

From: Tom Clements <tomclements329@cs.com>
Sent: Friday, November 15, 2019 9:02 PM
To: Quintero, Jessie; WEC-CFFF-EA Resource
Subject: [External_Sender] PDF of comments submitted at public meeting on Nov. 14 & article in The State, Nov. 15
Attachments: Comments to NRC by Clements on draft EA Nov 14 2019.pdf

I see I sent this to the wrong email on my first try. Tom Clements

-----Original Message-----

From: Tom Clements
To: WEC-CFFF
Sent: Fri, Nov 15, 2019 8:52 am
Subject: PDF of comments submitted at public meeting on Nov. 14 & article in The State, Nov. 15

To Whom it Concerns:

I submitted the attached comments in hard copy at the NRC meeting on November 14.

I submit them again to:

1. Make sure they get into the record.
2. Perhaps make it easier for NRC to distribute them as is chosen.

Also, I submit for the record today's article in The State on line:

The State, Columbia, South Carolina

November 15, 2019

by Sammy Fretwell

<https://www.thestate.com/news/local/environment/article237369084.html>

Nuclear safety regulators take heat for downplaying threat from atomic fuel plant

[Photo: Westinghouse's nuclear fuel factory is one of only three of its kind in the country. The facility is on 1,200 acres between Columbia and Congaree National Park. Photo Courtesy of High Flyer]

Federal nuclear safety regulators drew criticism Thursday night for concluding that an aging atomic fuel plant could operate another 40 years without having much impact on the environment of eastern Richland County.

The 50-year-old Westinghouse nuclear fuel factory, located between Interstate 77 and Congaree National Park, has had a recent history of missteps, including spills and leaks that have focused attention on the facility and its safety culture.

But as its troubles have surfaced, the company has sought federal permission for a new operating permit.

A recent Nuclear Regulatory Commission report said the facility will continue to have leaks if its permit is renewed, yet those problems won't have much affect on the surrounding landscape. The study said the plant was safe enough to operate if it receives a new 40 year license because pollution will be monitored and cleaned up before it leaves the property.

Those speaking at a public hearing Thursday -- mostly environmentalists -- said they can't understand why the NRC thinks a plant with a multitude of problems will operate safely for the next four decades.

They called on the agency to conduct a more detailed study known as an environmental impact statement. If the NRC does approve a new license, it should be for less than 40 years, those speaking at the meeting said.

"There have been releases to the environment, there are ongoing impacts to the environment and there are likely to be future impacts to the environment," Congaree Riverkeeper Bill Stangler said, adding that the NRC has plenty of time to study the matter because the current license doesn't expire until 2027.

"Why not be more thorough and take the time and effort to get this right?"

Columbia area resident Kyle Lacio urged the NRC to step carefully because the public depends on the agency. Some people have questioned whether the plant's discharges will eventually pollute private wells, even though the NRC and state regulators don't think that will happen.

"I'm up here hoping that the regulators will protect us and do a good job," Lacio said. "Forty years seems like a very long time -- a shorter time definitely makes sense."

Thursday's meeting drew about 60 people, but more than half were estimated to be with the Nuclear Regulatory Commission, the Department of Health and Environmental Control and Westinghouse.

The NRC's environmental assessment, which was the subject of the meeting, will help the agency decide whether to issue the 40-year license so the plant can continue operating. A twin report that focuses on safety inside the plant is still under way. It also will be considered by the NRC in making a licensing decision, likely in April.

The Westinghouse plant, which opened in 1969, makes fuel rods for many of the nation's nuclear power plants. It is one of only three fuel factories of its kind in the United States. The company is a major employer, with more than 1,000 workers, many of them highly skilled.

Despite its' economic impact on the Columbia area, Westinghouse has failed to prevent extensive groundwater contamination since opening 50 years ago. Toxins such as nitrate, uranium and Technetium 99 have fouled groundwater, some of which is moving toward the Congaree River.

Westinghouse officials say they are making progress in improving how they run the plant and will work to limit environmental impacts in the future. Among the efforts are a sophisticated

computer model that will help determine where tainted groundwater is flowing and what the best solutions are to deal with it.

“We use that information to then inform our decision making” around cleanup strategies, Westinghouse manager Mike Annacone said after the meeting. “It’s a much more rigorous tool, to be more proactive. Much more sophisticated.”

