

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE COMMISSION

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In the Matter of )  
Oklo Power, LLC ) Docket No. 52-049-COL  
Aurora Reactor )  
\_\_\_\_\_ )

**EMERGENCY PETITION BY BEYOND NUCLEAR, BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE, CITIZENS AWARENESS NETWORK, CITIZEN POWER, CITIZENS' RESISTANCE AT FERMI TWO, CONCERNED CITIZENS FOR NUCLEAR SAFETY, DON'T WASTE MICHIGAN, ECOLOGICAL OPTIONS NETWORK, FOOD AND WATER WATCH, FRIENDS OF THE EARTH, HEAL UTAH, INDIAN POINT SAFE ENERGY COALITION, MANHATTAN PROJECT FOR A NUCLEAR-FREE WORLD, NATIONAL NUCLEAR WORKERS FOR JUSTICE, NEVADA NUCLEAR WASTE TASK FORCE, NUCLEAR ENERGY INFORMATION SERVICE, NUCLEAR INFORMATION AND RESOURCE SERVICE, NUCLEAR WATCH NEW MEXICO, OAK RIDGE ENVIRONMENTAL PEACE ALLIANCE, PHYSICIANS FOR SOCIAL RESPONSIBILITY, PORTSMOUTH/PIKETON RESIDENTS FOR ENVIRONMENTAL SAFETY AND SECURITY, PROMOTING HEALTH AND SUSTAINABLE ENERGY, TENNESSEE ENVIRONMENTAL COUNCIL, THREE MILE ISLAND ALERT, SAN LUIS OBISPO MOTHERS FOR PEACE, SNAKE RIVER ALLIANCE, TRI-VALLEY CARES, AND URANIUM WATCH  
TO IMMEDIATELY REVOKE OR SUSPEND DOCKETING NOTICE AND HEARING NOTICE FOR COMBINED LICENSE APPLICATION BY OKLO POWER, LLC  
AND REQUEST FOR CLARIFICATION THAT NUCLEAR ENERGY INNOVATION AND MODERNIZATION ACT DOES NOT MANDATE OR AUTHORIZE DISREGARD OF NRC PROCEDURAL REQUIREMENTS FOR NEW REACTOR LICENSE APPLICANTS**

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## GLOSSARY

COL	Combined license
EBR-II	Experimental Breeder Reactor II
FSAR	Final Safety Analysis Report
INL	Idaho National Laboratory
LEU	Low-enriched uranium
LWR	Light water reactor
MCA	Maximum credible accident
MHA	Maximum hypothetical accident
NEIMA	Nuclear Energy Innovation and Modernization Act
NEPA	National Environmental Policy Act
NRC	Nuclear Regulatory Commission
QA	Quality assurance
SFI	Safeguards Information
SMR	Small modular reactor
SSCs	Structures, systems and components
SUNSI	Sensitive unclassified nonsafeguards information

## I. INTRODUCTION AND SUMMARY

Petitioners, twenty-eight national and regional environmental and civic organizations concerned about the safety of U.S. reactors and other nuclear facilities<sup>1</sup>, respectfully request the U.S. Nuclear Regulatory Commission (“NRC” or “Commission”) to exercise its supervisory jurisdiction and immediately revoke or suspend the docketing notice (85 Fed. Reg. 36,427 (June 16, 2020)) and the hearing notice (85 Fed. Reg. 39,214 (June 30, 2020)) for the above-captioned proceeding for review of a combined license (“COL”) application by Oklo Power, LLC (“Oklo”) to build and operate a 4-megawatt thermal (MWth) micro-reactor called the “Aurora” on the site of the Idaho National Laboratory (“INL”).<sup>2</sup> Oklo’s assertedly “advanced” design<sup>3</sup> is for a non-light water reactor (“non-LWR”), for which no standardized design has been certified.

