U.S. House Committee on Energy and Commerce
Subcommittee on Energy, Climate, and Grid Security
"American Nuclear Energy Expansion: Spent Fuel Policy and Innovation"
[April 10, 2024]

1. Letter to Chair Duncan and Ranking Member DeGette from Oklo CEO Jacob DeWitte, April 9, 2024, submitted by the Majority.
2. Letter to Chair Duncan and Ranking Member DeGette from Dairyland Power Cooperative, April 10, 2024, submitted by the Minority.
3. Letter from Representative Mike Levin (D-CA) to Chair Duncan and Ranking Member DeGette, April 9, 2024, submitted by the Minority.
4. Letter from Representative Dina Titus (D-NV) to Chair Duncan and Ranking Member DeGette, April 10, 2024, submitted by the Minority.
5. Letter to Chair Duncan and Ranking Member DeGette from SMUD Chief Executive Officer and General Manager Paul Lau, April 10, 2024, submitted by Rep. Matsui.

OKLO

April 9th, 2024

Representative Jeff Duncan
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

Representative Diana DeGette
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chair Duncan and Ranking Member DeGette,

Oklo wishes to thank the Members of the Committee for their interest in spent nuclear fuel policy and innovation. Oklo, an advanced fission power company, is keenly interested in addressing the challenges associated with the back-end of the nuclear fuel cycle. Oklo is unique within the U.S. nuclear industry in that it will build, own, and operate its reactors, and sell power to customers through power purchase agreements. Oklo will be responsible for fabricating fuel for its reactor fleet, as well as managing its used fuel.

Oklo is designing and will soon be licensing a 15 MWe sodium cooled fast reactor, the Aurora Powerhouse, that utilizes high-assay low-enriched uranium (HALEU) fuel, up to 19.75% U-235. Oklo's first commercial reactor is planned to be deployed at Idaho National Laboratory (INL) and will be fueled with HALEU recycled from used Experimental Breeder Reactor II fuel at INL. Oklo also has a Memorandum of Understanding with the Southern Ohio Diversification Initiative to deploy two reactors in Piketon, Ohio. Oklo is planning to develop a 50 MWe model, to follow the initial 15 MWe models.

Oklo's mission is to provide clean, reliable, and affordable energy on a global scale. We believe we have an embedded opportunity to enhance our mission via advanced fuel recycling technology that can convert used fuel into clean energy. The compact-size Aurora Powerhouses can be fueled either with HALEU or with a recycled uranium-transuranic mixture. Oklo anticipates fueling Aurora Powerhouses exclusively with HALEU until the Oklo recycling facility is operational and producing uranium-transuranic material.

Oklo intends to employ the pyroprocessing recycling technology, originally developed and matured at our National Laboratories. The feedstock for the Oklo recycling program is planned initially to be used fuel from the operating fleet of light water reactors; followed additionally by the used fuel from Aurora

Powerhouses. Attachment 1 provides additional detailed information on the Oklo recycling plans.

Oklo expects that recycling existing used nuclear fuel will be able to produce fuel for considerably less cost than fresh HALEU. Recycling will also create optionality for the fuel supply chain. In addition to the economic benefit, recycling can also enhance our nation's management of used fuel until a deep geologic repository is available.

Oklo is conducting formal pre-application engagement with the Nuclear Regulatory Commission (NRC), in advance of submitting a recycling facility license application. Oklo is confident that the existing regulatory structures are suitable for licensing this type of recycling facility; rulemaking to modify existing regulations is not desired. Although Oklo sees a clear pathway to licensure, deployment, and commercialization of a recycling facility, legislative action, as discussed in Attachment 2, has the potential to increase the efficiency for NRC licensing of recycling facilities.

Deploying commercial nuclear facilities (e.g., reactors, fuel fabrication, recycling facilities) is an expensive endeavor and Oklo appreciates the commitment of the DOE Loan Program Office (LPO) to support nuclear projects. However, it isn't clear if the LPO's authority includes supporting commercial recycling facilities. Congress could provide clarity in this regard and ensure that LPO has the authority to support recycling projects.

Progress towards opening a deep geologic repository in the U.S. has been stalled for years. Oklo is supportive of efforts that will move the nation forward and believes that recycling can enhance these efforts. Oklo looks forward to future interactions with the Committee and we thank you for your attention to this important issue.

Sincerely,

Jacob DeWitte
CEO
Oklo

OKLO

Attachment 1:

The Nuclear Fuel Cycle: Oklo and Recycling

Introduction

There is currently significant industry momentum in the U.S. for advanced reactor development, with many organizations currently in the process of designing, and soon licensing and building reactors. Oklo is one of the U.S. developers working to design and license advanced reactors. Oklo's Aurora product line are compact-size fast reactors with outputs ranging from 15 to 50 MWe, which can be fueled by either high-assay low enriched uranium (HALEU), enriched up to 19.75%, or a recycled uranium-transuranic mixture.

Oklo's reactors are expected to be economically competitive utilizing fuel made with HALEU. However, Oklo expects that recycling existing used nuclear fuel will be able to produce fuel for considerably less cost than fresh HALEU. The economic savings that will be realized from recycling used nuclear fuel will result in a paradigm shift that further enables the development and large-scale commercialization of advanced fission, which will contribute to decarbonization.

