechanical Equipment
 FI Fuel, Irradiated
 IS In-Service
 IA Inspection Agency, ASME Code
 MS Microscopy, Scanning
 ND Nondestructive Examination
 P Pipeline
 PS Pipe Supports
 Q QA/QC
 SI Safety, Industrial
 S Siren Systems
 SO Solenoids
 ST Structures
 TP Tanks & Pools
 VR Visual, Remote
 W Welding
 U Underwater, Remote, In-Service

Adam Brown Consulting, Inc., Cary, IL (Q, SI, ST)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (IS, ND, VR, U)
 ♦American Crane & Equipment Corp., Douglassville, PA (C)

Anamet, (a Div. of Acuren Inspection, Inc.), Hayward, CA (MS)
 Applied Analysis Corp., Reading, PA (EE, Q)
 ARES Security Corp., Vienna, VA (VR)
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (VR, U)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (VR, U)
 ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (VR, U)
 Basic PSA, (Anvil International, LLC), Johnstown, PA (IS)
 Black & Veatch, Overland Park, KS (C, P, PS, Q, SI, TP)
 Boston Government Services, LLC (BGS), Oak Ridge, TN (Q, W)
 CS-2 Inc., Grand Island, NY (SI)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (D, EE, ND, Q)
 DCS Systems, Inc., Simsbury, CT (Q)
 The Delphi Groupe, Inc., Austin, TX (Q, SI)
 DimEye Corp., Calabasas, CA (D, VR, U)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (CR, D, EE, FI, IS, MS, ND, P, PS, Q, SI, TP, VR, W, U)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (IS, ND, P, TP, W)
 GEL Solutions, LLC, (A Member of The GEL Group, Inc.), Charleston, SC (ND)
 Genave Electronics, Rosemount, MN (S)
 Hennigan Engineering LLC, Hingham, MA (P, VR)
 Imperia Engineering Partners LLC, Bordentown, NJ (IA, ND, P, PS)
 International Isotopes Idaho Inc., (Sub. of International Isotopes Inc.), Idaho Falls, ID (ND)
 Joseph Oat Corp., Camden, NJ (ND, PS, Q, TP, W)
 Klein Consulting LLC, Norwich, CT (Q)
 Lenox Instrument Co., Inc., Trevoise, PA (ND, VR)
 Miller Pipeline, Indianapolis, IN (P)
 Mirion Technologies (Canberra) Inc., Meriden, CT (ND)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (PS)
 NUCON International, Inc., Columbus, OH (IS)
 NV5/Dade Moeller, Richland, WA (SI)
 PAR Systems, LLC, Shoreview, MN (C, EE)
 PMT Nuclear, Woodridge, IL (D, Q)
 ♦Precision Custom Components, LLC, York, PA (D, ND, Q, W)
 Radiation Safety & Control Services, Inc., Seabrook, NH (IS, P, PS, ST, TP)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (CR, C, D, DS, EE, FI, IS, IA, MS, ND, P, PS, Q, SI, S, TP, VR, W, U)
 Sargent & Lundy, Chicago, IL (D, IS, PS, Q, TP, VR)
 Schulz Electric, Timken Power Systems, New Haven, CT (C, EE, IS, ND)
 SDT Ultrasound Solutions, Cobourg, Ontario, Canada (EE)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (C, D, IS, IA, MS, ND, P, PS, ST, TP, VR, W, U)
 SKODA JS a.s., Plzen, Bolevec, Czech Republic (CR, IS, ND, W)
 Southwest Research Institute, San Antonio, TX (ND, TP, U)
 Structural Integrity Assoc., Inc., San Jose, CA (ND, P)
 System One, Pittsburgh, PA (IS, IA, ND, P, PS, Q, SI, TP, VR, W)
 Tap Report, Toronto, Ontario, Canada (SI)
 Teledyne FLIR, Chelmsford, MA (VR)
 ♦Thermo Scientific - CIDTEC Cameras & Imagers, (Part of Thermo Fisher Scientific), Liverpool, NY (VR)
 ♦Underwater Construction Corp., Essex, CT (ND, Q, TP)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (CR, EE, FI, IS, ND, P, PS, Q, TP, VR, W, U)

41000 Instrument Services—also see Calibration Services; Health Physics Services

Berkeley Nucleonics Corp., San Rafael, CA
 Cabrera Services Inc., East Hartford, CT
 ♦EnergySolutions LLC, Salt Lake City, UT
 Equipos Nuclear S.A., S.M.E, Maliaño (Cantabria), Spain
 EXCEL Services Corporation, Rockville, MD
 Exelon PowerLabs, Coatesville, PA
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX
 HI-Q Environmental Products Co., Inc., San Diego, CA
 NUCON International, Inc., Columbus, OH
 ♦Perma-Fix Environmental Services, Inc., Oak Ridge, TN
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom
 Rolls-Royce Civil Nuclear SAS, Meylan, France
 Rolls-Royce Nuclear I&C, Pittsburgh, PA
 Volian Enterprises, Inc., Murrysville, PA
 VTT Technical Research Centre of Finland, VTT, Finland

41015 Instrumentation, Misc.

A Analyzer, Total Uranium (Water, Soils, Bioassay)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (A)
 PHDS Co., Knoxville, TN (A)

41200 Insulation, Thermal

B Blanket
 C Cable
 CT Cable Tray
 HT High-Temperature
 MR Metal Reflective
 N Nuclear Quality (Q Materials)
 PT Pipe and Tube

Advanced Nuclear LLC, East Petersburg, PA (B, C, CT, HT, MR, N, PT)
 C.J. Enterprises, (Div. of C.J. Instruments, Inc.), Tarzana, CA (HT, N)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (N, PT)
 Kanata Electronic Services Ltd., Toronto, Ontario, Canada (N)
 MillenniTEK, LLC, Knoxville, TN (B, HT)
 PMT Nuclear, Woodridge, IL (B, CT, HT, MR, N, PT)

41700 Ion-Exchange Systems, Materials & Services

AVANTech, LLC, Knoxville, TN
 AVANTech, LLC, Columbia, SC
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 NuSource LLC, Alexandria, VA
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom
 Tri Nuclear Corp., Ballston Lake, NY
 Veolia Nuclear Solutions - Federal Services, Piketon, OH
 Westinghouse Electric Co. LLC, Cranberry Township, PA

44000 Laboratories, Mobile

A Analytical Services, On-Site
 E Environmental Analysis
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (A)
 Cabrera Services Inc., East Hartford, CT (A, E)
 ♦EnergySolutions LLC, Salt Lake City, UT (A)
 Exelon PowerLabs, Coatesville, PA (A)
 Kinectrics Inc., Toronto, Ontario, Canada (A)
 Lambda Technologies, Cincinnati, OH (A)

45550 Lights, Lighting

C Construction
E Emergency
HC Hot Cell
L LED
P Pool, Nuclear
PB Portable, Battery-Powered
RF Reactor Floor
U Underwater

BIRNS, Inc., Oxnard, CA (E, HC, P, RF, U)
Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (E)
Eddyfi Technologies, Nanaimo, British Columbia, Canada (U)
E.S. Fox Limited, Niagara Falls, Ontario, Canada (C)
Exelon PowerLabs, Coatesville, PA (E, PB)
Framatome Inc., (North American Headquarters), Lynchburg, VA (E, P, PB, RF, U)
Master-Lee Engineered Products Inc., Latrobe, PA (P, RF, U)
Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (P, U)
Nuclear Systems Associates, Inc., Brea, CA (E, HC)
Nu-Energy Technologies, Inc., Providence Forge, VA (C, E, P, PB, RF, U)
Premier Technology, Inc., Blackfoot, ID (HC)
Radium Inc., Waynesboro, VA (C, E, HC, P, PB, RF, U)
Sidus Solutions LLC, San Diego, CA (U)

47400 Maintenance & Repair Services—also see Testing Services

BM Bolt-Maintenance
BB Bus Bar Insulating (Epoxy Coating)
C Concrete
CO Condenser
CN Construction
CR Control Rod Drives
CT Cooling Towers
CH Cranes & Hoists
DG Diesel Generators
E Electrical Equipment
EJ Expansion Joints
FP Freeze Plugging/Sealing (Pipe)
F Fuel Assemblies
FT Fuel Transfer Equipment
G General
HX Heat Exchangers
HV HVAC Equipment
H Hydraulic Equipment
LC Leak Repair, Concrete
LP Loose Parts Retrieval
MS Mechanical Seals
MO Motors, Electric
OM Outage Management Services
PS Penetration Seals
PI Pipe Cleaning, Internal (Bio-Fouling)
PR Pipe Repair & Replacement
PL Pool Liner Inspection & Repair
PT Post-Tensioning System Surveillance
PA Power Apparatus
PC Protective Coatings
PM Pump & Motor, Main Coolant
PU Pump Inspection & Repair
RM Radiation Measuring Devices & Systems
RS Radiation Shielding
RW Radiation-Shielding Windows
RI Reactor Internals
RF Refueling Equipment
RE Remote Inspection/Repair
RA Rotating Machinery Alignment
RO Rotating Machinery, Vibration Monitoring (Predictive)
SC Screens, Traveling
ST Seal Table/Flux Thimbles
SS Security Systems, Anti-Intrusion
S Snubbers
SF Spent-Fuel Racks
SN Stud/Nut Removal
TC Tank Cleaning, Fuel Storage
TR Trash Racks

TS Tubesheet, Epoxy Cladding
U Underwater Repairs
VA Valve Actuators
VR Valve Repair, Recertification
VO Valve Testing, Off-Line
VT Valve Testing, On-Line
WI Water Intake Cavity Cleaning (Bio-Fouling)

Adam Brown Consulting, Inc., Cary, IL (PS)
Allied Power, Baton Rouge, LA (BM, BB, C, CO, CN, CR, CT, CH, DG, E, EJ, FP, F, FT, G, HX, HV, H, LC, LP, MS, MO, OM, PS, PI, PR, PL, PT, PA, PC, PM, PU, RM, RS, RW, RI, RF, RE, RA, RO, SC, ST, SS, S, SF, SN, TC, TR, TS, U, VA, VR, VO, VT, WI)
Analysis and Measurement Services Corp. (AMS), (Including CHAR Services), Knoxville, TN (CR, E, PM, RM)
Askew Power Generation, Santa Fe Springs, CA (BM)
ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (BM, RE, SN)
ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (BM, RE, SN)
ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (BM, RE, SN)
AVANTech, LLC, Knoxville, TN (TC)
AVANTech, LLC, Columbia, SC (TC)
Barnhart Nuclear Services, Fairhope, AL (CH)
BHI Energy, Weymouth, MA (BM, E, G, H, OM, PR, PM, PU, RF, RE, RA, VR, VO, VT)
Black & Veatch, Overland Park, KS (CN, DG, E, G, HX, HV)
CBS Nuclear Services, Inc., Matthews, NC (E)
CFM/VR-TESCO, LLC Continental Field Machining, Elgin, IL (BM, SN, VR)
Cortec Corporation, Saint Paul, MN (C, PC)
Curtiss-Wright EST Group, Hatfield, PA (CO, HX)
Curtiss-Wright Nuclear Division, Nova, Middleburg Heights, OH (BM, RF)
Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (CO, CT, CH, DG, E, HV, LP, MS, MO, OM, PS, PA, PM, PU, RS, RE, RO, ST, S, VA, VR)
Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (BM, CR, CH, FT, MO, OM, PS, RF, RE, SF, SN)
Day & Zimmermann, Philadelphia, PA (CN, CT, E, G, HX, MO, OM, PR, PM, PU, SS, S, VA, VO, VT)
Dufrane Nuclear Shielding Inc., Winsted, CT (C, CN, G, RS, RW, TR)
Electro Static Technology, Mechanic Falls, ME (MS, PM)
Engineered Rigging, Valparaiso, IN (PT)
E.S. Fox Limited, Niagara Falls, Ontario, Canada (BM, CN, CT, CH, HX, HV, MS, PR, RA, SF)
EXCEL Services Corporation, Rockville, MD
Five Star Products, Inc., Shelton, CT (C)
Framatome Inc., (North American Headquarters), Lynchburg, VA (BM, CO, CR, CT, DG, E, F, FT, G, HX, H, LC, LP, MS, MO, OM, PS, PR, PL, PM, PU, RM, RI, RF, RE, RA, RO, SC, ST, SF, SN, TC, TS, U, VA, VR, VO, VT)
Fuel Tank Maintenance Co., LLC, Cookeville, TN (C, CN, CT, EJ, G, HV, LC, PI, PR, PL, PC, TC)
General Atomics Electromagnetic Systems, San Diego, CA (RM)
Health Physics Instruments, (Div. of Far West Technology, Inc.), Goleta, CA (RM)
Heat Exchanger Products Corp. (HEPCO), Hingham, MA (HX, MS)
Hennigan Engineering LLC, Hingham, MA (CO, HX, PI, TC, WI)
Hilman Inc., Marlboro, NJ (G, H, PA)
HydroPro Inc., Bourbon, MO (CO, CT, HX)
Intek, Inc., Westerville, OH (CO)
ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (RM)
JNT Technical Services Inc., Little Ferry, NJ (CO, HX)
Kinectrics Inc., Toronto, Ontario, Canada (C, LC, OM, RS, RO, SC)
KSB, Inc., Henrico, VA (PM, PU, RA)
LUDECA, Inc., Doral, FL (RA, RO)

MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (RS, RW)
Miller Pipeline, Indianapolis, IN (FP, LC, PR)
Mirion Technologies, Inc., Atlanta, GA (MS, PS, RM)
National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (S, VR, VO)
Nord-Lock Inc., Clinton, PA (BM, EJ)
North Wind Group, Idaho Falls, ID (CT, G)
NuVision-HWM, Pittsburgh, PA (RE)
◆ Paragon Energy Solutions, Fort Worth, TX (CO, E, HX, HV, PM, PU)
PAR Systems, LLC, Shoreview, MN (CH, FT, RF, RE, SF, TC)
Pioneer Motor Bearing Co., Kings Mountain, NC (MO, RA, RO)
Plastacor, Inc., Hingham, MA (CO, EJ, HX, PC, TS)
PMT Nuclear, Woodridge, IL (EJ, HX, HV, VA)
Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (RS, RF)
Premier Technology, Inc., Blackfoot, ID (HX, SF)
Robatel Technologies, LLC, Roanoke, VA (RS)
Rolls-Royce Civil Nuclear, Warrington, United Kingdom (BM, BB, C, CO, CN, CR, CT, CH, DG, E, EJ, FP, F, FT, G, HX, HV, H, LC, LP, MS, MO, OM, PS, PI, PR, PL, PT, PA, PC, PM, PU, RM, RS, RW, RI, RF, RE, RA, RO, SC, ST, SS, S, SF, SN, TC, TR, TS, U, VA, VR, VO, VT, WI)
Sargent & Lundy, Chicago, IL (C, CO, CN, CT, E, G, HX, HV, OM, PC, PU, RO, S, VA, VR, WI)
Schulz Electric, Timken Power Systems, New Haven, CT (CH, DG, E, MO, PA, RA, RO)
SDT Ultrasound Solutions, Cobourg, Ontario, Canada (VT)
SIET, Piacenza, Italy (VO, VT)
Sigma Inc., Charlestown, IN (VT)
Simpson Gumpertz & Heger (SGH), Chicago, IL (BM, C, CO, CH, EJ, LC, PI, PR, PL, PT, PC, SF)
SKODA JS a.s., Plzen, Bolevec, Czech Republic (CR, E, RI, SF)
Sulzer Management Ltd., (Sulzer Pumps (Canada) Inc.), Burnaby, British Columbia, Canada (MO, PU)
Switchgear Solutions, Inc., Tucson, AZ (BB, E, MO)
TEiC, Duncan, SC (BM, EJ, PR, PM, PU)
◆ Teledyne Brown Engineering, Inc., Huntsville, AL (VO, VT)
Thermal Engineering International (TEI), Cerritos, CA (CO, HX)
Thorburn Flex Inc., Pointe-Claire, Quebec, Canada (EJ)
Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (PL, SC, U)
US Ecology, Inc., Livonia, MI (TC)
Valcor Engineering Corp., (Valcor Nuclear Div.), Springfield, NJ (VA)
ValvTechnologies, Inc., Houston, TX (VO, VT)
Westinghouse Electric Co. LLC, Cranberry Township, PA (BM, CO, CN, CR, CH, E, F, FT, G, HX, LP, MS, MO, OM, PR, PC, PM, PU, RS, RI, RF, RE, RA, RO, ST, SF, SN, U)
Yokogawa Corporation of America, Newnan, GA (DG)

47600 Manipulators, Remote—also see Remote Control, Handling & Positioning Devices

ARES Security Corp., Vienna, VA
ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada
ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom
ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH
Central Research Laboratories, Red Wing, MN
Encorus Group, (dba RJR Engineering, P.C.), Springfield, NY
Framatome Inc., (North American Headquarters), Lynchburg, VA
NuVision-HWM, Pittsburgh, PA

PAR Systems, LLC, Shoreview, MN
 PD Design Group, LLC, Lake Villa, IL
 Radium Inc., Waynesboro, VA
 Robatel Technologies, LLC, Roanoke, VA
 Shadow Robot Company Ltd., London, United Kingdom
 Tru-Motion Products, LLC, Cheyenne, WY
 Veolia Nuclear Solutions - Federal Services, Piketon, OH
 Wälischmiller Engineering GmbH, Markdorf, Baden-Württemberg, Germany

47620 Mapping Services

A Automated
 C Conventional
 CHP Consultants/Counts.Pro, Oak Ridge, TN (A)

47630 Markers, Identification

Coastal Network, Inc., Charlottesville, VA
 Tech Products, Inc., Staten Island, NY

51730 Meteorological Equipment—also see *Environmental Monitoring Equipment*

A Anemometers
 B Barometers
 H Humidity Sensors
 P Precipitation Sensors
 SR Solar Radiation Sensors
 T Temperature Sensors
 ENVINET GmbH, Munich/Haar, Germany (P)
 Watlow, St. Louis, MO (T)

53950 Mockup Design & Fabrication—also see *Training Materials*

CR Control Room
 E Equipment
 LR Local & Remote Control Panels
 AVANTech, LLC, Knoxville, TN (LR)
 AVANTech, LLC, Columbia, SC (LR)
 Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (CR, E)
 Encorus Group, (dba RJR Engineering, P.C.), Springville, NY (CR, E, LR)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (CR, E)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (LR)
 A. C. Macris, Consultants, Mystic, CT (CR, E)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (CR, LR)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (E)
 NuSource LLC, Alexandria, VA (E)
 NuVision-HWM, Pittsburgh, PA (CR, E, LR)
 OTEK Corp., Tucson, AZ (CR)
 PAR Systems, LLC, Shoreview, MN (E)
 PD Design Group, LLC, Lake Villa, IL (E)
 ♦ Precision Custom Components, LLC, York, PA (E)
 Premier Technology, Inc., Blackfoot, ID (E)
 Promotion Nuclear, Oakville, Ontario, Canada (CR, E, LR)
 PROTEM USA, Evergreen, CO (E)
 Radiological Solutions Inc., Rockdale, IL (E)
 Siempelkamp NIS, Alzenau, Germany (E)
 SIET, Piacenza, Italy (E)
 Studsvik, Inc., Sandy Springs, GA (E)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (E, LR)
 VTT Technical Research Centre of Finland, VTT, Finland (CR, E)
 Wagstaff Applied Technologies, Spokane, WA (CR, E, LR)

54750 Monitors, Other Than Radiation

AI Air In-Leak
 CC Cable Condition
 CV Check Valve
 C Chlorine

CW Cooling Water System
 CO Corrosion
 FE Filter Efficiency
 F Fuel Element (Ex-Reactor)
 G Gas
 HL Humidity, Integrated Leak Rate Test
 IL In-Line Process
 LP Loose Parts
 MC Machinery Condition
 N Noise
 SW Service Water System
 T Temperature
 V Vibration
 WC Water Chemistry
 W Weld

Automation Products, Inc., (Dynatrol® Div.), Houston, TX (IL)
 AVANTech, LLC, Knoxville, TN (SW, WC)
 AVANTech, LLC, Columbia, SC (SW, WC)
 CFM/VR-TESCO, LLC Continental Field Machining, Elgin, IL (W)
 CM Technologies Corp., Coraopolis, PA (CC)
 Curtiss-Wright Nuclear Division, Sciencetech, Idaho Falls, ID (CO, WC)
 Dominion Engineering, Inc., Reston, VA (F)
 FCI-Fluid Components International LLC, San Marcos, CA (AI, G)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (CV, C, CW, F, IL, LP, MC, N, T, V, WC)
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (SW, T, V)
 Intek, Inc., Westerville, OH (AI)
 JSM Protective, Inc., Vero Beach, FL (T)
 LND, Inc., Oceanside, NY (IL)
 LUDECA, Inc., Doral, FL (MC, V)
 Mirion Technologies, Inc., Atlanta, GA (F, LP, N, T)
 Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (F, LP, N, T)
 Munro Instruments, Harlow, Essex, United Kingdom (G)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (C)
 NUCON International, Inc., Columbus, OH (FE)
 NV5/Dade Moeller, Richland, WA (N, T)
 OTEK Corp., Tucson, AZ (CW, T, V)
 Radiological Solutions Inc., Rockdale, IL (CO, WC)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AI, CC, CV, C, CW, CO, FE, F, G, HL, IL, LP, MC, N, SW, T, V, WC, W)
 Rosemount Nuclear Instruments, Inc., Chanhassen, MN
 SDT Ultrasound Solutions, Cobourg, Ontario, Canada (AI, T, V)
 Sentry Equipment, Oconomowoc, WI (WC)
 Sidus Solutions LLC, San Diego, CA (CW, SW)
 Sigma Inc., Charlestown, IN (CV)
 Simpson Gumpertz & Heger (SGH), Chicago, IL (AI, CC, CO, V, W)
 TEiC, Duncan, SC (AI)
 ♦ Teledyne Brown Engineering, Inc., Huntsville, AL (G)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (LP, T, V)
 Yokogawa Corporation of America, Newnan, GA (WC)

55040 Monitors, Radiation, Area & Special-Purpose—also see *Environmental; Radiation Monitoring*

AA Air, Alpha, Continuous
 AP Air, Particulate
 AF Automated Floor Survey System
 B Bag
 CW Conveyorized Waste
 DB Drum/Barrel
 FA Fixed-Area
 F Floor Contamination
 FC Food Contamination
 GE Gas Effluent
 G Gate

LE Liquid Effluent
 M Microwave & RF Radiation
 MA Mobile (Aircraft)
 MV Mobile (Vehicular)
 OS Outstations
 P Perimeter
 PL Pipe/Lumber
 PS Portable Survey Meters
 R Radon
 S Scrap, Radioactive
 T Tool
 TR Tritium
 TP Tritium, Portable
 U Underwater

Alpha Spectra, Inc., Grand Junction, CO (AP, FA, GE, P, S, TR, TP, U)
 ARES Security Corp., Vienna, VA (MV)
 AVANTech, LLC, Knoxville, TN (LE)
 AVANTech, LLC, Columbia, SC (LE)
 Bot Engineering Ltd, Campbellville, Ontario, Canada (AA, AP, B, CW, DB, FA, F, GE, G, LE, P, PS, T, TR, TP, U)
 CAEN Sys, Viareggio, LU, Italy (AF, F, LE, PS)
 Coastal Network, Inc., Charlottesville, VA (AP, PS)
 ENVINET GmbH, Munich/Haar, Germany (AP, FA, MA, MV, OS, P, U)
 Environmental Restoration Group, Inc., Albuquerque, NM (AF, F, R)
 F&J SPECIALTY PRODUCTS, INC., Ocala, FL (AP, R)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (MV)
 General Atomics Electromagnetic Systems, San Diego, CA (AA, AP, FA, GE, LE, MV, P, R, TR)
 GLSEQ LLC, Huntsville, AL (PS)
 Health Physics Instruments, (Div. of Far West Technology, Inc.), Goleta, CA (PS)
 HI-Q Environmental Products Co., Inc., San Diego, CA (AA, AP, TR, TP)
 H3D, Inc., Ann Arbor, MI (FA, MA, MV, PS, S, U)
 JSM Protective, Inc., Vero Beach, FL (PS)
 LabLogic Systems, Inc., Tampa, FL (PS)
 LND, Inc., Oceanside, NY (AP, DB, FA, F, FC, GE, G, LE, P, PL, PS, R, S, T, TR, TP, U)
 Ludlum Measurements, Inc., Sweetwater, TX (TP)
 Mirion Technologies, Inc., Atlanta, GA (AF, B, F, GE, G, LE, MA, MV, P, PL, PS, R, S, T, TR, U)
 Mirion Technologies (Premium Analyse), Norroy Le Veneur, France (GE, TR, TP)
 Mound Technical Solutions, Inc., Miamisburg, OH (TR, TP)
 ORTEC, Oak Ridge, TN (AP, B, CW, DB, FA, F, FC, G, LE, MV, P, PL, PS, T, TR)
 Overhoff Technology Corp., (A Div. of US Nuclear Corp.), Milford, OH (AA, B, DB, FA, GE, LE, R, T, TR, TP)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (CW, DB, FA)
 Pylon Electronics Inc., (Instrumentation Dept.), Ottawa, Ontario, Canada (AA, AP, F, PS, R)
 RadComm Systems Corp., Oakville, Ontario, Canada (CW, FA, GE, G, MV, S)
 Radiological Solutions Inc., Rockdale, IL (PL, PS)
 ReNuke, Oak Ridge, TN (AA, AP, F, P, PS, R)
 Rexon Components, Inc., Beachwood, OH (AA, AP, FA, F, GE, P, R, S, TR, TP, U)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AA, AP, AF, B, CW, DB, FA, F, FC, GE, G, LE, M, MA, MV, OS, P, PL, PS, R, S, T, TR, TP, U)
 RSO, Inc./Radiation Service Organization, Laurel, MD (FA, PS, R)
 S.E. International, Inc., Summertown, TN (PS)
 ♦ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (M, S)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (AA, AP, B, CW, DB, FA, F, FC, GE, G, LE, MA, MV, P, PL, PS, R, S, T, TR, TP, U)

55060 Monitors, Radiation, Personnel— also see Health Physics Equipment; Monitors, Microwave & RF

- AL Audible Alarm (Electronic)
- D Doorway
- FB Film Badges, Films
- HF Hand-and-Foot
- PI Pocket Ion Chambers
- TL Thermoluminescent Dosimeters (TLD)
- WB Whole-Body
- WM Whole-Body, Mobile
- Alpha Spectra, Inc., Grand Junction, CO (D, HF, WB)
- Bot Engineering Ltd, Campbellville, Ontario, Canada (AL)
- Coastal Network, Inc., Charlottesville, VA (PI)
- ENVINET GmbH, Munich/Haar, Germany (AL)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (WB)
- General Atomics Electromagnetic Systems, San Diego, CA (AL)
- LND, Inc., Oceanside, NY (AL, D, HF, PI, WB)
- Ludlum Measurements, Inc., Sweetwater, TX (D, HF)
- Mirion Technologies Dosimetry Services, Irvine, CA (FB)
- ORTEC, Oak Ridge, TN (D, HF, WB)
- RadComm Systems Corp., Oakville, Ontario, Canada (AL, D)
- ReNuke, Oak Ridge, TN (PI, TL)
- Rexon Components, Inc., Beachwood, OH (D, HF, TL)
- S.E. International, Inc., Summertown, TN (PI)
- ◆ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (AL)
- US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (AL, D, HF, PI, WB)

55490 Neutron Absorbers—also see Filters, Neutron; Shielding Design; Shielding Materials

- BA Boric Acid
- BC Boron Carbides
- CE Boron Carbides, Enriched (B-10)
- BN Boron, Natural
- BE Boron, Enriched (B-10, B-11)
- OB Other Boron Compounds
- BP Burnable Poisons
- C Cadmium
- CS Cadmium Sulfide
- E Encapsulated
- GD Gadolinium
- G Grain
- IM In Matrices
- MM Metal Matrix Composites
- MS Molded Shapes
- P Pellets
- PL Plates
- Dufrane Nuclear Shielding Inc., Winsted, CT (BA, BC, BN, E, MS)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (BP, GD)
- Free Form Fibers, Saratoga Springs, NY (BC, MM)
- Hopewell Designs, Inc., Alpharetta, GA (IM, MS)
- ISO FLEX USA, San Francisco, CA (C, GD, G, P)
- MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (E, P)
- Nuclear Shielding Supplies & Service, Tucson, AZ (BC)
- Robatel Technologies, LLC, Roanoke, VA (E, IM, MS, PL)
- Roberts Engineering Services, Inc., Stuart, FL (C, PL)
- Westinghouse Electric Co. LLC, Cranberry Township, PA (BC, CE, BE, BP, C, GD)

56600 Nondestructive Testing

- AC Acoustic Emission
- EC Eddy Current

- E Equipment Sales
- DP Dye Penetrant
- FP Fluorescent Penetrant
- FL Flux Leakage
- GP Ground Penetrating Radar
- I Infrared
- MP Magnetic Particle
- R Radiographic
- RT Radiographic, Real-Time Imaging
- RS Residual Stress
- S Services
- U Ultrasonic
- UW Underwater

- Analysis and Measurement Services Corp. (AMS), (Including CHAR Services), Knoxville, TN (E, S)
- COFREND, Paris, France (AC, EC, DP, FP, I, MP, R, RT, U)
- Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (DP, FP, MP, R, S, U)
- Curtiss-Wright Nuclear Division, Anatec, Brea, CA (EC, DP, FP, MP, S, U)
- Curtiss-Wright Nuclear Division, LMT, Hutchinson, MN (EC, DP, MP, U)
- Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (I)
- Day & Zimmermann, Philadelphia, PA (S)
- Dubose National Energy Services, Inc., Clinton, NC (DP, FP, MP, R, U)
- Eddyfi Technologies, Nanaimo, British Columbia, Canada (EC, E, FL, U, UW)
- Elcometer Inc., Warren, MI (EC, U)
- Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (DP, MP, U)
- E.S. Fox Limited, Niagara Falls, Ontario, Canada (DP, FP, MP, S, U)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (AC, EC, E, DP, FP, FL, MP, R, RT, RS, S, U, UW)
- Fuel Tank Maintenance Co., LLC, Cookeville, TN (EC, DP, FP, FL, I, MP, R, RT, RS, S, U)
- GEL Solutions, LLC, (A Member of The GEL Group, Inc.), Charleston, SC (GP, S)
- Hennigan Engineering LLC, Hingham, MA (U)
- HydroPro Inc., Bourbon, MO (E)
- ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (R, RT)
- JNT Technical Services Inc., Little Ferry, NJ (I)
- Joseph Oat Corp., Camden, NJ (EC, DP)
- Lambda Technologies, Cincinnati, OH (DP, FP, RS)
- ◆ Major Tool & Machine, Inc., Indianapolis, IN (DP, FP, MP, R, U)
- National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (DP)
- NUCON International, Inc., Columbus, OH (S)
- PAR Systems, LLC, Shoreview, MN (EC, I, R, U, UW)

- ◆ Precision Custom Components, LLC, York, PA (AC, EC, DP, FP, MP, R, S, U)
- Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AC, EC, E, DP, FP, FL, GP, I, MP, R, RT, RS, S, U, UW)
- Sargent & Lundy, Chicago, IL (S)
- Schulz Electric, Timken Power Systems, New Haven, CT (DP, FP, I, MP, S, U)
- SKODA JS a.s., Plzen, Bolevec, Czech Republic (EC, DP, FP, MP, R, U)
- Sonic Systems International, Inc., Houston, TX (EC, DP, FP, FL, MP, R, U, UW)
- Southwest Research Institute, San Antonio, TX (AC, EC, DP, GP, MP, R, S, U, UW)
- Structural Integrity Assoc., Inc., San Jose, CA (S)
- System One, Pittsburgh, PA (EC, DP, FP, GP, I, MP, R, RT, RS, S, U)
- Technisonic Research Inc., Fairfield, CT (U)
- Technology for Energy Corp., Knoxville, TN (RS)
- TEiC, Duncan, SC (S)
- Thermal Engineering International (TEi), Cerritos, CA (EC)

- ◆ Underwater Construction Corp., Essex, CT (U)
- Westinghouse Electric Co. LLC, Cranberry Township, PA (EC, E, DP, FP, I, MP, S, U, UW)

58000 Particle-Measuring Instruments

- Framatome Inc., (North American Headquarters), Lynchburg, VA
- HI-Q Environmental Products Co., Inc., San Diego, CA
- Mirion Technologies, Inc., Atlanta, GA
- ORTEC, Oak Ridge, TN
- RADeCO, Inc., Plainfield, CT
- VTT Technical Research Centre of Finland, VTT, Finland

59800 Pipe—also see Cleaning Equip.

- CS Carbon Steel, Seamless
- CM Chrome Moly
- CG Commercial Grade Dedication
- CO Copper
- L Lead
- NC Nickel-Cobalt, Seamless
- PL Plastic-Lined
- SL Seamless
- S Stainless
- SS Stainless, Seamless
- T Titanium
- TS Titanium, Seamless
- Z Zirconium
- ZS Zirconium, Seamless
- AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (CS, S)
- AVANTech, LLC, Knoxville, TN (S)
- AVANTech, LLC, Columbia, SC (S)
- Burns & McDonnell, Kansas City, MO (CS, CM, S)
- Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (CS, CM, CO, L, NC, PL, SL, S, SS, T, TS, Z, ZS)
- Dubose National Energy Services, Inc., Clinton, NC (CS, CM, NC, SL, S, SS)
- Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (CS, SL, S, SS)
- E.S. Fox Limited, Niagara Falls, Ontario, Canada (CS, CM, CO, L, NC, PL, SL, S, SS, T, TS, Z, ZS)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (SL, S, SS, Z, ZS)
- FuseRing Inc., London, Canada (CM, S, T, Z)
- Joseph Oat Corp., Camden, NJ (SL, S, SS)
- MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (L)
- PMT Nuclear, Woodridge, IL (CS, CO, L, NC, PL, SL, S, SS, T, TS)
- Seafab Metals Co., (Div. of The Doe Run Co.), Casa Grande, AZ (L)
- Westinghouse Electric Co. LLC, Cranberry Township, PA (Z, ZS)

59850 Pipe & Tube Machinery & Equipment—also see Cleaning Equip. (Tube Cleaning)

- B Bending, Pipe
- BT Bending, Tube
- BP Beveling, Pipe
- BV Beveling, Tube
- CR Crimpers, Tube
- CP Cutting, Pipe
- CT Cutting, Tube
- CI Cutting, In-Place
- EH Expanders, Tube, Hydraulic
- EM Expanders, Tube, Mechanical
- EJ Expansion Joints
- F Fittings
- IT Instrumentation Tubing, Orbital Welding
- PO Primary, Orbital TIG Welding
- RS Rounding & Sizing
- T Threading, Pipe
- W Weld End Preparation
- AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (B, BT, BP, BV, CR, CP, CT, CI, EH, EM, IT, PO, T, W)
- ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (CP, CT, CI)
- ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (CP, CT, CI)

ATS Industrial Automation, Inc. - Nuclear (USA),
(ATS Ohio, Inc.), Lewis Center, OH (CP, CT, CI)

