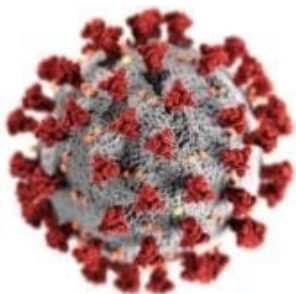


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Nine COVID-19 Cases Confirmed Within NNSA Weapons Complex, Hundreds Affected

Dan Leone

The National Nuclear Security Administration on Friday confirmed nine cases of COVID-19 across its national network of nuclear-weapon design laboratories and production sites.

All three national laboratories had locked out all but essential employees at deadline Friday for *Nuclear Security & Deterrence Monitor*. Weapons Production sites were still operating normally, despite the viral disease cropping up among their workforces.

Here are the locations and numbers of confirmed COVID-19 cases among the National Nuclear Security Administration (NNSA) workforce at deadline Friday:

- Albuquerque Complex, Albuquerque, N.M. - 1
- Department of Energy Headquarters (Forrestal Building), Washington, D.C. - 1
- Lawrence Livermore National Laboratory, Livermore, Calif. - 2
- Sandia National Laboratories, Albuquerque - 1
- Sandia National Laboratories, Livermore - 2
- Savannah River Site, Aiken, S.C. - 1
- Y-12 National Security Complex, Oak Ridge, Tenn. - 1

The unidentified Y-12 employee who was infected left the site March 19 after experiencing some symptoms and, days later, tested positive for COVID-19, which can be transmitted by people who do not have any symptoms.

The Y-12 worker “has been in isolation at home after receiving a positive COVID-19 test result on Monday, March 23,” a spokesperson for the Bechtel National-led site contractor team Consolidated Nuclear Security wrote in an email Wednesday. Meanwhile, operations at the nation’s defense-uranium hub, which makes secondary stages for nuclear weapons, continued. Workers on-site were still building the next-generation Uranium Processing Facility, at deadline.

Other NNSA sites this week either didn’t comment on the details of their confirmed cases, or deferred to NNSA headquarters in Washington.

A spokesperson at headquarters said that “[w]hile NNSA is prioritizing mission essential operations, we continue to follow guidelines specified by the White House, Office of Management and Budget, Department of State, Department of Homeland Security, and the Centers for Disease Control and Prevention.”

Since the outbreak hit the U.S. in earnest earlier this month — the country now has more confirmed cases than any other nation, roughly 95,000 at deadline — the NNSA has mostly discussed only confirmed positive cases. That makes it difficult to gauge the disease’s overall effect on the nuclear weapons workforce.

Where further details are available, they show work disruptions of 100 employees or more per site.

Sandia National Laboratories estimated Friday that about 200 people employed by the site’s Honeywell-owned operations contractor, National Technology and Engineering Solutions of Sandia, missed work this week because of the ongoing COVID-19 response. That is about 1.5% of the total workforce of more than 14,000. The number includes the sick — confirmed at three for the multi-site lab network — those quarantining, and those who are unable to work remotely, for one reason or another.

At the Savannah River Site, where the NNSA harvests tritium for ongoing weapons refurbishments and is preparing to build the larger of two planned plutonium pit plants, about 130 people are in quarantine out of a workforce of roughly 10,000, the local *Aiken Standard* reported this week. The NNSA is a tenant at Savannah River, which is owned by DOE’s Office of Environmental Management and operated by the Fluor-led Savannah River Nuclear Solutions. The NNSA passes funding for its work through the contractor.

Meanwhile, the Los Alamos National Laboratory in Los Alamos, N.M., this week followed Lawrence Livermore National Laboratory into minimum safe operations, making the switch Tuesday. Only employees needed on-site for missions the NNSA has said must continue are allowed at work. The agency has generally avoided discussing details of those missions.

A Los Alamos spokesperson said most of the lab’s workforce is teleworking. The New Mexico lab counts more than 8,700 heads within its main management and operations contractor, and more than 1,100 unionized craft workers. The spokesperson would not say whether construction continued on plutonium pit production infrastructure at the lab’s Technical Area 55.