Recycling

Today's reactors, known as light water reactors (LWRs), only tap into a small percentage of the energy content of their fuel. These reactors are thermal reactors, which means they use thermal (i.e., lower energy) neutrons to cause fission, and can only access a fraction of the fuel's energy content. About 2,000 metric tons of used fuel is removed from reactors each year in the U.S. and stored on-site awaiting the opening of geological repository. The current inventory of U.S. commercial used fuel is approximately 90,000 metric tons.

Used fuel looks very similar, if not identical, to brand new nuclear fuel. However, since it has been through a reactor, the elements that make up the fuel have changed. The constituents of the used fuel are fission products (the byproducts of the fission process – elements lighter than uranium), isotopes of uranium that are both unused and which evolved during irradiation, and transuranic actinides that evolve during irradiation. Figure 1 illustrates the portions of the LWR fuel that are reused.

To recycle used fuel, in a proliferation resistant manner, from both the light water reactor fleet and Oklo reactors it is important to utilize a reactor that can consume both the isotopes of uranium and the transuranic actinides. Oklo reactors can do just that. In contrast to LWRs, Oklo's reactors utilize fast (i.e., higher energy) neutrons that are the key to accessing the fission potential of the transuranic elements, when coupled with advanced fuel cycle technologies. Figure 2 illustrates the lifecycle of LWR fuel from the operating fleet and fuel from Oklo's reactors using recycling.