The NRC Staff’s docketing and hearing notices must be revoked or suspended because they are unsupported by a finding that Oklo’s application is “complete,” in

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<sup>1</sup> The petitioners are: Beyond Nuclear, Blue Ridge Environmental Defense League, Citizens Awareness Network, Citizen Power, Citizens’ Resistance at Fermi Two, Concerned Citizens for Nuclear Safety, Don’t Waste Michigan, Ecological Options Network, Food and Water Watch, Friends of the Earth, HEAL Utah, Indian Point Safe Energy Coalition, Manhattan Project for a Nuclear-Free World, National Nuclear Workers for Justice, Nevada Nuclear Waste Task Force, Nuclear Energy Information Service, Nuclear Information and Resource Service, Nuclear Watch New Mexico, Oak Ridge Environmental Peace Alliance, Physicians for Social Responsibility, Portsmouth/Piketon Residents for Environmental Safety and Security, Promoting Health and Sustainable Energy, Tennessee Environmental Council, Three Mile Island Alert, San Luis Obispo Mothers for Peace, Snake River Alliance, Tri-Valley Cares, and Uranium Watch.

<sup>2</sup> Oklo Application (Rev. 0) (Mar. 11, 2020) (ML20075A000) (“Oklo Application”).

<sup>3</sup> Oklo Application, Cover Letter at 1.



violation of NRC regulations, Commission precedent, and NRC policy.<sup>4</sup> The Staff's failure to make completeness findings, by itself, constitutes grounds for reversal.

Moreover, the record shows that the NRC Staff originally intended to make completeness findings, but intentionally abandoned that intention. Instead, the Staff accepted Oklo's application in a condition so grossly gap-filled that it would be *impossible* to make a completeness finding under any standard of reasonableness. The Staff has candidly admitted that it has yet to develop standards or requirements for Oklo's proposed reactor on a range of important safety issues, and that it would be impossible for Oklo to address those standards or requirements at this point; thus, the Staff has told Oklo it can submit the information later.<sup>5</sup> And Oklo itself has refused to address *more than forty mandatory Part 52 safety regulations* for COL applications, based on its own unilateral and unreviewed assessment that the regulations "do not apply."<sup>6</sup>

In addition to these major conceptual omissions, both the hearing notice and the application contain fatal administrative defects, such as the Staff's failure to post all relevant reports and correspondence in the NRC's docket file on the Agencywide Documents Access and Management System ("ADAMS"); and Oklo's failure to show, in its application, what portions have been redacted or indicate the grounds for the redactions.<sup>7</sup>

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<sup>4</sup> See Section V.A below.

<sup>5</sup> Letter from Jan Mazza, NRC, to Dr. Jacob DeWitte, Oklo, re: Oklo Power LLC – Acceptance of the Application for a Combined License Application for the Aurora at Idaho National Laboratory at 2-3 (June 5, 2020) (ADAMS Accession No. ML20149K616) ("Acceptance Letter").

<sup>6</sup> Oklo Application, Part V at 6-13.

<sup>7</sup> See Section IV.A.3 below.

To defend its rush to issue a docketing statement and hearing notice for the Oklo application before it is complete, the Staff claims to rely on the Nuclear Energy Innovation and Modernization Act, (“NEIMA”), P.L. 115-439 (Jan. 14, 2019). But nothing in NEIMA authorizes the Staff to disregard or depart from the NRC’s current regulatory scheme. To the contrary, NEIMA explicitly requires that NRC initiatives for consideration of advanced reactor designs must be carried out “*within* the existing regulatory framework.”<sup>8</sup>

Accordingly, in order to ensure the fairness and integrity of this COL proceeding and the NRC’s regulatory and hearing processes, the Commission should:

- *Immediately* revoke or suspend the Oklo docketing and hearing notices;
- Order the Staff to return Oklo’s application as per 10 C.F.R. § 2.101(a)(4);
- Order that no docketing or hearing notice may be issued or reinstated unless and until the NRC has established a regulatory framework for its review, and unless and until Oklo’s application is complete;
- Order that significant administrative defects in the application and hearing notice must be corrected;
- Order that all relevant Oklo environmental data and reference documents must be submitted to NRC rather than audited by the NRC Staff; and
- Clarify that nothing in NEIMA authorizes the Staff to avoid or disregard NRC’s current legal requirements for issuing docketing notices and hearing notices in licensing proceedings.

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<sup>8</sup> *Id.*, § 103(a)(1).

## II. REQUEST FOR EXERCISE OF SUPERVISORY JURISDICTION

The NRC Staff's docketing decisions normally are committed to the discretion of the Staff.<sup>9</sup> But the Commission may exercise its supervisory jurisdiction over a licensing proceeding to address "novel and important issues."<sup>10</sup> The Commission should take review of the Staff's actions here for several important reasons.