NNSA sites are generally following federal and state guidelines for tracking and treating COVID-19. Under these, workers are to quarantine themselves at the onset of possible symptoms, and seek advice from their personal physicians about whether to be tested. In some cases, including at Los Alamos, site workers returning from domestic and international travel are put into mandatory quarantine for two weeks at home.

Agency headquarters has repeatedly declined to say whether it wants nuclear-weapon sites to test their mission-critical personnel in an effort to sort the sick, and those they have come into contact with, from the healthy: the so-called contact-tracing approach that South Korea has used to blunt the spread of the disease and identify people who can return to work after recovering.

Across the country, COVID-19 is encircling the NNSA complex, spreading through the communities and regions that host critical nuclear weapon sites, according to a tracker maintained by the Johns Hopkins University in Baltimore, Md.

Kansas City, which gave its name to the local NNSA assembly hub for non-nuclear weapon components, ordered citizens this week to remain at home for 30 days to slow the spread of the virus. The NNSA site's usual work schedule continued as the city logged more than 60 confirmed cases. No one in Kansas City had died because of the virus, at deadline. Missouri had more than 500 confirmed cases overall, with eight deaths, at deadline.

New Mexico Gov. Michelle Lujan Grisham (D) this week closed all the state's nonessential businesses and barred gatherings of more than five people, with limited exceptions such as permitting families of five or more to dwell together. New Mexico had more than 135 confirmed cases, with one death at deadline. About half the cases were in Bernalillo County, near Albuquerque and Sandia.

Low single- and double-digit numbers of confirmed cases in the New Mexico counties of Taos, Rio Arriba, and Sandoval dotted a halo around Los Alamos County, but there were no confirmed cases in Los Alamos County itself. Santa Fe, N.M., south of Los Alamos, had more than 20 confirmed cases, at deadline.

There were at deadline three confirmed cases in Anderson County, Tenn., which includes the Y-12 National Security complex in Oak Ridge, Tenn. Tennessee had more than 1,100 cases statewide, with three deaths, at deadline.

Livermore, in Alameda, Calif., is the closest of any nuclear weapons site to a major metropolitan area. There were about 175 confirmed cases and four deaths attributed to the disease in the county, at deadline. Nearby San Francisco had more than 275 confirmed cases. The second-deadliest California outbreak so far was in Santa Clara, some 30 miles south by road from Livermore. Santa Clara had 19 confirmed COVID-19 deaths, at deadline.

Aiken, S.C., home of the Savannah River Site, had four confirmed cases at deadline: a fraction of the more than 450 confirmed in South Carolina, where seven people had died from the disease by Friday afternoon.

Six of Texas' roughly 1,700 cases were scattered around Amarillo, Texas, host city for Pantex. There were no deaths nearby Pantex and Amarillo, at deadline. Texas had more than 20 COVID-19 deaths statewide, at deadline.

Nevada had around 530 cases at deadline, with 10 deaths statewide. Most of these, about 350, were in Las Vegas, more than 100 miles southeast of the Nevada National Security Site. There was a single confirmed case in Nye County, Nev., near the northwestern perimeter of the former Nevada Test Site.

At deadline, more than 1,400 people in the U.S. had died from COVID-19

Stimulus Bill Passes With Relief for DOE Workforce

Wayne Barber

Congress' third coronavirus relief package, passed Friday, should help blunt the financial repercussions of the soaring unemployment and depressed stock market that have accompanied the outbreak, House Speaker Nancy Pelosi (D-Calif.) said this week during a press conference just before the vote.

"The most important part of the bill was making it clear that the people that work at the [federal] sites and are furloughed will be paid – irregardless of whether they are federal employees, contractor employees or subcontractor employees," said Seth Kirshenberg, executive director of the Energy Communities Alliance (ECA), in an email this week.

A wide coalition of organizations had lobbied on behalf of that compensation language, including ECA, a group of municipal governments near Energy Department sites, and the Energy Facility Contractors Group (EFCOG) that represents vendors in the weapons complex.