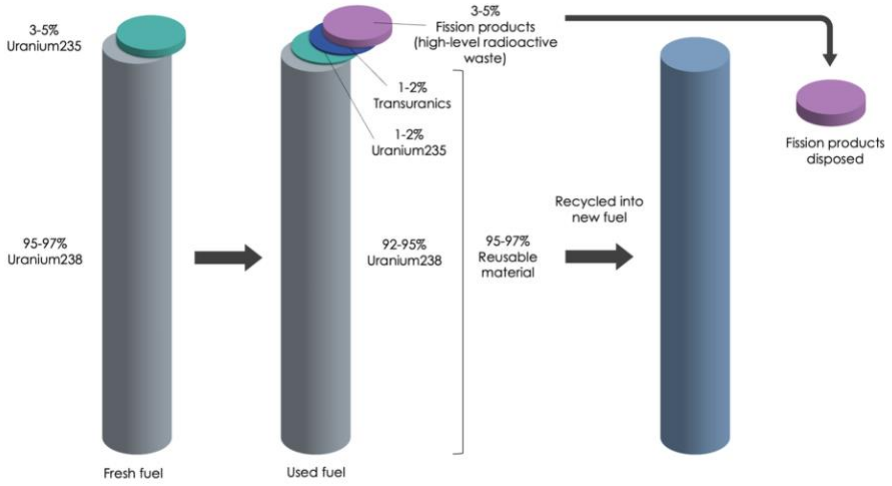

Figure 1: LWR fuel constituents and their recyclability for fast reactor fuel

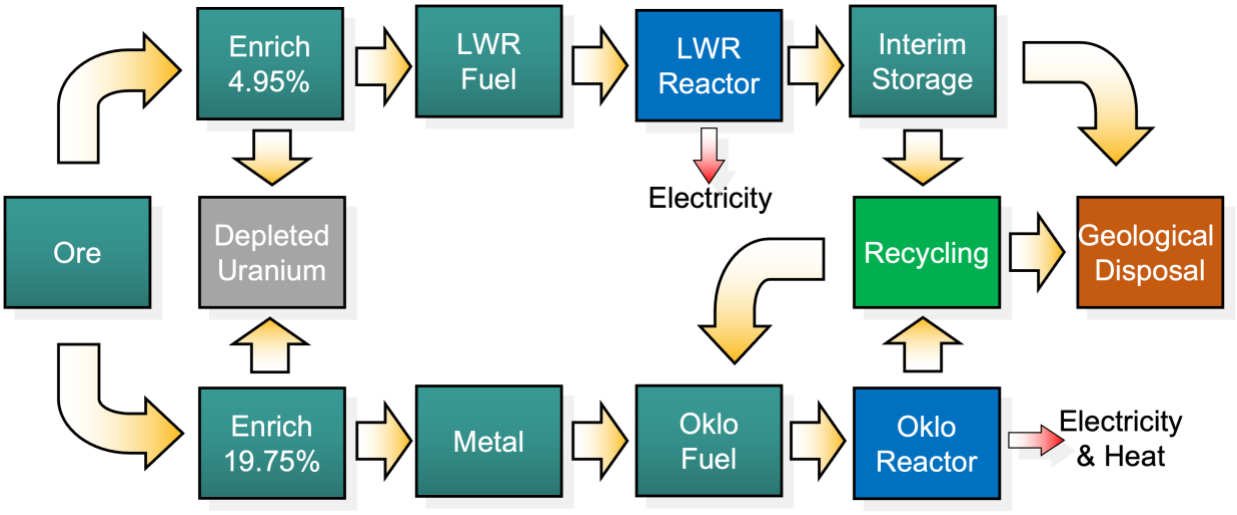

Figure 2: Lifecycle of LWR and Oklo reactor used fuel using recycling

Electrorefining

The proliferation resistant recycling technology that Oklo will be using is electrorefining (pyroprocessing). Electrorefining is an electrochemical process wherein used fuel is dissolved through a salt solution, driven by an electrical current, and separated into usable and non-usable streams. It is important to highlight that electrorefiners keep uranium (U) and transuranic actinides (TRU) together, where plutonium cannot be isolated, yielding a fantastic fast reactor fuel. Electrorefiners also produce a second stream of uranium without transuranics. It is not possible to separate individual TRU constituents via this method. At no point during the electrorefining operation is there a separated stream of strategic nuclear material. The remainder of the material that cannot be used will be ultimately disposed of. Figure 3 illustrates this recycling process. Because the uranium and transuranics remaining together, this fuel cannot be used in the operating fleet of light water reactors or other thermal spectrum

reactors. This process is far more efficient, proliferation resistant, and economic than conventional reprocessing technologies like those employed in France or Japan since it does not separate pure plutonium, and since it uses less equipment and space.

The U/TRU can serve perfectly as an alternative fuel for fast reactors, in place of HALEU. With effective implementation, the recycling of used LWR nuclear fuel into U/TRU can offer substantially favorable economics over an open fuel cycle with HALEU. This is without considering the added benefits of the reduction in the volume, mass, and radiotoxicity lifetime of the existing LWR used fuel inventory.

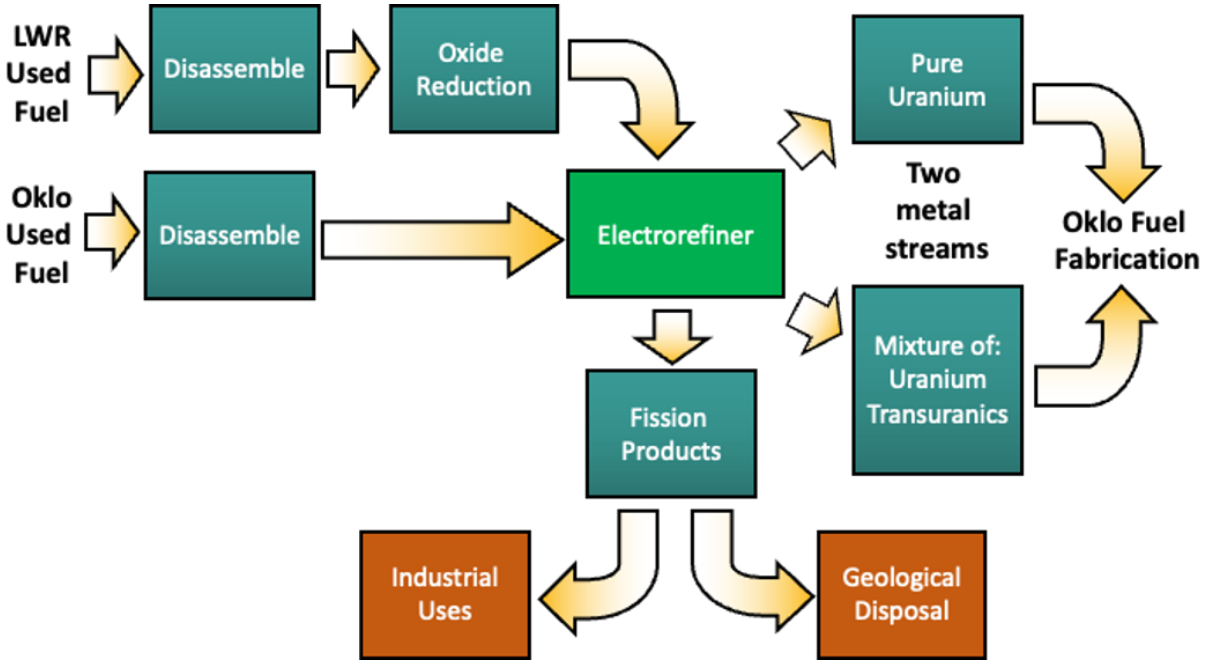

Figure 3: Oklo's recycling process for LWR and Oklo used fuel using electrorefining

Disposal

The recycling of used nuclear fuel using electrorefining substantially reduces the volume and mass of high-level waste requiring disposal, when compared against an open fuel cycle with direct disposal. However, it does not eliminate a requirement for disposal. The remaining high-level waste is in the form of fission products, which are immobilized in a resilient material. An additional advantage to recycling the used fuel is that the form factor of the fission products can be specially tailored for the planned disposition.