◆ Brokk Inc., Santa Fe, NM (CP, CT, CI)

Burns & McDonnell, Kansas City, MO (RS)

CFM/VR-TESCO, LLC Continental Field
Machining, Elgin, IL (CI, PO)

Dubose National Energy Services, Inc., Clinton, NC
(B)

Framatome Inc., (North American Headquarters),
Lynchburg, VA (CT, CI, EH, EM, PO, W)

FuseRing Inc., London, Canada (IT)

HydroPro Inc., Bourbon, MO (EH, EM, W)

Magnatech LLC, East Granby, CT (IT, PO)

PMT Nuclear, Woodridge, IL (B, BT, BP, BV, CP, CT,
PO, T)

◆ Teledyne Brown Engineering, Inc., Huntsville, AL
(B, CP)

60100 Pipe Hangers and Supports

Anvil International, LLC, North Kingstown, RI

Curtiss-Wright Nuclear Division, Nova, Middleburg
Heights, OH

Curtiss-Wright Nuclear Division, QualTech NP,
Cincinnati, OH

Dubose National Energy Services, Inc., Clinton, NC

Energy and Process Corp., (A Ferguson Sub.),
Tucker, GA

E.S. Fox Limited, Niagara Falls, Ontario, Canada

Fronek - Anchor Darling Enterprises, Inc., (Sub. of
Piping Technology & Products, Inc.), Laconia, NH

NuSource LLC, Alexandria, VA

PMT Nuclear, Woodridge, IL

Promation Nuclear, Oakville, Ontario, Canada

61570 Plugs—also see Decontamination Chemicals, Equip. & Services

CT Condenser Tube

CR Control Rod Drive Housing

FH Feedwater Heater

F Freeze Plugs

HL Hot & Cold Leg (Remotely Installed)

I Isolation

MS Main Steam Line

MR Moisture Separator Reheater

P Pipeline

RP Reactor Pressure Vessel Drain Line

RV Reactor Vessel Nozzle

RO Recirculation Outlet Nozzle

SL Steamline (Remotely Installed)

SH Stud Hole

ST System Test

Consolidated Power Supply, (Div. of Consolidated
Pipe & Supply Co., Inc.), Birmingham, AL (CT, CR,
FH, I, RO, SH)

Curtiss-Wright EST Group, Hatfield, PA (CT, FH)

Curtiss-Wright Nuclear Division, Nova, Middleburg
Heights, OH (CR, I, RP, RO, SH)

Curtiss-Wright Nuclear Division, Scientech, Idaho
Falls, ID (CT, CR, FH, HL, I, MS, P, RP, RV, RO, SL,
SH)

Dubose National Energy Services, Inc., Clinton, NC
(RV)

Eddyfi Technologies, Nanaimo, British Columbia,
Canada (P)

Energy and Process Corp., (A Ferguson Sub.),
Tucker, GA (CT, F, P, RV)

Framatome Inc., (North American Headquarters),
Lynchburg, VA (CT, CR, FH, RV, SH)

Heat Exchanger Products Corp. (HEPCO),
Hingham, MA (CT)

Hennigan Engineering LLC, Hingham, MA (CT)

HydroPro Inc., Bourbon, MO (CT, FH)

JNT Technical Services Inc., Little Ferry, NJ (CT,
FH, MR, SH)

Master-Lee Engineered Products Inc., Latrobe, PA
(SH)

Preferred Engineering Corp., (Sub. of Preferred
Utilities Mfg. Corp.), Danbury, CT (HL, I, MS, P,
RP, RV, RO, SL, SH, ST)

Simpson Gumpertz & Heger (SGH), Chicago, IL (P)

TEiC, Duncan, SC (MS)

Thermal Engineering International (TEi), Cerritos,
CA (CT, FH, MR)

63400 Power Supplies

AC AC

C Chargers, Battery

DC DC

HF High-Frequency

HV High-Voltage

I Instrument

IN Inverters

PL Power Line Conditioner

S Stand-by

U Uninterruptible (AC-DC-AC)

AVANTech, LLC, Knoxville, TN (AC, DC, I, U)

AVANTech, LLC, Columbia, SC (AC, DC, I, U)

Black & Veatch, Overland Park, KS (S)

CAEN SyS, Viareggio, LU, Italy (HV)

Curtiss-Wright Nuclear Division, QualTech NP,
Cincinnati, OH (AC, DC, HV, I, PL, S, U)

Curtiss-Wright Nuclear Division, Scientech, Idaho
Falls, ID (AC, DC, I)

ISO-PACIFIC Remediation Technologies, Inc.,
Richland, WA (U)

National Technical Systems (NTS), (Nuclear
Engineering & Test Services), Huntsville, AL (AC,
DC, U)

ORTEC, Oak Ridge, TN (I)

◆ Paragon Energy Solutions, Fort Worth, TX (AC, DC,
I, PL, S, U)

Rolls-Royce Civil Nuclear, Warrington, United
Kingdom (S)

Rolls-Royce Civil Nuclear SAS, Meylan, France (AC,
DC, HV, U)

Rolls-Royce Nuclear I&C, Pittsburgh, PA (AC, DC,
HV, U)

Schneider Electric Gutor Technologies, Houston, TX
(C, I, IN, PL, U)

Unique Technical Resources, Wayne, PA (AC, DC, S,
U)

Westinghouse Electric Co. LLC, Cranberry
Township, PA (AC, DC, HF, HV, I, PL, S, U)

64300 Protective Coverings & Tarpaulins

Protective Plastics, Inc., Greenville, SC

◆ Reef Industries, Inc., Houston, TX

Rich Industries Inc., New Philadelphia, OH

◆ Strategic Packaging Systems, Madisonville, TN

64700 Pumps, Centrifugal

CW Condensate & Circulating Water

E3 Engineered Class III

HD Heater Drain

NR Non-Code Radwaste

N2 Nuclear Class II

PC Primary Coolant

RF Reactor Feed

SW Service Water, Non-Code

SN Service Water, Nuclear Class III

SC Small Class III Including Radwaste

Electro Static Technology, Mechanic Falls, ME (PC)

Framatome Inc., (North American Headquarters),
Lynchburg, VA (CW, PC, RF)

Hayward Tyler, Colchester, VT (CW, E3, HD, NR,
N2, PC, RF, SW, SN, SC)

ISO-PACIFIC Remediation Technologies, Inc.,
Richland, WA (NR)



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- D-Ring Lift & Tie Downs
- Velcro Closures
- Multi-Component Covers

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KSB, Inc., Henrico, VA (CW, E3, HD, N2, PC, RF, SW, SN, SC)

◆ Paragon Energy Solutions, Fort Worth, TX (CW, E3, HD, NR, N2, PC, RF, SW, SN, SC)
Rotating Equipment Repair, Sussex, WI (CW, E3, HD, NR, N2, PC, RF, SW, SN, SC)
Sulzer, Chattanooga, TN (CW, E3, HD, NR, N2, PC, RF, SW, SN, SC)
Sulzer Management Ltd., (Sulzer Pumps (Canada) Inc.), Burnaby, British Columbia, Canada (CW, E3, HD, N2, PC, RF, SW, SN)
Westinghouse Electric Co. LLC, Cranberry Township, PA (E3, PC, RF, SN, SC)

64750 Pumps, Other

A Air-Operated
CL Cleanup
CA Containment Air/Gas Sampling
DH Diaphragm, Hydraulically Actuated
FP Fire Protection
HO Hand-Operated
HP High-Pressure
HY Hydraulic
J Jet
MP Metering & Proportioning
PD Positive-Displacement
SR Sealless Reciprocating
SL Slurry
SO Sodium
SP Special-Purpose
V Vacuum

AVANTech, LLC, Knoxville, TN (A, CL, MP, PD, SL, V)

AVANTech, LLC, Columbia, SC (A, CL, MP, PD, SL, V)

Curtiss-Wright Nuclear Division, Nova, Middleburg Heights, OH (A, HY)
Hayward Tyler, Colchester, VT (HP, SL, SP)
KSB, Inc., Henrico, VA (HP, J, SL, SO, SP)
Munro Instruments, Harlow, Essex, United Kingdom (CA, V)
ORTEC, Oak Ridge, TN (V)
Power System Sentinel Technologies, LLC, Warrior, AL (HP)
RADeCO, Inc., Plainfield, CT (CA, SP, V)
Radiological Solutions Inc., Rockdale, IL (HP, MP, PD)
Rotating Equipment Repair, Sussex, WI (HP, SL, V)
Schutte and Koerting, Trevose, PA (J, V)
Sulzer Management Ltd., (Sulzer Pumps (Canada) Inc.), Burnaby, British Columbia, Canada (HP, SO, SP)
Transco Products Inc., Streator, IL (FP)

66280 Racks, Fuel Storage—also see Storage Systems, Spent-Fuel

C Conventional
HD High-Density

Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (C)
Dubose National Energy Services, Inc., Clinton, NC (C)
Framatome Inc., (North American Headquarters), Lynchburg, VA (C, HD)

◆ Holtec International, Camden, NJ (C, HD)

ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (HD)

◆ Major Tool & Machine, Inc., Indianapolis, IN (C, HD)
Nuclear Shielding Supplies & Service, Tucson, AZ (HD)

NuSource LLC, Alexandria, VA (C)

PAR Systems, LLC, Shoreview, MN (C, HD)

◆ Precision Custom Components, LLC, York, PA (C, HD)
Simpson Gumpertz & Heger (SGH), Chicago, IL (C, HD)

◆ Teledyne Brown Engineering, Inc., Huntsville, AL (C)

◆ Underwater Construction Corp., Essex, CT (HD)
Wagstaff Applied Technologies, Spokane, WA (C)
Westinghouse Electric Co. LLC, Cranberry Township, PA (C, HD)

67380 Radiation Monitoring Serv.—also see Envir. Monitoring; Health Phys. Serv.

A Analog Systems
DR Design, Retrofit
D Digital Systems
M Maintenance
MO Mobile (Vehicular)
SE Sample Encapsulation
SS Smear Sampling, Area/Environmental
TC Testing & Calibration

Applied Science Professionals, LLC, (ASP-LLC), Salt Lake City, UT (TC)

ARES Security Corp., Vienna, VA (MO)

BHI Energy, Weymouth, MA (A, DR, D, M, MO, SS, TC)

Cabrera Services Inc., East Hartford, CT (SS, TC)

Campoverde srl, Milano, Italy (SS, TC)

CHP Consultants/Counts.Pro, Oak Ridge, TN (D, MO, TC)

Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (DR)

General Atomics Electromagnetic Systems, San Diego, CA (A, DR, D, M, TC)



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HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX (DR, D)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (TC)
 Matom Ltd., North Wales, United Kingdom (SE, SS)
 Mirion Technologies (Canberra) Inc., Meriden, CT (A, DR, D, MO, SS, TC)
 ◆ Perma-Fix Environmental Services, Inc., Oak Ridge, TN (TC)
 Radiological Solutions Inc., Rockdale, IL (TC)
 ReNuke, Oak Ridge, TN (SS, TC)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (DR, D, M)
 RSO, Inc./Radiation Service Organization, Laurel, MD (SS)
 Sargent & Lundy, Chicago, IL (DR)
 Springs Advanced Technology Group (ATG), LLC, Westminster, CO (TC)
 Tap Report, Toronto, Ontario, Canada (M, TC)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (TC)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (DR, TC)
 VTT Technical Research Centre of Finland, VTT, Finland (TC)
 Wood, (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group), Grand Junction, CO (MO)

68000 Radioactive Waste Handling & Treatment Equip.-also see Solid Waste Reduction

CA Calciners
 CO Compactors

CN Concentrators (Cross-Flow Filter)
 CS Crushers, Scintillation Vials
 DC Drum Capping Machines, Remote
 DR Drum Cutting Machines
 DW Drum Washing Systems, Automatic
 E Evaporators
 F Furnaces for Glass Melting
 GC Gas Compressors
 I Incinerators
 L Liners
 LV Liquid Volume Reduction
 P Packaging
 R Robotic
 SC Secondary Containment Products
 SH Shredders (Volume Reduction)
 S Solidification
 SS Sorters, Sorting Tables
 ST Storage Systems, On-Site, High-Level
 SF Storage Systems, On-Site, Low-Level
 WT Waste Tracking & Accountability Systems (Computerized)

Accelerated Decommissioning Partners - ADP, Dallas, TX (ST, SF)
 AeroGo, Inc., Seattle, WA (CA, CO, CN, CS, DC, DR, DW, E, F, I, SC, SH, ST, SF)
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (CO, DR, P, WT)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (DR, R)
 ◆ American Crane & Equipment Corp., Douglassville, PA (R, ST, SF, WT)
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (CO, P, R, SH, SS, WT)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (CO, P, R, SH, SS, WT)

ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (CO, P, R, SH, SS, WT)
 AVANTech, LLC, Knoxville, TN (CN, E, L, LV, P, S, SF)
 AVANTech, LLC, Columbia, SC (CN, E, L, LV, P, S, SF)
 Boston Government Services, LLC (BGS), Oak Ridge, TN (WT)
 Brokk AB, Skelleftea, Sweden (R)
 ◆ Brokk Inc., Santa Fe, NM (R)
 CAEN SyS, Viareggio, LU, Italy (WT)
 Central Research Laboratories, Red Wing, MN (P)
 Container Products Corp., Wilmington, NC (CO, SS, SF)
 Deep Isolation, Berkeley, CA (ST)
 Deltech Kiln and Furnace Design, LLC, Denver, CO (F)
 Dominion Engineering, Inc., Reston, VA (R)
 Dufrane Nuclear Shielding Inc., Winsted, CT (L, P, ST, SF)
 DW James Consulting, North Oaks, MN (WT)
 ◆ EnergySolutions LLC, Salt Lake City, UT (I, S)
 Environmental Alternatives, Inc., Swanzey, NH (E, LV, R, S)
 Frham Safety Products, Inc., Nashville, TN (L)
 GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (CO, CN, P, ST, SF, WT)
 ◆ Holtec International, Camden, NJ (ST, SF)
 Hopewell Designs, Inc., Alpharetta, GA (P)
 ◆ I.C.E. Service Group, Inc., Moon Township, PA (P)
 Joseph Oat Corp., Camden, NJ (E, L)
 ◆ Major Tool & Machine, Inc., Indianapolis, IN (CA)
 Matom Ltd., North Wales, United Kingdom (S)
 METOIL, Praha, Czech Republic (LV)
 M2 Polymer Technologies, Inc., West Dundee, IL (P, S)

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- ♦ NAC International Inc., Peachtree Corners, GA (ST)
- ♦ NAC LPT LLC, Mars, PA (P)
- NuVision-HWM, Pittsburgh, PA (DC, DR, R)
- Orano Decommissioning Services, Hudson, MA (ST, SF)
- Orano TN, Columbia, MD (ST, SF)
- ♦ PacTec, Inc., Clinton, LA (L, P, SC, SF)
- PAR Systems, LLC, Shoreview, MN (DC, DR, DW, P, R)
- ♦ Perma-Fix Environmental Services, Inc., Oak Ridge, TN (SH, S, SS, ST, SF, WT)
- ♦ Petersen Inc., Ogden, UT (CA, CS, F, SC, SH)
- See advertisement on Cover 2**
- Premier Technology, Inc., Blackfoot, ID (P)
- PTP Spent Fuel Services, LLC, Grand Island, NY (ST, SF)
- Radiological Solutions Inc., Rockdale, IL (S)
- ♦ Reef Industries, Inc., Houston, TX (P, SF)
- Robatel Technologies, LLC, Roanoke, VA (CA, P, R, S, SS, SF)
- S&G Enterprises, Inc., Germantown, WI (CO, CS, SH)
- Siempelkamp NIS, Alzenau, Germany (P)
- Skolnik Industries, Chicago, IL (P, SC)
- ♦ Strategic Packaging Systems, Madisonville, TN (P)
- Teledyne FLIR, Chelmsford, MA (R)
- Unified Engineering, Hamilton, Ontario, Canada (CS, DR, SF)
- ♦ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (SC, SS)
- Veolia Nuclear Solutions - Federal Services, Piketon, OH (R)
- VTT Technical Research Centre of Finland, VTT, Finland (I, R, S)
- Wagstaff Applied Technologies, Spokane, WA (CO, DC, DR, DW, E, L, LV, P, R, SC, SH, SS, ST, SF)
- Waste Control Systems, Inc., Phoenix, MD (CO, CS, SC, SH, SS)
- Westinghouse Electric Co. LLC, Cranberry Township, PA (CO, CN, CS, DC, DR, DW, E, P, R, SC, SH, S, SS, ST, SF, WT)
- Wälischmiller Engineering GmbH, Markdorf, Baden-Württemberg, Germany (R)
- ♦ WMG, Inc., Peekskill, NY (L, P, WT)
- Wood, (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group), Grand Junction, CO (SS)
- Worthington Industries, Columbus, OH (ST, SF)

68950 Radioisotopes

- CS Calibration Standards
- F Foils
- G Gases, Calibration
- LC Labeled Compounds
- PP Primary & Processed
- RS Radiation Standards
- RC Radiochemicals
- RM Radioisotopes, Medical
- RP Radiopharmaceuticals
- RE Recycling
- SS Sealed Sources
- Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (RE, SS)
- ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (RM, RP)
- ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (RM, RP)
- ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (RM, RP)
- AZIsotopes, Bunker Hill, IN (RM, RP)
- Campoverde srl, Milano, Italy (CS, F, G, LC, RS, RC, RM)
- Curie Environmental Services, Albuquerque, NM (RE)
- Eckert & Ziegler Analytics, Atlanta, GA (CS, F, G, PP, RS, RC, SS)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (CS, RS, RP, SS)
- Frontier Technology Corp., Xenia, OH (RM, SS)
- General Atomics Electromagnetic Systems, San Diego, CA (CS, SS)

- ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (RS)
- Nuclear-21, Waasmunster, Belgium (RM, RP)
- Promation Nuclear, Oakville, Ontario, Canada (RM, RP)
- Pylon Electronics Inc., (Instrumentation Dept.), Ottawa, Ontario, Canada (SS)
- Radiation Safety & Control Services, Inc., Seabrook, NH (RS)
- RadQual, LLC, Idaho Falls, ID (CS, G, RS, RC, RM, SS)
- RadQual, LLC, Idaho Falls, ID (CS, G, RS, RC, RM, SS)
- VTT Technical Research Centre of Finland, VTT, Finland (CS, G, LC, PP, RC)

71190 Records Management Systems

- CM Configuration Management
- DS Document Storage & Retrieval
- DC Drawing Control
- HP Health Physics
- O Operations Recording
- S Spare Parts
- T Training
- Black & Veatch, Overland Park, KS (CM, DS, DC)
- Boston Government Services, LLC (BGS), Oak Ridge, TN (CM, DS, DC)
- CHP Consultants/Counts.Pro, Oak Ridge, TN (DS, HP)
- Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (CM, DS, DC, O, S, T)
- The Delphi Groupe, Inc., Austin, TX (CM, HP, T)
- Engineering Planning and Management, Inc., Framingham, MA (S)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (CM, S)
- GSE Hyperspring, Columbia, MD (CM)
- HukariAscendant, Wheat Ridge, CO (CM, HP)
- ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (HP)
- Mirion Technologies, Inc., Atlanta, GA (HP)
- North Wind Group, Idaho Falls, ID (CM, HP)
- NV5/Dade Moeller, Richland, WA (DS, HP, T)
- Rolls-Royce Civil Nuclear, Warrington, United Kingdom (CM, DS, DC, HP, O, S, T)
- Rolls-Royce Civil Nuclear SAS, Meylan, France (T)
- Rolls-Royce Nuclear I&C, Pittsburgh, PA (T)
- Sargent & Lundy, Chicago, IL (CM, DC, O, S, T)
- Tap Report, Toronto, Ontario, Canada (O)
- ♦ WMG, Inc., Peekskill, NY (T)

71500 Refrigeration—also see Cooling Systems, Body

- Ellis & Watts Global Industries, Inc., Batavia, OH
- PMT Nuclear, Woodridge, IL

72300 Remote Control, Handling & Positioning Devices & Sys.—also see Robotic Devices

- AI Artificial Intelligence/Expert Systems
- EE End Effectors, Grippers, & Wrists
- RC Remote Control
- RH Remote Handling
- RP Remote Positioning
- RO Robotics
- TM Telescoping Masts
- Advanced Consulting Group, Inc., Chicago, IL (EE, RC, RO)
- AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (EE, RC, RH, RP, RO)
- ♦ American Crane & Equipment Corp., Douglassville, PA (EE, RC, RH, RP, RO)
- ARES Security Corp., Vienna, VA (AI, EE, RC, RH, RP, RO, TM)
- ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (EE, RC, RH, RP, RO)
- ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (EE, RC, RH, RP, RO)

- ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (EE, RC, RH, RP, RO)
- Brokk AB, Skelleftea, Sweden (EE, RC, RH, RP, RO)
- ♦ Brokk Inc., Santa Fe, NM (RC, RH, RP, RO)
- Central Research Laboratories, Red Wing, MN (RC, RH, RP)
- Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (RC, RH, RP)
- Eddyfi Technologies, Nanaimo, British Columbia, Canada (EE, RC, RH, RP, RO)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (AI, RC, RH, RP, RO)
- ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (AI, RC)
- Konecranes Nuclear Equipment & Services LLC, New Berlin, WI (RH, RP, RO)
- KUKA Systems UK Ltd, West Midlands, United Kingdom (RH, RO)
- Master-Lee Engineered Products Inc., Latrobe, PA (EE)
- Mirion Technologies, Inc., Atlanta, GA (RC, RP)
- Nuclear Systems Associates, Inc., Brea, CA (EE, RC, RH, RP, RO)
- NuVision-HWM, Pittsburgh, PA (AI, EE, RC, RH, RP, RO)
- PAR Systems, LLC, Shoreview, MN (AI, EE, RC, RH, RP, RO, TM)
- Promation Nuclear, Oakville, Ontario, Canada (EE, RC, RH, RP, RO)
- Radium Inc., Waynesboro, VA (AI, EE, RC, RH, RP, RO)
- Remote Ocean Systems (ROS), San Diego, CA (RC, RP)
- Robatel Technologies, LLC, Roanoke, VA (RC, RH, RP)
- Rolls-Royce Civil Nuclear, Warrington, United Kingdom (AI, EE, RC, RH, RP, RO)
- Shadow Robot Company Ltd., London, United Kingdom (EE, RC, RH, RO)
- Sidus Solutions LLC, San Diego, CA (RP)
- Siempelkamp NIS, Alzenau, Germany (RC, RH, RP)
- Southwest Research Institute, San Antonio, TX (EE, RC, RH, RP, RO)
- Teledyne FLIR, Chelmsford, MA (RO)
- Tri Nuclear Corp., Ballston Lake, NY (RH)
- ♦ Underwater Construction Corp., Essex, CT (RC, RH, RP, RO)
- Unified Engineering, Hamilton, Ontario, Canada (EE, RP, RO)
- Veolia Nuclear Solutions - Federal Services, Piketon, OH (RC, RH, RP, RO)
- Westinghouse Electric Co. LLC, Cranberry Township, PA (EE)
- Wälischmiller Engineering GmbH, Markdorf, Baden-Württemberg, Germany (EE, RC, RH, RO)

73300 Remote-Viewing Instruments & Systems

- BI Binoculars
- BF Borescopes, Flexible
- BR Borescopes, Rigid
- I Infrared
- M Monocular Scopes, Viewing/ALARA
- P Periscopes
- RR Radiation-Resistant
- S Submersible
- T Telescopes
- Coastal Network, Inc., Charlottesville, VA (M)
- Framatome Inc., (North American Headquarters), Lynchburg, VA (S)
- Hopewell Designs, Inc., Alpharetta, GA (BF, BR)
- ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (S)
- Mirion Technologies, Inc., Atlanta, GA (RR, S, T)
- Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (RR, S)
- NuVision-HWM, Pittsburgh, PA (RR, S)
- RADeCO, Inc., Plainfield, CT
- Radium Inc., Waynesboro, VA (RR, S)
- Remote Ocean Systems (ROS), San Diego, CA (S)

Rolls-Royce Civil Nuclear, Warrington, United Kingdom (BI, BF, BR, I, M, P, RR, S, T)
 Sidus Solutions LLC, San Diego, CA (I, S)
 ♦Thermo Scientific - CIDTEC Cameras & Imagers, (Part of Thermo Fisher Scientific), Liverpool, NY (RR)

73550 Respiratory Protection Equip.—also see Clothing, Prot.; Health Phys. Serv.

AP Air Purification Systems
 C Compressors
 FT Fit-Testing Systems
 RC Respirator Cleaning Systems
 RD Respirator Drying Systems
 RL Respirators, Air-Line
 R Respirators, Air-Purifying
 RX Respirators, Combination Type
 RP Respirators, Powered Air-Purifying
 RE Resuscitators
 SC Self-Contained Breathing Apparatus
 SB SCBA Boost Pumps
 SE SCBA (Escape)
 SF SCBA Filling Stations
 ST SCBA Flow Testing & Services
 SW SCBA Software
 SS Storage Systems (Cleaned Equipment)
 V Vessels, High-Pressure, Air

Framatome Inc., (North American Headquarters), Lynchburg, VA (AP, C)
 Frham Safety Products, Inc., Nashville, TN (AP, C, RL, R, RX, RP, SC)
 JSM Protective, Inc., Vero Beach, FL (R, RX, RP)
 Lancs Industries, Albuquerque, NM (RL)
 NUCON International, Inc., Columbus, OH (AP, FT)
 Radium Inc., Waynesboro, VA (AP, R, RX, RP)
 ♦UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (C, RC, RD, RL, R, RX, SS)

73570 Rigging Specialists

Barnhart Nuclear Services, Fairhope, AL
 Bigge Power Constructors, (Affl. of Bigge Crane and Rigging Co.), San Leandro, CA
 Dufrane Nuclear Shielding Inc., Winsted, CT
 Engineered Rigging, Valparaiso, IN
 E.S. Fox Limited, Niagara Falls, Ontario, Canada

73620 Robotic Devices, Systems—also see Remote Control

CA CAD-Driven
 C Condenser, In-Service Inspection
 FT Force/Torque Sensors
 N Nuclear
 RV Reactor Vessel Head, ISI
 S Submersible

AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (N)
 ARES Security Corp., Vienna, VA (CA, N)
 ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (CA, C, FT, RV, S)
 ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (CA, C, FT, RV, S)
 ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (CA, C, FT, RV, S)
 AVANTech, LLC, Knoxville, TN (S)
 AVANTech, LLC, Columbia, SC (S)
 Brokk AB, Skelleftea, Sweden (RV)
 ♦Brokk Inc., Santa Fe, NM (CA)
 Curtiss-Wright Nuclear Division, Anatec, Brea, CA (RV)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (RV, S)
 Kinectrics Inc., Toronto, Ontario, Canada (CA, N)
 KUKA Systems UK Ltd, West Midlands, United Kingdom (N)
 NuVision-HWM, Pittsburgh, PA (RV, S)
 PAR Systems, LLC, Shoreview, MN (CA, N, S)

Radium Inc., Waynesboro, VA (FT, S)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (CA, C, FT, RV, S)
 Southwest Research Institute, San Antonio, TX (N, RV, S)
 ♦Teledyne Brown Engineering, Inc., Huntsville, AL (FT)
 Thermal Engineering International (TEi), Cerritos, CA (C)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (CA, FT, N, S)
 Wälischmiller Engineering GmbH, Markdorf, Baden-Württemberg, Germany (CA, C, FT, N, S)

74150 Samplers & Sampling Systems

A Air (Carried by Personnel)
 AP Air Particulate
 AS Automatic Systems
 EC Evaporator Concentrate
 G Gas
 I Iodine
 L Liquid
 M Metallurgical
 RT Real-Time Remote
 SS Stack Sampling
 W Waste

AVANTech, LLC, Knoxville, TN (L, W)
 AVANTech, LLC, Columbia, SC (L, W)
 Eddyfi Technologies, Nanaimo, British Columbia, Canada (RT)
 F&J SPECIALTY PRODUCTS, INC., Ocala, FL (A, AP, I)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (AS, G, L)
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC (SS)
 The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC (AP, AS, SS)
 General Atomics Electromagnetic Systems, San Diego, CA (AP, G, I, L, SS)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (M)
 LND, Inc., Oceanside, NY (AS)
 Mirion Technologies, Inc., Atlanta, GA (AP, I, SS)
 Mound Technical Solutions, Inc., Miamisburg, OH (SS)
 RADeCO, Inc., Plainfield, CT (A, AP, I)
 Radiological Solutions Inc., Rockdale, IL (L)
 ReNuke, Oak Ridge, TN (A, AP)
 Sentry Equipment, Oconomowoc, WI (AS, L, W)
 ♦Teledyne Brown Engineering, Inc., Huntsville, AL (SS)
 ♦UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (A, AP)
 US Nuclear Corp., (Technical Associates Sub.), (Overhoff Technology Corp. Sub.), Canoga Park, CA (AP, AS, G, I, L)

74320 Sampling Systems Services—also see Radiation Monitoring Services

Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID
 Encorus Group, (dba RJR Engineering, P.C.), Springfield, NY
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC
 GLSEQ, LLC, Huntsville, AL
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA
 Sentry Equipment, Oconomowoc, WI

74350 Scaffolding—also see Shoring; Training

C Conventional
 M Modular
 SP Scaffold Plank
 S Suspended Type

T Tube & Clamp Type
 Advanced Nuclear LLC, East Petersburg, PA (C, M, SP, S, T)
 BHI Energy, Weymouth, MA (C, M, SP)
 Unified Engineering, Hamilton, Ontario, Canada (M)

75190 Seals—also see Decontamination Chemicals & Equipment; Plugs

CM Ceramic-Metal Assemblies
 CS Conduit Seal
 ES Equipment Storage Pool
 FG Flat Gasketing
 GR Flat Gasketing, Radiation-Resistant
 FT Flux Thimble Seal
 H Hydraulic
 I Inflatable
 IP Inspection Port
 MS Mechanical, Shaft
 MP Mechanical, Shaft, Reactor Circulating Pump
 M Metal (O-Rings, C-Rings, etc.)
 NI Nuclear Instrumentation Cover
 P Penetration
 RC Reactor Cavity Pool
 SR Sealing Systems, Compressed Rubber
 SS Sealing Systems, Fluid

Adam Brown Consulting, Inc., Cary, IL (P)
 Cross Manufacturing Company (1938) Ltd., Bath, United Kingdom (MS, M, SS)
 Curtiss-Wright Nuclear Division, AP Services, Middleburg Heights, OH (CM, FG, GR, H, MS, MP, SR, SS)
 Curtiss-Wright Nuclear Division, Enertech, Brea, CA (M, SS)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (FG, GR, H, I, MS, M, P)
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (ES, H, I, IP, NI, P, RC, SR, SS)
 Electro Static Technology, Mechanic Falls, ME (MS, MP)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (I, MS, MP, M, P, RC, SS)
 KSB, Inc., Henrico, VA (MP)
 Mirion Technologies, Inc., Atlanta, GA (CM, P)
 Mirion Technologies (IST) Corp., (Sensing Systems Div.), Horseheads, NY (CM, P)
 ♦Paragon Energy Solutions, Fort Worth, TX (MS)
 Pavé Technology Co., Dayton, OH (P)
 Pawling Engineered Products, Inc., Pawling, NY (ES, FG, GR, I, IP, NI, P, RC, SR)
 PMT Nuclear, Woodridge, IL (FG, GR, MS)
 Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (ES, GR, I, IP, NI, P, RC)
 Presray Corp., (Div. of Pawling Corp.) (Critical Containment Solutions), Wassaic, NY (I)
 Saint-Gobain HTMS NV (High Tech Metal Seals), Mechelen, Belgium (M, NI, SS)
 SCHOTT Electronic Packaging, (A Div. of SCHOTT North America, Inc.), Southbridge, MA (CM, P)
 Sulzer, Chattanooga, TN (MS, MP)
 Thermal Engineering International (TEi), Cerritos, CA (FG)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (MS, MP, M, P, RC)

75600 Security Services—also see Consultants; Training

A Analysis
 C Cybersecurity
 D Drug Testing
 E Engineering
 G Guards
 SI Screening & Investigation
 ARES Security Corp., Vienna, VA (A, E)
 BHI Energy, Weymouth, MA (SI)
 Boston Government Services, LLC (BGS), Oak Ridge, TN (A, E)

Burns & McDonnell, Kansas City, MO (A, E, SI)
 Confidential Services, Inc., South Haven, MI (SI)
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (A)
 Enercon Services, Inc., (Talisman Div.), Kennesaw, GA (A, E)
 EXCEL Services Corporation, Rockville, MD (A)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (A, E)
 Imperia Engineering Partners LLC, Bordentown, NJ (A, E)
 Right Brain Sekurity, Oswego, IL (A, E)
 Sargent & Lundy, Chicago, IL (A, E)
 Southwest Research Institute, San Antonio, TX (C)
 VTT Technical Research Centre of Finland, VTT, Finland (A, E, SI)

75700 Security Structures

BW Barbed Wire, Tape
 BG Barrier-Gates
 F Fences
 GO Gate Operators
 G Gates
 GS Guard Stations
 GB Gunports, Bullet-Resistant
 L Lockers, Weapon Storage
 SB Security Booths (Man-Trap)
 T Turnstiles
 WP Wall Panels, Bullet-Resistant
 WB Windows, Bullet-Resistant
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (G, GS)
 CHP Consultants/Counts.Pro, Oak Ridge, TN (T)
 ◆ Container Technologies Industries, LLC, Helenwood, TN (BG, GS, GB, WP, WB)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (BG, GO, G, WP, WB)
 Dufrane Nuclear Shielding Inc., Winsted, CT (GB, WB)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (BW, BG, F, GO, G, GS, GB, L, SB, T, WP, WB)
 Mirion Technologies, Inc., Atlanta, GA (T)
 Par-Kut International, Inc., Harrison Twp., MI (GS, SB)
 PMT Nuclear, Woodridge, IL (BG, F)
 Presray Corp., (Div. of Pawling Corp.) (Critical Containment Solutions), Wassaic, NY (WP, WB)
 SecurMAR, LLC, Zionsville, IN (BG, G, GS, GB, SB, T, WP, WB)

75850 Security Systems & Devices—also see Consultants

AI Anti-Intrusion, Indoor
 AO Anti-Intrusion, Outdoor
 AP Asset Protection (Anti-Removal), Electronic
 AS Automated Security Patrol Robot
 C Computerized
 FI Fully Integrated
 HS Homeland Security Devices
 ID Intruder Detection (Laser, Microwave/Infrared)
 ET Explosives Trace Detection
 MD Metal (Weapon) Detectors
 NV Night Vision Scopes & Devices
 P Personal Alarm
 PA Personnel Access Control
 RT Railcar, Remote Tracking and Cargo Monitoring
 TW Thermal Weapon Sights
 VA Vehicle Access Control
 VS Video Surveillance Systems (CCTV)
 VT Video Transmission Systems
 WI Water Intake, Anti-Intrusion
 X X-ray Inspection Systems
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (HS)
 ARES Security Corp., Vienna, VA (AS, C, FI, HS, VA, VS, VT)
 AVANTech, LLC, Knoxville, TN (VS)
 AVANTech, LLC, Columbia, SC (VS)

Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (C, PA)
 Enercon Services, Inc., (Talisman Div.), Kennesaw, GA (HS)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (C)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (AI, AO, C, FI, HS, VS)
 Mirion Technologies, Inc., Atlanta, GA (C, HS, PA, VA)
 ORTEC, Oak Ridge, TN (HS)
 Radium Inc., Waynesboro, VA (VS, VT)
 Right Brain Sekurity, Oswego, IL (HS)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (C, FI, VS, VT, WI)
 SecurMAR, LLC, Zionsville, IN (AI, AO, MD, X)
 Sidus Solutions LLC, San Diego, CA (AI, AO, FI, HS, ID, NV, VS, VT, WI)
 Talisman Div. of Enercon, Kennesaw, GA (AO, ID)
 ◆ Thermo Scientific - CIDTEC Cameras & Imagers, (Part of Thermo Fisher Scientific), Liverpool, NY (NV, VS)

76400 Seismic Instrumentation & Testing

Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 HF Controls Corp., (Sub. of Doosan Heavy Industries & Construction Co., Ltd.), Carrollton, TX
 Kinectrics Inc., Toronto, Ontario, Canada
 Kinometrics, Inc., Pasadena, CA
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL
 ◆ Paragon Energy Solutions, Fort Worth, TX
 See advertisement on page 1
 Pylon Electronics Inc., (Instrumentation Dept.), Ottawa, Ontario, Canada
 Radics LLC, Kropyvnytskyi, Ukraine
 Simpson Gumpertz & Heger (SGH), Chicago, IL
 Westinghouse Electric Co. LLC, Cranberry Township, PA

77600 Servomechanisms

Framatome Inc., (North American Headquarters), Lynchburg, VA

77750 Shielding Design, Radiation—also see Analysis; Consultants

Advanced Nuclear LLC, East Petersburg, PA
 Applied Analysis Corp., Reading, PA
 BHI Energy, Weymouth, MA
 Black & Veatch, Overland Park, KS
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID
 Dufrane Nuclear Shielding Inc., Winsted, CT
 Ellis & Watts Global Industries, Inc., Batavia, OH
 Encorus Group, (dba RJR Engineering, P.C.), Springville, NY
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 Hopewell Designs, Inc., Alpharetta, GA
 Hot Cell Services Corp., Kent, WA
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA
 Joseph Oat Corp., Camden, NJ
 Kinectrics Inc., Toronto, Ontario, Canada
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada
 Mirion Technologies, Inc., Atlanta, GA
 NuclearConsultants.com, Ann Arbor, MI
 Nuclear Shielding Supplies & Service, Tucson, AZ
 NV5/Dade Moeller, Richland, WA
 PMT Nuclear, Woodridge, IL
 Radium Inc., Waynesboro, VA
 Red Wolf Associates, Cary, NC

Robatel Technologies, LLC, Roanoke, VA
 Sargent & Lundy, Chicago, IL
 Southwest Research Institute, San Antonio, TX
 ◆ WMG, Inc., Peekskill, NY

77800 Shielding Materials, Rad.—also see Containers; Doors; Neut. Absorbers; Windows

AS Acrylic Sheet Products, Beta-Shielding
 A Aggregates, High-Density Concrete
 B Blankets
 CB Blocks, Concrete, Lead-Core
 BH Blocks, Concrete, High-Density
 BM Blocks, Modular
 BC Boron Carbide Grain & Shapes
 BR Bricks, Composite
 BL Bricks, Lead
 CM Castable Shielding Materials
 CC Castings, Composite
 CL Castings, Lead
 CA Castles, Lead
 CS Collars, Streaming
 CW Container Wraps
 CR Criticality Control
 CU Curtain Shields
 FS Frisker Shields
 GN Gamma/Neutron Composite
 G Glass, X-ray
 IV In-Vessel Shields
 LF Lead Free
 LP Lead Plastic
 LL Low-Level Shields, Lead/Steel
 PW Pipe Wraps/Sleeves
 PC Plugs, Closures
 P Polyethylene
 PB Polyethylene, Borated
 RF Refueling Shields
 TN Thermal Neutron Materials
 TA Tungsten Alloys
 WP Wall Panels
 WS Water Shields, Modular (Gamma/Neutron)
 F.N. Anderson & Assoc., Forest, VA (CR)
 AVANTech, LLC, Knoxville, TN (LL, WP)
 AVANTech, LLC, Columbia, SC (LL, WP)
 CHP Consultants/Counts.Pro, Oak Ridge, TN (BL)
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (CR, CU, IV, LL, PC, RF, WS)
 Dufrane Nuclear Shielding Inc., Winsted, CT (A, B, CB, BH, BM, BR, BL, CM, CC, CL, CS, CW, CR, CU, FS, GN, G, IV, LL, PW, PC, P, PB, RF, TN, TA, WP, WS)
 ◆ EnergySolutions LLC, Salt Lake City, UT (CL, LL, WP)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (B)
 Free Form Fibers, Saratoga Springs, NY (BC)
 Frham Safety Products, Inc., Nashville, TN (PW)
 Frontier Technology Corp., Xenia, OH (GN, TN)
 Glidewell Specialties Foundry Co., Calera, AL (PC)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (AS, A, B, CB, BH, BM, BR, BL, CM, CL, CA, CS, CW, CU, GN, G, LF, LP, LL, PW, P, PB, RF, TA, WP)
 Mohawk Safety, Manchester, CT (B, BL)
 ◆ NAC International Inc., Peachtree Corners, GA (BM, BR, CM, CC, CS, GN, IV, TN)
 Niagara Energy Products (NEP), Niagara Falls, Ontario, Canada (A, CB, BM, BR, CM, CC, CW, LL, P, WP)
 NuclearConsultants.com, Ann Arbor, MI (CR)
 Nuclear Shielding Supplies & Service, Tucson, AZ (A, CB, BM, BC, BR, CM, GN, LF)
 ORTEC, Oak Ridge, TN (LL)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (CU, LL, PC, WP)
 Preferred Engineering Corp., (Sub. of Preferred Utilities Mfg. Corp.), Danbury, CT (RF)
 Premier Technology, Inc., Blackfoot, ID (BL, CM, G, LL)
 Radium Inc., Waynesboro, VA (AS, B, BR, CW, CU, GN, G, RF, TN, TA, WP, WS)

◆ Reef Industries, Inc., Houston, TX (CW, P, RF)
 Rich Industries Inc., New Philadelphia, OH (AS, CW, CU, P)
 Robatel Technologies, LLC, Roanoke, VA (A, BM, BR, BL, CM, CL, CA, GN, IV, LL, TN)
 RSO, Inc./Radiation Service Organization, Laurel, MD (BL, LL)
 SCHOTT Electronic Packaging, (A Div. of SCHOTT North America, Inc.), Southbridge, MA (G)
 Seafab Metals Co., (Div. of The Doe Run Co.), Casa Grande, AZ (BL, CL, LL)
 Tri Nuclear Corp., Ballston Lake, NY (FS, WP)
 Unified Engineering, Hamilton, Ontario, Canada (LL)

Wagstaff Applied Technologies, Spokane, WA (BL, CM, CL, CW, CR, CU, IV, PW)

77900 Shoring—also see Scaffolding

Simpson Gumpertz & Heger (SGH), Chicago, IL

78700 Sleeves, Wall (Pipe)

Joseph Oat Corp., Camden, NJ

Rich Industries Inc., New Philadelphia, OH



DEPENDABILITY

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George Vaughan, Vice President of Business Development
 T: 770.447.1144 | gvaughan@nacintl.com

79360 Solid Waste Reduction Equipment & Tools, Radioactive

C Containment
 CR Control Rod Crushers, Reducers
 NW Neutron Window Reducers
 P Packaging
 SB Stellite Ball Punches
 U Underwater Reduction Tools
 VL Velocity Limiter Shears

Advanced Consulting Group, Inc., Chicago, IL (U)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (U)

- ◆ American DND Inc., Grand Island, NY (C, P)
- ATS Industrial Automation, Inc. Nuclear (Canada), Cambridge, Ontario, Canada (P, U)
- ATS Industrial Automation, Inc. - Nuclear (UK), Blaby, Leicester, United Kingdom (P, U)
- ATS Industrial Automation, Inc. - Nuclear (USA), (ATS Ohio, Inc.), Lewis Center, OH (P, U)
- Curtiss-Wright Nuclear Division, Scituate, Idaho Falls, ID (CR, U)
- ◆ EnergySolutions LLC, Salt Lake City, UT (U, VL)
- GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (P, U)
- Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA (P)
- KUKA Systems UK Ltd, West Midlands, United Kingdom (P)
- ◆ Major Tool & Machine, Inc., Indianapolis, IN (C)
- MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (C)
- M. Braun Inc., Stratham, NH (C)
- M2 Polymer Technologies, Inc., West Dundee, IL (P)
- ◆ PacTec, Inc., Clinton, LA (C, P)
- PAR Systems, LLC, Shoreview, MN (U)
- PD Design Group, LLC, Lake Villa, IL (U)
- Robatel Technologies, LLC, Roanoke, VA (P)
- Siempelkamp NIS, Alzenau, Germany (P)
- Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (C, U)
- Unified Engineering, Hamilton, Ontario, Canada (C, CR)
- Veolia Nuclear Solutions - Federal Services, Piketon, OH (C, P)
- Wagstaff Applied Technologies, Spokane, WA (C, CR)
- Westinghouse Electric Co. LLC, Cranberry Township, PA (C, P, U)
- ◆ WMG, Inc., Peekskill, NY (P)

79370 Sorbents

ES Environmental Spill
 LR Liquid Radwaste
 AVANTech, LLC, Knoxville, TN (LR)
 AVANTech, LLC, Columbia, SC (LR)
 Frham Safety Products, Inc., Nashville, TN (ES)
 JRM Chemical Inc., Cleveland, OH (ES, LR)
 Kinectrics Inc., Toronto, Ontario, Canada (ES)
 METOIL, Praha, Czech Republic (LR)
 M2 Polymer Technologies, Inc., West Dundee, IL (ES, LR)
 Nochar, Inc., Indianapolis, IN (LR)
 NUCON International, Inc., Columbus, OH (LR)
 RSO, Inc./Radiation Service Organization, Laurel, MD (ES)

79700 Sources, Radioactive—also see Radioisotopes; Testing Services

CHP Consultants/Counts.Pro, Oak Ridge, TN
 General Plastics MFG. Co., Tacoma, WA
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA
 RadQual, LLC, Idaho Falls, ID
 RadQual, LLC, Idaho Falls, ID

81680 Storage Services

E Equipment

SF Spent Fuel

Barnhart Nuclear Services, Fairhope, AL (E)
Curtiss-Wright Nuclear Division, NETCO,
Danbury, CT (SF)
Curtiss-Wright Nuclear Division, Scientech, Idaho
Falls, ID (SF)
Framatome Inc., (North American Headquarters),
Lynchburg, VA (E)
Konecranes Nuclear Equipment & Services LLC,
New Berlin, WI (E)
M. Braun Inc., Stratham, NH (E)
NuclearConsultants.com, Ann Arbor, MI (SF)
Orano TN, Columbia, MD (SF)
♦ Petersen Inc., Ogden, UT (E)
PTP Spent Fuel Services, LLC, Grand Island, NY
(E, SF)
Schulz Electric, Timken Power Systems, New
Haven, CT (E)
UxC, LLC, Roswell, GA (SF)
Westinghouse Electric Co. LLC, Cranberry
Township, PA (E, SF)

81710 Storage Systems, Spent-Fuel— also see Containers; Racks

D Dry
W Wet
Curtiss-Wright Nuclear Division, Scientech, Idaho
Falls, ID (D, W)
♦ Holtec International, Camden, NJ (D, W)
Konecranes Nuclear Equipment & Services LLC,
New Berlin, WI (D, W)
♦ Major Tool & Machine, Inc., Indianapolis, IN (D,
W)
Mega-Tech Services, LLC, Cooksburg, PA (D)
♦ NAC International Inc., Peachtree Corners, GA (D)
Orano TN, Columbia, MD (D)

PAR Systems, LLC, Shoreview, MN (W)

♦ Precision Custom Components, LLC, York, PA (D,
W)
Premier Technology, Inc., Blackfoot, ID (D)
Promation Nuclear, Oakville, Ontario, Canada (D,
W)
PTP Spent Fuel Services, LLC, Grand Island, NY
(D, W)
♦ Reef Industries, Inc., Houston, TX (D)
Robatel Technologies, LLC, Roanoke, VA (D)
SKODA JS a.s., Plzen, Bolevec, Czech Republic (D,
W)
Unified Engineering, Hamilton, Ontario, Canada
(D)
UxC, LLC, Roswell, GA (D, W)
Wagstaff Applied Technologies, Spokane, WA (D,
W)
Westinghouse Electric Co. LLC, Cranberry
Township, PA (D, W)

83110 Tags & Labels (Warning, Inventory, etc.)—also see Health Phys

Coastal Network, Inc., Charlottesville, VA
Frham Safety Products, Inc., Nashville, TN
InfoSight Corp., Chillicothe, OH
JSM Protective, Inc., Vero Beach, FL
RSO, Inc./Radiation Service Organization, Laurel,
MD

83120 Tags, Valve

InfoSight Corp., Chillicothe, OH
Mohawk Safety, Manchester, CT

83150 Tanks, Storage—also see Diaphragms; Inspection Services

AL Aluminum
GF Glass Fiber
P Plastic
RC Rubber, Collapsible
S Steel
SS Steel, Stainless
Aerofin, (Sub. of Ampco-Pittsburgh Corp.),
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83210 Tape

C Cloth, Nuclear
 E Electrical Splicing Tape
 F Foam
 MS Moisture-Sensitive
 RS Reinforced Strapping, Nuclear
 WL Warning, Luminescent
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83600 Television Systems (CCTV)—also see Security Systems; Video Services

C Conventional
 HT High-Temperature
 M Miniature (Remote Viewing)
 PI Pipe Inspection
 U Underwater, Color, High-Radiation
 W Welding Arc Viewing (Color)
 AVANTech, LLC, Knoxville, TN (C)
 AVANTech, LLC, Columbia, SC (C)
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84150 Test Equipment & Supplies—also see Health Physics Equip.; Nondestructive Testing

A Automated
 CS Capacitance Strain Gauging
 CP Coating Porosity Detection
 CT Coating Thickness Gauging
 C Concrete Inspection
 EC Eddy Current
 EM Electric Motors
 ES Electrical Systems & Components
 E Environmental
 FO Fiber Optic
 HE HEPA Filter
 II Infrared Imaging
 IC Instrumentation & Control

LR Leak-Rate, Local
 M Manual
 MT Materials
 ND Nondestructive
 PH pH Measurement
 P Portable
 PA Power Apparatus
 RT Resistance Temperature Detectors
 S Stationary
 SC Structures/Components
 U Ultrasonic
 UC Ultrasonic Couplant
 VL Vacuum Leak Testers, Tube
 V Valve
 VM Valve, Motor-Operated, Diagnostic
 VS Valve, Solenoid Operated, Diagnostic
 V Vibration

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 RADeco, Inc., Plainfield, CT (E)
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 ♦Teledyne Brown Engineering, Inc., Huntsville, AL (VM)
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 Valcor Engineering Corp., (Valcor Nuclear Div.), Springfield, NJ (V)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (EM, RT)

84600 Testing Services—also see Analysis; Maintenance Serv.; Nondestructive Testing

AI Alloy Identification (On-Site)
 C Coatings
 CD Corrosion Detection
 EM Electric Motors
 ES Electrical Systems & Components
 EQ Environmental Qualification
 FR Fire Resistance/Flammability
 FL Flow
 FM Fracture Mechanics
 I Infrared
 IC Instrumentation & Control
 LF Laminar Flow Facilities
 LD Leak Detection, Tube
 LN Leak, Nuclear Gauge
 LS Leak, Radioactive Sealed Source
 LR Leak-Rate, Integrated
 LL Leak-Rate, Local
 M Materials
 ND Nondestructive
 PH Photometric Testing
 PL Plastics/Polymers

P Pumps
 QS Quality Services
 SP Sealed Sources (Pressure, Temperature)
 S Seismic
 SI Siren Systems
 ST Structures
 TC Transport Containers
 U Ultrasonic
 V Vibration
 WT Wall Thinning Detection, Tube
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (C, EM, P)
 AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (AI, M, ND)
 Analysis and Measurement Services Corp. (AMS), (Including CHAR Services), Knoxville, TN (ES, IC, ND)
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 AE Auditing, Environmental
 CH Chemistry
 C Communications
 CP Computer Users/Computer Personnel
 CM Construction Management Personnel
 CS Crane & Rigging Safety
 D Decommissioning
 EP Emergency Planning & Response
 EM Engineering Management
 EE Engineers, Electrical
 ME Engineers, Mechanical
 ES Engineers, Structural
 EL Environmental Laws & Regulation
 EQ Equipment Qualification
 FP Fire Protection
 FD Fitness-for-Duty, Behavioral Observation
 FC Fuel Cycle/Performance Analysis
 FT Fuel Transport/Storage
 HV HVAC Maintenance
 I Instructors, Classroom & Simulator
 LD Leadership Development
 L Licensing
 M Maintenance
 MN Management
 NT Nondestructive Testing
 OE Organizational Effectiveness
 OS OSHA Compliance
 PC Process Control Statistical
 PM Project Management
 QA Quality Assurance/Quality Control
 RM Radiation Management (ALARA)
 RP Radiation Protection
 RC Radiochemistry
 RA Reliability Analysis
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 SE Safety Evaluation
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 SQ Seismic Qualification
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 Siempelkamp NIS, Alzenau, Germany (M)
 Technical Management Services, Inc., New Hartford, CT (T)
 Volian Enterprises, Inc., Murrysville, PA (T)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (M)
 ◆ WMG, Inc., Peekskill, NY (CA, T)

87000 Transport Services

C Consulting/Transport Management
 DC Dry Cask
 HC Heavy Components
 IR Intermodal/Rail
 L Liners
 HL Radioactive, High-Level
 LL Radioactive, Low-Level
 TP Transload Facility, Permanent
 TT Transload Facility, Temporary
 Accelerated Decommissioning Partners - ADP, Dallas, TX (DC, HL, LL)
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (C, HC, IR, L, LL, TP, TT)
 AVANTech, LLC, Knoxville, TN (L)
 AVANTech, LLC, Columbia, SC (L)
 Barnhart Nuclear Services, Fairhope, AL (HC, IR, LL)
 Bigge Power Constructors, (Affl. of Bigge Crane and Rigging Co.), San Leandro, CA (C, HC)
 Dufrane Nuclear Shielding Inc., Winsted, CT (C, IR)
 Ebersen, Inc., Minneapolis, MN (C, HC)
 ◆ EnergySolutions LLC, Salt Lake City, UT (C, HC, IR, HL, LL)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (C, HC, IR, HL, LL)

GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (C, DC, HL)
 Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA (LL)
 ♦ I.C.E. Service Group, Inc., Moon Township, PA (C, DC, HC, IR, L, HL, LL, TP, TT)
 Kinectrics Inc., Toronto, Ontario, Canada (C, L, LL)
 Konecranes Nuclear Equipment & Services LLC, New Berlin, WI (DC)
 ♦ NAC International Inc., Peachtree Corners, GA (C, DC, HL)
 North Wind Group, Idaho Falls, ID (C, IR)
 Orano Decommissioning Services, Hudson, MA (DC, HL, LL)
 Orano TN, Columbia, MD (C, DC, IR, HL, LL)
 Prospect Law Ltd., London, United Kingdom (C)
 RSO, Inc./Radiation Service Organization, Laurel, MD (LL, TP)
 Studsvik, Inc., Sandy Springs, GA (HC, IR, LL)
 Tri-State Motor Transit Co., Glendale, AZ (C, DC, HC, HL, LL)
 US Ecology, Inc., Livonia, MI (LL)
 Waste Control Specialists LLC, Andrews, TX (LL)

87380 Tritium Handling Equipment

Kinectrics Inc., Toronto, Ontario, Canada
 ♦ Major Tool & Machine, Inc., Indianapolis, IN
 NUCON International, Inc., Columbus, OH
 Veolia Nuclear Solutions - Federal Services, Piketon, OH
 Wagstaff Applied Technologies, Spokane, WA

87395 Tritium Recycle & Extraction Equipment

♦ Major Tool & Machine, Inc., Indianapolis, IN

87400 Tritium Removal Equipment

ISO-PACIFIC Remediation Technologies, Inc., Richland, WA
 M. Braun Inc., Stratham, NH
 NUCON International, Inc., Columbus, OH
 Veolia Nuclear Solutions - Federal Services, Piketon, OH

90100 Vacuum Equipment & Accessories—also see *Cleaning Equip.; Filters*

Coastal Network, Inc., Charlottesville, VA
 Desco Mfg. Co., Inc., Rancho Santa Margarita, CA
 E. H. Wachs, Lincolnshire, IL
 HI-Q Environmental Products Co., Inc., San Diego, CA
 Master-Lee Engineered Products Inc., Latrobe, PA
 Pave Technology Co., Dayton, OH
 RAdCO, Inc., Plainfield, CT
 Schutte and Koerting, Trevoise, PA
 Sigma Inc., Charlestown, IN
 Tri Nuclear Corp., Ballston Lake, NY
 ♦ Underwater Construction Corp., Essex, CT

90250 Valve Operators (Actuators)

A Air
 ES Electric Solenoid
 EH Electrohydraulic
 EX Explosive-Activated
 H Hydraulic
 MN Manual
 M Motor
 BHI Energy, Weymouth, MA (A, M)
 Conval, Inc., Enfield, CT (A, ES, EH, H, MN, M)
 Dragon Valves, Inc., Norwalk, CA (A)
 Ellis & Watts Global Industries, Inc., Batavia, OH (A, EH)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (A, ES, EH, H, MN, M)
 KSB, Inc., Henrico, VA (A, MN, M)

Mirion Technologies, Inc., Atlanta, GA (EX)
 Newman Hattersley Ltd., Mississauga, Ontario, Canada (A, MN)
 ♦ Paragon Energy Solutions, Fort Worth, TX (A, ES, H, M)
 PMT Nuclear, Woodridge, IL (A, ES, EH, H, MN, M)
 Schulz Electric, Timken Power Systems, New Haven, CT (M)
 Sigma Inc., Charlestown, IN (A, ES, EH, H, MN, M)
 ♦ SSM Industries, Inc., Pittsburgh, PA (A, ES, EH, MN, M)
 Valcor Engineering Corp., (Valcor Nuclear Div.), Springfield, NJ (ES)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (A, ES, EH, EX, H, MN, M)

90280 Valve Packing Removal Equipment

Curtiss-Wright Nuclear Division, AP Services, Middleburg Heights, OH
 Framatome Inc., (North American Headquarters), Lynchburg, VA
 KSB, Inc., Henrico, VA

90320 Valve-Reseating Equipment, On-line

AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC
 EFCO USA, Inc., Charlotte, NC
 Framatome Inc., (North American Headquarters), Lynchburg, VA

90330 Valve Stem Gland Packing Systems, Live-Loaded

BNL Industries, Inc., Vernon Rockville, CT
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL
 Curtiss-Wright Nuclear Division, AP Services, Middleburg Heights, OH
 KSB, Inc., Henrico, VA
 Westinghouse Electric Co. LLC, Cranberry Township, PA

90600 Valves, Check, Stop Check

AC Air-Cylinder-Assisted
 B Ball
 CC Controlled-Closure
 NS Non-Slam
 PO Piston-Operated
 SL Spring-Loaded
 ST Swing Type
 SA Swing Type, Alloy
 TD Tilting Disk
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (AC, B, CC, NS, PO, SL, ST, SA, TD)
 BNL Industries, Inc., Vernon Rockville, CT (NS, SL)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (B, PO, SL, ST, SA)
 Curtiss-Wright Nuclear Division, Enertech, Brea, CA (NS, SL, ST, SA)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (B)
 DFT Inc., Exton, PA (NS, SL)
 Dragon Valves, Inc., Norwalk, CA (CC, SL)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (AC, B, CC, NS, PO, SL, ST, SA, TD)
 KSB, Inc., Henrico, VA (AC, B, PO, SL, ST, SA, TD)
 NuSource LLC, Alexandria, VA (B, PO, SL)
 ♦ Paragon Energy Solutions, Fort Worth, TX (B, ST, SA, TD)
 Schutte and Koerting, Trevoise, PA (AC, PO, ST, SA)
 Sigma Inc., Charlestown, IN (AC, B, CC, NS, PO, SL, ST, SA, TD)

TRILLIUM Valves USA, Ipswich, MA (AC, CC, NS, PO, SL, ST)
 Valcor Engineering Corp., (Valcor Nuclear Div.), Springfield, NJ (CC, PO, SL)
 ValvTechnologies, Inc., Houston, TX (CC, NS)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (ST, SA)

90800 Valves, Control

F Flow
 FA Flow, Acoustic Emission
 I Intelligent
 P Pressure
 T Temperature
 V Vacuum
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (F, FA, I, P, T, V)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (F, P)
 Curtiss-Wright Nuclear Division, Enertech, Brea, CA (F, I, P, T, V)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (F, P, T)
 DFT Inc., Exton, PA (F, P)
 Dragon Valves, Inc., Norwalk, CA (F)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (F, FA, I, P, T, V)
 Mirion Technologies, Inc., Atlanta, GA (F)
 NuSource LLC, Alexandria, VA (F, P)
 ♦ Paragon Energy Solutions, Fort Worth, TX (F)
 RAdCO, Inc., Plainfield, CT (V)
 Schutte and Koerting, Trevoise, PA (F, P)
 Sigma Inc., Charlestown, IN (F, P, T, V)
 TRILLIUM Valves USA, Ipswich, MA (F, P, T)
 Valcor Engineering Corp., (Valcor Nuclear Div.), Springfield, NJ (F, P, T, V)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (F, P, T, V)

91000 Valves, Gate

B Bellows Seal
 JA Jacketed Alloy
 K Knife
 PS Parallel Slide Type
 W Wedge Type
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (B, JA, K, PS, W)
 CFM/VR-TESCO, LLC Continental Field Machining, Elgin, IL (PS, W)
 Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (PS, W)
 Curtiss-Wright Nuclear Division, Enertech, Brea, CA (PS)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (B)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (B, JA, K, PS, W)
 KSB, Inc., Henrico, VA (B, K, PS, W)
 ♦ Paragon Energy Solutions, Fort Worth, TX (PS, W)
 Sigma Inc., Charlestown, IN (B, K, PS, W)
 TRILLIUM Valves USA, Ipswich, MA (PS)
 ValvTechnologies, Inc., Houston, TX (PS)

91260 Valves, Other

BW Backwater
 B Ball
 BU Burner
 BF Butterfly
 D Diaphragm
 EF Excess-Flow
 FS Fail-Safe
 FI Feedwater Isolation
 FL Filter, In-Line
 FD Fire Deluge
 FM Flow Monitoring/Alarm System
 FB Flush Bottom Tank
 G Globe
 GB Globe, Bellows
 IM Instrumentation Manifold

IS Isolation Shutoff
LB Line-Blind
MS Main Steam Isolation
M Miniature
N Needle
P Packless
PL Plastic-Lined
PG Plug
PR Pressure Regulating
PU Pump Recirculation
Q Quick-Opening & -Closing
R Ram-Type
RS Relief, Safety
SL Slurry
SO Solenoid
V Vacuum

Alison Control Inc., Fairfield, NJ (FD)
AVANTech, LLC, Knoxville, TN (BW, B, BF, D, SO, V)
AVANTech, LLC, Columbia, SC (BW, B, BF, D, SO, V)
BHI Energy, Weymouth, MA (BF, G, MS)
BNL Industries, Inc., Vernon Rockville, CT (B, EF, FS, Q, V)
CFM/VR-TEESCO, LLC Continental Field Machining, Elgin, IL (MS)
C.J. Enterprises, (Div. of C.J. Instruments, Inc.), Tarzana, CA (PR)
Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (B, BF, G, PG, PR, SO)
Dragon Valves, Inc., Norwalk, CA (D, EF, G, GB, IM, M, N, P, PG, Q, SO)
Framatome Inc., (North American Headquarters), Lynchburg, VA (B, BF, FM, G, GB, MS, SO)
KSB, Inc., Henrico, VA (B, BF, D, FS, FI, G, GB, IS, MS, M, P, PG, Q)
Mirion Technologies, Inc., Atlanta, GA (D, Q, RS)
Newman Hattersley Ltd., Mississauga, Ontario, Canada (B, BF, G, GB, M)
NuSource LLC, Alexandria, VA (B, G, GB, IM, IS, M, N, PG, PR, RS, SO)
♦ Paragon Energy Solutions, Fort Worth, TX (B, BF, D, FI, G, IM, M, N, PR)
Schutte and Koerting, Trevese, PA (MS, PR, Q, RS)
Sigma Inc., Charlestown, IN (B, BF, D, FS, G, GB, IM, IS, N, PR, RS, SL, SO)
Technology for Energy Corp., Knoxville, TN (FM)
TRILLIUM Valves USA, Ipswich, MA (BF, FS, FI, G, IS, MS)
Valcor Engineering Corp., (Valcor Nuclear Div.), Springfield, NJ (EF, FS, FI, GB, IM, IS, M, N, P, PR, Q, SO, V)
ValvTechnologies, Inc., Houston, TX (B, FS, FI, MS, Q, RS)
Westinghouse Electric Co. LLC, Cranberry Township, PA (G)

91380 Valves, Pressure Seal

BL Breech Lock
G Gate
GL Globe
PC Piston Check
SC Swing Check
TD Tilting Disk
W Wafer Check Valves

AECON-WACHS, (U.S. Div. of Acon Nuclear), Jackson, SC (BL, G, GL, PC, SC, TD, W)
BNL Industries, Inc., Vernon Rockville, CT (W)
CFM/VR-TEESCO, LLC Continental Field Machining, Elgin, IL (G, SC, TD)
Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (G, GL, PC, SC)
Curtiss-Wright Nuclear Division, Enertech, Brea, CA (PC)
Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (G, GL, SC)
Framatome Inc., (North American Headquarters), Lynchburg, VA (G, GL, PC)
KSB, Inc., Henrico, VA (G, GL, PC, SC, TD)

Newman Hattersley Ltd., Mississauga, Ontario, Canada (PC)
NuSource LLC, Alexandria, VA (GL)
Schutte and Koerting, Trevese, PA (SC)
Sigma Inc., Charlestown, IN (G, GL, PC, SC, TD, W)
TEiC, Duncan, SC (BL)
TRILLIUM Valves USA, Ipswich, MA (G, GL, SC, W)
ValvTechnologies, Inc., Houston, TX (GL)
Westinghouse Electric Co. LLC, Cranberry Township, PA (SC)

92300 Vessels—also see Respiratory Protection Equipment

F Flasks, Water, Valve-Operating
P Pressure
PR Pressure, Reactor
AECON-WACHS, (U.S. Div. of Acon Nuclear), Jackson, SC (P)
Aerofin, (Sub. of Ampco-Pittsburgh Corp.), Lynchburg, VA (P)
AVANTech, LLC, Knoxville, TN (F, P)
AVANTech, LLC, Columbia, SC (F, P)
Consolidated Power Supply, (Div. of Consolidated Pipe & Supply Co., Inc.), Birmingham, AL (P, PR)
Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (P)
Dubose National Energy Services, Inc., Clinton, NC (P)
Ellis & Watts Global Industries, Inc., Batavia, OH (P)
Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (P, PR)
Framatome Inc., (North American Headquarters), Lynchburg, VA (P, PR)
Fuel Tank Maintenance Co., LLC, Cookeville, TN (P)
Joseph Oat Corp., Camden, NJ (P, PR)
♦ Major Tool & Machine, Inc., Indianapolis, IN (P, PR)
NuSource LLC, Alexandria, VA (P, PR)
♦ Petersen Inc., Ogden, UT (P)
PMT Nuclear, Woodridge, IL (P)
♦ Precision Custom Components, LLC, York, PA (F, P, PR)
Premier Technology, Inc., Blackfoot, ID (PR)
SKODA JS a.s., Plzen, Bolevec, Czech Republic (P, PR)
Super Radiator Coils, Chaska, MN (P)
♦ Teledyne Brown Engineering, Inc., Huntsville, AL (P)
Thermal Engineering International (TEi), Cerritos, CA (P)
Wagstaff Applied Technologies, Spokane, WA (F, P, PR)
Worthington Industries, Columbus, OH (P)

92800 Video Services

I Inspection
PP Plant Photodocumentation
R Remote
U Underwater

CYCLIFE, (Brand of EDF Group), Puteaux, France (I)
Day & Zimmermann, Philadelphia, PA (I, PP, R, U)
DimEye Corp., Calabasas, CA (I, PP, R, U)
Framatome Inc., (North American Headquarters), Lynchburg, VA (I, R, U)
Lenox Instrument Co., Inc., Trevese, PA (R, U)
Master-Lee Engineered Products Inc., Latrobe, PA (U)
Mirion Technologies, Inc., Atlanta, GA (R, U)
Radium Inc., Waynesboro, VA (I, PP, R, U)
Rolls-Royce Civil Nuclear, Warrington, United Kingdom (I, R, U)
Sidus Solutions LLC, San Diego, CA (I, R, U)
TECHWAY, Villebon sur Yvette, France (I, U)

Waste Management Services 93040

♦ Thermo Scientific - CIDTEC Cameras & Imagers, (Part of Thermo Fisher Scientific), Liverpool, NY (I, R, U)
♦ Underwater Construction Corp., Essex, CT (R, U)
Westinghouse Electric Co. LLC, Cranberry Township, PA (I, R, U)

93040 Waste Management Services—also see Analysis; Health Physics Services

DM Demineralization
DW Dewatering, Nonradioactive
DR Dewatering, Radioactive
DL Disposal (Low-Level)
ER Environmental Remediation
FP Fuel Pool Services
I Incineration
IL Intermediate-Level
LC Lead Contamination
LW Liquid Waste (High Level & Low Level)
MW Mixed Waste Analysis & Processing
MD Mixed Waste Disposal/Treatment
MS Mixed Waste Solvent Disposal
MO Molten Salt Oxidizers
M Monitoring
NR Non-Radioactive
OF Off-Site (Fixed Base)
ON On-Site
P Packaging/Repackaging
LL Radioactive, Low-Level
HL Radioactive, High-Level
RD Resin Destruction
RP Resin Pyrolysis
RR Resin Regeneration
RC Resource Recovery
SM Scrap Melting
SS Sealed Source Decommissioning
S Solidification
SR Survey & Release
T Transuranic (TRU)
UT Uranium Mill Tailings Reclamation
V Vitrification
VR Volume Reduction
WC Waste Characterization
WS Waste Sampling
WD Wood Decontamination