The package includes \$28 million to support telecommuting for DOE employees, as well as \$3.3 million for personnel at the Nuclear Regulatory Commission.

The package also has provisions for federal agencies to offer employees of their contractors and subcontractors paid leave up to an average of 40 hours per week to keep workforces "in a ready state" through Sept. 30. This is reserved for

vendor employees who cannot do their work because a federally owned or leased site has closed down or restricted because of the novel coronavirus.

These are individuals whose occupation range from equipment operators and mechanics to employees who work within classified settings.

Aside from the legislation, DOE and the National Nuclear Security Administration (NNSA) recently increased the amount government contracting officers can pay on “micro-purchases” and “simplified” acquisitions in order to cope with effects of the pandemic. The updates are outlined in an emergency purchasing flexibility document posted by DOE.

The federal procurement officers can now make a micro-purchase inside the United States for up to \$20,000 to help address expenses related to COVID-19. Such a purchase from a vendor outside the country can be made for up to \$30,000.

The current limit for micro-purchases is \$10,000.

The announcement says the simple acquisition threshold, under the Federal Acquisition Regulation, will be set at \$750,000 for purchases or contracts made in the United States. The current limit is \$250,000. The cap for international expenditures is set at \$1.5 million under the emergency action, set to expire July 1.

Fluor Girds Against Possible Takeover During COVID-19 Stock Plunge

Wayne Barber

Having already taken its financial lumps during the past year, Energy Department contractor Fluor announced a measure Wednesday meant to ensure its shareholders get a fair shake “in the event of any proposed takeover.”

The limited-duration stockholder rights agreement will also shield against “abusive tactics to gain control of the Company without paying all Fluor stockholders a premium for that control,” according to a press release.

Fluor spokesman Brian Mershon declined to say if the company expects to be targeted by a hostile takeover, or provide any comment beyond what is in the press release.

The rights agreement will not halt a takeover, but should encourage anyone seeking to acquire Fluor to negotiate terms with the board of directors, according to the company. This is evidently done by diluting value of shares bought by an outside entity once it acquires 10% of the stock.

The so-called “poison pill” is a defensive measure to dissuade unwanted takeover attempts by increasing the funding and effort necessary to carry one off.

With the stock market plunging during the recent COVID-19 pandemic, Fluor is not the only company taking such a step. Natural gas company Williams announced a similar maneuver last week.

Basically, if any entity buys at least 10% of Fluor’s outstanding common stock, each right will entitle stockholders to buy one one-thousandth of a share of a new series of junior participating preferred stock at an exercise price of \$50, the engineering, construction, and procurement company said in the release.

These type moves allow current stockholders the right to buy more shares at a discount, effectively watering down the ownership interest of any new, hostile party, according to the website Investopedia.

Fluor’s stock price closed Thursday at \$7.28 per share, 16% above the previous day’s \$6.23. That was still far below the \$13.78 recorded one month earlier on Feb. 24 – prior to the New York Stock Exchange decline caused by the global spread of novel coronavirus 2019.

The ongoing stock market dive triggered by the COVID-19 pandemic marks the latest bad news for Fluor, which still has not filed its annual report for 2019.

Six months ago, on Sept. 23, 2019, Fluor stock was valued at \$20.70. The share price stood at \$35.49 one year ago. Major stock indexes are down roughly 20% since their February highs, with unemployment claims skyrocketing while the federal, state, and local governments tell people to stay home and avoid spreading the virus.

Carlos Hernandez became CEO in May 2019, replacing longtime chief David Seaton after the company experienced a \$58 million loss during the first quarter of the year. After Fluor suffered a whopping \$555 million loss in the second quarter, Hernandez said “all options were on the table,” including sale of major assets such as the government business.

In September, Fluor said the federal contracting unit was one of the businesses being placed on the sales block. Jacobs was rumored to be taking a look at one point before Fluor publicly invited offers.

However, Fluor would eventually only to pull the contracting business, which includes DOE and National Nuclear Security Administration agreements, off the market last month. Fluor said other belt-tightening, including sale of some smaller assets, largely eliminated need for the sale.