NRC officials said at the meeting they will weigh the public’s comments before deciding on the license.

The agency’s environmental report said that while “there could be noticeable impacts to the soil, surface water and groundwater,” they will be controlled adequately.

“That is our mission: protect the public health and safety and the environment,” said Chris Regan, an NRC deputy fuel division manager from the agency’s headquarters in Maryland. “It’s why we come to work everyday.”

Still, not everyone was satisfied that the NRC has done its job or comfortable with the agency’s assurances.

Tom Clements, a nuclear safety watchdog from Columbia, said the NRC didn’t study the Westinghouse plant thoroughly enough to justify a new license. The agency’s environmental assessment left out key information and downplayed the threat of expected spills and leaks in the future, he said.

One issue is the source of Technetium 99, a radioactive pollutant discovered in groundwater, he said. The NRC doesn’t have a clear picture of where the nuclear material is coming from.

Clements said Westinghouse should have to operate for one year without major incidents before a license should be granted. The license should be for 10 years, instead of 40, if it needs approval, he said.

The Westinghouse plant has had groundwater contamination dating to the 1980s, and through the years, the plant has been cited by the NRC over nuclear safety mistakes. But issues since 2016 have refocused attention on the facility, which is nestled in a wooded, rural area along the Congaree River of eastern Richland County.

[Video duration 0:45

Five things to know about Columbia's Westinghouse nuclear fuel plant

Here is what you need to know about the Westinghouse nuclear fuel plant, Columbia, SC location. By Ashlen Renner]

In 2016, the NRC cited the company for allowing nuclear material to build up in an air pollution control device.

Investigators said three times the amount of uranium was found in an air scrubber than is legally allowed. That sparked concerns that small burst of radiation could have occurred.

In 2017, a worker was exposed to a toxic solution dangerous enough to cause chemical burns, although he escaped serious injury.

Then in 2018, the company revealed that uranium had leaked through a hole in the plant's floor, contaminating soil below the plant. The NRC then learned that the company had had other leaks in 2008 and 2011 that it had never told federal or state officials about. Those leaks led to groundwater contamination.

This year, a fire broke out in a trash bin filled with slightly radioactive material, water seeped through a rusty shipping container and leaked radioactive material into the ground, and three workers went to the hospital as a precaution after working on hydrofluoric acid equipment.

Sincerely,

Tom Clements
Savannah River Site Watch
Columbia, SC

Federal Register Notice: 84FR57777
Comment Number: 1

Mail Envelope Properties (2062199712.668058.1573869740486)

Subject: [External_Sender] PDF of comments submitted at public meeting on Nov. 14 & article in The State, Nov. 15
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Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
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**Comments on the U.S. Nuclear Regulatory Commission's Draft "Environmental Assessment
for the Renewal of SNM-1107 Columbia Fuel Fabrication Facility
in Richland County, South Carolina"**

By Tom Clements, Director, Savannah River Site Watch, Columbia, South Carolina

NRC public meeting, November 14, 2019

I hereby submit these comments on behalf of Savannah River Site Watch (SRS Watch) for the record for the draft environmental assessment on the renewal of the operating license for the Westinghouse uranium fuel fabrication facility located near Columbia, South Carolina.

SRS Watch is a non-pro fit public interest organization that primarily monitors activities and projects at the U.S. Department of Energy's Savannah River Site (SRS) but the organization also monitors other nuclear activities in South Carolina and elsewhere.

All of these comments are for the record and must be responded to in any final EA:

Item 1: Safety review must be made public and comment period extended

The introduction to the document states that "The NRC's safety review is still ongoing and will be published at a later date."

Later, on page 1-1, it is stated: "The NRC staff's safety analysis will be documented in a separate Safety Evaluation Report (SER). The NRC decision whether to renew the WEC license as proposed will be based on the results of the NRC staff's review as documented in the SER and the final environmental document."

The "Safety Evaluation Report" must now be made a part of the record so the public can see it and comment on it as part of the draft EA review process, before any final EA is issued. Release of the safety review after the public period has closed is a denial of the public's rights to have proper input into the draft EA review process.

I thus request that the comment period remain open for 30 days after the safety review has been released and made available to the public in a clearly communicated fashion.