Accelerated Decommissioning Partners - ADP, Dallas, TX (P, LL, HL)
Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (DL, IL, M, OF, P, HL, RC, SS, SR, VR, WC)
AMEASOL - American Measurement Solutions LLC, Santa Fe, NM (MW, M, WC)
♦ American DND Inc., Grand Island, NY (DL, ER, FP, LC, NR, P, SM, VR)
American Integrated Services, Inc., Anaheim, CA (ER, LC, NR)
Attenuation Environmental Co., Seattle, WA (ER, MW, WC)
Augean plc, Wetherby, United Kingdom (DL, NR, LL)
AVANTech, LLC, Knoxville, TN (DM, DW, DR, DL, ER, FP, LW, MW, MD, M, OF, LL, HL, RD, RP, RR, S, VR)
AVANTech, LLC, Columbia, SC (DM, DW, DR, DL, ER, FP, LW, MW, MD, M, OF, LL, HL, RD, RP, RR, S, VR)
BHI Energy, Weymouth, MA (ER, FP, MW, M, P, RC, SR, T, VR, WC, WD)
Burns & McDonnell, Kansas City, MO (ER, M, NR, ON, LL, SR)
Cabrera Services Inc., East Hartford, CT (DL, ER, MW, MD, M, OF, ON, P, LL, HL, SR, T, V, WC)
Campoverde srl, Milano, Italy (DL, ER, I, IL, LW, MW, LL, HL, RD, V, VR, WC)
CS-2 Inc., Grand Island, NY (DL, NR, SM, WC)
Curie Environmental Services, Albuquerque, NM (DL, LC, MW, MD, MS, NR, OF, ON, P, LL, RC, SS, SR, WC, WS)
CYCLIFE, (Brand of EDF Group), Puteaux, France (IL)
Day & Zimmermann, Philadelphia, PA (DW, DR, DL, LL, HL, SR, WC)

Decidia Research & Consulting, Sabadell, Barcelona, Spain (ER)
 Deep Isolation, Berkeley, CA (IL, MD, OF, ON, P, HL, T)
 The Delphi Groupe, Inc., Austin, TX (I, IL, M, NR, ON, P, HL, S, VR)
 Dominion Engineering, Inc., Reston, VA (DR, LW)
 DW James Consulting, North Oaks, MN (WC)
 Encorus Group, (dba RJR Engineering, P.C.), Springville, NY (ER, FP)

♦ **EnergySolutions LLC, Salt Lake City, UT (DW, DR, DL, ER, FP, I, LC, MW, MD, MS, P, LL, HL, RC, SM, SS, S, SR, T, V, VR, WC)**

See advertisement on pages 4-5

Energy, Technology and Environmental Business Association, Oak Ridge, TN (ER, WC)
 Environmental Alternatives, Inc., Swanzey, NH (DR, ER, S, SR, VR, WC, WD)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (DM, DW, ER, LC, NR)
 The GEL Group, Inc., (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.), Charleston, SC (ER, M, WC)
 The GEL Group, Inc., (General Engineering Laboratories, LLC), Charleston, SC (ER, M, WC, WS)
 GNS Gesellschaft für Nuklear-Service mbH, Essen, Germany (LL, HL)
 Thomas Gray & Associates, Inc., (Owner of Environmental Mgmt. & Controls, Inc.), Orange, CA (DL, I, LC, MD, MS, NR, P, LL, SS, S, VR)
 ♦ Holtec International, Camden, NJ (DL, ER, FP, ON, P, VR)
 ♦ I.C.E. Service Group, Inc., Moon Township, PA (DL, ER, I, IL, LC, MW, MD, NR, OF, ON, P, LL, S, UT, VR, WC, WS, WD)
 ISO-PACIFIC Remediation Technologies, Inc., Richland, WA (DR, DL)

Kinectrics Inc., Toronto, Ontario, Canada (ER, IL, MW, MD, M, OF, ON, P, LL, HL, WC, WS)
 KUKA Systems UK Ltd, West Midlands, United Kingdom (MW, P, LL, VR, WC)
 LND, Inc., Oceanside, NY (DR, DL, IL, MW, M, HL, UT, WC)
 Lucideon, Durham, NC (LL, S)
 Matom Ltd., North Wales, United Kingdom (ER, IL, MW, MD, MO, M, NR, LL, HL, RD, RP, RR, WC)
 Mirion Technologies, Inc., Atlanta, GA (M)
 National Technical Systems (NTS), (Nuclear Engineering & Test Services), Huntsville, AL (M)
 Navarro Research and Engineering, Inc., Oak Ridge, TN (DW, DR, DL, ER, IL, LC, LW, MD, M, NR, P, LL, HL, SR, T, UT, VR, WC, WS)
 Neptune and Company, Inc., Lakewood, CO (M, NR, LL, HL, T)
 New Millennium Nuclear Technologies International, Lakewood, CO (ER, WC, WS)
 NV5/Dade Moeller, Richland, WA (ER, NR, LL, SR, WC)
 Off-Site Source Recovery Program, Los Alamos, NM (SS)
 Orano Decommissioning Services, Hudson, MA (P, LL, HL)
 Orano TN, Columbia, MD (FP, OF, ON, P, LL, HL)
 Pajarito Scientific Corp. (PSC), (Pajarito Scientific Security Corp.) (PSSC), Santa Fe, NM (MW)

♦ **Perma-Fix Environmental Services, Inc., Oak Ridge, TN (DL, ER, I, IL, LC, LW, MW, MD, MS, M, OF, ON, P, LL, HL, RD, S, SR, T, VR, WC, WS)**

See advertisement on page 27

Perma-Fix Environmental Services Inc., (Perma-Fix Northwest Richland) (Wholly Owned Sub. of Perma-Fix Environmental Services, Inc.), Richland, WA (DR, RC, SR)

Perma-Fix Environmental Services Inc., (Perma-Fix of Florida) (A Wholly Owned Sub. of Perma-Fix Environmental Services, Inc.), Gainesville, FL (RC)
 Porvair Filtration Group Inc., Ashland, VA (DM)
 Promatom Nuclear, Oakville, Ontario, Canada (DL, ER, IL, M, NR, OF, ON, P, LL, HL, VR, WC)
 PTP Spent Fuel Services, LLC, Grand Island, NY (FP, LL, HL)
 Radiac Research Corp., Brooklyn, NY (DL, LW, MD, MS, ON, HL)
 Radiological Solutions Inc., Rockdale, IL (RR, WS)
 ♦ Reef Industries, Inc., Houston, TX (LL)
 Rolls-Royce Civil Nuclear, Warrington, United Kingdom (P)
 Rolls-Royce Civil Nuclear SAS, Meylan, France (M)
 Rolls-Royce Nuclear I&C, Pittsburgh, PA (M)
 RSO, Inc./Radiation Service Organization, Laurel, MD (DL, ER, MD, M, P, LL, SS, SR, VR, WS)
 Sidus Solutions LLC, San Diego, CA (M)
 Siempelkamp NIS, Alzenau, Germany (MW, MD, P, VR, WC)
 Sigma Science, Albuquerque, NM (MW, P, LL, HL, WC)
 Southwest Research Institute, San Antonio, TX (SS, WC, WS)
 ♦ **Strategic Packaging Systems, Madisonville, TN (DL, ER, I, IL, LC, MW, MD, NR, OF, ON, P, LL, S, UT, VR, WC, WS, WD)**
 ♦ Teledyne Brown Engineering, Inc., Huntsville, AL (WC)
 3 Bears Technical Services, LLC, Hixson, TN (T, WC)
 Transco Products Inc., Streator, IL (M)
 ♦ Underwater Construction Corp., Essex, CT (FP)

STRATEGIC PACKAGING SYSTEMS

- 1- 25 CYD soft-sided bags
- Custom overpacks
- Dewatering bags
- Macro encapsulation bags
- Stand alone bags
- IP-1 & IP-2 certified bags
- Made in the USA
- SBA HUBZone Certified



FOR MORE INFORMATION:

☎ 423-545-9505 ✉ R.MORELAND@SPSONLINE.BIZ

🌐 WWW.SPSONLINE.BIZ

Underwater Engineering Services, Inc., (Nuclear Services Div.), Fort Pierce, FL (DM, DR, FP, VR)
 ◆ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (DL, LC, VR, WD)
 Veolia Nuclear Solutions - Federal Services, Piketon, OH (V)
 Waste Control Specialists LLC, Andrews, TX (DR, DL, LC, MW, MD, NR, OF, P, LL, SS, S, T, UT)
 WaterWorks America, Inc., Independence, OH (DW, DR, ER, LW, S)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (DM, DW, DR, DL, ER, FP, IL, MW, MD, MS, M, NR, OF, ON, P, LL, HL, RD, RP, RR, RC, SM, SS, S, SR, T, UT, VR, WC)
 ◆ WMG, Inc., Peekskill, NY (FP, IL, LL, WC)
See advertisement on Cover 3
 Wood, (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group), Grand Junction, CO (ER, SR, UT, VR, WC)

93900 Welding Services—also see Diving Services

A Arc
 AT Automatic Tube & Pipe
 C Canister
 DB Diffusion Bonding
 EM Electromagnetic
 EB Electron Beam
 EX Explosive
 LB Laser Beam
 P Plasma
 RM Remote
 S Stud
 UM Underwater, Manual
 UR Underwater, Remote
 WO Weld Overlays
 WC Weldment Cleaning
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (A, AT, DB, EM, P, RM, S, WO, WC)
 Alaron Nuclear Services, (Veolia ES Alaron, LLC), Wampum, PA (A)
 AVANTech, LLC, Knoxville, TN (A, AT, C, UM)
 AVANTech, LLC, Columbia, SC (A, AT, C, UM)
 BHI Energy, Weymouth, MA (A, WO)
 Day & Zimmermann, Philadelphia, PA (A, AT, WO)
 Dubose National Energy Services, Inc., Clinton, NC (A, C, S, WO)
 Energy and Process Corp., (A Ferguson Sub.), Tucker, GA (WO)
 E.S. Fox Limited, Niagara Falls, Ontario, Canada (A, AT)

Framatome Inc., (North American Headquarters), Lynchburg, VA (A, AT, EM, EB, EX, LB, P, RM, S, UR, WO, WC)
 Fuel Tank Maintenance Co., LLC, Cookeville, TN (A, AT, C, DB, EM, EB, EX, P, S, WO, WC)
 FuseRing Inc., London, Canada (AT)
 Joseph Oat Corp., Camden, NJ (C)
 Liburdi Automation Inc., Dundas, Ontario, Canada (A, AT, P, RM, WO)
 ◆ Major Tool & Machine, Inc., Indianapolis, IN (A, C, LB, P, S, WO)
 PAR Systems, LLC, Shoreview, MN (RM)
 PMT Nuclear, Woodridge, IL (A, S, WO)
 ◆ Precision Custom Components, LLC, York, PA (A, P, RM, S, WO)
 Premier Technology, Inc., Blackfoot, ID (A, AT, C, S, WO)
 PROTEM USA, Evergreen, CO (AT, RM, S, UR)
 Schulz Electric, Timken Power Systems, New Haven, CT (A)
 SKODA JS a.s., Plzen, Bolevec, Czech Republic (A, EM, EB, LB, P)
 Unified Engineering, Hamilton, Ontario, Canada (A, P)
 Wagstaff Applied Technologies, Spokane, WA (A, AT, S, WO, WC)
 Westinghouse Electric Co. LLC, Cranberry Township, PA (A, AT, P, RM, S, UM, UR, WO)

95750 Windows, Radiation-Shielding—also see Maintenance & Repair Services; Shielding Materials

LG Lead Glass
 LP Lead Plastics
 Dufrane Nuclear Shielding Inc., Winsted, CT (LG, LP)
 Hot Cell Services Corp., Kent, WA (LG)
 MarShield Radiation Shielding, (Div. of Mars Metal Co.), Burlington, Ontario, Canada (LG, LP)
 Premier Technology, Inc., Blackfoot, ID (LG)

95850 Wipers, Wiping Cloths—also see Health Physics Equipment & Supplies

C Cotton
 CR Clean Room Laundered
 D Disposable, Soluble
 I Industrial
 LF Lint-Free
 OT Oil-Treated Dusting
 T Tacky

Coastal Network, Inc., Charlottesville, VA (C, OT, T)
 Fhram Safety Products, Inc., Nashville, TN (C, D, I, LF)
 JSM Protective, Inc., Vero Beach, FL (C, CR, I, LF, T)
 Mohawk Safety, Manchester, CT (C, I, LF)
 Protective Plastics, Inc., Greenville, SC (LF, T)
 ◆ UniTech Services Group, Inc., (Div. of UniFirst Corp.), Longmeadow, MA (C, CR, D, I, LF, T)

95900 Wire—also see Cable

CG Commercial Grade Dedication
 IS Insulated, Signal
 SW Insulated, Switchboard
 IT Insulated, Thermocouple
 M Magnet
 MH Magnet, High-Temperature
 MS Metal-Shielded
 NM Nickel, Monel & Nickel-Chromium
 RF Refractory
 RS Resistance
 SP Spring
 SU Superconducting
 T Thermocouple
 C.J. Enterprises, (Div. of C.J. Instruments, Inc.), Tarzana, CA (IS, M, MH)
 Curtiss-Wright Nuclear Division, QualTech NP, Cincinnati, OH (IS, SW, IT)
 Mirion Technologies, Inc., Atlanta, GA (MS, SU, T)
 Schulz Electric, Timken Power Systems, New Haven, CT (M)

96200 Work Platforms

C Cask Servicing
 M Mobile
 S Stationary
 AECON-WACHS, (U.S. Div. of Aecon Nuclear), Jackson, SC (C)
 Curtiss-Wright Nuclear Division, Scientech, Idaho Falls, ID (C)
 Dubose National Energy Services, Inc., Clinton, NC (C, M, S)
 Dufrane Nuclear Shielding Inc., Winsted, CT (C, M, S)
 Framatome Inc., (North American Headquarters), Lynchburg, VA (M, S)
 PD Design Group, LLC, Lake Villa, IL (C, M, S)
 ◆ Petersen Inc., Ogden, UT (S)
 Unified Engineering, Hamilton, Ontario, Canada (C, M, S)

Radwaste Solutions

Next Issue:
Spring 2023

Waste Management and Transportation

Examining the safe management, storage, and treatment of all levels of radioactive waste, along with issues related to shipping nuclear materials.

Advertiser Feature

A copy of this issue will be included in all attendee and exhibitor registration packets at the annual WM2023 Conference in Phoenix.

Ad space deadline:
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Capitol Associates
Constellation Generation
Deltech Kiln and Furnace Design, LLC
Dragons De Veracruz
Gamma Industry Processing Alliance
KeySource Thomas Thor, LLC
Los Alamos National Laboratory
Mega-Tech Services, LLC
Nordion
NRSL-Institute of Nuclear Energy Research
Nuclear Electric Insurance Limited
NuScale Power
Radiation Safety & Control Services, Inc.
Radium Inc.
Reef Industries, Inc.
Silver Fir Software, Inc.
SpectronRX
Technologie Inovaweld Inc.
Terrestrial Energy Inc.
Tokamak Energy Ltd
Transco Products Inc.
U.S. Department of Energy - Idaho Operations Office
WM Symposia, Inc.



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Current Organization Members as of 8/1/22.



This section lists in alphabetical order the companies represented in Section I of the Buyers Guide, “Products, Materials & Services Directory.” Each listing includes the supplier’s location, sales contact (name), telephone numbers, N Stamp information, and code numbers corresponding to the categories under which each company is listed. When provided by the company, email and/or website addresses are also included. An asterisk (*) appearing at the end of the listing indicates that a full-line product, materials, and/or services catalog is available from the supplier. Those suppliers who have an advertisement in *Radwaste Solutions* Buyers Guide 2022 are highlighted in yellow. The “Directory of Suppliers” is divided into two parts: Part 1 lists companies located in the United States; Part 2, companies in other countries (page 126).

Part I—Companies located in the United States

Accelerated Decommissioning Partners - ADP

Dallas, TX | <https://www.adpnuclear.com/>
Curtis Roberts | 202/374-8766
curtis.roberts@orano.group
Codes: 20300, 68000, 87000, 93040

Acromag Inc.

Wixom, MI | www.acromag.com
Karen Haldenwanger | 248/295-0866
khaldenwanger@acromag.com
Stamps: AS9100, ISO9001
Codes: 03200, 09800, 12900, 19700, 25000, 84150*

Adam Brown Consulting, Inc.

Cary, IL
Adam KP Brown | 847/287-2616 | akpbrown@aol.com
Codes: 14000, 40900, 47400, 75190

Advanced Consulting Group, Inc.

Chicago, IL
Tom Litka | 773/481-9500 | advcnsgrp@aol.com
Codes: 03800, 14000, 20300, 72300, 79360, 86300

Advanced Nuclear LLC

East Petersburg, PA | www.advancednuclear.com
James Petrides | 317/947-8167 | 800/487-7255
jpetrides@irexcorp.com
Kevin Fenimore | 706/691-6662 | 800/487-7255
kfenimore@irexcorp.com
Codes: 06790, 11400, 13850, 41200, 74350, 77750

AECON-WACHS (U.S. Div. of Aecon Nuclear)

Jackson, SC | www.aecon-wachs.com
Daniel Kiernan | 704/214-9865
dkiernan@aecon.com
Stamps: 10CFR50, App. B Program, R; ASME, PP, S & U Certification. ASME N, NS, NPT, NA
Codes: 13700, 14300, 26900, 27450, 36000, 59800, 59850, 75700, 86130, 90320, 90600, 90800, 91000, 91380, 92300, 93900, 96200

Aerofin (Sub. of Ampco-Pittsburgh Corp.)

Lynchburg, VA | www.aerofin.com
Dan Posid | 434/582-6220 | 800/237-6346
dposid@aerofin.com
Stamps: N, NPT, NS, S; Classes 2, 3, U, PP, R, Certification by ISO 9001:2000
Codes: 83150, 92300*

AeroGo, Inc.

Seattle, WA | www.aerogo.com
Barb Kiliz | 206/575-3344 | 800/426-4757
info@aerogo.com
Stamps: ASME member; ISO 9001:2015; CE compliant
Codes: 68000

Alaron Nuclear Services (Veolia ES Alaron, LLC)

Wampum, PA | <https://www.nuclearsolutions.veolia.com/en/our-expertise/solutions/low-level-radioactive-materials-processing#no-back>
Don Beal | 724/332-7066
don.beal@alaronnuclear.com
David Garber | 724/535-5777 x224
dave.garber@alaronnuclear.com
Codes: 11400, 14300, 20300, 20350, 25600, 26230, 68000, 68950, 84600, 87000, 93040, 93900*

Alison Control Inc.

Fairfield, NJ | www.alisoncontrol.com
Gene E. Benzenberg | 973/575-7100
alisoncontrol@gmail.com
Codes: 03200, 91260*

Allied Power

Baton Rouge, LA | alliedpwr.com
Ron McCall | 225/412-6455 | ron@alliedpwr.com
Codes: 47400

Alpha Spectra, Inc.

Grand Junction, CO | www.alphaspectra.com
Frank Wilkinson III | 970/243-4477 | 800/231-2545
fjwxtals@alphaspectra.com
Codes: 17950, 21270, 37130, 55040, 55060

AMEASOL - American Measurement Solutions LLC

Santa Fe, NM | www.ameasol.com
Tony Marlow | 505/699-8923
t.marlow@ameasol.com
Codes: 03800, 04000, 12800, 14000, 17950, 20300, 25250, 26080, 26230, 26970, 30500, 40900, 41015, 44000, 68000, 72300, 73620, 75850, 79360, 84600, 86130, 86300, 93040

American Crane & Equipment Corp.

See advertisement on page 77
Douglassville, PA | www.americancrane.com
610/385-6061 | 877/877-6778
info@americancrane.com
Stamps: NQA-1 Compliant; 10CFR50, Appendix B Compliant.
Codes: 14000, 18590, 18600, 40900, 68000, 72300, 86300

The American Society of Mechanical Engineers issues Certificates of Authorization for use of Code Symbol Stamps (e.g., N, NPT, etc.) to qualified manufacturers and assemblers who intend to construct items in accordance with the requirements of the ASME Boiler and Pressure Vessel Code. Descriptions of the applicable Code Symbol Stamps are included in Sections I, III-Subsection NA, IV, VIII-Division 1, VIII-Division 2, and X, together with the requirements applicable to qualified manufacturers and assemblers.

American DND Inc.

See advertisement on page 7

Grand Island, NY | www.americandnd.com

Bill Schaab | 716/699-5515 | 866/699-5515
adnd@americandnd.com

Codes: 06790, 13050, 14000, 18600, 20300, 20350, 25400, 26230, 79360, 93040*

American Integrated Services, Inc.

Anaheim, CA | www.americanintegrated.com

Joe Reilly | 310/935-8736 | 888/423-6060
jreilly@americanintegrated.com

Codes: 20300, 20350, 20700, 93040

Analysis and Measurement Services Corp. (AMS) (Including CHAR Services)

Knoxville, TN | www.ams-corp.com

Darrell Mitchell | 865/691-1756
darrell@ams-corp.com

Ryan O'Hagan | 865/691-1756 | ryan@ams-corp.com

Codes: 03800, 47400, 56600, 84150, 84600, 86300

Anamet (a Div. of Acuren Inspection, Inc.)

Hayward, CA | www.anametinc.com

Kenneth R. Pytlewski | 510/887-8811 | 800/377-7768
ken@anametinc.com

Dilip Bhandarkar | 510/887-8811 | 800/377-7768
dilip@anametinc.com

Stamps: Nuclear Industry Assessment Committee Approved (NIAC), ISO 17025:2005 American Association for Laboratory Accreditation (A2LA).

Codes: 03800, 14000, 40900, 84600

F.N. Anderson & Assoc.

Forest, VA | www.fnaai.com

Floyd N. Anderson | 434/258-3380
andersonfn@aol.com

Codes: 03800, 14000, 14300, 25400, 77800, 86300

Anvil International, LLC

North Kingstown, RI | www.anvilintl.com

Grant Nelson | 207/985-7550
gnelson@anvilintl.com

Stamps: ASME NPT & NS, NQA-1, ISO 9001:2015

Codes: 03800, 14000, 60100*

Applied Analysis Corp.

Reading, PA | www.applied-analysis.com

Juan Cajigas | 610/775-0272

jmcajigas@applied-analysis.com

Stamps: Nuclear Quality Assurance Program, 10CFR50 App.B, 10CFR21, ANSI N45.2, and ASME NQA-1

Codes: 03800, 12800, 14000, 25400, 37200, 40900, 77750, 86300

Applied Science Professionals, LLC (ASP-LLC)

Salt Lake City, UT | www.asp-llc.com

Gary M. Sandquist | 801/209-9681
gms@asp-llc.com

Stamps: Certified Health Physicist (ABHP), Certified Quality Auditor (ASQ), PE in Nuclear and Mechanical Engineering, SE in Structural Engineering

Codes: 03800, 67380, 86300

ARES Security Corp.

Vienna, VA | <https://aressecuritycorp.com/>

Jim Raines | 630/956-0519
jraines@aressecuritycorp.com

Codes: 12800, 14000, 25300, 40900, 47600, 55040, 67380, 72300, 73620, 75600, 75850, 86300, 86500

Argonne National Laboratory (Decommissioning Training), (EOF Div.)

See advertisement on page 100

Argonne, IL | <https://www.anl.gov/eof/facility-decommissioning-training-course>

Larry Boing | 630/252-6729 | lboing@anl.gov

Codes: 20300, 86300

Arkema Inc. (formerly ATOFINA Chemicals, Inc.)

King of Prussia, PA | www.arkema-americas.com

610/205-7000 | 800/225-7788

arkema.usph-general@arkema-americas.com

Codes: 11400, 17650, 20350, 27450

Askew Power Generation

Santa Fe Springs, CA | www.askewpowergen.com

Chad Stephens | 251/581-3855
cstephens@askewpowergen.com

Stamps: 10CFR50 App. B; 10CFR Part 21; NQA-1 2008 Edition, 2009 Addenda NCA-3800; ASME Sections II and III; ANSI/ASME N45.2.23; NIAC Audited

Codes: 47400

ASQ Energy & Environmental Division

Milwaukee, WI | <https://my.asq.org/communities/home/159>

Karen M. Douglas | 505/263-3297
douglaskm@alumni.stanford.edu

Stamps: ASME NQA-1 Quality Assurance Requirements for Nuclear Facility Applications

Codes: 86500

ATS Industrial Automation, Inc. - Nuclear (USA) (ATS Ohio, Inc.)

Lewis Center, OH | <https://atsautomation.com/nuclear>

Vito Bagdonavicius | 609/864-9662
vbagdonavicius@atsautomation.com

Stamps: Certifications for Ohio, US facilities: ISO-9001:2015; Certifications for Cambridge, Canada facilities: ASME NQA-1; 10CFR50 App. B; 10CFR21 Program; CSA N285.0; CSA N286; CSA N299; CSA B51; ASME B31.1; ASME B31.3; ISO-9001:2015; ISO-13485:2016

Codes: 10780, 12800, 14000, 20300, 30500, 40900, 47400, 47600, 59850, 68000, 68950, 72300, 73620, 79360, 86130

Attention IT, Inc.

See advertisement on page 68

Knoxville, TN | www.attentionit.com

Jeanice Pratt | 865/769-8888 x400 | 888/428-8648
jeanice@attentionit.com

Codes: 03800, 06950, 12800, 14000

Attenuation Environmental Co.

Seattle, WA | www.attenuation.us.com

Doris Minor | 206/783-3208

doris@attenuation.us.com

Codes: 03800, 14000, 37200, 93040

The Austin Company

Cleveland, OH | www.theaustin.com

Eric Bockmuller | 440/544-2663

eric.bockmuller@theaustin.com

Codes: 12800, 13850, 14000

Automation Products, Inc. (Dynatrol® Div.)

Houston, TX | www.dynatrolusa.com

Factory Sales Dept. | 713/869-0361 | 800/231-2062
sales@dynatrolusa.com

Codes: 04000, 25000, 40050, 54750*

AVANTech, LLC

Knoxville, TN | www.avantechllc.com

Larry Beets | 865/539-9000

lbeets@avantechinc.com

Stamps: ASME U Code Stamp, National Board of Boiler and Pressure Vessel Inspectors R and NB, UL Approved, NQA-1

Codes: 04000, 08800, 09950, 10780, 12800, 12900, 13600, 14000, 14300, 19700, 20300, 22410, 22700, 24170, 25250, 25400, 25600, 26240, 27180, 27450, 41700, 47400, 53950, 54750, 55040, 59800, 63400, 64750, 68000, 73620, 74150, 75850, 77800, 79370, 83150, 83600, 84600, 86300, 87000, 91260, 92300, 93040, 93900

AVANTech, LLC

Columbia, SC | www.avantechllc.com
 Jim Braun | 803/407-7171 | jb Braun@avantechllc.com
 Gary Benda | 803/317-1116
gbenda@avantechllc.com

Stamps: ASME U Code Stamp, National Board of Boiler and Pressure Vessel Inspectors R and NB, UL Approved, NQA-1

Codes: 04000, 08800, 09950, 10780, 12800, 12900, 13600, 14000, 14300, 19700, 20300, 22410, 22700, 24170, 25250, 25400, 25600, 26240, 27180, 27450, 41700, 47400, 53950, 54750, 55040, 59800, 63400, 64750, 68000, 73620, 74150, 75850, 77800, 79370, 83150, 83600, 84600, 86300, 87000, 91260, 92300, 93040, 93900

AZIsotopes

Bunker Hill, IN
 Clyde Jupiter | 801/381-7949
cjupiter@azisocorp.com
 W. Brandt Brooksby | 503/753-9100
bbrooksby@azisocorp.com
Codes: 68950

Bakelite Synthetics

Louisville, KY | www.bakelite.com
 Product Information | +49 2374 925467
information@clldmarcomm.com
Codes: 00300, 11400, 14000, 17650

Banda Group International, LLC

See advertisement on page 19
 Mesa, AZ | www.bandagroupintl.com
 Karol-Lynn Reed | 505.350.0189
karol-lynn.reed@bandagroupintl.com
Codes: 12800, 25400, 26100

Barge Design Solutions

Nashville, TN | www.bargedesign.com/
 Carrie Stokes | 615/254-1500
Codes: 13850

Barnhart Nuclear Services

Fairhope, AL | www.barnhartcrane.com
 Jim Faux | 901/233-3804 | 800/587-3249
jfaux@barnhartcrane.com
Codes: 13850, 14000, 18600, 20300, 26240, 47400, 73570, 81680, 86260, 87000*

Basic PSA (Anvil International, LLC)

Johnstown, PA | <https://www.anvilintl.com/services/field-services-support-services>
 Grant Nelson | 207/251-6004
gnelson@anvilintl.com

Stamps: ASME NS - Class 1, 2, 3 & MC fabrication without design responsibility and with design responsibility for supports and as a Material Organization supplying ferrous & nonferrous material. ASME NPT - Class 1, 2, 3 & MC fabrication with design responsibility and fabrication with design responsibility for Class 1, 2, 3 & MC supports (supports limited to the 1998 edition, 1998 addenda and earlier editions and addenda of the Code) and as a Material Organization supplying ferrous material.

Codes: 40900, 84600

Bechtel Nuclear, Security & Environmental

See advertisement on page 18
 Reston, VA | www.bechtel.com
 Tim Carraway | 703/429-6275
tacarraw@bechtel.com
Codes: 14000, 20300

Berkeley Nucleonics Corp.

San Rafael, CA | www.berkeleynucleonics.com
 Bernadette Jamieson | 415/453-9955 | 800/234-7858
bernadette@berkeleynucleonics.com
Codes: 09800, 37200, 41000

Bevelacqua Resources

Richland, WA | www.bevelacquaresources.com
 Dr. Joseph Bevelacqua | 509/628-2240
bevelresou@aol.com

Stamps: American Board of Health Physics Comprehensive Health Physics Certification, Senior Reactor Operator Certification - PWR Certified Radiological Shielding Engineer, Registered Radiation Protection Technologist

Codes: 03800, 12800, 14000, 17950, 20300, 37200, 86300, 86500*

BHI Energy

Weymouth, MA | www.bhienergy.com
 Varesha Mauney | 508/591-1149 | 800/225-0385 x1149
marketing@bhienergy.com
 Butch Smith | 803/226-0330
butch.smith@bhienergy.com
Codes: 03000, 10780, 11400, 13050, 14000, 20300, 20350, 25250, 25300, 25400, 26100, 26230, 27450, 37130, 37200, 47400, 67380, 74350, 75600, 77750, 86300, 90250, 91260, 93040, 93900*

Bigge Power Constructors (Affl. of Bigge Crane and Rigging Co.)

San Leandro, CA | www.bigge.com
 Gedge Knopf | 510/638-8100 | 888/337-BIGGE
gknopf@bigge.com
 John Simpson | 510/760-9839 | 888/337-BIGGE
jsimpson@bigge.com
Codes: 13850, 14000, 18600, 20300, 73570, 87000

BIRNS, Inc.

Oxnard, CA | www.birns.com
 Eric F. Birns | 805/830-5885 | 888/247-6788
service@birns.com
 Laura Powell | 805/830-5869 | 888/247-6788
lpowell@birns.com
Stamps: ISO 9001:2015; Quality System also complies to the requirements of NRC 10CFR50, App. B
Codes: 45550

Black & Veatch

Overland Park, KS | www.bv.com
 Mark Gake | 913/458-7909 | gakema@bv.com
Codes: 03800, 12800, 13850, 14000, 20300, 40700, 40900, 47400, 63400, 71190, 77750, 86300

BNL Industries, Inc.

Vernon Rockville, CT | www.bnl.com
 Christopher Bain | 860/870-6222
christopher.bain@bnl.com
Stamps: N, NPT, Classes 1, 2, 3.
Codes: 90330, 90600, 91260, 91380

Boston Government Services, LLC (BGS)

Oak Ridge, TN | www.bgs-llc.com
 Karen Harris | 865/272-8400 | 865/730-7353
kharris@bgs-llc.com
Codes: 03800, 12800, 13850, 14000, 20300, 25400, 40900, 68000, 71190, 75600, 86300, 86500

Brokk Inc.

See advertisement on page 71
 Santa Fe, NM | www.brokkinc.com
 Tony Marlow | 505/466-3614 | 800/621-7856
tony@brokkinc.com
Stamps: Certification by ISO 9001.
Codes: 13050, 20300, 20350, 26230, 59850, 68000, 72300, 73620*

Burns & McDonnell

Kansas City, MO | www.burnsmcd.com/nuclear
 Glenn Neises | 816/822-3388
gneises@burnsmcd.com
Stamps: 10CFR50 App. B/NQA-1 QA Program
Codes: 03800, 13850, 14000, 20300, 59800, 59850, 75600, 86300, 93040

Cabrera Services Inc.

East Hartford, CT | www.cabreraseservices.com
 Shannan Ryll | 860/569-0095
sryll@cabreraseservices.com

Codes: 03800, 09750, 09800, 14000, 20300, 25250, 26080, 26100, 37200, 41000, 44000, 67380, 86300, 93040

Carignan & Associates LLC

Chattanooga, TN | carignanllc.com
 Joe Carignan | 423/596-5079 | jecarignan@aol.com
Codes: 14000, 20300, 86300

CBS Nuclear Services, Inc.

Matthews, NC | www.cbsnuclear.com
 Scott Peterson | 704/882-1875
speterson@cbsnuclear.com
Codes: 14000, 47400, 84150, 84600

Central Research Laboratories

Red Wing, MN | www.crlsolutions.com
 Rob Weber | 651/385-2133 | info@crlsolutions.com
Codes: 20300, 27180, 47600, 68000, 72300*

CFM/VR-TESCO, LLC Continental Field Machining

Elgin, IL | www.globalfield.net
 Stephen Mondrowski | 847/501-0224 | 800/323-1393
smondrowski@globalfield.net
Stamps: NR, P, PP, S, U & 10CFR50 App. B Program
Codes: 47400, 54750, 59850, 91000, 91260, 91380

CHP Consultants/Counts.Pro

Oak Ridge, TN | www.chpconsultants.com,
www.counts.pro
 Robert Gunter | 866/766-4833
rjgunter@chpconsultants.com
Stamps: Refurbished radiation detection equipment, Counts.Pro Instrumentation upgrades to log and record survey meter response. Health Physics consulting services.
Codes: 12800, 12900, 14000, 19700, 20000, 26230, 37200, 40700, 47620, 67380, 71190, 75700, 77800, 79700

C.J. Enterprises (Div. of C.J. Instruments, Inc.)

Tarzana, CA
 Marshall Cantor | 818/996-4131
cjstruments@aol.com
Codes: 08800, 41200, 91260, 95900

CM Technologies Corp.

Coraopolis, PA | www.ecadusa.com
 Greg Allan | 412/262-0734 | greg.allan@ecadusa.com
Codes: 08800, 09750, 12800, 54750, 84150, 84600, 86300

Coastal Network, Inc.

Charlottesville, VA | www.nuclearsupply.com
 Michael O. Moyles | 434/978-1204
coanetinc@aol.com

Codes: 10850, 10900, 14300, 20350, 37130, 47630, 55040, 55060, 73300, 83110, 83210, 90100, 95850*

Coastel Cable Tools, Inc.

East Syracuse, NY | www.coasteltools.com
 John F. Lumia | 315/474-4707
john@coasteltools.com
Codes: 08800, 09750, 09800, 12800, 86130

Cobalt Audio Video (A div. of Comtronics)

Lexington, KY | <https://www.cobaltav.com>
 David Fried | 859/299-9494 | 800/264-6021
david.fried@comtronicsnow.com
Codes: 11650

Computer Engineering Services, Inc.