First, the issues are "important."<sup>11</sup> The NRC Staff has knowingly and intentionally disregarded NRC docketing regulations, based on a statute (NEIMA) which provides no mandate or authorization to do so – and indeed explicitly provides otherwise. And by disregarding the agency's docketing requirements, the Staff has initiated a sham licensing proceeding, in which it will be impossible for interested members of the public to get a fair hearing because there is no complete license application to evaluate or challenge.

Second, the issues raised are "novel."<sup>12</sup> The Staff appears to base its unlawful conduct on an incorrect interpretation of NEIMA, a recent statute that previously has not been interpreted in an NRC licensing proceeding. The Oklo COL proceeding also is the first new reactor combined operating license proceeding to be initiated in over ten years, and

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<sup>9</sup> *U.S. Department of Energy* (High Level Waste Repository: Pre-Application Matters), CLI-08-20, 67 N.R.C. 402, 406 (2008).

<sup>10</sup> *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-19-07 slip op. (July 25, 2019) ("*NextEra*"). See also *Yankee Atomic Electric Co.* (Yankee Atomic Electric Co.), CLI-91-10, 34 N.R.C. 3 (1991); *Petition for Emergency and Remedial Action*, CLI-80-21, 11 N.R.C. 707 (1980); *Petition for Emergency and Remedial Action*, CLI-78-6, 7 N.R.C. 400 (1978). *Public Service Co. of New Hampshire* (Seabrook Nuclear Power Station, Units 1 and 2), CLI-77-8, 5 N.R.C. 503 (1977); *U.S. Energy Research and Devel. Admin.* (Clinch River Breeder Reactor Project), CLI-76-13, 4 N.R.C. 67 (1976); *Consol. Edison Co. of N.Y., Inc.* (Indian Point, Units 1, 2 and 3), CLI-75-8, 2 N.R.C. 173 (1975); and *Consumers Power Co.* (Midland Units 1 and 2), CLI-73- 38, 6 A.E.C. 1084 (1973).

<sup>11</sup> *NextEra*, slip op. at 12.

<sup>12</sup> *Id.*

the first-ever proceeding for licensing of a so-called “advanced” or non-LWR reactor. Finally, the Oklo proceeding is potentially precedent-setting, and could affect proceedings for other advanced reactors, such as gas-cooled micro-reactors and small modular light-water reactors (“SMRs”). Thus, the Commission should take supervisory review.

### **III. DESCRIPTION OF PETITIONERS**

Petitioners are regional and national organizations, located throughout the U.S., with interests in environmental protection, government accountability, and the safety of nuclear facilities. Many of the Petitioners have participated in NRC licensing and enforcement proceedings.<sup>13</sup> All are potential neighbors of new non-LWRs and SMRS: as indicated on NRC’s website, submittal of applications for non-LWR and SMR COLs may reasonably be expected in the future at unknown sites around the U.S.<sup>14</sup>

Petitioners are concerned about the integrity and fairness of the Oklo COL proceeding itself. They are also concerned that the Oklo COL proceeding may set unlawful and

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<sup>13</sup> For instance, these Petitioners have participated in NRC licensing proceedings for the following reactors and other nuclear facilities: Beyond Nuclear (Peach Bottom, Holtec International Centralized Interim Storage Facility, Interim Storage Partners Centralized Interim Storage Facility); Citizens Awareness Network (Yankee Rowe); Citizens’ Resistance at Fermi Two (Fermi Unit 2); Concerned Citizens for Nuclear Safety (Fermi Units 2 and 3); Don’t Waste Michigan (Fermi Units 2 and 3), Friends of the Earth (Diablo Canyon, San Onofre, Turkey Point Units 3 and 4); Indian Point Safe Energy Coalition (Indian Point); National Nuclear Workers for Justice (American Centrifuge Plant); Nevada Nuclear Waste Task Force (Yucca Mountain spent fuel repository); Nuclear Energy Information Service (Fermi Units 2 and 3); Nuclear Information and Resource Service (Calvert Cliffs Unit 3); Portsmouth/Piketon Residents for Environmental Safety and Security (American Centrifuge Plant); Tennessee Environmental Council (Clinch River SMR); Three Mile Island Alert (Three Mile Island); San Luis Obispo Mothers for Peace (Diablo Canyon).