While the comment period must remain open until the SER can be reviewed, the facility must also be shown to be able to operate problem-free for a one-year period of time, after which the comment period should be reopened. At that time, only a 10-year license extension should be considered.

Item 2: Source of technetium-99 must be identified and how it will be re mediated must be addressed; Discussion of material incineration expanded

On "page i" it is stated: "Nonradiological and radiological contamination exists in the groundwater in the shallow aquifer and in the surface water onsite. In December 2018, WEC sampled all groundwater wells and found uranium and technetium-99 in the groundwater, onsite, above drinking water standards. The source of the uranium is believed to be from operations in the main facility, whereas the source of the technetium-99 is still being investigated."

On page 4-5 it is stated: "There is also a plume of Tc-99 in the lower portion of the shallow groundwater aquifer based on recent groundwater sampling results. The source and extent of the Tc-99 plume has not been fully delineated. The likely source of the Tc-99 is the recertification building and/or the WWTP lagoons, but the RI Work Plan identifies additional investigations to determine the source of the Tc-99 contamination."

Before any final EA is issued, the source of the technetium must be identified. How is it possible that a facility supposedly only handling fresh uranium could have technetium at the site?

As technetium, which is generally from materials irradiated in a nuclear reactor, is highly soluble in water it could pose a special risk. The NRC must explain how the Tc-99 plume will be delineated and remediated. How fast is the plume moving?

It is troubling that the NRC allows the technetium question to remain unresolved in issuance of the draft EA. Definitive answers to the Tc-99 mystery and problem must be given in the EA.

The documents reveals on page 3-14 that Westinghouse operates an incinerator to recover uranium: "Combustible wastes are generated through the manufacturing process. Combustible wastes containing uranium are either incinerated and leached to recover the uranium or shipped offsite to other licensed facilities for recovery."

There is no discussion of the incineration process and its aerial discharge. This must be explained. Quantities of by-product waste and their make-up that are incinerated and/or shipped off site must be discussed and disposal sites stated.

On page 3-14, it is also stated: "Noncombustible wastes and selected combustible wastes are packaged in compatible containers, compacted when appropriate, measured to verify the uranium content, and placed in storage to await shipment for further treatment, recovery, or disposal (WEC 2019b)."

What are those “further treatment, recovery or disposal” options, where would they take place and how much waste material is involved?

Item 3: All incidents must be reviewed in the draft EA

The document must review all “events” at the site which could have health and safety implications. The incidents, accidents and events reported by Westinghouse, which have continued unabated over the last few years, reveal a clear trend in chronic problems at the site.

On page 1-3 the NRC does not affirm that it has reviewed its own “event reports” in preparing the draft EA. Is this a mistake or an oversight? Or has the NRC determined that all “events” do not warrant review, when they are not the subject of deeper investigation or review?

Several recent incidents - cited by the NRC as “events” - have been left out of the draft EA. All of them have health and safety implications and confirm that incidents at the site are continuing unabated despite claims of action being taken by the company and NRC to get the problems under control. All of the events indicate that management has not been able to operate the facility without problem occurring on a frequent basis and reveal the troubling on-going trend in incidents at the site continues.

The uranium leakage event in 2018 and the discovery of uranium in the groundwater near the plant were basis to reopen the EA process. Since that time other events have taken place though they are not mentioned in the draft EA. They must be taken into account and discussed and give basis for leaving the draft EA open for comments beyond the current comment period.

Three recent incidents (“events”) reported by the NRC and known by the public but not discussed in the draft EA include:

1. October 14, 2019 event, as reported to the NRC:

<https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2019/20191016en.html>

Fuel Cycle Facility Event Number: 54331 Facility: WESTINGHOUSE ELECTRIC CORPORATION

RX Type: URANIUM FUEL FABRICATION

Comments: LEU CONVERSION (UF6 to UO2)

COMMERCIAL LWR FUEL

Region: 2

City: COLUMBIA State: SC

County: RICHLAND

License #: SNM-1107

Docket: 07001151

NRC Notified By: GERARD COUTURE

HQ OPS Officer: JEFF HERRERA

Notification Date: 10/15/2019

Notification Time: 19:49 [ET]

Event Date: 10/14/2019

Event Time: 00:00 [EDT]