Conclusion

The implementation of used nuclear fuel recycling using electrorefining offers the potential to convert a liability into a national asset. Oklo occupies a unique position within the nuclear fuel cycle by being able to recycle waste from other reactors as well as its own reactors. This complements its market position with the commercialization of its power plants because it provides fuel supply optionality, which is the largest supply chain challenge for advanced reactors today. Oklo is now designing and preparing to deploy a scalable recycling facility, and associated U/TRU fuel fabrication facility. Oklo is actively working on the design of the facility

and its systems, and on developing the safety, security, and safeguarding bases that will form the core of the facility technical specifications. Figure 4 provides an artist rendition of a potential Oklo recycling facility. Oklo is currently engaged in pre-application activities with the U.S. Nuclear Regulatory Commission to prepare for the deployment of a first-of-a-kind fuel recycling facility. Oklo issued a letter of intent to the NRC in 2020 for the licensing of this recycling facility, and is in formal pre-application engagement, following the submission of a licensing project plan in December 2022. Oklo is planning to file an initial license application toward starting facility operation by the end of the 2020s. In addition, new opportunities have emerged for the reuse of fission products present in the waste, for industrial, research, and medical applications.

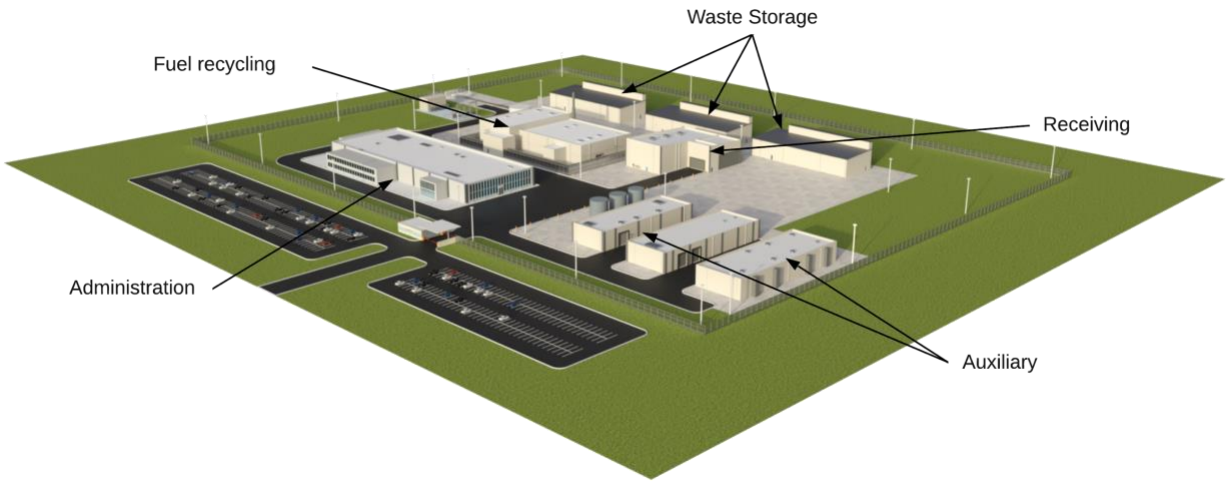

Figure 4: Artist rendering of an Oklo recycling facility

OKLO

Attachment 2:

Increasing NRC Efficiency When Licensing U/TRU Reprocessing Facilities

Issue:
The NRC regulates many different types of facilities including nuclear reactors, fuel fabrication facilities, and uranium enrichment and conversion facilities and the NRC's regulations are tailored to specifically address the technologies it is licensing. For example, the NRC licenses nuclear reactors as utilization facilities under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," or 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." Part 50 is also reserved for the licensing of production facilities under the Atomic Energy Act ("AEA"), although no such facilities currently exist. Meanwhile, the NRC separately licenses uranium enrichment and fuel fabrication facilities through special nuclear materials ("SNM") licenses under 10 CFR Part 70 "Domestic Licensing of Special Nuclear Material."

NRC states that it is prepared to issue licenses for nuclear fuel reprocessing facilities once an application has been submitted. It is not clear though whether the NRC will license nuclear fuel reprocessing facilities that do not separate out plutonium as a production facility under Part 50 or through a SNM license under Part 70. A reprocessing facility that does not separate out plutonium (e.g., a U/TRU reprocessing facility) is a facility that processes spent fuel to separate out the fission products while keeping uranium (U) and transuranic actinides (TRU) together, where plutonium cannot be isolated. This approach is more proliferation resistant than other reprocessing approaches that separate plutonium from the other elements in the spent fuel. Historically, reprocessing plants have sought to separate out plutonium as other transuranic nuclides cannot be effectively used in the currently operating fleet; however, advanced fast-spectrum reactors do not require this separation and therefore it is viable to deploy commercial reprocessing facilities which do not require plutonium separation.

While both regulations ensure adequate protection of public health, safety and security, the NRC has historically delineated Part 50 as the appropriate regulation to be used for the licensing of production and utilization facilities. The definition of "production facility" in the AEA, provided below, allows the NRC to identify a "production facility" based on the "production" of special nuclear material and whether it is of a "quantity" to be "of significance to the common defense and security," or produced "in such manner as to affect the health and safety of the public." This provides the NRC with significant discretion in defining production facilities, and, for the reasons set forth below, the NRC should define U/TRU reprocessing facilities as outside the definition of a production facility.

Congress should also revise the AEA definition of production facility to eliminate any potential confusion and clarify that U/TRU reprocessing facilities do not rise to the level of a production facility classification under the AEA. Such a revision would help avoid unnecessary legal challenges to the NRC's interpretation of its own statutory authority.