While there is never a good time for a stock market nosedive, Fluor was already hitting rough waters. The New York Stock Exchange (NYSE) said last week the company was in violation of its guidelines for failing to file a 10-K annual report for 2019.

In a press release March 19, Fluor said the notification has no impact on its NYSE listing, and it can regain compliance with stock exchange rules by filing the 10-K within six months of March 19. However, the NYSE could commence "delisting" any time it believes circumstances warrant. Fluor has not said when it expects to file the 10-K.

Fluor released only partial earnings for the first quarter of its fiscal 2020 last month, as it is under investigation by the Securities and Exchange Commission (SEC) for questions over its second-quarter 2019 financial results.

Fluor-led Savannah River Nuclear Solutions is operations and management contractor for the Energy Department's Savannah River Site in South Carolina. The company also manages cleanup at the Idaho National Laboratory and partners with BWX Technologies for remediation at the Portsmouth Site in Ohio.

Fluor is far from the only Energy Department contractor to feel the pain on the stock market. Here is a rundown of the Thursday closing – after the Senate's Wednesday night vote in favor of a \$2 trillion stimulus — share price for several publicly trade vendors, compared to the price one month earlier.

- BWX Technologies: \$48.38; down from \$69.38.
- Centrus Energy: \$5.38 per share; was \$8.47.
- Honeywell International \$137.40, was \$175.27.
- Huntington Ingalls Industries: \$195.29, was \$234.84.
- Jacobs: \$79.82; \$101.95 a month ago.
- Leidos: \$92.56; was \$113.83.
- Parsons: \$34.98; was \$42.24.

Centrus Boosted Revenue, Cut Losses in 2019, but Virus Obscures Path to Profit

Dan Leone

Centrus Energy Corp. closed out 2019 by boosting revenues and trimming its losses from the prior year, but management said the COVID-19 pandemic has for now dimmed the company's hopes of returning to profitability in 2020.

On Wednesday, the Bethesda, Md.-based uranium-fuel broker and centrifuge developer reported a 2019 net loss of about \$16.5 million, an improvement over its \$105 million loss in 2018. Revenue rose to nearly \$210 million from less than \$195 million on a year-over-year basis, according to a company press release.

However, Centrus suspended its earnings guidance for 2020, citing unpredictability in the foreseeable future due to catastrophic economic fallout from the COVID-19 viral pandemic. In its 10-K filing with the Securities and Exchange Commission, Centrus said the global uranium supply chain could be "disrupted by quarantines, slowdowns or shutdowns, border closings, and travel restrictions resulting from the global COVID-19."

In its third-quarter 2019 earnings report in November, the company predicted it would turn a profit this year. Centrus is the former U.S. Enrichment Corp., which rebranded after a Chapter 11 bankruptcy in 2014.

Annual revenue in the Centrus' bedrock LEU segment, which includes brokerage of uranium fuel and natural uranium, rose to about \$170 million in 2019 from roughly \$165 million in 2018. Separative work sales, representing enriched uranium sold to utilities, dipped a little for the year, but sales of natural uranium to traders and utilities compensated, Centrus reported.

Centrus sells fuel refined by TENEX to nuclear power plants, generally returning the feed component to TENEX. The company said it expects to continue fuel deliveries to utilities during the ongoing COVID-19 pandemic response.

Meanwhile, in the technology-developing Technical Services segment that includes work on a new centrifuge cascade, Centrus' 2019 revenue was \$40 million, up from around \$28 million.

For the fourth quarter, revenue fell to more than \$55 million from some \$83 million in 2018, while quarterly net losses narrowed to about \$4.5 million from more than \$45 million in 2018.

For the year, Centrus managed a gross profit — a figure that excludes taxes and other expenses to approximate the viability of the core business — of more than \$30 million in 2019, compared with a gross loss of about \$18 million in 2018.

On a conference call with investors this week, Daniel Ponemann, Centrus' CEO and a former deputy energy secretary, said that because of the national COVID-19 response, "we expect that there will be impacts on cost and schedule" for a three-year cost share contract with the Department of Energy to build an all-domestic, 16-machine enrichment cascade at the Portsmouth Site in Piketon, Ohio.