<sup>14</sup> See the NRC’s descriptions of “pre-application activities” for SMRs (<https://www.nrc.gov/reactors/new-reactors/smr.html>) and non-LWR reactors (<https://www.nrc.gov/reactors/new-reactors/advanced.html#preAppAct>).

unfair precedents for future new reactor licensing proceedings that will adversely affect the safety of new reactors and the hearing rights of Petitioners and their members. The precedents now being set by the NRC Staff -- of disregarding NRC docketing regulations, setting up new procedures that would allow it to negotiate the contents of an application at the same time members of the public must develop hearing requests, and erroneously interpreting NEIMA to authorize the Staff's noncompliant and unfair actions -- may be repeated in other new reactor licensing cases that may arise in the future. Therefore, Petitioners seek Commission review, appropriate corrective action, and clarification that NEIMA does not excuse the NRC Staff from complying with current NRC regulations for docketing license applications and publishing hearing notices.

#### **IV. FACTUAL AND PROCEDURAL BACKGROUND**

##### **A. Oklo Application for Aurora Micro-Reactor License**

On March 11, 2020, Oklo submitted an application for a twenty-year "Class 103 combined license under 10 CFR Part 52."<sup>15</sup> While the application is for a COL, it does not reference a standardized design.<sup>16</sup> Instead, Oklo states that its proposed reactor is "the first of the kind plant."<sup>17</sup> No general description of the Oklo design is provided in the Final Safety Analysis Report ("FSAR") or the Environmental Report, but the cover letter describes the proposed reactor as an "advanced fission" plant.<sup>18</sup> The NRC describes the

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<sup>15</sup> Oklo Application, Part I at 7.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> Letter from Jacob DeWitte, et al., to U.S. Nuclear Regulatory Commission, re: Oklo Inc. Project 99902046, Oklo Power Combined Operating License application for the Aurora at INL (Mar. 11, 2020) (ML20075A000) ("Cover Letter").

Oklo reactor as a “micro-reactor.”<sup>19</sup> The reactor would produce 4 MWtht, “which is far smaller than any commercial reactor in the U.S. and smaller even than some research reactors.”<sup>20</sup>

### 1. “Non-applicabilities”

Despite Oklo’s claim to have submitted a Class 103 COL application under Part 52 regulations, Part V of Oklo’s application lists over forty separate Part 52 regulatory requirements, applicable to Class 103 reactors, that Oklo has independently and unilaterally deemed to constitute “Non-applicabilities.”<sup>21</sup> Therefore, Oklo did not address those regulations in its application other than to summarily explain why the regulation does not apply to the Oklo design.<sup>22</sup> The so called “Non-applicabilities” include fundamental safety regulations such as General Design Criteria and rules for station blackout, environmental qualification of electrical equipment, effluent monitoring, severe accident analysis, and security.<sup>23</sup> Oklo’s cover letter for the application reveals that Oklo looks upon NRC safety regulations as “voluntary guidance” that can be addressed either by “meeting the requirements *or their intent*.”<sup>24</sup>

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<sup>19</sup> Acceptance Letter at 1.

<sup>20</sup> Application, Part II at 2.

<sup>21</sup> *Id.*, Part V, cover page.

<sup>22</sup> *Id.*, Part V at 8-12. Oklo makes no exemption requests for the assertedly inapplicable regulations. Exemption requests, for a separate set of regulations, are presented in Part V at 14-24.

<sup>23</sup> *Id.*

<sup>24</sup> Cover Letter at 1 (emphasis added). As stated by Oklo:

The NRC has indicated that it is ready to receive and review applications for advanced fission plants. The existing application structure which has been used for prior operating commercial reactors, that is, conventional large light water reactors (LWRs), was developed after several LWRs had been designed, approved by the regulatory body, and built and operated. Therefore, the existing

## 2. Gaps in Environmental Report

Oklo's application includes a relatively brief Environmental Report, which addresses only nonradiological impacts such as land use, and impacts of construction on historic properties and animal and plant habitats.<sup>25</sup> Most of the text of the Environmental Report is devoted to the benefits of the proposed reactor, chiefly to achieve reduced consumption of fossil fuel. Radiological impacts of the proposed reactor are not discussed at all, except to say that "[t]here is no dose to workers outside the powerhouse itself."<sup>26</sup> No further information is provided about worker doses.