Chattanooga, TN | www.ces-chatt.com
 Ben Martin | 423/265-0607 | bmartin@ces-chatt.com
Codes: 12800, 14000

Comtronics

Lexington, KY | <https://www.comtronicsnow.com>
 David Fried | 859/299-9494 | 800/264-6021
david.fried@comtronicsnow.com
Codes: 11650

Confidential Services, Inc.

South Haven, MI
 Beth Warsco | 269/637-8451 | 800/798-1834
bwarsco@csish.com
Codes: 75600

Consolidated Power Supply (Div. of Consolidated Pipe & Supply Co., Inc.)

Birmingham, AL | www.consolidatedpower.com
 Ray Troxell | 205/655-5515 | 800/264-5515
sales@consolidatedpower.com
Stamps: ASME (MS), QSC 515, Classes 1, 2, 3, MC, NF. ASME N-3341
Codes: 11400, 13700, 14000, 14300, 26900, 27450, 37600, 41200, 56600, 59800, 61570, 90330, 90600, 90800, 91000, 91260, 91380, 92300*

Container Products Corp.

Wilmington, NC | www.c-p-c.net
 Katie Fletcher | 910/392-6100 | 800/635-5647
sales@c-p-c.com
Stamps: CE, GOST-R, NQA1, PE
Codes: 10780, 11700, 14000, 14300, 20350, 68000*

Container Technologies Industries, LLC

See advertisement on page 74
 Helenwood, TN | www.containertechnologies.com
 General | 423/569-2800 | sales@ctifab.com
Codes: 03800, 10780, 13700, 14300, 75700, 83150

Conval, Inc.

Enfield, CT | www.conval.com
 Don Bowers | 860/749-0761 | dbowers@conval.com
Stamps: Certification by ISO 9001. ASME N Stamp Section III, Class 1, 2 and 3; NPT Stamp; European PED; Indian IBR
Codes: 90250*

Cortec Corporation

Saint Paul, MN | www.cortecvci.com
 Cliff Cracauer | 651/429-1100
productinfo@cortecvci.com
Codes: 11400, 14000, 17650, 47400

Cragg Consulting

Grapevine, TX
 Chris Cragg | 682/223-1150 | chriscragg@gmail.com
Codes: 12800, 14000

CS-2 Inc.

Grand Island, NY | www.cscs-i.com
 Bill Schaab | 716/699-5515 | 866/699-5515
cs2@cscs-i.com
Codes: 03800, 06790, 14000, 20300, 25400, 40900, 93040*

CTR Technical Services, Inc.

Manitou Springs, CO | www.ctr-tech.com
 Charles T. Rombough | 719/685-3805
ctr@ctr-tech.com
Stamps: Certification by 10CFR50, 10CFR21.
Codes: 03800, 12800, 14000, 86300

Curie Environmental Services

Albuquerque, NM | www.curieservices.com
 Scott Logan | 505/888-9392
scott.logan@curieservices.com
Codes: 03800, 68950, 93040

Curtiss-Wright EST Group

Hatfield, PA | www.cw-estgroup.com
 Fritz Sutor | 215/721-1100 | 800/355-7044
fsutor@curtisswright.com
 David Kronen | 267/903-5593 | 800/355-7044
est-sales@curtisswright.com
Stamps: NUPIC Listed; ISO 9001:2015 Registered. ASME PCC-2
Codes: 26230, 47400, 61570, 84600*

Curtiss-Wright Nuclear Division, Anatec

Brea, CA | www.cwnuclear.com
 Fred Hall | 320/316-3531 | fhall@curtisswright.com
Codes: 56600, 73620, 84150, 84600, 86300

Curtiss-Wright Nuclear Division, AP Services

Middleburg Heights, OH | www.cwnuclear.com
 Mike Sheehan | 724/295-6200
cwnuclear@curtisswright.com
Codes: 14000, 75190, 90280, 90330

Curtiss-Wright Nuclear Division, Energetech

Brea, CA | www.cwnuclear.com
 John Knezevic | 714/982-1927
jknezevic@curtisswright.com
Stamps: N, Classes 1, 2, 3 Valves, NPT, Classes 1, 2, 3, Valves & Appurtenances & Component Supports; NV Classes 1, 2, 3; NU; NA.
Codes: 03800, 09800, 14000, 75190, 90600, 90800, 91000, 91380*

Curtiss-Wright Nuclear Division, LMT

Hutchinson, MN | www.cwnuclear.com
 Fred Hall | 320/316-3531 | fhall@curtisswright.com
Codes: 56600, 84150, 84600, 86300

Curtiss-Wright Nuclear Division, NETCO

Danbury, CT | www.cwnuclear.com
 Scot Leuenroth | 203/448-3310
sleuenroth@curtisswright.com
Codes: 03800, 12800, 14000, 14300, 81680, 84600, 86300

Curtiss-Wright Nuclear Division, Nova

Middleburg Heights, OH | www.cwnuclear.com
 Mike Rea | 216/898-8017 | mrea@curtisswright.com
Stamps: 10CFR50 App. B; 10CFR21; ASME NQA-1; ASME Section III Class 1, 2, 3, CS and MC/MO; ANSI N45.2; CSA Z299.1, Z299.4 (Canada); ISO 9001:2008; ISO 17025:2005; EPRI NP-5652, TR-102260 & TR-017218- R1; MIL-I-45208, MIL-STD-45662, MIL-STD-271
Codes: 13700, 14000, 26900, 39650, 47400, 60100, 61570, 64750, 86130*

Curtiss-Wright Nuclear Division, QualTech NP

Cincinnati, OH | www.cwnuclear.com
 Darryl Deist | 931/759-4237
ddeist@curtisswright.com
Stamps: ASME N, NA & NPT, Classes 1, 2, 3 & MC.
Codes: 03000, 03800, 06950, 08800, 13400, 14000, 18600, 19450, 21400, 22200, 25000, 26080, 26910, 26970, 27450, 37600, 40050, 40900, 45550, 47400, 56600, 60100, 63400, 75190, 75700, 76400, 83150, 83210, 84600, 86130, 86300, 90600, 90800, 91000, 91380, 92300, 95900*

Curtiss-Wright Nuclear Division, Scientech

Idaho Falls, ID | www.cwnuclear.com
 Jenn Sinkiewicz | 714/982-1840
jsinkiewicz@curtisswright.com
Stamps: ASME Stamps/Symbols - CSA and TSSA
Codes: 03180, 03800, 04000, 12800, 12900, 14000, 19700, 26240, 30040, 30500, 40700, 47400, 53950, 54750, 61570, 63400, 66280, 67380, 71190, 72300, 74320, 75190, 75600, 75850, 76400, 77750, 77800, 79360, 81680, 81710, 84600, 86130, 86300, 96200*

Day & Zimmermann

Philadelphia, PA | www.dayzim.com
 Joe Bugica | 980/215-4566 | joe.bugica@dayzim.com
Stamps: S, R, PP, VR.
Codes: 10780, 20300, 47400, 56600, 84600, 92800, 93040, 93900

DC Fabricators Inc.

Florence, NJ | www.dcfab.com
 Derrick Phillips | 609/499-3000 x225
dphillips@dcfab.com
 Christina Domansky | 609/499-3000 x244 | cdomansky@dcfab.com
Stamps: ASME Section VIII Division 1 (U), ASME Section III, TEMA Standards
Codes: 03000, 37600

DCS Systems, Inc.

Simsbury, CT
 George D. Dooley | 860/651-0218
gddooley@dcssystem.com
Codes: 03800, 14000, 25400, 40900, 86300

Deep Isolation

Berkeley, CA | www.deepisolation.com
 415/915-6505 | info@deepisolation.com
Codes: 68000, 93040

Del Mar Avionics (Hydra Set Div.)

Irvine, CA | www.dma.com
 Jim Singley | 949/623-1202 | jsingley@dma.com
Stamps: ISO 9001:2015
Codes: 18600

The Delphi Groupe, Inc.

Austin, TX | www.delphigroupe.com
 R. D. Gauny | 512/462-1181
rdgauny@delphigroupe.com
Codes: 03800, 14000, 20300, 20350, 25400, 37200, 40900, 71190, 86300, 93040

Deltech Kiln and Furnace Design, LLC

Denver, CO | www.dkfdllc.com
 Mary Stevenson | 303/645-3936 | mary@dkfdllc.com
 J.J. Stevenson | 303/645-3935 | jj@dkfdllc.com
Stamps: ISO 9001:2015 certified; NQA-1 program under development
Codes: 68000

Desco Mfg. Co., Inc.

Rancho Santa Margarita, CA | www.descomfg.com
 Tom Sistrunk | 949/858-7400 | 800/337-2648
tsistrunk@descomfg.com
Codes: 10780, 86130, 90100*

Deytec, Inc.

Ashburn, VA | www.deytecinc.com
 Dr. Monideep Dey | 703/729-1687
deytec@frontiernet.net
Codes: 03800, 12800, 14000, 86300, 86500*

DFT Inc.

Exton, PA | www.dft-valves.com
 Jeff Kane | 610/363-8903 | 800/206-4013
jkane@dft-valves.com
 DFT Sales | 610/363-8903 | 800/206-4013
dft@dft-valves.com
Codes: 90600, 90800*

DimEye Corp.

Calabasas, CA | www.dimeye.com
 Arnauld Dumont | 818/225-1626
arnauld@dimeye.com
Codes: 39960, 40900, 92800

Dominion Engineering, Inc.

Reston, VA | www.domeng.com
 Dale Vines | 225/305-3428 | dvines@domeng.com
Codes: 03800, 10780, 14000, 20350, 27450, 54750, 68000, 93040

Dragon Valves, Inc.

Norwalk, CA | www.dragonvalves.com
 C. R. Bond | 562/921-6605 | 800/966-4007
info@dragonvalves.com
Stamps: NUPIC Audited ASME NQA -1 and 10CFR50 App. B Program. ASME N Stamp Certification still available.
Codes: 90250, 90600, 90800, 91260*

Dubose National Energy Services, Inc.

Clinton, NC | <https://www.dubosenes.com/>
 Beau Laslo | 910/590-2151
beau.laslo@dubosenes.com
Stamps: ASME NA, ASME NS, ASME NPT, ASME U, NBBI R, AISC, AWS
Codes: 13700, 14300, 26900, 37600, 56600, 59800, 59850, 60100, 61570, 66280, 83150, 92300, 93900, 96200*

Dufrane Nuclear Shielding Inc.

Winsted, CT | www.dufrane.com
 Dan Brooks | 860/379-2318 | dbrooks@dufrane.com
 Tim Tarbox | 479/886-0345 | tarbox@dufrane.com
Stamps: ISO 9001 (2008) Certification; NQA - 1 Compliant.

Codes: 03800, 09950, 11650, 13050, 13700, 13850, 14000, 14300, 20300, 37130, 37200, 47400, 55490, 68000, 73570, 75700, 77750, 77800, 87000, 95750, 96200*

DW James Consulting

North Oaks, MN | www.dwjames.com
 Tom Kalinowski | 651/482-7556
tkalinowski@dwjames.com
Codes: 14000, 20300, 37200, 68000, 86300, 93040

Ebersen, Inc.

Minneapolis, MN
 Chidi N. Anunka | 763/572-2661 eberson@att.net
Codes: 12800, 14000, 87000

Eckert & Ziegler Analytics

Atlanta, GA | https://www.ezag.com/home/products/isotope_products/isotrak_calibration_sources/
 Doreen McBride | 404/352-8677
isotrakusa@ezag.com
Stamps: ISO 17025, 9001 and 17043
Codes: 68950*

EFCO USA, Inc.

Charlotte, NC | www.efcousa.com
 Christian Mossberg | 704/943-1027 | 800/EFCO-USA
sales@efcousa.com
Codes: 00300, 26230, 37600, 84150, 86300, 90320*

E. H. Wachs

Lincolnshire, IL | www.ehwachs.com
 Ron Rohrbacher | 847/537-8800 | 800/323-8185
rrohbach@ehwachs.com
Codes: 20300, 90100*

Elcometer Education Institute

Warren, MI | www.elcometeredu.com/
 Deb Piatt | 248/650-0500
training@elcometerusa.com
Codes: 86300, 86400, 86500

Elcometer Inc.

Warren, MI | www.elcometerusa.com
 Sunny Nietubicz | 248/650-0500 | 800/521-0635
sales@elcometerusa.com
Stamps: Certification by ISO 9001:2015, ISO/IEC 17025:2017
Codes: 03800, 04000, 10850, 10900, 26080, 56600, 84150*

Electric Motor and Contracting Company Inc.

Chesapeake, VA | www.emc-co.com
 Thad Redmond | 757/487-2121 | 800/655-1195
thad.redmond@emc-co.com
Codes: 03800, 11400

Electro Static Technology

Mechanic Falls, ME | www.est-aegis.com
 Sunshine Spaulding | 207/998-1222 | 866/738-1857
sunshine.spaulding@est-aegis.com
 Karen Fowler | 207/998-1226 | 866/738-1857
karen.fowler@est-aegis.com
Codes: 47400, 64700, 75190

Ellis & Watts Global Industries, Inc.

Batavia, OH | www.elliswatts.com
 Jacob Bolden | 513/943-3327
jbalden@elliswatts.com
Stamps: ASME B&PV Code Section III, Division 1, Class 2 & 3: N Stamp, NA Stamp, NS Stamp, NPT Stamp; ASME B&PV Code Section VIII, Division 1: U Stamp, UM Stamp; ASME NQA-1; ASME AG-1; IEEE Class 1E; CE Certificate (European Pressure Equipment); CRN Registered (Canada)
Codes: 00400, 03000, 14000, 19450, 27180, 27450, 32250, 37600, 39650, 71500, 77750, 84600, 90250, 92300

Empyrean Services

Sewickley, PA | www.empyreanonline.com
 Darrell Williams | 412/923-4050
dwilliams@empyreanonline.com
Codes: 14000

Encorus Group (dba RJR Engineering, P.C.)

Springville, NY | www.encorus.com
 Kevin Opp | 716/592-3980 | kopp@encorus.com
Stamps: NQA-1
Codes: 20300, 26100, 47600, 53950, 74320, 77750, 86130, 93040

Enercon Services, Inc. (Talisman Div.)

Kennesaw, GA | www.enercon.com
 Thomas Magette | 410/353-0427
tmagette@enercon.com
Codes: 03800, 14000, 14300, 20300, 75600, 75850

Energy and Process Corp. (A Ferguson Sub.)

Tucker, GA | www.energyandprocess.com
 Mark Capallo | 770/934-3101 | 800/241-9460
mark.capallo@energyandprocess.com
Stamps: QSC-332, MO, Classes 1, 2, 3, MC.
Codes: 13700, 14300, 26900, 56600, 59800, 60100, 61570, 83150, 92300, 93900

Energy Resources International Inc.

Washington, DC | www.energyresources.com
 Eileen M. Supko | 703/627-5934
supko@energyresources.com
Codes: 03800, 12800, 14000

EnergySolutions LLC

See advertisement on pages 4-5
 Salt Lake City, UT | www.energysolutions.com
 Mark Walker | 801/649-2000 | mwalker@energysolutions.com
Stamps: ASME NQA-1-Quality Assurance Requirements for Nuclear Facility Applications-2000, ASME AG-1-Code on Nuclear Air and Gas Treatment, ASME Boiler and Pressure Vessel Code, ICBO-Uniform Building Code (UBC)-1997, ASME B31.1-Power Plant Piping, ASME B31.3-Chemical Plant and Petroleum Refinery Piping, AISC Manual of Steel Construction-Allowable Stress Design, ASCE 4-Seismic Analysis of Safety-Related Nuclear Structures and Commentary, ASCE 7-Minimum Design Loads for Building and Other Structures, NFPA 70-National Electric Code (NEC), AWS D1.1-Structural Welding Code-Steel, AWS D1.2-Structural Welding Code- Aluminum, AWS D1.3- Structural Welding Code-Sheet Steel, AWS D1.6-Structural Welding Code-Stainless Steel, WRC 107- Local Stresses in Spherical and Cylindrical shells due to external loadings, WRC 297-Local Stresses in Cylindrical shells due to external loadings.
Codes: 03800, 04000, 09800, 09950, 10780, 10850, 14300, 17950, 20300, 20350, 26230, 27450, 30040, 30500, 37200, 41000, 44000, 68000, 77800, 79360, 86300, 87000, 93040

Energy, Technology and Environmental Business Association

Oak Ridge, TN | www.eteba.org
 Terri Reedy | 865/643-2302
terri@eteba.org
Codes: 14000, 86300, 93040

Engineered Rigging

Russellville, AR | www.engineerdrigging.com
 Christopher Cox | 219/712-4579 | 844/474-4448
ccox@engineerdrigging.com
Codes: 13850, 14000, 18600, 25400, 26230

Engineered Rigging

Valparaiso, IN | www.engineerdrigging.com
 Christopher Cox | 844/474-4448
ccox@engineerdrigging.com
Codes: 13850, 14000, 18600, 25400, 26230, 47400, 73570

Engineering Planning and Management, Inc.

Framingham, MA | www.epm-inc.com
 Robert Kalantari | 508/532-7128 | 800/437-6462
rbk@epm-inc.com
Codes: 03800, 12800, 14000, 71190, 86300

Environmental Alternatives, Inc.Swanzey, NH | www.eai-inc.comRandy Martin | 603/352-3888 | rmartin@eai-inc.com**Codes:** 10780, 14000, 20300, 20350, 37130, 68000, 93040**Environmental Restoration Group, Inc.**Albuquerque, NM | www.ergoffice.comChuck Farr | 505/298-4224 | chuckfarr@ergoffice.com**Codes:** 09800, 14000, 17950, 20300, 25250, 26080, 26100, 26230, 37130, 37200, 55040**ETAP - Operation Technology, Inc.**Irvine, CA | etap.comMary J. Beal | 949/900-1000 | sales@etap.com**Stamps:** United States Code (U.S.C.) Title 10CFR50, App. B United States Code (U.S.C.) Title 10CFR21; ANSI/ASME N45.2-1977; ASME NQA-1 (Includes Subpart 2.7); ISO 9001:2008 Registered Certification Number 10002889 QM08; ANSI/IEEE Std 730.1-1995 CAN/CSA-Q 396.1.2-1989; ANSI N45.2.2-1972**Codes:** 03800, 12800***EXCEL Services Corporation**Rockville, MD | www.excelservices.com

Donald R. Hoffman | 301/984-4400

donald.hoffman@excelservices.com**Codes:** 03800, 14000, 20300, 25400, 41000, 47400, 75600, 86300***Exelon PowerLabs**Coatesville, PA | www.exelonpowerlabs.com

Daniel Doran | 610/380-2475

daniel.doran@exeloncorp.com**Stamps:** ISO 17025.2020; ANSI/NCSL Z540.3; ANSI N45.2; 10CFR50 App. B; 10CFR21**Codes:** 03800, 09750, 09800, 37200, 40050, 41000, 44000, 45550, 84600***FCI-Fluid Components International LLC**San Marcos, CA | www.fluidcomponents.com/nuclear

Randy Brown | 760/744-6950

fcimarcom@fluidcomponents.com**Stamps:** Nuclear Safety Class 1E Supplier Since 1978; EMC and Electrical Safety per USNRC RG 1.180, EN 61000-6-4/2, EN 610101-1; ISO 9001 Certified, NUPIC Approved, HAF 604 Certified; QA in Accordance with 10CFR50 App. B, ANSI N45.2, ASME NQA-1; Item Dedication Program; ASME Section III, Class 1, 2, 3 (N-Stamp) Instruments**Codes:** 03200, 09800, 17950, 32250, 40050, 54750***Five Star Products, Inc.**Shelton, CT | fivestarpowerproducts.com

Crysta Abell | 203/336-7941 | 800/243-2206

abellc@fivestarpowerproducts.com**Codes:** 36900, 47400***F&J SPECIALTY PRODUCTS, INC.**Ocala, FL | www.fjspecialty.com

Sales Coordinator | 352/680-1177/1178

800/832-5037 | fandj@fjspecialty.com**Codes:** 09800, 27450, 55040, 74150***Framatome Inc. (North American Headquarters)**Lynchburg, VA | www.framatome.com

Donna Gaddy-Bowen | 434/832-3702

donna.gaddybowen@framatome.com**Stamps:** ASME III N, NPT Stp.; ASME I S Stp.; ASME VIII Div. 1 U Stp.; Nat'l. Brd. Nuclear Cmpnts., Mod/Repl/Repair NR Stp. & Pressure Retng. Items Repair/Alter R Stp.; N, NR, NPT, ISO 9001.**Codes:** 00400, 03000, 03200, 03800, 04000, 08800, 09730, 09750, 09800, 10780, 11400, 11700, 12800, 12900, 13400, 14000, 14300, 18600, 19700, 20350, 21320, 21400, 22410, 25000, 25250, 25350, 25400, 26100, 26230, 26900, 26970, 27450, 30040, 30500, 32250, 37130, 37200, 37600, 39960, 40050, 40900, 41000, 41700, 45550, 47400, 47600, 53950, 54750, 55040, 55060, 55490, 56600, 58000, 59800, 59850, 61570, 64700, 66280, 68950, 71190, 72300, 73300, 73550, 73620, 74150, 74320, 75190, 75600, 75850, 76400, 77600, 77750, 77800, 81680, 83150, 83600, 84150, 84600, 86130, 86250, 86260, 86300, 86400, 86500, 87000, 90250, 90280, 90320, 90600, 90800, 91000, 91260, 91380, 92300, 92800, 93900, 96200***Free Form Fibers**Saratoga Springs, NY | <https://fffibers.com/>Jeff Vervlied | 215/768-4076 | jvervlied@fffibers.com**Codes:** 00300, 55490, 77800**Frham Safety Products, Inc.**Nashville, TN | www.frhamsafety.com

Fred Nance | 615/254-0841

fnance@frhamsafety.comTrip McGarity | 803/366-5131 | trip@frhamsafety.com**Codes:** 03000, 10780, 10850, 10900, 11400, 11650, 25250, 26080, 26100, 26600, 27450, 36000, 37130, 37160, 68000, 73550, 77800, 79370, 83110, 83210, 95850***Fronek - Anchor Darling Enterprises, Inc. (Sub. of Piping Technology & Products, Inc.)**Laconia, NH | www.fronekgrp.com

Walter Paszul | 603/528-1931

walter@fronekgrp.com**Stamps:** ASME NS, Class 1, 2 3; 10CFR50 App. B; ANSI N45.2**Codes:** 60100**Frontier Technology Corp.**Xenia, OH | www.frontier-cf252.com

Trevia Janzow | 937/376-5691

t.janzow@frontier-cf252.com**Codes:** 14300, 25600, 68950, 77800***Fuel Tank Maintenance Co., LLC**Cookeville, TN | www.fueltankmaintenance.com

Jerry Hahn | 615/355-5636 | 800/742-2417

jthahnjr@hotmail.com**Stamps:** SSPC, QP1, QP2; NACE Level 1, Level 2. 10CFR 50 Appendix B and NQA-1 Certifications.**Codes:** 03800, 06790, 11400, 13050, 14000, 17650, 20300, 20350, 25400, 30500, 40900, 47400, 56600, 75700, 75850, 83150, 84600, 92300, 93040, 93900**Full On Communications**Woodstock, VT | www.fulloncom.comNathalie Stepherson | info@fulloncom.com**Codes:** 14000**Garney Construction**North Kansas City, MO | www.garney.comGreg Harris | 678/736-6040 | gharris@garney.com**Codes:** 13850**The GEL Group, Inc. (GEL Engineering, LLC), (GEL Laboratories, LLC), (Cape Fear Analytical, Inc.)**Charleston, SC | www.gel.comRobert Wills | 843/556-8171 | robert.wills@gel.com**Codes:** 03800, 04000, 14000, 26100, 37200, 74150, 74320, 86300, 93040Charleston, SC | www.gel.comRobert Wills | 843/906-5929 | robert.wills@gel.com**Codes:** 03800, 04000, 14000, 26100, 37200, 74150, 86300, 93040***GEL Solutions, LLC (A Member of The GEL Group, Inc.)**Charleston, SC | www.gel-solutions.comScott Smith | 843/769-7379 | sts@gel.com**Codes:** 03800, 14000, 40900, 56600**Genave Electronics**Rosemount, MN | www.genave.comJim Edwards | 952/236-6540 | support@genave.com**Codes:** 25300, 40900**General Atomics Electromagnetic Systems**San Diego, CA | www.ga.com/radiation-monitoring-systems

Brandon Brooks | 858/964-6940

brandon.brooks@ga.com**Stamps:** ISO9001:015/AS9100:2016**Codes:** 03200, 03800, 09750, 09800, 12800, 14000, 17950, 19700, 25000, 26080, 47400, 55040, 55060, 67380, 68950, 74150*

General Plastics MFG. Co.

Tacoma, WA | <https://www.generalplastics.com/>
Jaci Hendricks | 253/472-5000 | 800/806-6051
jaci_hendricks@generalplastics.com
Lori Coker | 253/472-5000 | 800/806-6051
lori_coker@generalplastics.com

Stamps: General Plastics is certified to ISO 9001:2015/AS9100D. In addition, we meet such exacting quality systems as: NQA-1; MIL-I-45208A; Boeing Company D6-82479; General Plastics' extensive quality assurance program satisfies the demanding requirements of the aerospace industry, the Nuclear Regulatory Commission and the U.S. Department of Defense. BMS 8-133 Flame-Retardant Rigid Urethane Foams (core materials); BMS 8-350 Integral Skinning Flexible Urethane Foam and Paint for Molded Products; BMS 8-39 Flexible Urethane Foams. We earned Federal Aviation Agency approval of our burn-test facilities in 2010. General Plastics is ITAR-compliant.

Codes: 39960, 79700, 83210, 86130

Gen IV Nuclear Energy Systems Services

Rockville, MD | www.genivnuclearenergysystems.com

Homi Amirmokri | 301/202-7311
homi@genivnuclearenergysystems.com

Codes: 03800, 14000, 25400

Gilbert Consulting Services, Inc.

Arroyo Grande, CA | <https://www.gcservices.com>
Keith Gilbert | 805/481-5105 | keith@gcservices.com

Codes: 25400

Glenair, Inc.

Wallingford, CT | www.glenair.com

Doug Merriman | 203/741-1115
dmerriman@glenair.com

Codes: 13400

Glidewell Specialties Foundry Co.

Calera, AL | www.glidewell-foundry.com

John Hendrix | 205/668-1881 x3011
jhendrix@glidewell-foundry.com

Mark Fields | 937/287-1845
markfields@glidewell-foundry.com

Stamps: ISO 9000; Bureau Veritas Factory Approval Cert; Lloyd's Register Factory Approval.

Codes: 14300, 77800*

Global Quality Management Advisors

Lynchburg, VA | www.gqmadvisors.com

Paul W. Gladieux | 503/939-4498
paul@gqmadvisors.com

Codes: 14000

GLSEQ, LLC

Huntsville, AL | www.glseq.com

Jim Gleason | 315/664-3771
jim.gleason@glseq.com

Patrick Gleason | 256/369-8857
pat.gleason@glseq.com

Codes: 12900, 14000, 17950, 20000, 21370, 25250, 32250, 55040, 74320, 84150

GoldSim Technology Group

Seattle, WA | www.goldsim.com

Rick Kossik | 425/295-6985 | rkossik@goldsim.com

Codes: 03800, 14000

Graphic Products

Beaverton, OR | www.graphicproducts.com

Christine Torres | 503/469-3076 | 888/326-9244
ctorres@graphicproducts.com

Codes: 37130

Graver Technologies Inc. (A member of The Marmon Group of Companies)

Glasgow, DE | www.gravertech.com

Lois Windham | 713/208-9292 | 800/249-1990
lwindham@gravertech.com

Codes: 27450

Graver Water Systems, LLC

Warren, NJ | www.graver.com

908/516-1400 | 877/GRAVERW | sales@graver.com

Stamps: ISO 9001:2008

Codes: 27450

Thomas Gray & Associates, Inc. (Owner of Environmental Mgmt. & Controls, Inc.)

Orange, CA | www.tgainc.com

Richard E. Gallego | 714/997-8090 | rich@tgainc.com

Codes: 04000, 14000, 14300, 25600, 79360, 84600, 86300, 87000, 93040

GSE Absolute (Absolute Consulting)

Columbia, MD | <https://www.gses.com/absolute/>

Sunny DeMattio | 850/939-8965 | info@gses.com

Billie Jo Parsons | 850/939-8965
billiejo.parsons@gses.com

Codes: 25400

GSE DP (DP Engineering)

Fort Worth, TX | www.gses.com/dp

Sunny DeMattio | 410/970-7800

sunny.demattio@gses.com

Greg Hietpas | 817/710-8470
greg.hietpas@gses.com

Codes: 03800, 13850, 14000

GSE Hyperspring

Columbia, MD | www.gses.com/hyperspring

Sunny DeMattio | 410/970-7800

sunny.demattio@gses.com

Russell E. (Rusty) Dunlap | 410/970-7842
russell.dunlap@gses.com

Codes: 12800, 14000, 25400, 71190, 86300, 86400, 86500

GSE TrueNorth

Montrose, CO

Sunny DeMattio | 410/970-7800

sunny.demattio@gses.com

Gregory Tucker | 970/252-1489
gregory.tucker@gses.com

Codes: 14000

Hayward Tyler

Colchester, VT | www.haywardtyler.com

Jeff Belotti | 802/655-4444 x141

jeffrey.belotti@haywardtyler.com

Stamps: N, NA, NPT, Classes 1, 2 & 3.

Codes: 64700, 64750*

HealthPhysics.com

Amarillo, TX | www.healthphysics.com

Michael Ford | 806/459-9979

michael@healthphysics.com

Codes: 14000

Health Physics Instruments (Div. of Far West Technology, Inc.)

Goleta, CA | www.fwt.com

John Handloser | 805/964-3615 | info@fwt.com

Deborah Thiele | 805/964-3615 | info@fwt.com

Codes: 09800, 17950, 21270, 37200, 47400, 55040

Heat Exchanger Products Corp. (HEPCO)

Hingham, MA | www.heatexchangerproducts.com

Tracy Hennigan Bonnyman | 781/749-0220

800/472-8484 | hepco@heatexchangerproducts.com

Codes: 10780, 20350, 37600, 47400, 61570, 84150

Hennigan Engineering LLC

Hingham, MA | www.henniganengineering.com

Tracy Hennigan Bonnyman | 781/749-0220

800/472-8484 | thb@henniganengineering.com

Stamps: Certification by SSPC-QP1 and QP2.

Codes: 10780, 11400, 20300, 20350, 37600, 40900, 47400, 56600, 61570, 84600

Hexion Inc.

Columbus, OH | www.hexion.com

Product Information | 614/986-2497 | 888/443-9466
service@hexion.com

Codes: 11400, 14000, 17650

HF Controls Corp. (Sub. of Doosan Heavy Industries & Construction Co., Ltd.)

Carrollton, TX | www.hfcontrols.com

Steve Yang | 214/676-6889 | 866/501-9954
steve.yang@doosan.com**Stamps:** 10CFR50 App. B; ISO; NQA-1, KINS; and TUV SIL 3**Codes:** 03200, 03800, 09750, 12800, 12900, 13600, 14000, 18600, 19700, 20000, 41000, 54750, 67380, 76400, 86300**High Bridge Assoc. (Meridian Services Group)**

Chattanooga, TN | https://www.hba-inc.com/

Liz Snow | 423/468-4317

Jim O'Connor | 423/468-4317

Codes: 20300***Highland TEMS, LLC**

Marietta, GA | www.highland-temsengineering.com

Ralph Schwartzbeck, P.E. | 404/386-3971

ralph@highland-temsengineering.com

Codes: 14000**Hilman Inc.**

Marlboro, NJ | www.hilmanrollers.com

Samantha Reidy | 732/462-6277 | 888/276-5548
sales@hilmanrollers.com**Codes:** 47400**HI-Q Environmental Products Co., Inc.**

San Diego, CA | www.hi-q.net

Marc A. Held | 858/549-2820 | info@hi-q.net

Stamps: ISO 9001:2015 Certified ISO 17025:2017 Certified**Codes:** 04000, 09800, 26080, 27450, 37130, 37200, 41000, 55040, 58000, 90100***Hoffer Flow Controls**

Elizabeth City, NC | www.hofferflow.com

Janna Critcher | 252/331-1997 | 800/628-4584 |
info@hofferflow.com**Codes:** 40050**Holtec International**

See advertisement on page 91

Camden, NJ | www.holtecinternational.com

Joy Russell | 856/797-0900 x3655

j.russell@holtec.com

Dr. Rick Springman | 856/797-0900 x3716r.

springman@holtec.com

Stamps: ASME Stamps: N, NPT, N3, U, R, NR, NB, NS. ISO 9001:2015, ISO 3834-2**Codes:** 03800, 14000, 14300, 30500, 66280, 68000, 81710, 93040***Hopewell Designs, Inc.**

Alpharetta, GA | www.hopewell designs.com

Kevin Klem | 770/667-5770

sales@hopewell designs.com

Ryan Howell | 770/667-5770

ryan.howell@hopewell designs.com

Codes: 00400, 09800, 20300, 37130, 37160, 37200, 55490, 68000, 73300, 77750**Hot Cell Services Corp.**

Kent, WA | www.hotcell.com

Zbigniew Tomalik | 253/854-4945 x21

zbigniew.g.tomalik@saint-gobain.com

Stamps: ASME NQA-1**Codes:** 77750, 95750***H3D, Inc.**

Ann Arbor, MI | h3dgamma.com

Y. Andy Boucher | 734/661-6416

andy@h3dgamma.com

Codes: 17950, 20300, 25250, 55040**HukariAscendent**

Wheat Ridge, CO | www.hukari.com

Ken Hukari | 303/384-9079 | 866/487-7628

ken@hukari.com

Codes: 12800, 13850, 14000, 71190, 86300**Human Resources Consulting**

Gallatin, TN | www.yourhrconsultant.com

Gary Kaufman | 615/305-1900

garykaufman@yourhrconsultant.com

Codes: 86300**Huxtable Consulting LLC**

Lexington, SC | https://www.huxtableconsulting.com/

Brian Huxtable | 651/399-0832

brian@huxtableconsulting.com

Codes: 12800**HydroPro Inc.**

Bourbon, MO | www.hpro.com

Stephen Waldron | 573/732-3318 | sales@hpro.com

Codes: 17650, 47400, 56600, 59850, 61570, 84150, 84600, 86130**ibex - Energy Solutions**

McLean, VA | www.ibexesi.com

Marketing Department | 772/781-1894

marketing@ibexesi.com

Global Business Desk | 301/986-5811

Codes: 13850, 14000***I.C.E. Service Group, Inc.**

See advertisement on page 78

Moon Township, PA | www.iceservicegroup.com

Dennis Morgan | 412/916-5710

dmorgan@iceservicegroup.com

Stamps: NQA-1**Codes:** 09950, 12800, 14000, 14300, 20300, 25250, 25400, 26230, 68000, 87000, 93040***ILD, Inc.**

Baton Rouge, LA | www.ildpower.com

Jack Little | 225/769-2780 x111 | jack@ildpower.com

Codes: 03800, 14000**Imperia Engineering Partners LLC**

Bordentown, NJ | www.imperiaep.com

Scot Blodgett | 855/425-8726

scot.blodgett@imperiaep.com

Codes: 03800, 13850, 14000, 20300, 40900, 75600, 84600**InfoSight Corp.**

Chillicothe, OH | www.infosight.com

Becky Dolan | 740/642-3600 | 888/642-3600

bdolan@infosight.com

Codes: 06950, 83110, 83120***In-Place Machining Company, LLC**

Batavia, OH | www.inplace.com

Tim Beckman | 513/388-0199

tbeckman@inplace.com

Chad Danz | 513/388-0199 | cdanz@inplace.com

Codes: 13050, 14000, 20300***Intek, Inc.**

Westerville, OH | www.intekflow.com

Tony Bonina | 614/895-0301 | 800/743-6822

tbonina@intekflow.com

Jason Reynolds | 614/895-0301 | 800/743-6822

jreynolds@intekflow.com

Stamps: ISO 9001:2015 Certified**Codes:** 03200, 14000, 17950, 37600, 40050, 47400, 54750***Interdevelopment, Inc.**

Washington, DC | www.interdevelopment.com

M.K. Luddemann-Faris | 202/508-1459

interdevelopment@starpower.net

Codes: 03800, 14000**International Isotopes Idaho Inc. (Sub. of International Isotopes Inc.)**

Idaho Falls, ID | www.intisoid.com

Steve Laflin | 208/524-5300 | slaflin@intisoid.com

Codes: 09800, 25600, 40900

InVizion LLC

Bala Cynwyd, PA | www.invizionllc.com
 Kristy Neckowicz | 484/270-0239
info@invizionllc.com

Codes: 12800

ISOFLEX USA

San Francisco, CA | www.isoflex.com
 Patrick Hardy | 415/440-4433 | 888/399-4433(USA/
 Canada) | iusa@isoflex.com
 Peter Svendsen | 415/440-4433 | 888/399-
 4433(USA/Canada) | pgs@isoflex.com

Codes: 00400, 03800, 55490

ISO-PACIFIC Remediation Technologies, Inc.