Last Update Date: 10/15/2019 Emergency Class: NON EMERGENCY

10 CFR Section:

PART 70 APP A (c) - OFFSITE NOTIFICATION/NEWS REL Person (Organization):

BRADLEY DAVIS (R2DO)

NMSS_EVENTS_NOTIFICATION (EMAIL)

Event Text

THREE INDIVIDUALS SENT TO HOSPITAL DUE TO CONCERNS AFTER COMPLETION OF MAINTENANCE WORK

"On October 14, 2019, out of an abundance of caution, three employees were sent to the hospital after reporting an unusual taste in their mouths following completion of maintenance work on the hydrofluoric acid (HF) process equipment.

"The employees stayed at the hospital overnight for observation and were released today with no work restrictions. Medical treatment was provided to one employee, therefore requiring a report to South Carolina Occupational Safety and Health Administration (SC OSHA) on October 15, 2019.

"The area around the equipment was monitored for airborne concentration levels of HF with no readings approaching any safety limits in the immediate or adjoining areas. Access to the area is controlled, and the equipment remains shutdown pending completion of maintenance activities and appropriate testing before return to operation.

"There were no health or safety consequences to the public or the environment, and there was no radioactive material involved.

"This report has been entered into the facility Corrective Action Program (CAP)."

The licensee notified the NRC Region II office (McCurry).

2. October 16, 2019 event, as reported to the NRC:

<https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2019/20191017en.html>

Notification Date: 10/16/2019

Notification Time: 19:05 [ET]

Event Date: 10/16/2019

Event Time: 00:00 [EDT]

Last Update Date: 10/16/2019

Person (Organization):
BRADLEY DAVIS (R2DO)
NMSS_EVENTS_NOTIFICATION (EMAIL)

Facility: WESTINGHOUSE ELECTRIC CORPORATION
RX Type: URANIUM FUEL FABRICATION
Comments: LEU CONVERSION (UF6 to UO2)
COMMERCIAL LWR FUEL
Region: 2
City: COLUMBIA State: SC
County: RICHLAND
License #: SNM-1107
Docket: 07001151
NRC Notified By: GERALD COUTURE
HQ OPS Officer: BRIAN LIN
Emergency Class: NON EMERGENCY
10 CFR Section:
PART 70 APP A (b)(1) - UNANALYZED CONDITION

Event Text

AN ITEM RELIED ON FOR SAFETY (IROFS) DETERMINED TO BE INADEQUATE

The following was reported by Westinghouse Electric Company via email:

"As part of a review to revalidate the design of passive safety controls, on October 16, 2019 an engineering calculation was completed which demonstrates that one of two independent and redundant passive overflow devices used in the Solvent Extraction (SOLX) process was undersized for its credited safety function. This passive overflow device is an Item Relied On For Safety (IROFS), designated as SOLX -115. The IROFS prevents the potential backflow of uranium bearing solution from the SOLX process into the commercially-provided, chemical supply drums. These drums are non-favorable geometry (NFG) containers used to add chemicals to the batch process. Upon review of the calculation, the process engineer reported the issue at 3:05 p.m. [EDT] to the Environmental Health and Safety (EH&S) department.

"The design of the second, redundant passive overflow IROFS in this accident sequence (SOLX-117) has been validated and is available and reliable to perform its safety function. Under the new calculation, with no credit for SOLX-115, the overall likelihood index (OLI) for this scenario increased from -6 to -3. Therefore, the 10CFR70.61 performance requirements (OLI < -4) are not satisfied.

"The process was shut down, and the NFG chemical drums were isolated from the process until appropriate controls are established. This event has been entered into the facility's Corrective Action Program (CAP)."

The licensee notified the NRC Region II office (McCurry).