The Environmental Report also makes no mention of accident risks of any kind, including radiological accidents. Nor does the Environmental Report mention that Oklo's proposed reactor would use a type of uranium fuel known as high-assay low-enriched-uranium ("LEU") that would be obtained by electrometallurgical processing of spent nuclear fuel from the Experimental Breeder Reactor-II (EBR-II -- a process with significant environmental impacts different from those required to produce conventional low-enriched uranium fuel for power reactors. For example, the high-assay LEU that will be used to fabricate the fuel for the Oklo reactor contains radioactive contaminants that render the material hazardous to workers and possibly unusable in fuel without further

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application guidance is based on large LWRs and is generally only appropriate to these plants. The NRC does not require applicants to follow a certain structure for applications. *It is in the interest of the NRC that applicants for advanced fission plants not follow the existing voluntary guidance for LWRs, since it could lead to inappropriate content, but that applicants meet existing regulatory requirements, or their intent, given in the relevant sections of the code of federal regulations.*

*Id.* (emphasis added).

<sup>25</sup> Oklo Environmental Report – Combined License Stage (ML20075A004).

<sup>26</sup> *Id.* at 32.

processing.<sup>27</sup> Instead, Oklo states only that it has sought an exemption from its obligation to address the environmental impacts of the uranium fuel cycle.<sup>28</sup> Separately, in Part V of Oklo’s COL application, it requests an exemption from 10 C.F.R. §§ 51.50 and 51.52 (requiring it to discuss fuel cycle impacts) until sometime after the reactor has gone through the first fuel cycle.<sup>29</sup>

Thus, while the Environmental Report purports to address the environmental impacts of a nuclear reactor, it says virtually nothing about the key environmental impacts of a nuclear reactor: radiological impacts to workers, radiological accident risks, and the impacts of the fuel cycle unique to the Oklo reactor. And to the limited extent that Oklo discusses environmental impacts, it provides no documentary support for its assertions.

### **3. Failure to mark or explain redactions**

Oklo apparently whited-out some portions of the application that it did not wish to disclose publicly, but it failed to mark any redactions. According to the Cover Letter, “[s]ome portions of the application are requested to be withheld due to export-controlled information, per 10 CFR Part 810, and some portions contain security-related information

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<sup>27</sup> Patterson, *et al.*, HALEU Decontamination Investigations for EBR-II Recovered Uranium, INL/EXT-19-53191, Rev. 0 (March 2019), [https://inldigitallibrary.inl.gov/sites/sti/sti/Sort\\_12452.pdf](https://inldigitallibrary.inl.gov/sites/sti/sti/Sort_12452.pdf)

<sup>28</sup> Environmental Report at 7.

<sup>29</sup> According to Oklo:

Due to the minimal amount of fuel required for the Aurora [5 metric tons], it is not necessary to provide the basis for evaluating the environmental effects of the fuel cycle of the first core fuel load. Through the process of manufacturing and fabricating the first fuel load, there will be significant insights gained to more appropriately analyze the realistic fuel cycle impacts.”

Oklo Application, Part V at 23.



or other information to be withheld, per 10 CFR 2.390(b) or (d).”<sup>30</sup> However, it is impossible to tell where and what those withheld portions are, because the publicly available version of the application contains no brackets or other markings to indicate the location of and justification for redactions. The application provides no visual signals that would allow the reader to discern whether large blank places in the application signify redactions, or just the end of a discussion. In some parts of the application, it is possible to infer the redaction of information from the application, where the title of a figure is presented without depicting any figure above the title.<sup>31</sup> But no brackets are provided to confirm the redactions; and no explanation is given for the redactions.

Thus, it is impossible to determine from Oklo’s application exactly what information has been redacted, or the grounds on which it was redacted. Under the circumstances, it would be very difficult, if not impossible, to identify parts of the application that should be specifically requested under the hearing notice’s special instructions for requesting safeguards information (“SGI”) or sensitive unclassified nonsafeguards information (“SUNSI”).<sup>32</sup>

## **B. NRC Staff Acceptance Review**

### **1. Audit Plan for Oklo’s application**

On April 1, 2020, the NRC Project Manager for the Oklo application sent an internal memorandum to the Chief of the NRC’s Advanced Reactor Licensing Branch,

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<sup>30</sup> *Id.* at 2.