Richland, WA | www.isopacific.net
 Lori Dillon | 509/375-0100 | lori.dillon@isopacific.net
Codes: 03200, 03800, 09730, 10780, 12800,
 14000, 17950, 18600, 20300, 21370, 22700,
 25600, 26230, 30500, 37130, 37200, 39960,
 47400, 53950, 56600, 63400, 64700, 66280,
 67380, 68950, 71190, 72300, 73300, 74150, 74320,
 77750, 79700, 87400, 93040

Jacobi Consulting

Austin, TX | www.jacobiconsulting.net
 Rick Jacobi | 512/656-4765
rjacobi@jacobiconsulting.net

Stamps: P.E.; J.D.

Codes: 14000

**Jacobs (CH2M HILL, Inc.),
 (CH2M HILL Nuclear Business Group),
 (CH2M HILL International Nuclear Services,
 Ltd.), (CH2M HILL Constructors, Inc.),
 (Jacobs), (Jacobs Engineering),
 (Jacobs Technology), (Jacobs Solutions)**

Dallas, TX | www.jacobs.com
 Dee Gray | 509/942-8580 | dee.gray@jacobs.com
 Jennifer Sen | 919/760-7035
jennifer.sen@jacobs.com

Stamps: American Society of Mechanical Engineers
 Nuclear Quality Assurance (ASME) NQA-1

Codes: 20700

JNT Technical Services Inc.

Little Ferry, NJ | www.torq-n-seal.com
 Glenn Jorgensen | 201/641-2130 | sales@jnt.bz
Stamps: NPT N-2928, Class III: NCA 3800, 10CFR50
 App. B/10CFR Part 21.
Codes: 47400, 56600, 61570, 86130

Joseph Oat Corp.

Camden, NJ | www.josephoat.com
 Crystal Harrington | 856/541-2900
c.harrington@josephoat.com

Stamps: N, NPT, NA, Classes 1, 2, 3, MC, U, S; N
 Classes 1, 2, 3, MC Vessels + Piping Systems. +2, 3
 Storage Tanks, NPT Class 1, 2, 3 & MC, NA Class 1, 2,
 3 U&S, 10CFR50 Appendix B, 10CFR71 Subpart H,
 10CFR72 Subpart G, NQA-1 Program, Certification
 by ISO 9001.

Codes: 03800, 09950, 13700, 14000, 14300,
 27450, 36000, 37600, 40900, 56600, 59800,
 68000, 77750, 78700, 83150, 92300, 93900*

JRM Chemical Inc.

Cleveland, OH | www.soilmoist.com
 Scott Wiesler | 216/475-8488 | 800/962-4010
jrm@en.com

Codes: 79370*

JSM Protective, Inc.

Vero Beach, FL | www.jsmonline.com
 Jeannette McLean | 910/619-3141
jmclean@jsmonline.com

Stamps: Woman Owned Small Business; ANS
 Member; SAM Registered

Codes: 10850, 10900, 26080, 37130, 54750,
 55040, 73550, 83110, 83210, 95850

Kinometrics, Inc.

Pasadena, CA | www.kinometrics.com
 Mauricio Ciudad-Real | 626/795-2220
mcr@kmi.com

Codes: 03800, 09800, 14000, 76400, 84600,
 86300*

Klein Consulting LLC

Norwich, CT | www.kleinconsultllc.com
 Ralph L. Klein | 860/885-1980
ralph.klein@kleinconsultllc.com

Codes: 14000, 40900

Knowledge Relay

Cypress, CA | www.knowledgerelay.com
 Lee Gliddon | 714/761-6760 | 800/447-2633
lee.gliddon@knowledgerelay.com

Codes: 19700

**Konecranes Nuclear Equipment
 & Services LLC**

New Berlin, WI | www.konecranes.com
 Steve Lawrence | 262/364-5700
steve.lawrence@konecranes.com

Stamps: Quality Compliant to ISO 9001, 10CFR50
 App. B & NQA-1

Codes: 09950, 72300, 81680, 81710, 87000*

KROHNE, Inc.

Beverly, MA | us.krohne.com
 Jeff Shen | 978/535-6060 | 800-FLOWING
j.shen@krohne.com

Codes: 03200, 40050

KSB, Inc.

Henrico, VA | www.ksb.com
 Loyal Fischer | 330/239-3900 | loyal.fischer@ksb.com
Stamps: N, NPT, NS, Classes 1, 2, 3, TUV-Pfalz e.V:AD-
 HPO, TRD 201, TRR 100, DIN EN 729-2; KTA 1408.3,
 KTA 3201.3; TUV Cert. DIN EN ISO 9001, SLV: DIN
 18800 T7; VGB:KTA 1401.

Codes: 47400, 64700, 64750, 75190, 90250, 90280,
 90330, 90600, 91000, 91260, 91380*

LabLogic Systems, Inc.

Tampa, FL | www.lablogic.com
 Ashvin Boodhun | 813/626-6848 | 800/875-4687
aboodhun@lablogic.com
Codes: 03200, 03800, 04000, 17950, 25250, 55040

Labor Sync

Dumont, NJ | www.laborsync.com
 Joe Burger | 877/411-5666 | jburger@laborsync.com
Codes: 12900

Lambda Technologies

Cincinnati, OH | www.lambdatechs.com
 Julie Prevey | 513/561-0883 | 800/883-0851
jprevey@lambdatechs.com
Codes: 03800, 17650, 44000, 56600, 84600

Lancs Industries

Albuquerque, NM | www.lancsindustries.com
 Lewis E. Byrd | 505/738-7200
sales@lancsindustries.com
Codes: 10900, 73550, 83210*

Leak Testing Specialists, Inc.

Orlando, FL | leaktestingspecialists.com
 Melissa Ramos | 407/737-6415
melissa.ramos@leaktestingspec.com
Codes: 13850, 14000, 14300

LeBlond and Associates, LLC

Libertyville, IL | www.leblondassociates.com
 Peter LeBlond | 847/549-8775 | leblond@prodigy.net
Codes: 14000, 86300, 86500

Lenox Instrument Co., Inc.

Trevose, PA | www.lenoxinst.com
 Bill Lang | 215/322-9990 | 800/356-1104
bill@lenoxinst.com
Codes: 26230, 40900, 92800

LGH

Bridgeview, IL | www.rentlgh.com
 708/598-4727 | 800/878-7305
rentals@rentlgh.com
Codes: 18600, 26230*

Lightbridge Corp.

Reston, VA | www.ltbridge.com
 James Fornof | 571/730-1200 | jfornof@ltbridge.com
 Seth Grae | 571/730-1200 | sgrae@ltbridge.com
Codes: 14000

LND, Inc.

Oceanside, NY | www.lndinc.com
 Bill Lehnert | 516/678-6141 | info@lndinc.com
Codes: 04000, 17950, 21270, 25000, 26080, 37130, 54750, 55040, 55060, 74150, 93040*

L Rettinger Energy Technology Solutions

Collier Township, PA
 Larry Rettinger | 412/279-5221
lrettinger@comcast.net
Codes: 13850, 18600

Lucideon

Durham, NC | www.lucideon.com/nuclear
 Mary Beth Sprott | 919/504-4600
marybeth.sprott@lucideon.com
 David Barrientos | 919/985-1226
david.barrientos@lucideon.com
Codes: 03800, 14000, 25600, 84600, 93040

LUDECA, Inc.

Doral, FL | www.ludeca.com
 Ron Lambert | 305/591-8935 | sales@ludeca.com
Codes: 03800, 14000, 40050, 47400, 54750

Ludlum Measurements, Inc.

Sweetwater, TX | <https://ludlums.com>
 Allan Hartfield | 325/235-5494 | 800/622-0828
ahartfield@ludlums.com
Codes: 04000, 55040, 55060*

A. C. Macris, Consultants

Mystic, CT | www.themacrisgroup.com
 A. C. Macris | 860/572-0043 | acmpc@acmacris.com
Codes: 14000, 53950, 86300, 86500

Magnatech LLC

East Granby, CT | www.magnatechllc.com
 J. G. Emmerson | 860/653-2573 x10
info@magnatechllc.com
Codes: 59850, 83600*

Magnetrol International

Aurora, IL | www.magnetrol.com
 M.D. Tikalsky | 630/969-4000 | 800/624-8765
mtikalsky@magnetrol.com
Stamps: Certification by 10CFR50 App. B
Codes: 03200, 40050

Major Tool & Machine, Inc.

See advertisement on page 75
 Indianapolis, IN | www.majortool.com
 Joel Manship | 317/917-2619
jmanship@majortool.com
Stamps: N-Class 1, 2, 3 & MC Vessels; Class 1, 2 & 3 Piping Systems; Class 2 & 3 Storage Tanks, Class CS Core Support Structures and Class TP Transport Packaging; NPT - Class 1, 2, 3, CS, MC & TP. Fabrication without design responsibility. N3 - Construction of Class TC Transportation Containments. Stamps N, N3, NA, NPT, NS, U, U2 and R. Audited and compliant to NQA-1. Certifications to ISO 9001:2015, AS9100(D), NADCAP.
Codes: 14300, 30500, 36000, 56600, 66280, 68000, 79360, 81710, 83150, 87380, 87395, 92300, 93900*

Manafort Brothers Inc.

Plainville, CT | www.manafort.com
 Vince Mondo | 860/793-6451
vmondo@manafort.com
Codes: 13850, 20300, 20700

Marshallton Research Laboratories, Inc.

See advertisement on page 80
 King, NC | www.marshalltonlabs.com
 Mac Foster | 336/983-2131 | info@marshalltonlabs.com
Codes: 20350

Master-Lee Engineered Products Inc.

Latrobe, PA | www.masterlee.com
 John Buchta | 724/805-4905 | 800/537-6007
buchta-jp@masterlee.com
Codes: 10780, 26230, 30500, 45550, 61570, 72300, 90100, 92800*

Materials and Chemistry Laboratory, Inc. (MCLinc)

Oak Ridge, TN | www.mcl-inc.com
 Barry Stephenson | 865/276-6910
bstephenson@mcl-inc.com
Stamps: ISO/IEC 17025:2017(DOECAP-AP)AIHA Accredited (IHLAP) Radioactive Materials License
Codes: 03800, 14000, 37200, 84600

Mazur Instruments

Castle Rock, CO | www.mazurinstruments.com
 Vince Mazur | 303/325-7463
vince.mazur@mazurinstruments.com
Codes: 17950

M. Braun Inc.

Stratham, NH | www.mbraun.com
 Michael Boutin | 603/773-9333
m.boutin@mbraunusa.com
Codes: 04000, 27450, 32250, 36000, 37130, 40050, 79360, 81680, 84150, 87400

McWane and Assoc.

San Jose, CA | www.materialsite.com
 Odell McWane | 559/375-1307
omcwane@materialsite.com
Stamps: Registered Professional Welding Engineer
Codes: 14000

Mega-Tech Services, LLC

Cooksburg, PA | www.mega-techservices.biz
 John Bowen | 804/789-1577
jbown@mega-techservices.biz
Codes: 03800, 13050, 14000, 20300, 20350, 81710

Merrick & Company

Greenwood Village, CO | www.merrick.com
 Tony Wampler | 719/322-6220 | 800/544-1714
tony.wampler@merrick.com
Stamps: ASME NQA-1
Codes: 20300, 30500

MillenniTEK, LLC

Knoxville, TN | www.millennitek.com
 Steve Getley | 865/966-2170
steve.getley@millennitek.com
Codes: 03800, 13700, 14000, 41200

Miller Pipeline

Indianapolis, IN | www.millerpipeline.com
 Chris Schuler | 317/653-5203 | 800/428-3742
chris.schuler@millerpipeline.com
 Daniel Watters | 317/653-5298 | 800/428-3742
daniel.watters@millerpipeline.com
Codes: 13850, 40900, 47400

Mirion Technologies (Canberra) Inc.

Meriden, CT | www.mirion.com
 203/238-2351 | 800/243-3955
customersupport@canberra.com
Stamps: Certification by ISO 9001.
Codes: 12900, 14000, 19700, 20000, 26230, 37130, 40900, 67380

Mirion Technologies Dosimetry Services

Irvine, CA | www.mirion.com
 Dana Banks | 949/297-1851 | 800/251-3331
dbanks@mirion.com
Stamps: NVLAP
Codes: 37130, 37200, 55060

Mirion Technologies, Inc.Atlanta, GA | www.mirion.comChristy Phillips | 770/432-2744
cphillips@mirion.com**Codes:** 03180, 03200, 03800, 04000, 08800, 09750, 09800, 12800, 13400, 21270, 21300, 21310, 26900, 26910, 26970, 47400, 54750, 55040, 58000, 71190, 72300, 73300, 74150, 75190, 75700, 75850, 77750, 83600, 84150, 84600, 90250, 90800, 91260, 92800, 93040, 95900***Mirion Technologies (IST) Corp.
(Sensing Systems Div.)**Horseheads, NY | www.mirion.comTim Pelot | 607/562-4530 | tpelot@mirion.com**Stamps:** N Classes 1, 2, 3 & MC Vessels, Class 1, 2, 3 Valve Parts & Appurt., Class 1, 2, 3, Valves, Class MC Penetrations & Assem.**Codes:** 08800, 17950, 26910, 45550, 54750, 73300, 75190, 83600***Mohawk Safety**Manchester, CT | www.mohawksafety.comJames W. Francoline | 860/643-5107 | 800/394-6853
sales@mohawksafety.com**Codes:** 10850, 10900, 14300, 17950, 27450, 36000, 37130, 37160, 77800, 83120, 84150, 95850***Mound Technical Solutions, Inc.**Miamisburg, OH | www.moundtech.comDoug McClelland | 937/865-3715
doug@moundtech.com**Codes:** 04000, 55040, 74150**M2 Polymer Technologies, Inc.**West Dundee, IL | www.m2polymer.comMartin Matushek | 847/836-1393
info@m2polymer.com**Codes:** 20350, 68000, 79360, 79370***NAC International Inc.**

See advertisement on page 96

Peachtree Corners, GA | www.nacintl.comGeorge Vaughan | 678/328-1222 | 800/241-0507
gvaughan@nacintl.comJuan Subiry | 678/328-1282 | 800/241-0507
jsubiry@nacintl.com**Codes:** 03800, 14000, 14300, 30040, 30500, 68000, 77800, 81710, 86300, 87000**NAC LPT LLC**

See advertisement on page 79

Mars, PA | www.naclpt.comKen Docchio | 724/991-5583 | 888/484-4031
kdocchio@naclpt.com**Codes:** 03800, 09950, 14000, 14300, 20300, 68000**National Technical Systems (NTS)
(Nuclear Engineering & Test Services)**Huntsville, AL | www.nts.com/markets/nuclearGreg Mason | 256/603-0903 | greg.mason@nts.com**Codes:** 03200, 03800, 08800, 09800, 12800, 12900, 14000, 14300, 19700, 20000, 26080, 40050, 40900, 47400, 53950, 54750, 56600, 63400, 76400, 84600, 93040**Navarro Research and Engineering, Inc.**Oak Ridge, TN | www.navarro-inc.comJoEllen Kuszmaul | 865/220-9650 | 866/681-5265
kuszmaul@navarro-inc.com**Codes:** 03800, 14000, 20300, 20700, 25400, 26100, 37200, 93040**Neptune and Company, Inc.**Lakewood, CO | www.neptuneinc.orgPaul Black | 303/956-9867 | pblack@neptuneinc.org**Stamps:** GoldSim certified programmers and trainers; DABT; FEHM; ASTM; ProUCL; GiSDT
Codes: 03800, 12800, 14000, 86300, 93040**Netzsch Instruments North America LLC**Burlington, MA | <https://www.netzsch-thermal-analysis.com/us/>Melinda Tucker | 303/895-8175
melinda.tucker@netzsch.comAnthony Maletta | 781/825-5853
anthony.maletta@netzsch.com**Codes:** 03800, 04000, 14000, 84150, 84600***New Millennium Nuclear
Technologies International**Lakewood, CO | www.nmnuclear.comSue Aggarwal | 303/984-5788
saggarwal@nmnuclear.com**Stamps:** Certification by ISO 9001.**Codes:** 13050, 20350, 25600, 26100, 93040**New York Blower Company**Willowbrook, IL | www.nyb.comCatherine Chalakoff | 630/794-5726 | 800/208-7918
cchalakoff@nyb.com**Codes:** 03000, 19450***NextAxiom Technology, Inc.**San Francisco, CA | www.nextaxiom.comJohn Manoogian | 415/637-1580
info@nextaxiom.com**Codes:** 12800**Nochar, Inc.**Indianapolis, IN | www.nochar.comDennis Campbell | 317/613-3046
dennis.campbell@nochar.com**Stamps:** SEG Certified Incinerable; NTS, WIPP, Envirocare approved.**Codes:** 79370***Nord-Lock Inc.**Clinton, PA | www.nord-lock.comJulie Pereyra | 412/279-1149 | 877/799-1097
julie.pereyra@nord-lock.com**Stamps:** ISO 9001, ISO 14001, DNV, ABS, DIBt, TUV
Codes: 26900, 47400, 86130***North Wind Group**Idaho Falls, ID | www.northwindgrp.comBrady Bigelow | 303/263-9201
bbigelow@northwindgrp.comAndy Williams | 419/707-2135
andy.williams@northwindgrp.com**Codes:** 03800, 06790, 09750, 09800, 13850, 20350, 22410, 37130, 37200, 47400, 71190, 86300, 87000***NuclearConsultants.com**Ann Arbor, MI | www.nuclearconsultants.comDale Lancaster | 814/574-1912
dale@nuclearconsultants.com**Codes:** 03200, 03800, 12800, 14000, 14300, 30040, 77750, 77800, 81680**Nuclear Economics Consulting Group (NECG)**Alexandria, VA | www.nuclear-economics.comEdward Kee | 202/370-7713
edk@nuclear-economics.com**Codes:** 14000**Nuclear News Magazine**La Grange Park, IL | www.ans.org/nnRick Michal | 708/579-8216 | nucnews@ans.orgJeff Mosses | 708/579-8225 | 800/NUC-NEWS
nucnews1@ans.org**Codes:** 40700**Nuclear Shielding Supplies & Service**Tucson, AZ | www.nuclearshielding.comM.S. Chopra/Cari Barros | 520/838-0961
info@nuclearshielding.com**Codes:** 13700, 14000, 14300, 36900, 55490, 66280, 77750, 77800***Nuclear Systems Associates, Inc.**Brea, CA | www.nuclearsystems.comCharles Divona | 949/499-9980
nuclearsystems@cox.net**Codes:** 14000, 30500, 45550, 72300**Nuclear Training Institute**Norcross, GA | www.nucleartraininginstitute.comSean Ruth | 678/268-3364
sean@nucleartraininginstitute.comJim Garrison | 678/268-3364
jim@nucleartraininginstitute.com**Stamps:** NQA-1**Codes:** 14000, 86300, 86400

NUCON International, Inc.

Columbus, OH | www.nucon-int.com
 Robert Sommer | 614/846-5710 x125 | 800/992-5192
sales@nucon-int.com
 Eric Banks | 614/846-5710 x126 | 800/992-5192
sales@nucon-int.com
Codes: 04000, 09800, 14000, 26230, 27450,
 32250, 40900, 41000, 54750, 56600, 73550,
 79370, 86300, 87380, 87400*

Nu-Energy Technologies, Inc.

Providence Forge, VA | www.nu-energytechnologies.com
 David Cruise | 804/337-9331
info@nu-energytechnologies.com
Codes: 08800, 10780, 13600, 25600, 45550

NuSource LLC

Alexandria, VA | www.nusourcecellc.com
 Waylon Waters | 810/223-4483
wwaters@nusourcecellc.com
Stamps: ASME N Stamp
Codes: 03000, 03800, 08800, 14000, 14300,
 26900, 27180, 27450, 27650, 37600, 41700, 53950,
 60100, 66280, 83150, 90600, 90800, 91260,
 91380, 92300

NuVision-HWM

Pittsburgh, PA | www.nuvisionengineering.com
 Joe Dixon | 651/356-5605 | jdixon@nuvisioneng.com
Codes: 10780, 12800, 47400, 47600, 53950,
 68000, 72300, 73300, 73620

NV5/Dade Moeller

Richland, WA | www.nv5.com
 Stephen Bump | 509/942-3639
steve.bump@nv5.com
Codes: 03800, 13850, 14000, 20300, 25400,
 26100, 37130, 37200, 40900, 54750, 71190, 77750,
 84150, 86300, 93040

Off-Site Source Recovery Program

Los Alamos, NM | osrp.lanl.gov
 Justin Griffin | 505/606-0362 | 877/676-1749
osrp@lanl.gov
Codes: 93040

Orano Decommissioning Services

Hudson, MA | <https://www.orano.group/en/expertise/range-of-services/dismantling-of-nuclear-facilities>
 Geoff Wilde | 980/229-2738
geoff.wilde@orano.group
Codes: 20300, 68000, 87000, 93040

Orano Federal Services

Charlotte, NC | www.orano.group/en
 Lynn Butler | 704/805-2845
lynn.butler@orano.group
Codes: 13850, 36000

Orano TN

Columbia, MD | <https://www.orano.group/usa/en/our-portfolio-expertise/used-fuel-management>
 Roger Maggi | 434/841-1859
roger.maggi@orano.group
Codes: 14300, 20300, 68000, 81680, 81710,
 87000, 93040

ORTEC

Oak Ridge, TN | www.ortec-online.com
 Lena Russell | 865/483-2173 | 800/251-9750
lena.russell@ametec.com
Codes: 03200, 03800, 04000, 09750, 09800,
 17950, 19700, 21270, 25000, 25250, 26080, 37130,
 55040, 55060, 58000, 63400, 64750, 75850,
 77800, 86300*

OTEK Corp.

Tucson, AZ | www.otekcorp.com
 Dr. Otto Fest | 520/748-7900 | sales@otekcorp.com
Stamps: Class 1E/Appendix B & MIL-Spec
 Manufacturer
Codes: 17950, 25000, 40050, 53950, 54750,
 84150*

Overhoff Technology Corp. (A Div. of US Nuclear Corp.)

Milford, OH | www.overhoff.com
 Dell Williamson | 513/248-2400
sales@overhoff.com
 Ian Embry | 818/883-7043 | ian@overhoff.com
Codes: 03200, 17950, 21270, 26080, 55040*

Pacific Radiation

Altadena, CA | www.pacificrad.com
 Dr. Dan Gollnick | 626/798-8100
dr_dan@pacificrad.com
Codes: 86300, 86500

PacTec, Inc.

See advertisement on page 92
 Clinton, LA | www.pactecinc.com
 Bill Smart | 225/522-8157 | 800/272-2832
billsmart@pactecinc.com
 Chase Chabaud | 225-522-8216 | 877/554-2541
chasechabaud@pactecinc.com
Stamps: ISO 9001:2015
Codes: 09950, 14300, 22410, 27450, 37130, 68000,
 79360*

Pajarito Scientific Corp. (PSC) (Pajarito Scientific Security Corp.) (PSSC)

Santa Fe, NM | www.pajaritoscientific.com
 Michael Pitts | 505/455-8558 | mpitts@pscnda.com
Codes: 03000, 03200, 14000, 17950, 20300,
 25300, 27450, 55040, 77800, 93040

Paragon Energy Solutions

See advertisement on page 1
 Fort Worth, TX | www.paragones.com
 John Portillo | 817/239-1693 | 800/448-4124
jportillo@paragones.com
Stamps: 10CFR50 Appendix B, NQA-1, ASME III N,
 NS, NPT
Codes: 03000, 03800, 17950, 21270, 22200,
 27450, 37600, 40050, 47400, 63400, 64700, 75190,
 76400, 83150, 90250, 90600, 90800, 91000, 91260

Par-Kut International, Inc.

Harrison Twp., MI | www.guard-booth.net
 Tom Duemling | 586/468-2947 | 800/394-6599
sales@parkut.com
Codes: 75700*

PAR Systems, LLC

Shoreview, MN | www.par.com
 Rob Owen | 651/484-7261 | 800/464-1320
rowen@par.com
 General Information | info@par.com
Stamps: ISO 9001:2008; AS9001:2009 Revision C;
 NQA-1; GMP1; NOG-1; CMAA; ASME; NRSC
Codes: 03800, 08800, 10780, 12800, 14000,
 18590, 18600, 20350, 20700, 30500, 39650,
 40900, 47400, 47600, 53950, 56600, 66280,
 68000, 72300, 73620, 79360, 81710, 84150, 86130,
 93900

Paschal Solutions, Inc.

Knoxville, KY | www.paschalsolutions.com
 Tracey Henson | 270/705-9037
thenson@paschalsolutions.com
Codes: 03200, 03800, 14000, 20300

Pave Technology Co.

Dayton, OH | www.pavetechnologyco.com
 Walter Wood | 937/890-1100 x103
help@pavetechnologyco.com
Stamps: Certification by ISO 9001:2015. ASME NQA-1a-2009 CGD. L2 helium leak test trained.
Codes: 75190, 90100*

Pawling Engineered Products, Inc.

Pawling, NY | www.pawlingep.com
 Craig Busby | 845/855-1000 | 800/431-010
cbusby@pawlingep.com
Stamps: Certification by ISO 9001:2000; 10CFR50,
 App. B.
Codes: 75190*

PD Design Group, LLC

Lake Villa, IL | plantdecommissioning.com
 Russell Valin | 847/265-8800
russ@plantdecommissioning.com
Codes: 20300, 26240, 47600, 53950, 79360,
 86130, 96200

Perma-Fix Environmental Services, Inc.

See advertisement on page 27

Oak Ridge, TN | www.perma-fix.com

Brian Wood | 352/251-2071 | 800/905-0501
bwood@perma-fix.comJessie McDonough | 865/251-2088 | 800/905-0501
jmcDonough@perma-fix.com**Codes:** 09750, 09800, 14000, 17950, 20300, 20350, 20700, 26080, 26100, 26230, 37130, 37200, 41000, 67380, 68000, 93040**Perma-Fix Environmental Services Inc. (Perma-Fix Northwest Richland) (Wholly Owned Sub. of Perma-Fix Environmental Services, Inc.)**

Richland, WA | www.perma-fix.com

Richard Grondin | 509/375-5160
rgrondin@perma-fix.com**Codes:** 93040**Perma-Fix Environmental Services Inc. (Perma-Fix of Florida) (A Wholly Owned Sub. of Perma-Fix Environmental Services, Inc.)**

Gainesville, FL | www.perma-fix.com

Randy Self | 352/395-1368 | rself@perma-fix.com

Codes: 93040**Petersen Inc.**

See advertisement on Cover 2

Ogden, UT | www.peterseninc.com

Nick Despain | 801/732-2000 | 800/410-6789
nick.despain@peterseninc.com**Stamps:** Facilities in Utah and Idaho. ASME VIII Div. 1 U, U2, S, Stamp; National Board Inspection Code R Stamp; ASME NQA-1; NRC Subpart H of 10 CFR Part 71; ASME B31.1 and B31.3; API 1104; AWS D1.1, D1.2, D1.3, D1.6; ISO 9001-2018; AS9100D; AISC.**Codes:** 09730, 14300, 68000, 81680, 83150, 86130, 92300, 96200***PHDS Co.**

Knoxville, TN | www.phdsco.com

Ethan Hull | 865/481-3725 | ethanhull@phdsco.com

Codes: 17950, 20300, 21270, 37200, 41015**Pioneer Motor Bearing Co.**

Kings Mountain, NC | www.pioneer1.com

Dr. Lyle Branagan | 704/937-7000 | 888/813-9001
engineering@pioneer1.com**Codes:** 03800, 14000, 47400**Plastocor, Inc.**

Hingham, MA

Jim Mitchell | 724/942-0582 | jem@plastocor.com

Codes: 11400, 37600, 47400***PMT Nuclear**

Woodridge, IL | www.pmtnuclear.com

Charles Wojcik | 630/887-7700 | 800/794-5033
cwojick@ams-pmt.com**Stamps:** PP, R, U.**Codes:** 03000, 03800, 13700, 13850, 14000, 19450, 26900, 27180, 27450, 36000, 37600, 40900, 41200, 47400, 59800, 59850, 60100, 71500, 75190, 75700, 77750, 83150, 84600, 86300, 86500, 90250, 92300, 93900***Porvair Filtration Group Inc.**

Ashland, VA | www.porvairfiltration.com

Gunter Pesch | 804/550-1600
gunter.pesch@porvairfiltration.com**Codes:** 14300, 27450, 32250, 93040***Power & Energy Systems Services**

Oradell, NJ

Komandur Sunder Raj | 201/638-4635
powerengy@aol.com**Codes:** 03800, 12800, 14000, 86300, 86500***Powerfect Service, Inc.**

Brick, NJ | www.powerfect.com

Mary Jane Luddy | 732/202-1178
powerfect@verizon.net

Eric Svensson | 732/202-1133 | eric@powerfect.com

Codes: 10780, 14000, 37600, 86300**Power System Sentinel Technologies, LLC**

Warrior, AL | www.psstech.com

Chris Melhorn | 205/631-3357
cmelhorn@psstech.com**Stamps:** Our Quality Assurance (QA) and Quality Control (QC) programs are standard with all our solutions. Our staff is trained to strict compliance to quality standards in accordance with ASME NQA-1, 10CFR50 Appendix B, and CSA N299.3 criterion. The PSSTech audited and approved Appendix B process ensures rigorous standards are adhered to throughout the design and implementation process.**Codes:** 03180, 03800, 64750, 84600, 86300**Precision Custom Components, LLC**

See advertisement on page 97

York, PA | www.pcc-york.com

James C. Stouch, P.E. | 717/848-1126 x2362
jstouch@pcc-york.comBrian Hunt | 717/848-1126 x2592
bhunt@pcc-york.com**Stamps:** ASME Sect. III (N, NS, NA, NPT Stamps); ASME Sect. VIII Div. 1, 2 and 3 (U, U2, U3 Stamps); MIL-Q-9858 with QRC82**Codes:** 03800, 09800, 10780, 14000, 14300, 30500, 40900, 53950, 56600, 66280, 81710, 83150, 92300, 93900**Preferred Engineering Corp. (Sub. of Preferred Utilities Mfg. Corp.)**

Danbury, CT | www.preferredengineering.com

Ivan Cabrera | 203/743-6741
icabrera@preferred-mfg.com**Codes:** 03800, 14000, 20350, 30500, 47400, 61570, 75190, 77800**Premier Technology, Inc.**

Blackfoot, ID | www.ptius.com

John Davis | 208/681-3005 | jdavis@ptius.net

Derek Moss | 208/851-0744 | dmoss@ptius.net

Stamps: ASME Section VIII, U, R, & S; ASME Section III, NA, NS, NPT; ASME NQA-1 Certificate**Codes:** 14300, 36000, 45550, 47400, 53950, 68000, 77800, 81710, 83150, 92300, 93900, 95750**Presray Corp. (Div. of Pawling Corp.) (Critical Containment Solutions)**

Wassaic, NY | www.presray.com

Jason Smith | 845/373-6620 | jsmith@presray.com

Kevin Harris | 845/373-6718 | kharris@presray.com

Codes: 75190, 75700***Primm Consulting, LLC**

Knoxville, TN | www.primmconsultingllc.com

Trent Primm | 865/805-2130
trentprimm@primmconsultingllc.com**Codes:** 12800, 14000**Protective Plastics, Inc.**

Greenville, SC

Kim Chasteen | 864/234-6789
protect1@prodigy.net**Codes:** 10850, 10900, 36000, 37130, 64300, 83210, 95850**PROTEM USA**

Evergreen, CO | www.protemusa.com

303/598-8468 | a.fournel@protemusa.com

n.reicher@protem-gmbh.de

Stamps: ISO 9001 V2015, CEFRI E, EDF UTO 114**Codes:** 10780, 22700, 53950, 86300, 93900**PTP Spent Fuel Services, LLC**

Grand Island, NY | www.ptpsfs.com

Bill Schaab | 716/699-5515 | 866/699-5515
ptp@ptpsfs.com**Codes:** 14000, 14300, 18600, 20300, 30500, 68000, 81680, 81710, 93040***RADeCO, Inc.**

Plainfield, CT | www.radecoinc.com

Brad Lovendale | 860/564-1220
blovendale@radecoinc.com**Codes:** 09750, 09800, 26080, 27450, 37130, 37200, 58000, 64750, 73300, 74150, 84150, 90100, 90800*

Radiac Research Corp.

Brooklyn, NY | www.radiacenv.com
 John V. Tekin, Jr. | 718/963-2233 x201
jtekin@radiacenv.com
 Joseph Spektor | 718/963-2233 x205
jspektor@radiacenv.com
Codes: 14000, 93040

Radiation Control, Inc.

Tallahassee, FL
 Walt Cofer | 850/519-5351
radcontrol@embarqmail.com
Codes: 14000, 86300, 86500

Radiation Safety & Control Services, Inc.

Seabrook, NH | www.radsafety.com
 Matthew Whetzel | 603/474-6733 | 800/525-8339
mdwhetzel@radsafety.com
Codes: 03180, 04000, 10850, 14300, 25300,
 27450, 37160, 40900, 68950, 86400*

Radiological Solutions Inc.