Why license under Part 70:
The NRC should license U/TRU reprocessing facilities under 10 CFR Part 70, because a U/TRU reprocessing facility is consistent with the hazards (e.g., criticality and chemical) presented by traditional facilities licensed under Part 70, particularly uranium enrichment and fuel fabrication facilities. Additionally, Part 70 has more relevant requirements since it is used to license fuel cycle facilities whereas Part 50 has numerous requirements specifically directed towards nuclear reactor licensing. A U/TRU reprocessing facility is also much closer in design and operation to an enrichment or fuel fabrication facility, so utilizing Part 70 will result in a considerably more efficient licensing process. In addition, Part 70 would allow one NRC office to maintain control over the licensing of the U/TRU reprocessing facility, instead of splitting responsibility between multiple NRC offices and further reducing efficiencies.

There is also the potential for significant cost and schedule impacts if the reprocessing facility must be licensed as a production facility under Part 50 versus as a fuel cycle facility under Part 70. This is because production facilities require a two-step licensing process under the AEA, whereas Part 70 enables a single step licensing process.

Issue resolution:
As noted above, a minor change in the AEA definition of production facility would clarify that a U/TRU reprocessing facility does not meet the criteria of a production facility and therefore should be licensed under Part 70 as another fuel cycle facility. This proposed change in language is provided below.

Production Facility Definition, 42 USC 2014(v), with Proposed Change in Red:
The term "production facility" means (1) any equipment or device determined by rule of the Commission to be capable of the production of special nuclear material in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public; or (2) any important component part especially designed for such equipment or device as determined by the Commission. Except with respect to the export of a uranium enrichment production facility, such term as used in subchapters IX and XV shall not include any equipment or device (or important component part especially designed for such equipment or device) capable of separating the isotopes of uranium or enriching uranium in the isotope 235 or capable of reprocessing spent nuclear fuel provided that plutonium remains mixed with other transuranic elements.

BRENT J. RIDGE
President and CEO

DAIRYLAND POWER
COOPERATIVE

April 10, 2024

Hon. Jeff Duncan, Chair
Hon. Diana DeGette, Ranking Member
Subcommittee on Energy,
Climate & Grid Security
2125 Rayburn House Office Building
Washington, DC 20515

Chairman Duncan, Ranking Member DeGette, and Members of the Subcommittee, thank you for holding this important hearing on the state of U.S. spent nuclear fuel management policy, and for the opportunity to submit this statement for the record.

Dairyland Power Cooperative is a generation and transmission cooperative serving 24 distribution cooperatives and 27 municipal utilities across Wisconsin, Minnesota, Iowa, and Illinois with wholesale power requirements and other energy services. Dairyland has a unique experience with nuclear power, having previously owned a nuclear reactor, currently managing an Independent Spent Fuel Storage Installation (ISFSI), and actively exploring the potential for advanced reactor technologies to assist in our clean energy transition. Today's hearing is particularly salient to Dairyland, as we know the public's views on new nuclear are shaped in part by their concerns about the long-term plan for used fuel. We appreciate the efforts of the Subcommittee to address this policy challenge.

By way of history, Dairyland brought online the 50-megawatt (MW) La Crosse Boiling Water Reactor (LACBWR) in 1969 as part of a joint project with the federal Atomic Energy Commission to demonstrate the peacetime use of nuclear power. At the time, both parties believed spent nuclear fuel would be reprocessed and would not become a long-term storage problem. However, reprocessing was terminated through an executive order by President Jimmy Carter in April 1977. In 1987, Dairyland made the difficult decision to decommission the reactor.

Final decommissioning of the LACBWR facility included demobilizing equipment, shutting down systems and draining the fuel pool, among other tasks. LACBWR was shut down and placed in SAFSTOR[1] in April 1991; however, the used fuel remained onsite. Although the fuel was safe in LACBWR's storage pool, this was not intended as a long-term storage solution. Additionally, Dairyland could not proceed with final decommissioning of the facility while the fuel was on-site. Dairyland prepared for several years to remove LACBWR's used fuel from the fuel pool and place it into a dry cask storage system on the south end of Dairyland's Genoa Site. The project to safely and efficiently transfer used nuclear fuel from the permanently shut-down nuclear facility to the Independent Spent Fuel Storage Installation (ISFSI) on the south end of the Genoa Site was completed in September 2012. The fuel is monitored around the clock at the ISFSI in accordance with Nuclear Regulatory Commission (NRC) regulations.

[1] *A long-term storage condition for a permanently shut-down nuclear power plant. During SAFSTOR, radioactive contamination decreases substantially, making subsequent decontamination and demolition easier and reducing the amount of low-level waste requiring disposal. See **********.nrc.gov/reading-rm/basic-ref/glossary/safstor.html.*

In 2007, Dairyland contracted with Energy Solutions, a national radioactive waste services contractor, to facilitate the removal and disposal of LACBWR's Reactor Pressure Vessel and other low-level, non-fuel waste to a disposal site in South Carolina. The site's license was transferred from Dairyland to La Crosse Solutions in 2016 to complete decommissioning. On March 15, 2023, the NRC formally transferred the license for the LACBWR reactor site back to Dairyland for unrestricted public use – however, the ISFSI site remains.