<sup>31</sup> *See, e.g.*, Part II at 275-77.

<sup>32</sup> 85 Fed. Reg. at 39,216-18.

setting forth a plan to conduct an audit of Oklo documents that had not been submitted to the NRC.<sup>33</sup> According to the Memo, the purpose of the audit would be:

to verify the existence of detailed calculations, analyses and/or bases underlying [Oklo's] application and to confirm the staff's understanding of the application. The audit will also be used to support the staff's insights on the level of effort and resources that will be needed to conduct the review, provide insights on the level of effort and resources that will be needed to conduct the review, provide input to the application review schedule, and identify any areas of information insufficiency that may be impact the application review schedule.<sup>34</sup>

**a. Description of items to be audited**

The Staff attached an "Audit Plan" for Oklo's application. The Audit Plan describes Oklo's application as a "custom application," *i.e.*, an application that "would include all the design information provided in a design certification application plus all the site-specific safety and environmental information in a COL application."<sup>35</sup> As described by the Audit Plan, the audit of Oklo's documents was designed to support the Staff's completeness review for a custom COL:

The NRC staff will review the application to determine if it reasonably appears to contain sufficient technical information, both in scope and depth, for the NRC staff to complete the detailed technical review and render, in an appropriate time frame for the associated action, an independent assessment of the proposed action with regard to applicable regulatory requirements and the protection of public health, safety, security, and the environment. *The NRC staff will audit the supporting information for the application to ensure the information that is generally expected to be complete for a custom COL exists and is consistent with the level of detail necessary to review the documents supporting the application.* The NRC staff's audit follows the guidance in NRR Office Instruction (OI) LIC-111, "Regulatory Audits," Revision 1.<sup>36</sup>

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<sup>33</sup> Memorandum from Jan Mazza to Benjamin Beaseley re: Audit Plan for the Oklo Power LLC Aurora Reactor Combined License Application Acceptance Review (ML20079L202) ("Audit Memo").

<sup>34</sup> *Id.* at 1.

<sup>35</sup> Audit Plan at 2 and n.1.

<sup>36</sup> *Id.* at 2 (emphasis added). Similarly, the Audit Plan states that the "primary scope" of the audit is "to verify that the COL application supporting information exists and is

The Audit Plan also contains a three-page list of Oklo documents the Staff proposed to audit, including calculations and analyses for the fission source term inventory and reactor accidents, calculations regarding the reactor core design and kinetics behavior, fuel fabrication specifications, analyses of safety functions of reactor equipment, documents to confirm the seismic hazard analysis, and documentation of Oklo's environmental impact analyses.<sup>37</sup>

**b. Description of items that must be submitted with the application**

The Audit Plan also recites the detailed regulatory requirements in 10 C.F.R. Part 52 for the contents of the FSAR that *must be submitted* with a COL application (*i.e.* that could not be reviewed by audit):

Title 10 of the Code of Federal Regulations (10 CFR) Section 52.79, "Contents of applications; technical information in [FSAR]," establishes the requirements for the contents of the FSAR to describe the facility, present the design bases and the limits on its operation, and present a safety analysis of the structures, systems, and components of the facility as a whole. The FSAR shall include information at a level sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license. In 10 CFR 52.80(a), "Contents of Applications; additional technical information," further states, "The proposed inspections, tests, and analyses, including those applicable to emergency planning, that the licensee shall perform, and the acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, the facility has been constructed and will be operated in conformity with the combined license, the provisions of the Act, and the Commission's rules and regulations."<sup>38</sup>

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*generally complete for a custom COL to the level of detail necessary for the application review."* *Id.* at 3 (emphasis added).

<sup>37</sup> *Id.* at 3-5.

<sup>38</sup> *Id.* at 1.

In addition, the Audit Plan stipulates that the required contents of the submitted application include “the reactor design aspects” because “the combined license application will not reference an approved design certification.”<sup>39</sup>

**c. No reported audit results**

The NRC Staff has issued no report of any audit of Oklo documents. An “audit” is briefly mentioned in a set of NRC slides, issued by the Staff July 27, 2020, in preparation for a forthcoming meeting with Oklo; but the slides do not say when the audit occurred or what it covered.<sup>40</sup> If the comprehensive audit described in the Audit Plan occurred, it is not recorded. Instead, as discussed below in Sections IV.B.2 and IV.C, the Staff completely reversed course from the review process outlined in the Audit Memo and Plan, and made a docketing decision that bore no relation to the completeness of Oklo’s application.