The planned cascade, which Centrus starting working on last year, will use AC100M technology and be built on the same site as the canceled American Centrifuge Project. That project used similar technology, but included some components that could not legally be used to produce uranium for national defense needs.

"We are working closely with DOE and continue to make progress on the program," Poneman said.

Centrus started work on the deal in July and is on the hook to produce 600 kilograms of high-assay low-enriched uranium fuel — consisting of about 20% uranium-235 — using AC100M centrifuges. It is supposed to be fuel for next-generation small modular reactors, which DOE wants to develop and commercialize.

The sole-source deal is a three-year, 80-20 cost-share pact including a two-year base and a one-year option that would increase its total value to \$115 million.

The National Nuclear Security Administration plans to decide this year whether to use AC100 technology for national defense needs.

Meanwhile, like just about every other business in the country and the nuclear industry, Centrus has asked workers who can telework to do so. For workers who cannot, including those working in secure facilities at the Oak Ridge Site in Tennessee and the Portsmouth Site, Centrus is taking "a series of other steps" to protect workers from catching COVID-19, Poneman said.

Nuke Waste Conference Goers Negative for COVID-19

ExchangeMonitor

The Waste Management Symposia on Tuesday said both attendees at this year's event who showed signs of possible COVID-19 infection had tested negative.

Test results for "Attendee #1" were received Tuesday, one day after the results for "Attendee #2," according to a statement from James Gallagher, chairman of the board for the annual nuclear cleanup and waste management conference in Phoenix.

Both participants are believed to be staffers with the Energy Department's Office of Environmental Management, which each year sends a large contingent of presenters and personnel to the Waste Management Symposia.

Barring further developments, this is the last of the daily WMS updates on the COVID-19 situation, Gallagher wrote. However, organizers "will notify WM2020 conference attendees of any new developments," he added.

The 2020 Waste Management Symposia drew roughly 2,100 people to the Phoenix Convention Center from March 8-12. That was down by about 10% from the usual attendance, due to travel concerns related to the respiratory disease. Some attendees came from National Nuclear Security Administration sites, such as the Los Alamos National Laboratory in New Mexico.

Gallagher issued the first post-conference attendee update on March 16, writing that one participant was being tested for infection and another was limiting contact with others after experiencing "flu-like symptoms."

Symptoms of COVID-19 can be similar to those of the flu, including fever and shortness of breath. However, the mortality rate for COVID-19 appears to be significantly higher— between 3% and 4%, compared to under 0.1% for the seasonal flu, according to the [World Health Organization](#).

As of Thursday afternoon, there were more than 70,000 confirmed infections in the United States, Johns Hopkins University said in its COVID-19 tracker. There have been more than 1,000 deaths, domestically.

Navy Anticipates COVID-19 Will Affect Shipyards

ExchangeMonitor

Top Navy officials have not seen any shipyard delays due to the COVID-19 pandemic yet, but they are expecting and planning for future issues.

“[T]o date we haven’t seen any sort of perturbations in that right now but we are anticipating that there will be, and we’re looking at what that might cost with respect to helping the shipyards maintain their viability if they have to slow down and miss certain production milestones,” Acting Secretary of the Navy Thomas Modly said this week at a press conference.

Gilday said Tuesday that the large shipyard prime contractors are also keeping tabs on the larger supply chain as the pandemic spreads.

“They’re creating the room for, lack of a better term, task force to take a look at what the supply chain looks like to keep all of those production lines running and to see where we might be incurring risk out through, let’s say, 2021 so that we can then prioritize and then the secretary can then prioritize what kind of work that we need to do.”

Modly spoke to reporters at the Pentagon days after Huntington Ingalls Industries disclosed the first confirmed cases of COVID-19 at its shipyards.

The company, a major subcontractor on the Columbia-class ballistic missile submarines and a builder of Virginia-class attack submarines, reported two separate cases among employees at both its Newport News Shipbuilding yard in Virginia and the Ingalls Shipbuilding yard in Pascagoula, Miss.

Only the Virginia yard builds submarines.