So, too, remains our region's need for reliable, affordable power. While the smaller size of LACBWR made it uneconomical, advanced nuclear power technologies use a smaller size to harness economies of scale in manufacturing and a modular design to accommodate the precise needs of a region. As Dairyland and other utilities decarbonize, nuclear power must be a part of the conversation. Other carbon-free resources, such as wind and solar, are intermittent and must be firmed with dispatchable resources. This the appeal of advanced nuclear: it is the only large-scale source of carbon-free, dispatchable power.

Dairyland is prepared to move forward with new nuclear energy despite the presence of used fuel at our ISFSI, but we acknowledge this material presents concerns for regional stakeholders and may complicate our path to build support for a nuclear future. We are also acutely aware that the federal government's broken promise to take title to this material dampens enthusiasm for new nuclear nationwide. Furthermore, although Dairyland periodically recovers some of the cost of housing this material from the Judgment Fund, we still bear financial burdens and must litigate and re-litigate this issue to recoup costs.

While there are some technological and logistical challenges to removing used nuclear fuel from the 75 sites on which it is currently stored, none represents a true barrier to removal and permanent storage. By far the biggest hurdle is finding policy agreement on a path forward – which we urge Congress to work toward with urgency. Dairyland stands ready to be a collaborative partner in this process. Dairyland participates in the Nuclear Energy Institute's Spent Fuel Management Working Group, and we see the consent-based siting process as a promising potential solution that could use support from Congress. The grid of the future needs nuclear power, and the American people deserve a real, permanent solution for the nation's used fuel.

Sincerely,

Brent Ridge
President and CEO
Dairyland Power Cooperative

MIKE LEVIN
49TH DISTRICT, CALIFORNIA

MIKELEVIN.HOUSE.GOV

WASHINGTON D.C. OFFICE
2352 RAYBURN OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-3906

OCEANSIDE DISTRICT OFFICE
2204 EL CAMINO REAL, SUITE 314
OCEANSIDE, CA 92054
(760) 599-5000

DANA POINT DISTRICT OFFICE
33282 GOLDEN LANTERN, SUITE 102
DANA POINT, CA 92629
(949) 281-2449

Congress of the United States
House of Representatives
Washington, DC 20515-0549

April 9, 2024

The Honorable Jeff Duncan
Chairman
Subcommittee of the Energy, Climate, and Grid Security Subcommittee
House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Diana DeGette
Ranking Member
Subcommittee of the Energy, Climate, and Grid Security Subcommittee
House Energy and Commerce Committee
2322A Rayburn House Office Building
Washington, DC 20515

Dear Chairman Duncan and Ranking Member DeGette,

As the Energy, Climate, and Grid Security Subcommittee conducts its hearing titled "American Nuclear Energy Expansion: Spent Fuel Policy and Innovation," I write on behalf of my constituents in California's 49th Congressional District to share our perspectives on spent nuclear fuel issues. I first wish to express my appreciation for the Subcommittee's attention to such a long-standing issue that impacts Congressional districts across the country, including the one that I represent and call home. I am also grateful for the Subcommittee's invitation to Daniel Stetson, the Chairman of the San Onofre Community Engagement Panel, to share more about the impact that the current system of spent fuel management has on our community.

Since the 1950s, approximately 90,000 metric tons of spent nuclear fuel have been generated from commercial nuclear power generation in the United States, and this inventory grows by approximately 2,000 metric tons every single year.[1] In 1982, Congress passed the *Nuclear Waste Policy Act*, which mandated that the U.S. government take possession of spent nuclear fuel and assigned the Department of Energy (DOE) the responsibility to manage spent nuclear fuel from commercial reactors.

Then in 1987, Congress decided to designate Yucca Mountain as the sole candidate for a permanent geologic repository, without engaging in a consent-based process, and over Nevadans' objections. More recent private storage efforts in New Mexico and Texas have not advanced due to a similar lack of consent. As a result, the 90,000 metric tons of existing spent nuclear fuel is being stored indefinitely at over 70 sites in more than 30 states, without the consent of the communities in which they are located.

To say that this current situation is not ideal would be an understatement.

[1] DOE, https://www.energy.gov/sites/default/files/2023-05/Consent-Based%20Siting%20Process%20Report-0424%203.pdf

Because the federal government was unable to fulfill its responsibility to begin disposing of spent nuclear fuel beginning in January 1998, the federal government has been found to be in partial breach of its contract with owners of commercial nuclear power reactors and must use taxpayer dollars to pay for damages of this breach. The latest Nuclear Waste Fund Audit Report by the DOE Inspector General (DOE-OIG-24-02) notes that this partial breach has cost taxpayers $10.6 billion through September 30, 2023, and that the remaining additional liabilities will total $34.1 billion. These funds add to the federal deficit without benefit of budget or appropriations considerations.

This breach also leaves communities like my own to serve as de facto interim storage sites, without their consent. The decommissioning San Onofre Nuclear Generating Station (SONGS) in my district currently stores more than 3.5 million pounds of spent nuclear fuel just 100 feet from the Pacific Ocean, near active fault lines, surrounded by highly populated areas and on Marine Corps Base Camp Pendleton. Since I took office in 2019, one of my top priorities has been moving the spent nuclear fuel from SONGS as quickly and safely as possible.