**2. Acceptance Letter**

**a. Lack of “completeness” review or determination**

In its June 5, 2020 Acceptance Letter, the NRC Staff claimed to have “performed an acceptance review of the Aurora COL application, assessed the various criteria and considerations specified in agency procedures associated with accepting an application.”<sup>41</sup> But the Acceptance Letter makes no representation that the Staff conducted a completeness review, as promised in the Audit Memo and Plan. Indeed, the Acceptance Letter does not even mention the Audit Memo or the results of any audit that

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<sup>39</sup> *Id.*

<sup>40</sup> *See* Section IV.E.1 below.

<sup>41</sup> Acceptance Letter at 1.

may have been conducted. Nor does the Acceptance Letter contain any finding of completeness.

**b. Reliance on alternative rationale of national “best interests”**

Instead of presenting a completeness finding, the Acceptance Letter asserts that the Staff based its acceptance of the application on its conclusion that “it is in the best interest of the nation and the agency to accept this application for docketing.”<sup>42</sup> In addition, the Acceptance Letter adds that the Staff considered “the following circumstances” related to NEIMA’s goal of facilitating advanced reactor reviews:

- The Aurora COL application is a first-of-a-kind submission involving a novel reactor design for which there is limited precedent to establish consistent standards for acceptance;
- It is in the national interest to allow innovation and the commercialization of safe and secure advanced nuclear reactors as indicated in [NEIMA]; and
- Accepting the application should improve the efficiency, timeliness, and cost-effectiveness of the licensing review, and should provide opportunities to minimize the delays that may result from any necessary amendment or supplement to the application.<sup>43</sup>

**c. Identification of major gaps in Oklo application and NRC’s regulatory framework.**

Despite accepting the application, the Acceptance Letter identifies huge gaps in both the NRC’s own regulatory program for non-LWRs and Oklo’s application. First, the Acceptance Letter concedes that the Staff has yet to establish standards or requirements for significant aspects of Oklo’s proposed reactor design and operation, including maximum credible accident (“MCA”); classification of structures, systems and

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<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 1.

components (“SSCs”), *i.e.*, safety equipment; and the scope of Oklo’s Quality Assurance (“QA”) program.<sup>44</sup>

Second, the Acceptance Letter notes that Oklo has characterized “several regulations” as “non-applicable.” In fact, as discussed above in Section IV.A.1, the number is much more than “several.” In fact, as discussed above in Section IV.A, Oklo’s application lists *over forty NRC regulatory requirements* as “non-applicable” and therefore has declined to demonstrate compliance.

Despite acknowledging these glaring gaps in both Oklo’s application and the NRC’s own regulatory scheme, the Staff failed to return Oklo’s incomplete application, as required by 10 C.F.R. § 2.101(b)(4).

**d. Proposal to postpone -- until after docketing -- development of licensing requirements and completion of Oklo application.**

Instead of returning Oklo’s incomplete application, the Acceptance Letter agrees to docket it. To compensate for the gross omissions in Oklo’s application and the governing regulatory scheme, the Acceptance Letter states that the Staff will set up a two-step process for reaching “alignment” with Oklo.<sup>45</sup> In Step 1, the Staff will “engage Oklo in public meetings, conduct regulatory audits, and issue requests for additional information to *efficiently align* on four key safety and design aspects in the licensing basis.”<sup>46</sup> In Step 2, the Staff will review the license application for its adequacy.<sup>47</sup>

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<sup>44</sup> *Id.* at 2-3.

<sup>45</sup> *Id.* at 2-3.

<sup>46</sup> *Id.* at 2 (emphasis added). The unresolved safety issues cover a broad range of significant topics, including MCAs; SSCs; the scope of the QA program; and which of the 40-odd Part 52 requirements deemed “inapplicable” by Oklo must be satisfied.

<sup>47</sup> *Id.*

The Staff's use of the term "alignment" signals that it plans to use the license review process to negotiate with Oklo on both the appropriate contents of Oklo's application and the standards and requirements to be applied. In addition, the Staff's use of the term "regulatory audits" with respect to Step 1 indicates that the Staff's audit of Oklo's documents, described in the Audit Memo as a *precursor* to the Staff's acceptance review, will now be conducted *after docketing and during the license review*.