Congress is working on financial aid packages to help contractors who have already, or might, get hit by the COVID-19 disease caused by the novel coronavirus that broke out in Wuhan, China, last year. Language in the roughly \$2-trillion stimulus package would reimburse some national security contractors that had to stop coming to work, but could not telework, because of a COVID-19 response.

The Senate had approved the bill at deadline for *Weapons Complex Morning Briefing*, but the House, whose members are not in Washington and were not scheduled at deadline to return there, must still approve it. President Donald Trump has said he will sign the legislation.

This story first appeared in Weapons Complex Morning Briefing affiliate publication Defense Daily.

Court Arguments Over Hundreds of Millions of Dollars in Plutonium Fines Set for May

Dan Leone

South Carolina’s attempt to wrench hundreds of millions of dollars in fines over Department of Energy management of plutonium in the state is headed to oral arguments before a panel of appeals judges May 5, according to a recent court filing.

The South Carolina state government has been trying to extract the money from DOE and its National Nuclear Security Administration (NNSA) since 2016. That was the first year the state was eligible, under a provision of the 2002 National Defense Authorization Act, to recoup up to \$100 million per year because the agency had not started removing plutonium from its Savannah River Site.

South Carolina is appealing a 2019 ruling from the U.S. Court of Federal Claims that the NNSA does not have to pay fines until, and unless, Congress specifically appropriates funds for that purpose. The state maintains the agency can tap into its Material Disposition account to make the “economic assistance payments.” Congress did not forbid the agency from using the account for that purpose, the state looks set to argue in the Court of Appeals for the Federal Circuit.

South Carolina's lawsuit covers \$200 million worth of payments due from 2016 and 2017, but the state says \$200 million more accrued in 2018 and 2019. South Carolina Attorney General Alan Wilson has said DOE is also racking up fines in 2020. Under federal law, the state can charge \$1 million daily for the first 100 days of any year in which the NNSA does not remove some plutonium from the state. Under existing law, it all must be out by 2022.

South Carolina successfully leveraged the 2002 law to have 1 metric ton of surplus plutonium transported out of the state over the past two years, but no luck at all wielding the law to wring money from the NNSA. To comply with a separate U.S. District Court decision in 2017, the NNSA shipped the ton of plutonium out of the state prior to Jan. 1, 2020. Half went to the Nevada National Security Site, and half was supposed to go to the Pantex Plant in Texas, though the agency has not confirmed that it did.

In the early 2000s, the NNSA said it would move 34 metric tons of plutonium to South Carolina and then convert it into fuel for commercial nuclear reactors using the now-canceled Mixed Oxide Fuel Fabrication Facility (MFFF). The MFFF's construction costs eventually ballooned to the point at which the NNSA in 2018 formally terminated the project in favor of the "dilute-and-dispose" approach.

Only about 10 metric tons of plutonium intended for MFFF ever made it to Savannah River.

The NNSA now says dilute-and-dispose will not begin until 2028 — six years after the 2022 legal deadline for the agency to remove all the plutonium it shipped to South Carolina for the MFFF project. The new disposal method is expected to cost roughly \$20 billion over its lifetime — 2019 through 2050 — compared with about \$50 billion for the MFFF, according to a 2018 report from the NNSA's Cost Estimating and Program Evaluation Office.

The NNSA says dilute-and-dispose, officially called Surplus Plutonium Disposition, is the fastest way to get plutonium out of Savannah River. The method involves chemically weakening the plutonium, mixing it with a classified, concrete-like binder called stardust, and burying the resulting mixture deep underground at DOE's Waste Isolation Pilot Plant near Carlsbad, N.M.

The MFFF, meanwhile, is to be converted into a plutonium pit production plant, which the NNSA hopes will switch online in 2030 to produce at least 50 fissile cores for W87-1 style warheads: the tip of the planned Ground-Based Strategic Deterrent intercontinental ballistic missiles that will replace the Minuteman III fleet beginning in the next decade. The pits would not be made from the surplus plutonium tranche at Savannah River.

The agency and the state have discussed settling the Claims Court suit, but the talks ultimately went nowhere.