Part of this work has included working with colleagues to secure funding for DOE to restart a federal, consent-based consolidated interim storage program. In April 2023, DOE released its comprehensive outline for a 10- to 15-year plan to successfully site and store spent fuel using a consent-based siting process.[2] This process is designed to work with local governments that want to host a site in a way that is inclusive, community-driven, phased, and adaptive. We have seen how a lack of consent has historically stopped projects – both public and private – so I am optimistic that this new, consent-based approach can break the current stalemate on the development of federal management capacity for spent nuclear fuel.

While it is encouraging that for the first time in more than a decade the government is finally progressing towards fulfilling its obligation to take title to this waste, we still have a long way to go towards a comprehensive, integrated waste management system. The Government Accountability Office (GAO) has found that "a variety of actions are needed to move ahead, including authorization of a new effort to determine where a disposal facility should be located and the development of a management strategy," and that "Congress needs to take action to break the impasse over a permanent solution for commercial spent nuclear fuel."[3]

While we do not yet know the ultimate sites for consolidated interim storage and a permanent repository, we *do* know the consent-based path that we must take to successfully site these facilities. We also have the benefit of years of thought and expert development of a bipartisan path forward for how we successfully manage our nuclear future.[4] And, we can now look to the examples set by other countries, such as Finland, Sweden, and Canada, and how their work prioritized consent and was led by single purpose organizations.

---

[2] DOE, https://www.energy.gov/sites/default/files/2023-05/Consent-Based%20Siting%20Process%20Report-0424%203.pdf

[3] GAO, https://www.gao.gov/products/gao-21-603

[4] DOE, https://www.energy.gov/ne/articles/blue-ribbon-commission-americas-nuclear-future-report-secretary-energy

It is clear to me, and I hope to you as well, that Congress must act. Particularly at a time when we are considering promoting further nuclear energy development, we must also consider the technology's full life span, including its long-term impact and environmental risks. Anything short of addressing the spent fuel problem is irresponsible and could result in a future, preventable crisis.

In the immediate term, we must continue to provide funding, on a bipartisan basis, to DOE's integrated waste management work, and ensure that annual funding is commensurate with the Department's needs throughout the process. We must also provide DOE with clear direction to develop a total system plan for the management of spent nuclear fuel, and to build capacity and execute upon this plan.

We must also amend existing law to grant the federal government the authority to site, construct and operate a consolidated interim storage site and ultimately a new geological repository, and direct that these processes be based in consent, as agreed upon by the host communities themselves. We must also work with potential host communities and states to identify benefits they can receive in exchange for their volunteering to store this waste. Further, we ought to ensure that we make progress on siting a repository in tandem with a consolidated interim storage facility, so as to provide interim storage host communities with the assurance that they will not become permanent storage sites by default. We may even consider creating a new single-purpose, autonomous organization insulated from the political process and with access to reliable and adequate funding, to handle these tasks.

Communities across the country, including my own, have waited patiently for action on this matter. It is past time that we end the continued stalemate that is wasteful of taxpayer resources. The path ahead will not be easy and will require many difficult conversations. But I am committed to seeing this through, and I hope to work with you and your staff to finally fulfill the federal government's responsibility to manage spent nuclear fuel.

Sincerely,

Mike Levin
United States Representative

DINA TITUS
MEMBER OF CONGRESS
1ST DISTRICT NEVADA

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

COMMITTEE ON
TRANSPORTATION &
INFRASTRUCTURE

COMMITTEE ON
FOREIGN AFFAIRS

April 10, 2024

The Honorable Jeff Duncan
Chairman
Energy & Commerce Subcommittee on
Energy, Climate, and Grid Security
Washington, D.C. 20515

The Honorable Diana DeGette
Ranking Member
Energy & Commerce Subcommittee on
Energy, Climate, and Grid Security
Washington, D.C. 20515

RE: Hearing on "American Nuclear Energy Expansion: Spent Fuel Policy and Innovation"

Dear Chairman Duncan and Ranking Member DeGette,

Today, as your Subcommittee discusses the management of spent nuclear fuel, I write to provide the perspective of thousands of Nevadans, on both sides of the aisle, concerning opposition to the Yucca Mountain Nuclear Waste Repository.

The relationship between the Department of Energy (DOE) and State of Nevada has long been a difficult and painful one. For over three decades, the Department of Energy has left open the possibility of Nevada's becoming the dumping ground for the nation's nuclear waste. From the time the Nuclear Waste Policy Act was signed into law in 1987, there has been resounding disapproval by Nevadans.

Since the license application has been on hold, our State faces an uncertain future of not knowing whether hazardous nuclear waste will be forced upon us.

There are also significant financial implications for the State and the country. In 2008, the Department of Energy estimated that without major interruptions, it would take $1.66 billion just to complete the multi-year process for receiving construction authorization. If that were to happen, the Government Accountability Office (GAO) estimates that construction of Yucca Mountain would cost between $75 billion and $119 billion.

This construction estimate does not account for the costs of transporting highly radioactive nuclear waste through 44 States and the District of Columbia, including 344 Congressional Districts representing over 260 million citizens. With an estimated 100,000 trucks needed to

transport the waste, that would amount to an average of 4-6 trucks per day, every day, for 50 years.