3. September 27, 2019 event, as reported to the NRC:

<https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2019/20190930en.html>

Fuel Cycle Facility Event Number: 54298 Facility: WESTINGHOUSE ELECTRIC CORPORATION

RX Type: URANIUM FUEL FABRICATION

Comments: LEU CONVERSION (UF6 to UO2)

COMMERCIAL LWR FUEL

Region: 2

City: COLUMBIA State: SC

County: RICHLAND

License #: SNM-1107

Docket: 07001151

NRC Notified By: GERARD COUTURE

HQ OPS Officer: DONALD NORWOOD

Notification Date: 09/28/2019

Notification Time: 10:32 [ET]

Event Date: 09/27/2019

Event Time: 15:15 [EDT]

Last Update Date: 09/28/2019 Emergency Class: NON EMERGENCY

10 CFR Section:

PART 70 APP A (b)(2) - LOSS OR DEGRADED SAFETY ITEMS Person (Organization):

BINOY DESAI (R2DO)

NMSS_EVENTS_NOTIFICATION (EMAIL)

Event Text

PROCEDURAL NONCOMPLIANCE WITH ADMINISTRATIVE ITEM RELIED ON FOR SAFETY

"On September 27, 2019 at 1515 EDT, the fire protection engineer's review of the daily corrective action report identified a procedural noncompliance which affected an administrative Item Relied on for Safety (IROFS). During the morning of September 26th, a fuel oil delivery truck, escorted by plant employees, drove along the road adjacent to the Uranium Hexafluoride (UF6) cylinder storage area, violating the minimum distance requirement within the procedure.

"The IROFS designation is UF6FIRE-901, which requires escort and a 60-foot spacing distance that was not fully satisfied. Instead of 60 feet, the truck drove past the area over a period of a few minutes at a distance of 20 to 30 feet from the cylinder storage area. The other IROFS in this accident sequence remained reliable and available as required. The basis for this procedural control is to provide separation so that if a fire did occur involving the fuel oil

delivery truck, there would be no significant fire exposure to the stored UF6 cylinders.

"This is a non-emergency event notification, and there was no release of hazardous or radiological materials. There were no health or safety consequences to the public, the employees or the environment from this procedure non-compliance. The delivery truck was escorted at all times, and the site has an on-site fire department, available to respond to any event.

"Immediate Corrective Actions: Prior to any fuel trucks being escorted inside the facility fence, both designated escorts shall receive a pre-job brief from a supervisor to ensure that designated escorts understand the proper delivery route specified in the procedure."

The licensee will notify NRC R2 (Vukovinsky) and the State of South Carolina.

Item 4: NRC admits it is "likely" that accident will occur in the future

On "page ii" the NRC says that "Due to past releases, the uncertainty of the migration pathways for contamination, and because it is likely that there will be leaks and spills in the future, the NRC determined that there could be noticeable impacts to the soil, surface water, and groundwater, however the impacts will be adequately monitored and mitigated."

The NRC's evaluation preliminarily concludes that continued operations for an additional 40 years would not have a significant impact on the environment. This is absurd as the NRC has no idea about the magnitude of future incidents and has no clue if future impacts will not be significant or not.

The admission that more leaks and spills - and perhaps accidents - will occur should alone preclude any consideration of a 40-year license extension.

The NRC must state that it has no idea what the size of future leaks and spills might be. Likewise, the NRC must affirm that it cannot predict anything about the magnitude or impact of any accidents that might occur.

Item 5: Impact of bankruptcy of Westinghouse and takeover by

Brookfield Business Partners stated in a January 4, 2018 news release that it had acquired 100% of Westinghouse, which had declared bankruptcy.

The news release states: "Westinghouse is a high-quality business that has established itself as a leader in its field, with a long-term customer base and a reputation for innovation," said Cyrus Madon, CEO of Brookfield Business Partners. "We look forward to bringing our significant expertise and reputation as a long-term owner and operator of critical infrastructure in the U.S. and globally, as well as our deep facilities management capabilities, to enhance the Company's position as a leading global infrastructure services provider to the power generation industry."

Despite the takeover of Westinghouse, which could hold impacts on plant operation now and in the future, this issue is omitted from discussion in the draft EA.

Possible cost-cutting by the new owner of Westinghouse could impact operations at the fuel plant. A rumor that costs are being cut, if true, could have significant impact related to status of equipment and ability to avoid and clean up leaks and spill and remediate groundwater.

As finances impact both operational issue and decommissioning, the EA must discuss the bankruptcy and takeover issues and what may happen with the ownership and management of the plant.

Item 6: License extension for 40 years is not justified

On page 1-2, the NRC states: "The WEC's license (SNM-1107) was renewed in 2007 by the NRC for 20 years and will expire in 2027. The license renewal application, if granted, would extend WEC's license for 40 years from the date the NRC approves the renewal."