DNFSB Wants Memo of Understanding With DOE to Fix Order 140.1 Concerns

Dan Leone

The Defense Nuclear Facilities Safety Board (DNFSB) wants a memorandum of understanding with the Department of Energy to further improve the contentious relationship between the federal agencies. That would be an additional measure on top of DOE's revision to the controversial Order 140.1 that revised its interactions with the board.

The revision comes after Congress last year directed the Energy Department to give the board "complete and unfettered access" to defense nuclear sites. The agency in February shared a draft of the revision of the order with the DNFSB, which believes the proposed changes "will satisfactorily resolve the statutory concerns we expressed" about the 2018 directive, according to a Feb. 28 letter from board Chairman Bruce Hamilton to Secretary of Energy Dan Brouillette.

The DNFSB [posted the letter online this week](#). The revised Order 140.1 has not been made public. DOE says the order was supposed to streamline its interactions with the DNFSB. The board says the order impinges on its legal duty to oversee safety and health hazards at defense-nuclear sites.

The board has said Order 140.1 illegally asserted DOE can decide whether the DNFSB needs access to certain facilities or information in order to make health and safety recommendations about defense-nuclear facilities. Congress created the small agency in 1988 to make these nonbinding recommendations for sites other than naval nuclear facilities.

While DOE's retooling of 140.1 might alleviate the legal concern, the DNFSB is still wary that the order could handcuff its technical staff at sites managed by both the National Nuclear Security Administration (NNSA) and the Office of Environmental Management.

To that end, the board seeks "a bilateral memorandum of understanding between our Agencies," Hamilton wrote to Brouillette. "Such an agreement should resolve operational interface issues between our agencies that will not be

resolved through the Order.”

A DNFSB spokesperson did not immediately reply to a query seeking details. The agency, like many others, has staffers working remotely in an effort to slow the spread of COVID-19.

Among other things, the DNFSB has complained that Order 140.1 requires DOE site personnel to get headquarters approval from Washington before responding to questions or comments from board inspectors. The board is also concerned that the Energy Department is limiting its access to certain site activities, including meetings of the Nuclear Explosive Safety Study Group at the Pantex Plant in Amarillo, Texas.

Procurement, Production Inexperience Contributed to Contamination at Nevad Site After Subcritical Test

Dan Leone

The containment vessel that blew a leak during a subcritical nuclear test last year in Nevada was not properly designed or procured, the Department of Energy’s Los Alamos National Laboratory concluded in a final report about the accident.

The independent federal Defense Nuclear Facilities Safety Board (DNFSB) [summarized the lab’s unreleased report](#) in a recent monthly review of the Nevada National Security Site, where the underground test — dubbed Ediza — took place.

Personnel from Los Alamos National Laboratory in New Mexico and Mission Support and Test Services, the management and operations contractor for the former Nevada Test Site, “were not trained and qualified as subcontract technical representatives, which resulted in less than adequate procurement and quality oversight of the manufacturing process,” the DNFSB stated in its report, dated March 6.

Likewise, “the vendor responsible for building the confinement vessel did not have prior experience manufacturing vessel weldments to the appropriate American Society of Mechanical Engineers requirements.”

Los Alamos designed the test, which was conducted in the underground U1a Complex.

Subcritical tests produce no yield, but explosively compress plutonium almost to the point of a fission chain reaction. Observing that compression allows DOE’s semiautonomous National Nuclear Security Administration to determine whether the nuclear-weapon material is aging as expected — an important consideration when the U.S. produces no new plutonium and is still a few years away from being able to cast more than a handful of fissile nuclear-warhead cores annually.

Los Alamos disclosed in January that the Ediza vessel leaked because a diagnostic port blew open during the Feb. 13, 2019 test, releasing a small amount of radioactive material. It took about a month to decontaminate the U1a zero room, the site of the Ediza test, Los Alamos said. The lab said it collected usable data from the test, that the contamination was limited to the zero room, and that the incident did not delay other subcritical tests in the Nightshade series, which is scheduled to continue this year.

The Ediza vessel has been entombed in the U1a Complex.

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