Rockdale, IL | www.radiologicalsolutions.com
 Richard Kohlmann | 815/207-4300
rkohlmann@radiologicalsolutions.com
Codes: 04000, 14000, 20350, 26080, 27180,
 27450, 37200, 37600, 53950, 54750, 55040, 64750,
 67380, 68000, 74150, 86300, 93040

Radium Inc.

Waynesboro, VA | www.radiuminc.com
 Cam Abernethy | 540/942-5734
cabernethy@radiuminc.com
Codes: 10850, 10900, 11650, 12800, 14000,
 14300, 25400, 26230, 36000, 37130, 45550,
 47600, 72300, 73300, 73550, 73620, 75850,
 77750, 77800, 83600, 92800

RadQual, LLC

Idaho Falls, ID | www.radqual.com
 Stanley Fabregas | 817/3952462
stanley@radqual.com
Codes: 68950, 79700*

RadQual, LLC

Idaho Falls, ID | www.radqual.com
 Terri Snarr | 208/524-5300 | sales@radqual.com
Codes: 68950, 79700*

Radwaste Solutions Magazine

La Grange Park, IL | www.ans.org/rs
 Tim Gregoire | 414/530-2455
editor@radwastesolutions.org
 Jeff Mosses | 708/579-8225 | 800/682-6397
radwastemag@ans.org
Codes: 40700

Ray Termini & Associates LLC

Wheaton, IL
 Ray Termini | 630/818-5707
raytermini79@gmail.com
Stamps: PMP, Project Management Professional
Codes: 14000

Red Wolf Associates

Cary, NC | www.redwolfassociates.com
 Joe Sinodis | 919/467-9686 x120
joe.sinodis@redwolfassociates.com
Codes: 03800, 12800, 14000, 20300, 37200,
 77750, 86300*

Reef Industries, Inc.

See advertisement on page 90
 Houston, TX | www.reefindustries.com
 Ray Channell | 713/507-4251 | 800/231-6074
rchanell@reefindustries.com
Stamps: Meets NFPA 701 Large Scale Test and
 Certified Incinerable.
Codes: 08800, 11400, 14300, 37130, 64300,
 68000, 77800, 81710, 83210, 93040*

Remote Ocean Systems (ROS)

San Diego, CA | www.rosys.com
 Ray Kaesbauer | 858/565-8500 | sales@rosys.com
Codes: 72300, 73300, 83600

ReNuke

Oak Ridge, TN | www.renuke.com
 Mark Kirshe | 410/991-7628 | mark@renuke.com
Codes: 17950, 37130, 55040, 55060, 67380, 74150,
 86300*

RETAQS, Inc.

Blue Bell, PA | www.retaqs.com
 Tom Tomlinson | 610/277-8991 x201
tom@retaqs.com
Codes: 14000, 20300, 86300

Rexon Components, Inc.

Beachwood, OH | www.rexon.com
 Dr. M.R. Farukhi | 216/292-7373 | sales@rexon.com
Codes: 17950, 37130, 55040, 55060*

R&G Laboratories, Inc.

Tampa, FL | www.randglabs.com
 Cheryl Huff | 813/643-3513 | 866/854-1177
cheryl@randglabs.com
Stamps: 10CFR50 App. B QA/QC program, and ISO
 17025
Codes: 03800

Rich Industries Inc.

New Philadelphia, OH | www.richindustriesinc.com
 David Patterson | 330/339-4113
davepatterson@richindustriesinc.com
Codes: 10850, 10900, 14300, 37130, 64300,
 77800, 78700, 83210*

Right Brain Sekurity

Oswego, IL | rbsekurity.com
 Roger Johnston | 630/551-0740
rbsekurity@gmail.com
Stamps: CPP
Codes: 03800, 14000, 75600, 75850, 86300

River Technologies, LLC

Forest, VA | www.rivertechnologies.biz
 Robert Kozma | 434/525-4734
robert@rivertechnologies.biz
Codes: 03000, 10780*

Robatel Technologies, LLC

Roanoke, VA | www.robateltech.com
 Jared Bower | 540/989-2878 | 855/819-1874
info@robateltech.com
Stamps: NQA-1, 10 CFR Part 71
Codes: 14000, 14300, 20300, 36000, 47400,
 47600, 55490, 68000, 72300, 77750, 77800,
 79360, 81710, 83150

Roberts Engineering Services, Inc.

Stuart, FL
 C. L. Roberts | 772/220-0584
res1977@bellsouth.net
Codes: 00400, 55490, 86130

Rolls-Royce Nuclear I&C

Pittsburgh, PA | <https://www.rolls-royce.com/products-and-services/nuclear/product-finder/instrumentation-and-control-solutions.aspx>
 William J. Rosko | 412/320-3094
william.rosko@rolls-royce.com
Codes: 08800, 09750, 09800, 14000, 17950,
 21270, 25000, 26080, 40050, 41000, 63400,
 71190, 84600, 86300, 86400, 93040

Rosemount Nuclear Instruments, Inc.

Chanhassen, MN | www.emerson.com/rosemountnuclear
 Chris Victor | 952/949-5200 | 800/999-9307
rnii.info@emerson.com
Stamps: 10CFR50 Appendix B, 10CFR 21, ISO 9001-
 2015, NQA-1-1994, KTA 1401, CSA CAN3-Z299.1-85,
 IAEA 50-C-Q, IAEA GS-R-3
Codes: 03200, 25000, 54750

Rotating Equipment Repair

Sussex, WI | www.rerpump.com

Katie Wilde | 262/844-2025
katie.wilde@rerpump.com

Stamps: NPT, NR, NCA-3800 Material Organization, SHARP

Codes: 64700, 64750

RSO, Inc./Radiation Service Organization

Laurel, MD | www.rsoinc.com

David Wellner | 301/953-2482 | 888/723-5463
radmaterials@rsoinc.com

Steve McDaniel | 301/953-2482 | 888/RAD-LINE
sales@rsoinc.com

Codes: 09800, 10850, 14000, 14300, 17950, 20300, 20350, 26100, 26230, 37130, 37200, 55040, 67380, 77800, 79370, 83110, 83210, 84600, 86300, 87000, 93040

Sargent & Lundy

Chicago, IL | www.sargentlundy.com

Thomas J. Behringer | 312/269-7218
tbehinger@sargentlundy.com

Stamps: Sargent & Lundy's company-wide Quality Management Program is ISO 9001: 2015 certified. Sargent & Lundy's Nuclear Quality Assurance Program is maintained as a Topical Report that is approved by the U.S. Nuclear Regulatory Commission. It meets Appendix B and NQA-1 requirements and also conforms to the requirements of ASME NQA-1.

Codes: 03800, 12800, 13850, 14000, 20300, 26100, 37200, 40900, 47400, 56600, 67380, 71190, 75600, 77750, 84600, 86300, 86500

Schneider Electric Gutor Technologies

Houston, TX | www.gutor.com

Michael May | 865/230-3582 | michael.may@se.com

Stamps: Approved 10CFR50 App. B and NQA-1 Quality Program. ISO 9001/2008, Certification by Bureau Veritas NQA-1 Dedication of Firmware for Safety Class Applications

Codes: 63400*

SCHOTT Electronic Packaging (A Div. of SCHOTT North America, Inc.)

Southbridge, MA | www.schott.com/en-us/products/eternaloc

Tonya Durkin | 949/302-5020
tonya.durkin@us.schott.com

Codes: 26910, 26970, 75190, 77800*

Schulz Electric, Timken Power Systems

New Haven, CT | www.schulzelectric.com

Matt Radulski | 203/859-7430 | 800/826-1425
mattr@schulzelectric.com

Stamps: QA Program: 10CFR50 App. B, NQA 1-2008/2009a, successful audits to CSA Z299 requirements; certification to ISO 9001:2015.

Codes: 03800, 08800, 14000, 18600, 20350, 37200, 40900, 47400, 56600, 81680, 84150, 84600, 90250, 93900, 95900*

Schutte and Koerting

Trevose, PA | www.s-k.com

Power Sales | 215/639-0900 | sales@s-k.com

Stamps: ASME Section VIII, ANSI B16.34 & B16.5, API 611 & 612, NEMA SM23/24

Codes: 64750, 90100, 90600, 90800, 91260, 91380*

Seafab Metals Co. (Div. of The Doe Run Co.)

Casa Grande, AZ | www.seafab.com

Joe Snodgrass | 520/732-1715 | 800/426-7082
jsnodgrass@seafab.com

Codes: 14300, 59800, 77800

SecurMAR, LLC

Zionsville, IN | www.securmar.com

Cindy C. Harts | 219/661-8964
charts@securmar.com

Kristin M. Harts | 219/661-8964
kharts@securmar.com

Codes: 14000, 75700, 75850*

S.E. International, Inc.

Summertown, TN | www.seintl.com

Beth Cramer | 931/964-3561 | 800/293-5759
radiationinfo@seintl.com

Codes: 17950, 37130, 55040, 55060*

Sentry Equipment

Oconomowoc, WI | www.sentry-equip.com

Erik Bleske | 262/567-7256
marketing@sentry-equip.com

Stamps: U, ASME - Section VIII, Div. 1. ISO 9001:2015 certified

Codes: 04000, 09800, 17650, 54750, 74150, 74320*

S&G Enterprises, Inc.

Germantown, WI | www.ramflat.com

Mark J. Griffith | 262/251-8300 | 888/726-3528
info@ramflat.com

Codes: 11680, 11700, 68000*

Shipsrock Consulting, LLC

Westport, MA

Russell Mellor | 860/573-5521
mellor.russ@gmail.com

Codes: 14000, 20300, 20700, 86300

Sidus Solutions LLC

San Diego, CA | www.sidus-solutions.com

Leonard Pool | 619/275-5533 x306
l.pool@sidus-solutions.com

Jackie Broussard | 619/275-5533
jackie_broussard@sidus-solutions.com

Stamps: SDVOSB #: 222120 DVBE: 35907

Codes: 08800, 14000, 45550, 54750, 72300, 73300, 75850, 83600, 92800, 93040*

Sigma Inc.

Charlestown, IN | www.sigmappc.com

Martin Wells | 812/256-5265 | 800/210-6907
martin@sigmappc.com

Stamps: Certified Woman Business Enterprise, certified commercial dedication facility.

Codes: 47400, 54750, 84600, 90100, 90250, 90600, 90800, 91000, 91260, 91380

Sigma Science

Albuquerque, NM | www.sigmasci.com

Ann Riedesel | 208/569-6320
ariedesel@sigmasci.com

Codes: 03800, 14000, 93040

Simpson Gumpertz & Heger (SGH)

Chicago, IL | www.sgh.com

Chris Hewitt | 312/754-7466 | cmhewitt@sgh.com

Stamps: ANSI/ASME NQA-1; 10CFR830 Subpart A; 10CFR50 App. B; DOE O414.1C

Codes: 03800, 14000, 14300, 18590, 18600, 20300, 20700, 26900, 30500, 36000, 36900, 40900, 47400, 54750, 61570, 66280, 76400, 77900, 84600

S&K Logistics Services

Byron, GA | <https://www.sklogisticsservices.com/>

Swaine Skeen | 970/210-4812 | jskeen@skls-llc.com

Codes: 14000

Skolnik Industries

Chicago, IL | www.skolnik.com

Dean Ricker | 773/735-0700 | 800/441-8780
dean@skolnik.com

Codes: 14300, 68000

Sonic Systems International, Inc.

Houston, TX | www.ssi-group.net

Bill Aston | 281/531-7611 | 800/417-3140
baston@ssi-group.net

Bruce Schlueter | 847/997-2670 | 800/417-3140 |
bschlueter@ssi-group.net

Codes: 20300, 25400, 30500, 56600*

Southwest Research Institute

San Antonio, TX | www.swri.org

Business Inquiries | 210/522-2122 | ask@swri.org

Stamps: SNT-TC-1A, ISO-9001, ISO-17025, ISO-17020, NELAC, 10 CFR Part 50 App. B, 10 CFR Part 21, NQA-1, 10 CFR Part 71 Subpart H

Codes: 03800, 09800, 11400, 12800, 14000, 25600, 37200, 40900, 56600, 72300, 73620, 75600, 77750, 84600, 86300, 93040

Springs Advanced Technology Group (ATG), LLC

Westminster, CO | www.springsfabatg.com

Michael Wade | 678/428-5278

mikew@springsfabatg.com

Stamps: ASME Certificate of Authorization (U); Boiler and Pressure Vessel Inspectors; ASME NQA-1; ISO 9001:2015 Certification

Codes: 00300, 03000, 14000, 67380

SPX Cooling Technologies, Inc.

Overland Park, KS | www.spxcooling.com

913/664-7400 | 800/462-7539

ct.spxcooling@spx.com

Codes: 03000

SSM Industries, Inc.

See advertisement on page 62

Pittsburgh, PA | www.ssmi.biz

Matt Gorman | 412/777-5101 | mgorman@ssmi.biz

Codes: 03000, 03800, 12800, 19450, 27180, 32250, 83150, 90250

Standish Technologies International

Deerfield Beach, FL | www.standtech.com

Neil Passman | 786/664-6776 | neilp@standtech.com

Codes: 37200

Strategic Packaging Systems

See advertisement on page 104

Madisonville, TN | www.spsonline.biz

Rebekah Moreland | 423/545-9505 | 877/859-4262
r.moreland@spsonline.biz

Codes: 14300, 64300, 68000

Structural Integrity Assoc., Inc.

San Jose, CA | www.structint.com

Mike Battaglia | 704/635-0242 | 877/474-7693
mbattaglia@structint.com

Codes: 03800, 40900, 56600, 84600

Studsvik, Inc.

Sandy Springs, GA | https://www.studsvik.com/what-we-do/waste_mgmt_tech/nuclear-and-radioactive-waste-management/

Bob Manseill | 678/748-6156

bob.manseill@studsvik.com

Codes: 12800, 13850, 14000, 14300, 53950, 87000

Studsvik Scandpower

Wilmington, NC | www.studsvik.com/ssp

W. A. 'Art' Wharton | 857/279-2248
art.wharton@studsvik.com

Stamps: NQA-1 Software Development, ISO 9001

Codes: 14000, 30040

Sulzer

Chattanooga, TN | www.sulzer.com

Eric Jenkins | 423/296-1919 | eric.jenkins@sulzer.com

Stamps: ASME N & NPT, NACE/NUPIC Audited

Codes: 64700, 75190

Super Radiator Coils

Chaska, MN | www.superradiatorcoils.com

Brian Elliott | 952/466-7116 | 800/394-2645

brian.elliott@superradiatorcoils.com

Stamps: ASME N, NPT & NS (Class 2 & 3); ASME S, U and UM; National Board R; ISO 9000:2015

Codes: 03000, 37600, 92300*

Switchgear Solutions, Inc.

Tucson, AZ | www.switchgearsolutions.com

Tom Scott | 520/622-1294 | 800/349-7947

thomas.scott@switchgearsolutions.com

Codes: 14000, 47400, 84600

System One

Pittsburgh, PA | www.systemone.com

Mark Fenske | 412/995-1912 | 877/505-SYS1(7971)

marketing@systemoneservices.com

Codes: 09750, 13850, 14000, 25400, 40900, 56600, 84600, 86300

Talbert Manufacturing

Rensselaer, IN | <https://www.talbertmfg.com>

Troy Geisler | 219/866-7141 x231 | 800/348-5232

tgeisler@talbertmfg.com

Codes: 86260*

Talisman Div. of Enercon

Kennesaw, GA | www.enercon.com

Thomas Magette | 770/919-1930

tmagette@enercon.com

Codes: 03800, 14000, 14300, 75850, 86300

T&T Enterprises

Corona, CA | www.ttenterprises.com

Brent Thalasinis | 951/340-0911

brent@ttenterprises.com

Stamps: ASME QSC

Codes: 26900

Technical Management Services, Inc.

New Hartford, CT | www.tmscourses.com

Robin Rivard | 860/738-2440

rrivard@tmscourses.com

Codes: 37200, 86400, 86500

Technisonic Research Inc.

Fairfield, CT

Tony Ruiz | 203/368-3600 | 800/854-7604

tonyr@technisonic.net

Codes: 56600*

Technology for Energy Corp.

Knoxville, TN | www.tecnuclear.com

Donna J. Mullaly | 865/966-5856

donna.mullaly@tec-usa.com

Stamps: ISO 9001:2015 Registered.

Codes: 03200, 21270, 22200, 40050, 56600, 91260*

Tech Products, Inc.

Staten Island, NY | www.techproducts.com

Daniel D. O'Connor | 718/442-4900 | 800/221-1311

doconnor@techproducts.com

Codes: 37130, 47630*

TEiC

Duncan, SC | <https://www.babcockpower.com/teic/>

Jennifer Pasquariello | 508/439-0146

jpasquariello@babcockpower.com

Codes: 03000, 10780, 12800, 14000, 22700, 47400, 54750, 56600, 61570, 84150, 84600, 91380

Teledyne Brown Engineering, Inc.

See advertisement on page 82

Huntsville, AL | www.tbe.com

Jessica Sanders | 256/726-1385

jessica.sanders@teledyne.com

Stamps: ASME N, NPT, U, UM, NS, The National Board of Boilers and Pressure Vessel Inspectors R Certificate/Stamp.

Codes: 03800, 04000, 08800, 12800, 13400, 14000, 14300, 20300, 26080, 26100, 26910, 32250, 36000, 37200, 37600, 47400, 54750, 59850, 66280, 73620, 74150, 84150, 84600, 92300, 93040

Teledyne FLIR

Chelmsford, MA | <https://www.flir.com/>

Teledyne FLIR Sales | 987/769-9333

ugs-chelmsford-sales@teledynelfir.com

Codes: 10780, 40900, 68000, 72300

Teletrix

Pittsburgh, PA | www.teletrix.com

Michael Podobnik | 412/798-3636

mikep@teletrix.com

Codes: 86300*

Tetra Tech Inc.

Richland, WA | www.tetrattech.com

Warren Baugh | 412/951-3076

warren.baugh@tetrattech.com

John Gonsky | 509/372-5814

john.gonsky@tetrattech.com

Codes: 37200, 86300

Thermal Engineering International (TEI)

Cerritos, CA | <https://www.babcockpower.com/tei/>
 Jennifer Pasquariello | 508/439-0146
jpasquariello@babcockpower.com
Codes: 03800, 14000, 37600, 47400, 56600, 61570, 73620, 75190, 84600, 86300, 92300

Thermo Scientific - CIDTEC Cameras & Imagers (Part of Thermo Fisher Scientific)

See advertisement on page 99

Liverpool, NY | www.thermofisher.com/cidtec
 Tony Chapman | 315/451-9410 | 800/888-8761
sales.cidtec@thermofisher.com
Codes: 40900, 73300, 75850, 83600, 92800*

3 Bears Technical Services, LLC

Hixson, TN | www.3bears.me
 Richard Sain | 865/806-1224 | rsain@3bears.me
Codes: 14000, 20300, 93040

Timesoft

Long Beach, CA | www.timesoft.com
 Marisol Guzman | 562/253-3615
marisol.guzman@timesoft.com
Codes: 03200, 12800, 12900, 13400, 14000, 19700

TradeWind Services LLC

Richland, WA | tradewindllc.com
 Scott Hertz | 509/521-3864
scotth@tradewindllc.com
Codes: 13850, 14000, 25400

Transco Products Inc.

Streator, IL | www.transcoproducts.com
 Kevin Hawks | 312/896-8501
kevinh@transcoproducts.com
Codes: 26230, 37130, 93040

TRILLIUM Valves USA

Ipswich, MA | www.trilliumflow.com
 Julia Henning | 978/744-5690
julia.henning@trilliumflow.com
Stamps: N, NPT, NV, ASME III, Class 1, 2, & 3; Certification by ISO 9001.
Codes: 84150, 90600, 90800, 91000, 91260, 91380*

Tri Nuclear Corp.

Ballston Lake, NY | www.trinuclear.com
 Rick Russell | 518/399-1389 | rick@trinuclear.com
Codes: 10780, 27180, 27450, 41700, 72300, 77800, 83150, 90100

Tri-State Motor Transit Co.

Glendale, AZ | <https://tristatesecured.com/>
 Leslie Martin | 417/621-2224 | 800/234-8768
leslie.martin@roadmastergroup.com
Codes: 86250, 86260, 87000

Tru-Motion Products, LLC

Cheyenne, WY | www.trumotionproducts.com
 Anthony Suneson | 704/982-9242
info@trumotionproducts.com
Codes: 47600

Ultra Electronics, Energy

Round Rock, TX | www.ultraelectronicsenergy.com
 Robert Carson | 737/231-5485 | 800/880-9333
robert.carson@ultra-nsi.com
Codes: 26970, 37130

Underwater Construction Corp.

See advertisement on Cover 4

Essex, CT | www.uccdive.com
 Philip McDermott | 860/767-8256 | 800/USA-DIVE
pmcdermott@uccdive.com
Codes: 20300, 22700, 40900, 56600, 66280, 72300, 90100, 92800, 93040*

Underwater Engineering Services, Inc. (Nuclear Services Div.)

Fort Pierce, FL | www.uesi.com
 Robert Walcheski | 772/337-3116 | 877/348-3837
rwalcheski@uesi.com
 Al Rogers | 772/337-3116 | 877/348-3837
arogers@uesi.com
Stamps: ADCI Certified Commercial Divers, ANSI N45.2.6 Certified Inspections, ASNT SNT-TC-1A, CP-189; Certified NDE (ASME XI exams), ASME IX, XI, II Certified Welding, Coatings and Corrosion Engineers.
Codes: 10780, 14000, 20350, 27450, 47400, 79360, 83600, 86300, 93040*

Unique Technical Resources

Wayne, PA | www.uniquetechresources.com
 Saeed Savar | 610/304-0904
saeed.savar@uniquetechresources.com
Codes: 03800, 12800, 14000, 18600, 63400, 84600

UniTech Services Group, Inc. (Div. of UniFirst Corp.)

See advertisement on pages 67 and 81
 Longmeadow, MA | www.unitechus.com
 Gregg Johnstone | 413/543-6911 x146
gjohnstone@unitechus.com
Codes: 10780, 10850, 10900, 14300, 20300, 20350, 25400, 26230, 37130, 37200, 55040, 55060, 68000, 73550, 74150, 86260, 93040, 95850*

US Ecology, Inc.

Livonia, MI | www.usecology.com
 Dave Crumrine | 734/521-8032 | 800/592-5489
dave.crumrine@usecology.com
Codes: 20300, 20350, 20700, 47400, 87000

US Nuclear Corp. (Technical Associates Sub.), (Overhoff Technology Corp. Sub.)

Canoga Park, CA | www.tech-associates.com and www.overhoff.com and www.usnuclearcorp.com
 Wanda Magill | 818/883-7043
wanda@tech-associates.com
Codes: 03200, 04000, 09750, 09800, 17950, 21270, 21300, 26080, 37130, 37200, 39960, 55040, 55060, 67380, 74150

Utilities Service Alliance (USA)

Overland Park, KS | www.usainc.org
 Jim Kitchens | 913/905-9266 | jkitchens@usainc.org
Codes: 14000

UxC, LLC

Roswell, GA | www.uxc.com
 Eric Webb | 770/642-7745 | eric.webb@uxc.com
Codes: 03800, 12800, 14000, 40700, 81680, 81710, 86300*

Valcor Engineering Corp. (Valcor Nuclear Div.)

Springfield, NJ | www.valcor.com
 Steve Gatcomb | 973/467-8400 | nuclear@valcor.com
Stamps: N, NPT, Classes 1, 2, 3. Certification by ANSI N45.2 App. B 10CFR50; ISO 9001; HAF 604.
Codes: 47400, 84150, 90250, 90600, 90800, 91260*

ValvTechnologies, Inc.

Houston, TX | www.valv.com
 Linda Goodrich | lgoodrich@valv.com
Stamps: ASME N Stamp Authorization for Class 1, 2 & 3 valves, NPT Stamp Authorization for nuclear grade parts, ANSI N45.2, 10CFR50 App. B, 10CFR Part 21 Acceptance, NQA-1
Codes: 47400, 90600, 91000, 91260, 91380*

Veolia Nuclear Solutions - Federal Services

Piketon, OH | www.vnsfederalservices.com
 Amanda Gilmore | 740/443-7141
amanda.gilmore@vnsfs.com
Codes: 03000, 03800, 09800, 10780, 13850, 20300, 20350, 20700, 26100, 41700, 47600, 53950, 67380, 68000, 72300, 73620, 79360, 84600, 87380, 87400, 93040

Volian Enterprises, Inc.

Murrysville, PA | www.volian.com
 Harold V. Julian | 724/335-3744
volianenterprises@volian.com
Codes: 03800, 12800, 14000, 41000, 86300, 86500

Wagstaff Applied Technologies

Spokane, WA | www.wagstaffat.com
 Dan Payne | 509/321-3184
dan.payne@wagstaff.com
Stamps: ASME U-Stamp, ASME NQA-1 2008 w/2009 addenda
Codes: 14300, 36000, 37600, 53950, 66280, 68000, 77800, 79360, 81710, 83150, 87380, 92300, 93900

Waste Control Specialists LLC

Andrews, TX | www.wcstexas.com
 Steve Ferguson | 513/560-1744
sferguson@wcstexas.com
 Dan Burns | 214/662-5422 | dburns@wcstexas.com
Codes: 14300, 20300, 25600, 87000, 93040*

Waste Control Systems, Inc.

Phoenix, MD | www.wastecontrol.com
 William Fannon | 410/252-9360 | 877/252-9360
wpf@wastecontrol.com
Codes: 11700, 14300, 68000

WaterWorks America, Inc.

Independence, OH | www.1water.com
 Lynn Altmayer | 440/526-4815
saltmayer@1water.com
Codes: 93040

Watlow

St. Louis, MO | www.watlow.com
 Richard Vlah | 314/878-4600 | 800/WATLOW2
rvlah@watlow.com
Codes: 37600, 51730*

Weldstar

Aurora, IL | www.weldstar.com
 Alex Jackson | 630/849-2430
ajackson@weldstar.com
Stamps: ASME Quality System Certificate 229, ISO 9001:2015 C2020-00612
Codes: 10850, 10900

Westinghouse Electric Co. LLC

Cranberry Township, PA | www.westinghousenuclear.com
 Sharon Coffaro-Vernick | 724.406.4423
sharon.coffaro-vernick@westinghouse.com
Codes: 00400, 03180, 03200, 03800, 08800, 09800, 10780, 12800, 13400, 13850, 14000, 14300, 17950, 18600, 20300, 20350, 22410, 25000, 26230, 26900, 30040, 30500, 32250, 37600, 40050, 40900, 41700, 47400, 54750, 55490, 56600, 59800, 63400, 64700, 66280, 68000, 72300, 75190, 76400, 79360, 81680, 81710, 84150, 84600, 86300, 86500, 90250, 90330, 90600, 90800, 91260, 91380, 92800, 93040, 93900*

WMG, Inc.

See advertisement on Cover 3
 Peekskill, NY | www.wmginc.com
 Jeff Nelson | 914/736-7100 | jnelson@wmginc.com
 Mark Trager | 914/736-7100 | mtrager@wmginc.com
Stamps: Approved 10CFR50 App. B QA Program, including NQA-1, Part II, Subpart 2.7. NUPIC audited and approved.
Codes: 03800, 12800, 14000, 14300, 17950, 20300, 20350, 37200, 68000, 71190, 77750, 79360, 86300, 86500, 93040*

WM Symposia

See advertisement on page 136
 Tempe, AZ | www.wmsym.org
 Jaclyn Russell | 480/557-0263
jaclyn@wmarizona.org
Codes: 86300

Wood (Environment & Infrastructure Solutions), (Radiological Services & Engineering Group)

Grand Junction, CO | www.woodplc.com
 Jeffrey Lively | 970/243-2861
jeffrey.lively@woodplc.com
Codes: 14000, 20300, 37200, 67380, 68000, 93040

Worthington Industries

Columbus, OH | www.worthingtonindustries.com
 Dave Cline | 614/840-4153 | 800/338-8265
dave.cline@worthingtonindustries.com
Stamps: Worthington has a quality system that is compliant with 10CFR50B, 10CFR71H, and NQA-1.
Codes: 14300, 68000, 83150, 92300*

Yokogawa Corporation of America

Newnan, GA | www.yokogawa.com/us
 Clayton Wilson | 678/423-2524 | 800/888-6400
clayton.wilson@yokogawa.com
Codes: 03200, 04000, 25000, 40050, 47400, 54750*



Is your company listed?

If your company was not included in this year's *Radwaste Solutions* Buyers Guide, go to www.ans.org/advertising/newsrbg to create a free company listing.

If you think your company previously had a free listing but doesn't appear in this year's Buyers Guide, or if you need to update your contact information, email us at advertising@ans.org.

Part II—Companies located outside the United States

Belgium

Nuclear-21

Waasmunster | www.nuclear-21.net
 Luc Van Den Durpel | +32473865647
vddurpel@nuclear-21.net

Codes: 12800, 14000, 20300, 20350, 68950

Saint-Gobain HTMS NV (High Tech Metal Seals)

Mechelen | www.htms.be
 Dimitri Van den Broeck | +32 15 22 02 81
dimitri.vandenbroeck@saint-gobain.com

Stamps: ISO 9001, ISO 14001, AS 9100

Codes: 75190

Canada

ATS Industrial Automation, Inc. Nuclear (Canada)

Cambridge, Ontario | <https://atsautomation.com/nuclear>

Paul McKenna | 519/574-5914
pmckenna@atsautomation.com

Stamps: ASME NQA-1; 10CFR50 App. B; 10CFR21 Program; CSA N285.0; CSA N286; CSA N299; CSA B51; ASME B31.1; ASME B31.3; ISO-9001:2015; ISO:13485:2016

Codes: 10780, 12800, 14000, 20300, 30500, 40900, 47400, 47600, 59850, 68000, 68950, 72300, 73620, 79360, 86130

Bot Engineering Ltd

Campbellville, Ontario | www.bot.engineering
 David Bot | 905/481-0642 | david.bot@botcorp.com
 Alan Bot | 905/876-4301 | alan.bot@botcorp.com

Codes: 04000, 08800, 09750, 12900, 17950, 25000, 25250, 25300, 26080, 55040, 55060

Copperleaf Technologies Inc.

Vancouver, British Columbia | www.copperleaf.com
 Laura Ryan | 604/639-9700 | 888/465-5323
lryan@copperleaf.com

Codes: 12800, 14000

DB2 Consulting Inc.

Baltimore, Ontario | www.db2consulting.ca
 Doug Burton | 289/251-1105
doug@db2consulting.ca

Codes: 14000, 86300

Deep Trekker

Kitchener, Ontario | www.deeptrekker.com
 Andrew Lawrence | 519/504-6733
alawrence@deeptrekker.com

Codes: 10780

Eddyfi Technologies

Nanaimo, British Columbia | www.eddyfitechnologies.com
 250/729-8080 | 877/468-5886 | info@eddyfi.com
Codes: 19700, 26080, 26230, 45550, 56600, 61570, 72300, 74150, 83600, 86130, 86300

E.S. Fox Limited

Niagara Falls, Ontario | www.esfox.com
 Frank Pepers | 905/354-3700
frank.pepers@esfox.com
 Anthony DeChellis | 905/354-3700
anthony.dechellis@esfox.com

Stamps: ASME; Section VIII Div. 1; Section 3 - Class 3; B31.1; B31.3; Z299 (2, 3, 4); ISO 9001:2015; 14001; 45001. ASME N, NPT, NA, NS, U, US, SS, PP Certifications. Privately owned.

Codes: 03000, 13850, 14000, 14300, 20300, 37600, 45550, 47400, 56600, 59800, 60100, 73570, 83150, 93900*

FuseRing Inc.

London, Ontario | fusering.com
 Paul Cheng | 519/709-2091 | info@fusering.com
Stamps: Canadian Nuclear Decommission Catalogue; U.S. Naval Submarine League - Corporate
Codes: 14300, 59800, 59850, 93900

Hoskin Scientific

Oakville, Ontario | www.hoskin.ca
 Brian Garner | 905/333-5510 | 800/665-5871
bgarner@hoskin.ca
Codes: 03200, 03800, 04000, 08800, 09750, 09800, 12800, 19700, 84150*

Kanata Electronic Services Ltd.

Toronto, Ontario | www.kesl.com
 Barbara Miller | 416/745-0688 | 888/371-5375
bmiller@kesl.com
Stamps: ISO9001:2015
Codes: 08800, 13400, 40050, 41200

KEPCO E&C

Port Elgin, Ontario | www.kepco-enc.com/eng/index.do
 Kai Nam | 226/453-2131 | gold@kepco-enc.com
Stamps: ASME N Certificate(N-4396) Holder, ISO 9001, 14001, 45001 Certificate Holder
Codes: 14000

Kinectrics Inc.

Toronto, Ontario | www.kinectrics.com
 Lori Mignone | 416/207-6000
lori.mignone@kinectrics.com
Codes: 03800, 09800, 12800, 13850, 14000, 20300, 20350, 37200, 44000, 47400, 73620, 76400, 77750, 79370, 84600, 86300, 87000, 87380, 93040

Liburdi Automation Inc.

Dundas, Ontario | www.liburdi.com
 Jason Elliott | 905/689-0734 | jelliott@liburdi.com
Stamps: CSA N285
Codes: 03800, 93900

L3Harris (Power Systems and Simulation)

Montreal, Quebec | www.L3Harris.com
 Michael Chatlani | 514/787-4999
michael.chatlani@L3Harris.com
Stamps: ISO 9001:2015, ISO 9001:2015, ISO 9001:2015, ISO 45001 2018, ISO/IEC 27001:2013, Tickit Plus, Cyber Essentials Plus
Codes: 12800*

MarShield Radiation Shielding (Div. of Mars Metal Co.)

Burlington, Ontario | www.marshield.com
 Kevin Milne | 905/637-3862 | 800/381-5335
kmilne@marsmetal.com
Stamps: ISO9001:2015, CSA-N299.3:16
Codes: 03200, 03800, 06950, 10900, 14000, 14300, 25600, 30500, 37130, 47400, 53950, 55490, 59800, 77750, 77800, 79360, 95750

Morson International Inc. (Morson Canada)

Toronto, Ontario | www.morsoncanada.com
 Neil Smith | 519/546-7735
neil.smith@morsoncanada.com
 Eric Goodman | 905/399-3742
eric.goodman@morsoncanada.com
Codes: 14000, 25400

Newman Hattersley Ltd.