No reason is given why a 40-year period, twice the length of the 20-year license period for the current license, should be considered. The reason for a 40-year license request must be given.

On page 1-3 it is stated: "This EA evaluates the environmental impacts of the proposed action—continuing the currently licensed operations through the 40-year license renewal period."

In reality, an evaluation for that period of time is totally impossible and boils down to mere speculation. If anything, the future impacts or unknown impact, which are deemed to be of essentially no concern by the NRC, mandate that caution must be the watchword and that the 40-year period for review is unrealistic and minimizes speculated risk.

As the earlier EA - and resulting FONSI - which proceeded the EA now being prepared was withdrawn due to incidents which occurred after the EA was issued is reason alone to reject a 40-year licensing period. Events are sure to happen, which the NRC admits, and the public will have no future opportunity to review them and comment on them in the context of an environmental review connected to license extension if a 40-year license is granted.

Issuance of a 40-year license this takes away rights of citizens to have input in an environmental-impact-review process like the current license review over the next 40 years and that's unacceptable.

Thus, the "proposed action" to renew the license for 40 years must be rejected.

Likewise, no Finding of No Significant Impact (FONSI) on the 40-year license extension should be issued.

Item 7: WesDyne role at WEC and environmental discharges must be discussed

A part of the Westinghouse facility, operated by subsidiary WesDyne, makes tritium rods that are irradiated in the Watts Bar unit 1 reactor - and perhaps soon in unit 2. Those unirradiated rods don't contain nuclear materials but it is unknown what waste may be generated during their fabrication and how those waste are managed.

Likewise, it is unknown if WesDyne passes waste to the Westinghouse fuel plant for management and disposal. This must be discussed in the EA.

The NRC claim it doesn't regulate the WesDyne facility as it is a nuclear weapons facility under the oversight of DOE's National Nuclear Security Administration but no documentation to that effect has been released by the NRC. The relationship of WesDyne operations to the uranium fuel side of the facility is unknown and must be revealed. As NNSA is not a regulatory agency which government entity regulates the WesDyne operations?

See attached article on the WesDyne operation: ""Obscure Columbia Facility Assembles Key Components for U.S. Nuclear Weapons"

Item 8: Full EIS justified

In addition to the points above, it is clear that incidents in the past few years and the on-going trend with such events justify that the NRC must determine that a full Environmental Impact Statement (EIS) is warranted. I request preparation of such an EIS, with full public participation.

Conclusion:

The license for the Westinghouse facility has not been justified by the NRC to be extended for 40 years. The NRC must hold the draft EA open require that the company show it can operate the facility for a period of one year without any problems which might impact public health and safety. After a trouble-free one-year period of time, the draft EA should be revised and opened again for comment, and a time period of no more than 10 years for the license extension must be considered.

Attachments:

Article on WesDyne facility at Westinghouse plant, June 2103 – "Obscure Columbia Facility Assembles Key Components for U.S. Nuclear Weapons"

Political cartoon on lax regulation of the Westinghouse fuel plant by the NRC, The State, November 6, 2019 – Mr. NRC Magoo dons a hard hat and can't see the "History of Leaks & Accidents", declaring "I see no reason to deny them another 40 year license...."

Attachment 1 to Clements' comments on draft EA, Nov. 14, 2019

Free Times

Columbia, SC

https://www.free-times.com/news/obscure-columbia-facility-assembles-key-components-for-u-s-nuclear/article_5c30db79-56dd-5d10-b787-78e67d3aaca3.html

Obscure Columbia Facility Assembles Key Components for U.S. Nuclear Weapons

Obama Wants to Reduce Global Atomic Weapons Stockpile

- Corey Hutchins
- Jun 26, 2013

Last week, President Barack Obama said the United States would draw down its global nuclear weapons presence, and called on Russia to do the same. How such a reduction might affect Columbia's role in the production of nuclear weapons, however, remains to be seen. You might not know it, but three employees in an obscure facility here in Columbia have been working under the radar on a federal program for years that assembles components used to produce nuclear weapons.

Speaking at the Brandenburg Gate in Berlin, Germany, June 19, the president said while we may no longer live in fear of global annihilation, "so long as nuclear weapons exist, we are not truly safe." His speech came after a visit with Russian President Vladimir Putin at which the two made an agreement to prevent the global spread of nuclear weapons.