Costs aside, the bottom line is this: Nevada does not produce nuclear waste; we have not consented to storing it in our backyard; and we should not have it forced upon us. That is why I introduced H.R. 1051, the *Nuclear Waste Informed Consent Act*, which has been referred solely to the Energy & Commerce Committee to require state, local, and tribal governments to provide consent before the construction of a permanent nuclear waste repository in their community.

Yucca Mountain is a failed project and due to the safety, financial, and environmental implications for Nevada, I strongly urge your consideration of my legislation to ensure people have a voice in where nuclear waste is stored. If you require further information, please do not hesitate to contact my staff at your convenience.

Sincerely,

Dina Titus
Member of Congress

SMUD®

April 10, 2024
GM 24-068

Hon. Jeff Duncan, Chair
Subcommittee on Energy, Climate
& Grid Security
2125 Rayburn House Office Building
Washington, DC 20515

Hon. Diana DeGette, Ranking Member
Subcommittee on Energy, Climate
& Grid Security
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Duncan, Ranking Member DeGette, and Members of the Subcommittee:

Thank you for holding this important hearing on the state of U.S. nuclear waste management policy, and for the opportunity to submit this letter for the record. SMUD supports Congressional action to address the nation's spent fuel, which is currently housed at over 70 sites across the country, co-located with both operating and permanently shut-down reactors. SMUD's Rancho Seco Nuclear Generating Station began operations in 1975, but ceased after a public vote in 1989. Since then, the Rancho Seco site and SMUD ratepayers have maintained the legacy spent fuel from that reactor, despite clear direction in the Nuclear Waste Policy Act of 1982 (NWPA) obligating the Department of Energy (DOE) to take title to this material.

Decommissioning planning for the Rancho Seco nuclear plant began in 1991, commodity removal began in 1997, and the Nuclear Regulatory Commission (NRC) certified that decommissioning of the reactor was complete in 2009. That year, the NRC released the majority of the site for unrestricted public use, excluding approximately 11 acres of land that holds an Independent Spent Fuel Storage Installation (ISFSI) with 22 dual-purpose systems licensed for the dry storage and transportation of used nuclear fuel and Greater-Than-Class-C (GTCC) waste ultimately destined for disposal by DOE.

SMUD has litigated numerous partial breach of contract claims against DOE, seeking to recover the costs incurred in our management of this material the Department was required to begin accepting in 1998. To date, SMUD has won judgments in the U.S. Court of Claims totaling $104.5 million, representing the ongoing breach of contract through June 30, 2015. SMUD has also recovered a total of $39.9 million in settlement for the ongoing breach of contract between July 1, 2015, and December 31, 2022. It is important to note that this issue has been litigated multiple times and each time results in recouping a fraction of the actual costs of storing the fuel, not to mention the cost of litigation and the lost opportunity to develop the remainder of the Rancho Seco site.

SMUD, like other owners of permanently shut-down reactor sites who make up the Decommissioning Plant Coalition (DPC), wishes to hasten the day when the federal government will meet its contractual obligations to remove the used fuel and GTCC

material stranded on our site. The overarching principle of urgency guides our support for the path of least resistance to achieving that goal. SMUD initially supported the Yucca Mountain project and worked with Congress in urging DOE to prepare a sound license application and address transportation infrastructure requirements. However, political opposition to that project appears intractable, and we no longer believe this represents a viable path to the government taking title to our spent fuel.

In recent years, SMUD and the DPC urged Congress to support the establishment of a voluntary, incentive-based siting program that would lead to the licensing of a consolidated interim storage (CIS) facility and to initiate a pilot program to remove the material from our sites on a priority basis. Our hope was that a pilot would demonstrate the ability of the federal government to plan and execute its responsibilities for used fuel and GTCC waste acceptance, relieve taxpayers of the obligation to continue paying Judgment Fund damages, and allow our site to be freed for other useful purposes. However, two potential consent-based CIS sites led by private sector entities have seen their efforts stymied by litigation and local opposition.

Most recently, the Biden Administration has proposed a consent-based siting process to move past the political opposition that doomed previous sites and identify one or more suitable repositories for this material. As disheartening as it is to go back to the drawing board, SMUD supports this approach to the extent it can be done expeditiously and provide certainty for both the current owners of this material and the eventual recipient communities. SMUD expects that the well-established prioritization of permanently shut-down plants will be maintained in any new policy framework.

Mr. Chairman and Members of the Subcommittee, as you examine possible legislative options to address our current policy failure, we wish to remind you that solutions need not be perfect to make progress. SMUD appreciates the bold leadership of our Congresswoman Doris Matsui in championing innovative policy solutions, and we hope you and other Members of Congress will think creatively about how to resolve this issue as expeditiously as possible.

We believe that restoring the confidence of our local communities in the federal government's will to meet its obligations and promises is a crucial step in moving past this legacy and unlocking opportunities for clean energy development in the future. Thank you for the opportunity to participate, and I welcome any questions you may have.

Sincerely,

Paul Lau

Paul Lau
Chief Executive Officer & General Manager
SMUD