Mississauga, Ontario | www.imi-critical.com

Brad Michell | 905/678-1240 x1220
bradley.michell@imi-critical.com**Stamps:** ASME N, NPT; ISO 9001; N285.0; CSA Z299.2, .3, .4**Codes:** 90250, 91260, 91380***Niagara Energy Products (NEP)**

Niagara Falls, Ontario | www.niagaraenergyproducts.com

Antony (Tony) Morris | 905/371-2500 x226
tonym@niagaraenergyproducts.com**Stamps:** NQA-1 Compliant; Nuclear Fabrication & Welding (CSA N285.0/ASME Sec.III); Commercial Fabrication & Welding (CSA B51/W47.1/W59/ASME Sec.I/III/B31.1/B31.3); Quality Management System (CSA Z299.1/N299.1); Quality Management System (ISO 9001); Concrete Testing Laboratory (CSA A283 Cat.0)**Codes:** 14300, 77800***Niagara Fasteners Inc.**

Niagara Falls, Ontario | www.niagarafasteners.com

Dean Zaniol | 905/356-6887 | 800/263-3602
nfsales@niagarafasteners.com**Stamps:** Certification by CSAN285.0 and CSAZ299.3 & ISO 9000-2015.**Codes:** 26900**Power Generation Integrated Consulting Limited (PGICL)**

Etobicoke, Ontario | https://www.linkedin.com/in/vinodchugh/

Vinod Chugh | 647/575-9349 | vinod.chugh@pgicl.ca

Stamps: P. Eng. (Canada)**Codes:** 14000**Promation Nuclear**

Oakville, Ontario | https://www.promation.com/

Anna Masarik | 416/801-2278
masarik.a@promation.com**Stamps:** CSA N285.0 - Class 1 Pressure Vessels and Fitting and Supports, NCA-3800 Material Organization, CSA B51 (ASME B31.1 and ASME B31.3), CSA B51 Section B Pressure Vessels, CSA B51 Fittings, CSA B51 Repair and Modification of Pressure Vessels and Fitting, Z299.1/N299.1, CSA W47.1 Div.2, CSA W47.2 Div.2, ISO 9001:2015**Codes:** 03800, 08800, 09750, 09800, 12800, 14000, 14300, 20300, 20350, 22700, 53950, 60100, 68950, 72300, 81710, 86130, 93040**Pylon Electronics Inc. (Instrumentation Dept.)**

Ottawa, Ontario | www.pyronelectronics-radon.com

Lise Leveille | 613/226-7920 | 800/896-4439
instrument@pyronelectronics.com**Codes:** 03200, 17950, 55040, 68950, 76400**RadComm Systems Corp.**

Oakville, Ontario | www.radcommsystems.com

Andrew Haber | 905/829-8290 | 800/588-5229
ahaber@radcommsystems.com**Codes:** 12800, 14000, 17950, 55040, 55060**REEL COH Inc.**

Boisbriand, Quebec | www.reel-coh.com

Stephan Bedard | 450/430-6500 | 800/363-6501
sbedard@reelcoh.com**Codes:** 03800, 09950, 18590, 18600**SDT Ultrasound Solutions**

Cobourg, Ontario | sdtultrasound.com

Robert Dent | 289/771-1313 | 800/667-5325 | robert.dent@sdtultrasound.com

Ken Mitchell | 905/377-1313 | 800/667-5325
ken.mitchell@sdtultrasound.com**Codes:** 03800, 21400, 40050, 40900, 47400, 54750, 84600**Sulzer Management Ltd. (Sulzer Pumps (Canada) Inc.)**

Burnaby, British Columbia | www.sulzer.com

Dimitrie Cepisca | 416/213-8800
dimitrie.cepisca@sulzer.com**Stamps:** ASME Section III (Cl. 1, 2 & 3); ASME N & NPT certificate of authorization; CSA B51; CSA N285; MIL-Q-9858-A; NDT MPI/LPI/RT/UT; EN 13445; CSA Z299.1/2/3/4; Standard KTA 1401; IAEA 50-C-Q; AVS D 100/50; FRA/N/100/OL3; RCC-M; API 610, ISO 5199, ANSI/ASME B73.1; HAF 601 CL. 3; HAF 604 CL. 2 & 3**Codes:** 47400, 64700, 64750**Sylvan Automation Ltd.**

Oakville, Ontario | www.sylvanautomation.com

Brooke Tinkess | 905/827-1900
btinkess@sylvanautomation.com**Codes:** 13600***Tap Report**

Toronto, Ontario | www.tapreport.io

Steve Buck | 416/702-9093 | 855/727-9388
stevebuck@tapreport.io**Codes:** 12800, 40900, 67380, 71190***Thorburn Flex Inc.**

Pointe-Claire, Quebec | www.thorburnflex.com

John Thorburn | 514/695-8710 | 800/363-6613
jthorburn@thorburnflex.com**Stamps:** ISO 9001:2015, ASME Section VIII Div. 1, ASME B31.3, ASME B31.1, N285.0, CSA B51, CSA, CNCAN, CSA N299.3**Codes:** 26240, 47400***UKM Management Consulting**

Brampton, Ontario | www.digitalization-obsolence.com

Ujjal Kumar Mondal | 647/295-3955
ujjal@rogers.com**Codes:** 26240**Unified Engineering**

Hamilton, Ontario | www.unifiedengineering.com/

Ed Veckie | 905/523-1700 | 800/613-2197
eveckie@unifiedengineering.com**Codes:** 03000, 03800, 13700, 14300, 18600, 19450, 68000, 72300, 74350, 77800, 79360, 81710, 93900, 96200**VGSSolutions**

Mississauga, Ontario

Dr. V. G. Snell | 905/824-6236
vgssolutions@rogers.com**Codes:** 14000, 86300**Women in Nuclear Canada**

Toronto, Ontario | www.womeninnuclear.com

Nzinga White | 416/915-3020 | 877/321-2131
canada@womeninnuclear.org**Codes:** 14000, 25400**Czech Republic****METOIL**

Praha | www.metoil.com

Igor Voinov | +420 774 136 322
voinov@renecol.com**Codes:** 00400, 14000, 68000, 79370, 86300**SKODA JS a.s.**

Plzen, Bolevec | www.skoda-js.cz

David Pavlis | +420 734 261 861 | info@skoda-js.cz

Stamps: Certification by ISO 9001, ISO 14001, ISO 45001, AD-Merkblatt HPO, CEFRI**Codes:** 03800, 13850, 14300, 30500, 40900, 47400, 56600, 81710, 84600, 92300, 93900*

Finland

Fortum Power & Heat Oy, Nuclear Services

Espoo, Finland | www.fortum.com/nuclearservices
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Stamps: Certification by Quality System, ISO-9001:2000.

Codes: 03800

Platom Oy

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Codes: 03800, 14000, 30500

VTT Technical Research Centre of Finland

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Erika Holt | +358 20 722 4567 | erika.holt@vtt.fi
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Codes: 04000, 08800, 11400, 14300, 20300, 26100, 41000, 53950, 58000, 67380, 68000, 68950, 75600, 86300

France

COFREND

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Stamps: ISO CEI 17024 Standards: EN ISO 9712

Codes: 14000, 56600

CYCLIFE (Brand of EDF Group)

Puteaux | <https://www.cyclife-edf.com/>
Rosa Tomé | +33 668039322
rosa.tome@cyclife-edf.fr

Codes: 10780, 12800, 12900, 14000, 14300, 18600, 20300, 20350, 20700, 22700, 86300, 92800, 93040

EKIUM

Bron Cedex | www.ekium.eu
Christophe Zaia | +33 0632231705
christophe.zaia@ekium.eu

Stamps: ISO-CEFRI-QUALIFOUDRE-ISM ATEX-MASE-ASME-RCCE-RCCM-UTO

Codes: 13850, 14000

FEVDI Nuclear Decontamination

Corbas | www.fevdi-nuclear.com
Thomas Xu | +33 627053026
t.xu@fevdi-nuclear.com

Codes: 11400, 14000, 20350, 37160

INGEROP Conseil et Ingenierie (a company of INGEROP Group)

Cebazat | www.ingerop.com
Roberto Muscetti | +33473163557
roberto.muscetti@ingerop.com

Codes: 03800, 13850, 14000

Mirion Technologies (Premium Analyse)

Norroy Le Veneur | www.premium-analyse.com
Celine Regne | +33 640 89 2443
cregne@mirion.com

Codes: 17950, 21270, 55040

OECD Nuclear Energy Agency (NEA)

Paris Cedex 16 | www.oecd-neo.org
NEA Press Office | +33 1 45 24 10 10
press@oecd-neo.org

Codes: 40700*

Rolls-Royce Civil Nuclear SAS

Meylan | www.rolls-royce.com/nuclear
Romain Desgeorge | +33476611617
romain.desgeorge.cn@rolls-royce.com

Stamps: Certification by ISO 9001.

Codes: 08800, 09750, 09800, 14000, 17950, 21270, 25000, 26080, 40050, 41000, 63400, 71190, 84600, 86300, 86400, 93040*

TECHWAY

Villebon sur Yvette | www.techway.com
Patrick Mechin | + 33 1 64 53 37 90
info@techway.com

Stamps: ISO 9001

Codes: 92800*

Germany

ENVINET GmbH

Munich/Haar | www.envinet.com
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info@envinet.com

Codes: 12800, 14000, 17950, 21270, 21310, 25250, 26080, 26100, 51730, 55040, 55060*

GNS Gesellschaft für Nuklear-Service mbH

Essen | www.gns.de
+49 201 109 0 | info@gns.de

Stamps: ASME N3, ISO 9001, ISO 14001, OHSAS 18001, KTA 1401

Codes: 10780, 14300, 20300, 20350, 22410, 68000, 79360, 87000, 93040

Siempelkamp NIS

Alzenau | www.siempelkamp-nis.com
John Ferrara | 610/906-2997
john.ferrara@siempelkamp-nis.com

Stamps: Quality management according to DIN EN ISO 9001:2015; Quality assurance according to KTA 1401; Occupational safety and health management system - ISO 45001; Security-Safety-Management SeSaM Authorization to work in third-party plants or facilities (StrlschV) (German)

Codes: 14000, 14300, 20300, 20700, 27450, 53950, 68000, 72300, 79360, 83600, 86130, 86300, 86500, 93040*

Wälischmiller Engineering GmbH

Markdorf, Baden-Württemberg | www.hwm.com
Jean-Michel Wagner | +49 7544 95 14 0
jean-michel.wagner@hwm.com

Stamps: ISO 9001, ISO 14001, ISO 45001, KTA 1401, ATEX, DIN 18800-7, ISO 3834-2

Codes: 10780, 12800, 47600, 68000, 72300, 73620*

Italy

CAEN Sys

Viareggio, LU | www.caensys.com
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marco@caentech.com

Codes: 03200, 03800, 04000, 12800, 17950, 19700, 37130, 55040, 63400, 68000*

Campoverde srl

Milano | www.campoverde-group.com
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federico.gianni@campoverde-group.com

Codes: 12800, 14000, 14300, 20700, 67380, 68950, 93040

SIETPiacenza | www.siet.itStefano Botti | +39 0523 329017 | botti@siet.itFabrizio Ghizzoni | +39 0523 329048
ghizzoni@siet.it**Stamps:** ISO 9001:2015; EN ISO/IEC 17025:2017 (Testing and Calibration Laboratories); 10CFR50 App. B; 10CFR21; ASME NQA-1-2008 with NQA-1a-2009 Addenda**Codes:** 03800, 09800, 14000, 47400, 53950, 84600***Spain****Decidia Research & Consulting**Sabadell, Barcelona | www.decidiarc.com/François Diaz-Maurin | info@decidiarc.com**Codes:** 03800, 14000, 37200, 86300, 93040**Equipos Nuclear S.A., S.M.E**Maliaño (Cantabria) | www.ensa.esMaría Vega | +34 942 200 142 | vega@ensa.esRubén Moreno | +34 942 200 142 |
moreno.ruben@ensa.es**Stamps:** Nuclear Vessels and components, ASME Classes 1, 2 & 3: N, NPT, NA, N3, NS, S, U, U2 Stamps. AD-MERKBLATT HPO; KTA; RCCM; Certification by ISO 9001, ISO 14.001, ISO 3834, OSHAS 18001, ISO 17025**Codes:** 14000, 41000***Idom Consulting, Engineering, Architecture S.A.U.**Bilbao | www.idom.comXabier Ruiz | +34944797600 | xabier.ruiz@idom.com**Codes:** 03800, 13850, 14000**Nucleonova S.L.**Valencia | www.nucleonova.esJuan Antonio Muñoz Tirado | +34 961130470
nucleonova@nucleonova.es**Stamps:** ISO 9001, UNE 73401, 10CFR50 App. B, KTA 1401, ASME NQA-1**Codes:** 12800, 14000, 37200, 84600, 86300***Sweden****Brokk AB**Skelleftea | www.brokk.comTony Marlow | 505/466-3614 | 800/621-7856
tmarlow@brokkinc.com**Codes:** 10780, 13050, 68000, 72300, 73620***Ukraine****Radics LLC**Kropyvnytskyi | www.radics.techAnton Andrashov | +380522373328
a.andrashov@radics.tech**Stamps:** QAP complies to requirements NQA-1-1994, NQA-1-2008, NQA-1a-2009, RG128 Rev. 4 Quality Austria GmbH (Certificate Registr. No. 18187/0), issued 15.09/16**Codes:** 14000, 19700, 76400**United Kingdom****ATS Industrial Automation, Inc. - Nuclear (UK)**Blaby, Leicester | <https://atsautomation.com/nuclear>Narinder Bains | 647/328-6848
nbains@atsautomation.com**Stamps:** Certifications for Cambridge, Canada facilities: ASME NQA-1; 10CFR50 App. B; 10CFR21 Program; CSA N285.0; CSA N286; CSA N299; CSA B51; ASME B31.1; ASME B31.3; ISO-9001:2015; ISO:13485:2016**Codes:** 10780, 12800, 14000, 20300, 30500, 40900, 47400, 47600, 59850, 68000, 68950, 72300, 73620, 79360, 86130**Augean plc**Wetherby | www.augeanplc.comJoseph Hunter | +44 01937844980
josephhunter@augeanplc.com**Stamps:** ISO 9001, ISO 14001, ISO 45001**Codes:** 93040**Cross Manufacturing Company (1938) Ltd.**Bath | www.crossmanufacturing.comRichard Cross | +44 0 1225 837000
mail@crossmanufacturing.com**Codes:** 75190**KUKA Systems UK Ltd**West Midlands | www.kuka.comDave Burns | +44 0 1215850888
dave.burns@kuka.com**Codes:** 72300, 73620, 79360, 93040**Matom Ltd.**North Wales | www.matom.comMatt Tuck | +44 0 7990 590044 | matt@matom.com**Codes:** 03800, 14000, 20300, 20350, 67380, 68000, 84600, 93040**Munro Instruments**Harlow, Essex | www.munroinstruments.comIan Groom | +44 20 8551 7000
info@munroinstruments.com**Codes:** 54750, 64750**Prospect Law Ltd.**London | www.prospectlaw.co.ukEdward de la Billiere | +44 020 7947 5354
edlb@prospectlaw.co.uk**Codes:** 14000, 86300, 87000**Rolls-Royce Civil Nuclear**Warrington | www.rolls-royce.com/nuclearBen Todd | nuclearsolutions@rolls-royce.com**Stamps:** CSA Z299.1, CSA Z299.2, CSA Z299.3, CSA N285.0, CSA N286.2, ASME N, NPT & NS Stamps, ASME Section III (Including NQA-1), ASME U-Stamp, ASME Section VIII**Codes:** 03180, 03200, 03800, 10780, 11650, 12800, 12900, 13400, 13600, 13850, 14000, 19700, 20000, 20300, 25000, 30500, 37600, 39960, 40900, 41000, 41700, 47400, 54750, 55040, 56600, 63400, 67380, 71190, 72300, 73300, 73620, 75850, 83600, 84600, 86130, 92800, 93040**Shadow Robot Company Ltd.**London | www.shadowrobot.comJohn Dilworth | +4402077002487
john@shadowrobot.com**Codes:** 47600, 72300

Business Developments

Petersen Incorporated has announced that it has signed a definitive agreement to be acquired by **Precinmac**. Petersen is known for its specialized fabrication, precision machining, and advanced manufacturing. Precinmac manufactures high-tolerance, precision-machined components and assemblies. Precinmac views the acquisition of Petersen as complementary to its 2021 acquisition of Major Tool and Machine.

Republic Services has completed its acquisition of all outstanding shares of **US Ecology**, expanding the environmental solutions footprint of Republic across the United States and Canada. The transaction involves \$75 million to \$100 million

in cross-selling revenue opportunity between Republic's \$1.5 billion manufacturing portfolio and US Ecology's \$1 billion portfolio. Republic funded the transaction with a combination of credit and a three-year term loan.

Moltex Energy Canada and **SNC-Lavalin** have announced a strategic partnership with the objective of advancing clean nuclear energy. In the partnership, SNC-Lavalin will support the development and deployment of Moltex's nuclear technologies. Moltex is developing several nuclear technologies designed to meet Canada's net-zero commitments. Among these technologies is a stable salt reactor-wasteburner,

which uses recycled nuclear waste as fuel, and a waste to stable salt process for recycling nuclear waste.

Zeno Power Systems has selected **NAC International** to support the packaging and transportation of byproduct strontium-90 capsules, to be used for the development and deployment of Zeno's waste-to-energy radioisotope power system thermoelectric generators. These generators are designed to enable the lightweight and commercially affordable generation of power in harsh and remote applications, such as those in space or at sea. The Sr-90 capsules will be transported from various sites to Zeno's fuel source fabrication facility.

Contracts

Pacific Gas and Electric Company has contracted **TN Americas**, a subsidiary of **Orano USA**, to offload and transfer used nuclear fuel and greater-than-Class-C (GTCC) radioactive waste from the Diablo Canyon power plant into interim on-site dry storage. The two units of the California nuclear power plant are scheduled to be shut down in 2024 and 2025 (see pages 20-26 for more). Under terms of the contract, TN Americas will implement Orano's Extended Optimized Storage NUHOMS system, design a new GTCC dry storage

facility, fabricate storage canisters, construct and install concrete storage modules, and conduct pool-to-pad transfer operations for the used fuel and GTCC waste.

Framatome has been awarded a contract to provide full-system decontamination at **Bruce Power** Units 3 and 4 in Tiverton, Ontario. This chemical decontamination, which will be performed prior to refurbishing activities at the units, is scheduled to be carried out at Unit 3 in April 2023 and at Unit 4 in August 2024. The

work is expected to add about 30 to 35 years of operational life to the units.

Curio has signed a memorandum of understanding with **Energy Northwest** to deploy state-of-the-art commercial nuclear fuel recycling facilities in the United States. Under the terms of the MOU, Energy Northwest will be a partner and potential off-taker of products from Curio's NuCycle nuclear waste recycling process, including low-enriched uranium fuel for currently operating reactors. The NuCycle recycling process can also

yield high-assay low-enriched uranium and transuranic-based TRUfuel for future advanced reactors.

In another MOU, **Lightbridge Corporation** has agreed to be an industry partner and potential off-taker of products created through Curio's NuCycle/TRUfuel recycling technology. Lightbridge has expressed interest in using transuranic materials, such as feedstock material, in its metallic fuel rods to power both existing large reactors and future small modular reactors.

In yet another agreement, Curio and **NDB** have signed a letter of intent regarding NDB's use of radioisotopes recovered from nuclear waste recycled through Curio's technology. NDB agreed to use the radioisotopes as the power source for its self-charging nano diamond batteries (from which NDB's name is derived).

DOE

The Department of Energy's Office of Environmental Management has awarded a five-year contract to **Neptune and Company** to support Phase-2 decommissioning decision-making for the West Valley Demonstration Project and Western New York Nuclear Service Center. Neptune is to support the DOE mission at the site in West Valley, N.Y., through the development of probabilistic performance assessment modeling and the statistical decision analysis of proposed decommissioning alternatives.

The Department of Energy's Office of Environmental Management awarded a contract to **CAST Specialty Transportation** for the acquisition of Waste Isolation Pilot Plant Transportation Services. The contract, which is designed to support the DOE's National Transuranic Program to dispose of defense-related transuranic waste, provides facilities, personnel, and equipment to operate a local terminal within a 10-mile perimeter of Carlsbad, N.M., as well as transportation and maintenance services.

The Department of Energy-Savannah River (DOE-SR) and **Savannah River Mission Completion** (SRMC) have signed the Savannah River Site Liquid Waste Program Partnering Agreement. The contract, which extends the existing collaborative relationship between DOE-SR and SRMC, addresses vision, mission, objectives, values, behaviors, issue resolution, logistics, and counterpart relations, and it establishes a priority action list with commitments that will be tracked at weekly meetings. The agreement calls for the partnership to treat and dispose of radioactive waste and to operationally close the two liquid waste farms at SRS by 2037 in a safe and efficient manner.

Savannah River National Laboratory has established a Regulatory Center of Excellence (RCE) to bring together the enhanced core competencies of the lab and the world-recognized capabilities of the **Battelle**

Savannah River Alliance. The SRNL RCE is tasked with reducing environmental risk and liability throughout the Department of Energy complex. Its duties include building a network of experts and researchers to support DOE interactions with regulators and community leaders; supporting other DOE missions that involve complex environmental issues; providing counseling to federal, state, and local partners regarding strategies for environmental cleanup; and strengthening community interactions to mitigate stakeholder concerns.

International

Jacobs has signed a five-year framework agreement with **Tokyo Electric Power Company** (TEPCO) to support decommissioning of the Fukushima Daiichi nuclear power plant in Japan. Among the program and project management services that Jacobs is to provide to TEPCO's Fukushima Decontamination and Decommissioning Engineering Company are long-term decommissioning strategy planning, management and implementation of supply chain resources, and program definition for fuel debris retrieval.

The **Japan Atomic Energy Agency** has awarded a contract to **Orano** for the transport and treatment in France of 731 used fuel assemblies from Japan's experimental Fugen advanced thermal reactor. The new contract extends beyond the preparatory

Industry continues

work for transport operations that Orano had been conducting under a 2018 contract. The terms of the new contract include provision of a fleet of transport casks, execution of sea shipments, performance of used fuel treatment and recycling operations at the Orano la Hague site in Normandy, and conditioning of the final waste that will be returned to Japan.

Orano NPS, a nuclear packaging and services firm headquartered in France, has signed a long-term contract with **Cyclife**, a decommissioning and waste management subsidiary of the **EDF Group**, to remove 16 used steam generators from an undisclosed nuclear plant in Germany and transport them to EDF Cyclife's industrial site in Sweden. There, the old generators, each weighing about 330 tons (300 metric tons), will be processed.

France-based **Framatome** has announced its creation of **Framatome Belgium**, a wholly owned subsidiary based in Brussels. The subsidiary will specialize in nuclear engineering and services to support Framatome's life-extension projects, new construction, and dismantling activities for nuclear plants. This work will involve various projects and work sites in Europe.

Framatome has entered a strategic partnership with **Inria**, the French national institute for research in digital science and technology, in which the two organizations will develop digital solutions to enhance safety

and simplify the design, manufacture, operation, maintenance, and decommissioning of nuclear power plants. The partnership will involve such themes as cybersecurity, embedded implementation of complex meta-models, industrial use cases, quantum computing, data science, and artificial intelligence.

The United Kingdom's **Nuclear Decommissioning Authority** and the Welsh company **Cwmni Egin** will collaborate on proposals for a new nuclear development at the Trawsfynydd site in north Wales. The NDA is to share information with Cwmni Egin about available land at the site and about its decommissioning plans for the retired Trawsfynydd Magnox nuclear plant, and it will support Cwmni Egin in developing socioeconomic plans for the site. Cwmni Egin was established by the Welsh government in 2020 to advance new nuclear projects, including SMRs.

Sellafield has selected **Jacobs** to help deliver the company's new five-year Integrated Asset Care (IAC) framework at the nuclear site in Cumbria. Jacobs is to be a 50/50 partner with **Mitie** in the joint venture known as OneAIM. The IAC framework, covering core construction and asset care services, replaces the previous Operation Site Works framework, which had reached its maximum term.

Pipeline Technique Limited, an onshore and offshore infrastructure welding, coating, and fabrication company, has acquired fellow

Scottish company **Global Project Services** (GPS) from the **Global Energy Group**. GPS focuses on prefabrication; field specialist welding; and mechanical works for the infrastructure, nuclear, liquefied natural gas, hook-up, and decommissioning industries. The acquisition allows Pipeline, which is owned and operated by the international private equity firm Bluewater, to immediately enter the nuclear and decommissioning markets in the United Kingdom and Norway.

A joint venture between **Jacobs** and **Multiconsult Norge AS** has been selected by **Norwegian Nuclear Decommissioning** (NND) to plan the decommissioning of two nuclear research facilities in Norway. The six-year framework contract signed by the companies covers the decommissioning of the nuclear fuel and materials testing reactor at Halden (shut down in 2018) and the JEEP-II neutron scattering facility at Kjeller (shut down in 2019). The contract also includes the upgrading of other existing nuclear and nonnuclear facilities and the engineering concept design and planning of new facilities.

A few weeks after NND made that announcement, the company announced the finalizing of a three-year contract with **Westinghouse Electric Company** to add its expertise to the decommissioning planning for the Halden and Kjeller research reactors. This contract includes options up to six years.

Products

Automation Products has added the Dynatrol CL-10GH Liquid Level Detector to its Dynatrol line of high-, mid- and low-point level detectors for



Dynatrol CL-10GH Liquid Level Detector.

liquids or slurries. It has no moving parts, floats, diaphragms, or packing glands to deteriorate. The detector provides rugged construction with a sensitive transmission of vibration energy. The Dynatrol CL-10GH Liquid Level Switch is designed for an extended operating life and is available in corrosion resistant coatings.

Engineers with **Jacobs** have designed a remotely operated robotic device for use at Japan's Fukushima Daiichi nuclear power plant. The

device, controlled by an operator watching video images produced by a built-in camera, will collect pebble-like debris from the bottom of a damaged reactor containment vessel for evaluation. The results will help investigators determine the next steps in the cleanup and decommissioning process. The robotic project is being led by **Mitsubishi Heavy Industries**, with funding from Japan's Ministry of Economy, Trade, and Industry. ☒

People

Margaret Cosentino has been



Cosentino

appointed as the executive vice president of corporate affairs for Westinghouse Electric Company. In her new position, Cosentino is

in charge of Westinghouse's strategic approach to global government relations; public policy; communications; brand reputation; and environmental, social, and governance issues. Cosentino previously led public policy for Northrop Grumman and global government relations for Arconic.

Cathy Tullis has been named the



Tullis

new chief of staff for the Department of Energy's Office of Environmental Management. She had been serving as the chief of staff for the National Nuclear Security Administration's associate administrator for management and budget. Previously, she has held several director positions with the NNSA's Executive Secretariat, Policy, and Communications and Technology offices, as well as safeguards and security positions in the DOE.

Ray Geimer has been named as the new laboratory manager for Hanford Laboratory Management and



Geimer

Integration following the announced retirement of **Don Hardy**, who had been with Hanford since 1985. Geimer had most recently been a project manager for the Hanford 100K Area closure operations with Central Plateau Cleanup Company. He has a total of almost 40 years of nuclear operations experience within the complex of the Department of Energy's Office of Environmental Management.

People continues

Marvin L. Adams was sworn into office in April as the deputy administrator for defense programs of the Department of Energy's National Nuclear Security Administration. At the time of his confirmation, he was serving on the President's Council of Advisors on Science and Technology, the Stockpile Assessment Team of the Strategic Advisory Group for U.S. Strategic Command, the National Academies Committee on International Security and Arms Control, and the Predictive Science Panel for Lawrence Livermore and Los Alamos National Laboratories. Adams is a Regent's Fellow of Texas A&M University; prior to this appointment, he was HTRI Professor of Nuclear Engineering and the director of National Laboratories Mission Support at TAMU.



Adams

Fiona Rayment has been named as the new patron of Women in Nuclear UK (WiN UK). Rayment has been serving as the chief science and technology officer at the United Kingdom's National Nuclear Laboratory. In



Rayment

addition, **Ivan Baldwin**, head of the U.K. nuclear market for Bechtel, has been named as WiN UK's new president.

Candu Energy, of the SNC-Lavalin Group, has appointed **Stephanie Smith** as senior vice president of engineering for SNC-Lavalin's Canadian nuclear business. Smith replaces **Kevin Jones**, who retired. One of Smith's duties is transitioning the nuclear engineering group from an operations-oriented model to a client-service, competitive, growth-oriented culture. She was previously the president and CEO of the CANDU Owners Group, and she held senior positions with Ontario Power Generation.



Smith

BWX Technologies has named **Sharon H. Smoot** president of the company's Nuclear Operations Group (NOG). This position is responsible for directing NOG's mission of providing a range of nuclear components and services, such as the manufacture of nuclear reactor components for U.S.



Smoot

Navy submarines and aircraft carriers. Smoot has more than 30 years of experience with the Navy, including most recently serving as executive director for logistics, maintenance, and industrial operations for the Naval Sea Systems Command.

CakeBoxx Technologies, which produces specialized cargo transportation platforms, has named **Scott**



Pugh

Pugh as the company's science advisor. In this position, Pugh will provide scientific guidance regarding logistics in the shipment and storage of complex systems, equipment, and materials essential to emerging energy technologies. In his 29-year career with the U.S. Navy, Pugh developed expertise in engineering and physics. Since retirement from active duty, he has worked in energy security with the Department of Homeland Security's Science and Technology Directorate and other government agencies. ☒

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NuclearNews

JANUARY

2022 Review | Future Energy Applications

A look back at *NN*'s top stories of the year and a look forward at alternative applications for nuclear energy (heat storage, hydrogen, industrial process heat, and more).

FEBRUARY

The Future Workforce

A big challenge facing nuclear is building a workforce to meet the demand for new nuclear projects.

MARCH

Reference Issue | International

The annual reference section compiles data on commercial nuclear plants planned or in operation around the world, and feature articles will dig deeper.

APRIL

Nuclear Technology in Space

A spotlight on nuclear applications for space exploration.

MID-APRIL

54th Annual Buyers Guide

Worldwide products-services-supplier directory. Join our print and interactive online database of more than 600 companies powering the nuclear field.

MAY

Capacity Factors | Grid Reliability

The annual *NN* review of the U.S. fleet's capacity factors, and a look at grid reliability as the U.S. transitions to new energy sources.

JUNE

Invested in Nuclear

A surge of federal funding approved in 2022 means new opportunities to sustain and expand the use of clean nuclear energy.

JULY

Instrumentation & Controls | ANS President's Profile

Highlights the latest developments in I&C. Includes the annual profile of the incoming ANS president.

Radwaste Solutions

SPRING

Waste Management and Transportation

Examining the safe management, storage, and treatment of all levels of radioactive waste, along with issues related to shipping nuclear materials.

FALL

D&D and Environmental Remediation | 19th Annual Buyers Guide

The latest in the decontamination and decommissioning of nuclear facilities and the environmental cleanup of legacy waste and contaminated sites.

AUGUST

Supplier Showcase | Thermal Hydraulics

The 29th annual vendor/contractor issue has a new name but still includes BOGO ad space to profile your company and will be the official show issue of the ANS UWC. *NN* will also cover issues in thermal hydraulics.

SEPTEMBER

Fuel Cycle

A focus on the front-end steps that prepare uranium for use in nuclear reactors and back-end steps to safely manage, prepare, and dispose of used fuel.

OCTOBER

Plant Maintenance | Outage Management

A perennially relevant topic returns, coinciding with the fall outage season.

NOVEMBER

Waste Management

The safe and secure treatment, storage, and disposal of solid and liquid wastes from nuclear operations.

DECEMBER

National Lab Partnerships

U.S. national laboratories take a leading role in public/private partnerships to develop nuclear fission and fusion technology and materials.

October

Oct. 3–6—**Experience POWER**, Denver, Colo. experience-power.com/

Oct. 4–6—**ETEBA Business Opportunities & Technical Conference**, Knoxville, Tenn. eteba.org/BOTC/

Oct. 9–13—**TopFuel 2022**, Raleigh, N.C. ans.org/meetings/topfuel2022/

Oct. 24–28—**NuMat2022: The Nuclear Materials Conference**, Ghent, Belgium. elsevier.com/events/conferences/the-nuclear-materials-conference

Oct. 26–28—**International Ministerial Conference on Nuclear Power in the 21st Century**, Washington, D.C. iaea.org/events/ministerial-nuclear-power-conference-2022

Oct. 31–Nov. 4—**65th Annual Radiobioassay and Radiochemical Measurements Conference (RRMC)**, Atlanta, Ga. rrmc.co/

November

Nov. 1–3—**3rd Annual International Conference on AI, ML and Other Innovative Technologies in the Nuclear Industry**, virtual event. cns-ai-nuclear.com/

Nov. 13–17—**2022 ANS Winter Meeting and Technology Expo**, Phoenix, Ariz. ans.org/meetings/wm2022/

Nov. 13–17—**International High-Level Radioactive Waste Management**, Phoenix, Ariz. ans.org/meetings/ihlrwm2022/

Nov. 28–29—**7th World Nuclear Industry Congress 2022 (WNIC 2022)**, London, United Kingdom. szwgroup.com/nuclear-industry-congress-uk/

Nov. 28–Dec. 1—**Perma-Fix 18th Annual Nuclear Waste Management Forum**, Nashville, Tenn. ir.perma-fix.com/upcoming-events

Nov. 28–Dec. 2—**5th International Conference on Nuclear Power Plant Life Management**, Vienna, Austria. iaea.org/events/plim-5

Nov. 29–Dec. 1—**Twenty-first Annual Intergovernmental Meeting with the U.S. Department of Energy on Nuclear Weapons Waste Cleanup**, New Orleans, La. energyca.org/events

January 2023

Jan. 24–26—**20th Annual USA Member & Supplier Partner Winter Conference**, Savannah, Ga. usainc.org/winter-conference/

February

Feb. 6–9—**Conference on Nuclear Training and Education: A Biennial International Forum (CONTE 2023)**, Amelia Island, Fla. ans.org/meetings/view-conte23/

Feb. 21–23—**PowerGen International**, Orlando, Fla. powergen.com/welcome

Feb. 26–Mar. 2—**WM2023 Symposia**, Phoenix, Ariz. wmsym.org/



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Spent Fuel Pool Furniture Removal, Liner Removal & Concrete Fixative Application

| NUCLEAR DIVERS | VS | TOPSIDE & ROBOTICS |
|-----------------------------------|----|--|
| 9 Rem, Actual and 984 Labor Hours | | 8.7 Rem Estimated and 9300 Labor Hours |

Spent Fuel Pool Equipment & Piping Removal & Packaging

| NUCLEAR DIVERS | VS | TOPSIDE & ROBOTICS |
|----------------------------------|----|--------------------|
| Estimated 90% Exposure Reduction | | 20 Rem |

Boiling Water Reactor Suppression Chamber Cleaning & Inspection

| NUCLEAR DIVERS | VS | ROV |
|---|----|---|
| De-sludge and Inspection: 9 Days Radiation Exposure: 32mSv | | De-sludge and Inspection: 43 Days Radiation Exposure 73mSv |

Large Component, BWR Steam Dryer Volume Reduction & Packaging

| NUCLEAR DIVING | VS | REMOTE TOOLING |
|----------------|----|-------------------------|
| Exposure 8 Rem | | Actual Exposure: 16 Rem |

Spent Fuel Pond Decommissioning Support for Draining

- > 75% Reduction in Dose, Extensive Overall Schedule and Cost Reduction compared to Remote/Dry
- > Spent Fuel Skip Volume Reduction and Packaging 3 per Shift Compared to 1 per week

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