In Berlin, Obama said that after a comprehensive review he'd determined the United States can ensure the security of America and its allies and maintain "a strong and credible strategic deterrent while reducing our deployed strategic nuclear weapons by up to one-third." The president, however, appears largely alone on the world stage in this quest.

Berlin is half a world away from Columbia. But Obama's talk there put a spotlight on America's nuclear arms production chain, in which our city plays a key role — something about which locals remain largely unaware. But it's important to know, observers of the nuclear industry say, that commercial nuclear power facilities throughout the country are also involved in the assembly of war weapons.

Tucked away in part of a large Westinghouse complex on Bluff Road 10 miles past Williams-Brice Stadium is a Pennsylvania-based company with a government contract for a program assembling components used in the production of nuclear weapons. It's not advertised or easy

to find. The company, called WesDyne Corporation, doesn't say on its website that it has an operation at the Westinghouse facility in Columbia. Only three people work there. Some Westinghouse employees don't even know about it.

According to a 2010 Government Accountability Office report, WesDyne has been fabricating tritium-producing burnable absorber rods, commonly called TPBARs. Tritium, a radioactive isotope of hydrogen — the 'H' in the H-bomb — is used as a triggering mechanism in nuclear weapons that increases explosive power. The TPBARs assembled in Columbia are shipped to Tennessee, where they're worked on some more before making their way to the Savannah River nuclear processing site on the Georgia-South Carolina border. There, the GAO report states, the TPBARs are processed and then shipped to the federal Department of Defense "for installation into nuclear weapons."

Despite those public federal documents detailing the assembly of TPBARs in Columbia, it's "a classified program with the Department of Energy," Westinghouse spokeswoman Rosemary Peta told Free Times. She said the program has not changed since the 2010 GAO report explaining it was published, except for maybe some personnel changes at the facility.

"The first TPBARs were fabricated by the Pacific Northwest National Laboratory, which designed the rods as well as the tritium production processes associated with them," reads the 2010 report. The Department of Energy contracted with WesDyne — a Westinghouse subsidiary — to fabricate them here in Columbia, where the company "procures and maintains" an inventory of TPBAR components and assembles them.

WesDyne is updating its contract with the Department of Energy for another five years.

Asked about the production chain for American nuclear weapons, the director of the Nuclear Materials Division of the U.S. Office of Nuclear Weapons Stockpile referred questions to the communications department of the Department of Energy's National Nuclear Security Administration. A spokesman there said WesDyne's Columbia facility is "the supplier" of TPBARs, which "are essential to producing tritium for nuclear weapons."

Tom Clements, the Southeastern nuclear campaign coordinator for Friends of the Earth, says he's wondered about the facility in Columbia for years but never met anyone who could confirm its involvement in the production of nuclear weapons. He says while Obama might be signaling a reduction of our stockpile of nuclear weapons, the Department of Energy is calling for a big budget increase to continue producing elements for them.

"Nuclear weapons are a lucrative business that the weaponeers and contractors and [National Nuclear Security Administration] officials won't easily give up on," Clements says. "They will tolerate rhetoric about more cuts in the weapons stockpile but will not easily accept cuts in 'their' money spent on nuclear weapons. That nuclear weapons money trail takes a pass right through Columbia."

Ever since the Eisenhower administration, the nuclear industry has resisted associating its technology with weapons of mass destruction, says Bob Guild of the Sierra Club of South Carolina. He calls it a dirty little secret that the technologies overlap and that commercial nuclear power is intimately connected with the military production of nuclear weapons, even here in Columbia.

Plutonium is a byproduct of the nuclear fission process at power plants, and it can be enriched into weapons-grade material.

"It's in every nuclear power plant that operates, and some instances very quietly suppressed," Guild says of nuclear weapons material at commercial energy facilities.

The process can work the other way, too: Uranium from dismantled nuclear weapons can, and does, provide electricity in the United States, according to The New York Times.

There's an explicit crossover between the commercial use of nuclear technology and its use in nuclear weapons, Guild says — and it's happening "right up the road."

Attachment 2 to Clements comments
on draft EA, Nov. 14, 2019

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