The Acceptance Letter further reveals that the Staff does not intend to conduct Steps 1 and 2 chronologically. For example, the Staff intends to review the adequacy of the Environmental Report (a Step 2 activity) during Step 1.<sup>48</sup> And during Step 2, the Staff intends to gather more information from Oklo on an entirely new set of issues on which it has yet to develop regulatory requirements, and therefore belong in Step 1:

Following alignment on the four key safety and design aspects identified above and receipt of any associated supplemental information provided by Oklo, the NRC staff will initiate Step 2, which will include establishment of a detailed review schedule and a projected level of effort. *In addition to the topics to be addressed during the first step of the review, the NRC staff has identified several additional topics that will be focus areas during the second step of the review. Examples include: 1) information to support emergency planning, security systems, and site characterization; 2) adequacy and completeness of technical specifications and pre-operational and start-up testing; and 3) use of non-licensed personnel to startup and operate the reactor.*<sup>49</sup>

Thus, Step 1 – the stage when the NRC Staff plans to determine what requirements to impose on Oklo and when Oklo presumably will complete its application – has no planned termination point.

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<sup>48</sup> Acceptance Letter at 3.

<sup>49</sup> *Id.* at 3 (emphasis added).

### **C. Docketing Notice**

On June 16, 2020, the NRC published a docketing notice in the Federal Register, 85 Fed. Reg. 36,427. Like the Acceptance Letter, the docketing notice made no finding that Oklo's application was complete. The only finding or determination reported in the notice was that "Oklo has submitted information in accordance with 10 CFR part 2, 'Agency Rules of Practice and Procedure,' and 10 CFR part 52 that is acceptable for docketing."<sup>50</sup> No information was provided in the notice regarding the NRC's interpretation or definition of the word "acceptable."

### **D. Hearing Notice**

On June 30, 2020, the NRC published a hearing notice for the Oklo application, 85 Fed. Reg. 39,214.

#### **1. Establishment of deadlines and procedural obligations without notice that Oklo license application is fundamentally incomplete**

The hearing notice set a deadline of 60 days after the notice (August 30) for submission of hearing requests pursuant to 10 C.F.R. § 2.309.<sup>51</sup> It also set a ten-day deadline for requesting SGI and SUNSI.<sup>52</sup> The hearing notice did not assert the application was complete and ready for a hearing, nor did it reference the gaps in the application and the governing standards referenced in the Acceptance Letter, nor did it mention the novel and bizarre two-step review process the Staff had set up. Instead, it stated that if interested members of the public wished to request a hearing, they must

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<sup>50</sup> *Id.*

<sup>51</sup> 85 Fed. Reg. at 39,214.

<sup>52</sup> 85 Fed. Reg. at 39,216.



review Oklo's application, show they have specific disputes with Oklo regarding the adequacy of its application, and provide documented support.<sup>53</sup>

## **2. Failure to ensure public availability of relevant licensing documents**

In the Hearing Notice, the Staff identified its Oklo webpage ([www.nrc.gov/reactors/new-reactors/advanced/oklo.html](http://www.nrc.gov/reactors/new-reactors/advanced/oklo.html)) and the ADAMS 52-0049 docket folder as locations where relevant licensing information can be found. But the Oklo webpage contains only the application and the Acceptance Letter; it does not contain any other correspondence, including the very important Audit Memo, which describes the NRC Staff's original intentions for its completeness review. Not does it contain any report of the audit or related correspondence. The ADAMS folder for Docket No. 52-049 contains a few more documents than the Oklo webpage, *i.e.*, some additional correspondence related to the Federal Register notices. But like the Oklo webpage, the docket folder does not contain the Audit Memo or any correspondence or reports related to the audit. And while it is reasonable to suppose that Oklo and the NRC Staff exchanged other correspondence regarding Oklo's novel application, it cannot be found in either location.<sup>54</sup>

### **E. NRC Schedules August Meeting to Discuss Gaps in Oklo's Application.**

On July 27, 2020, the NRC Staff issued a notice of two webinar meetings with Oklo, planned for August 4 and 5, 2020.<sup>55</sup> The meeting slides prepared by the NRC Staff for these meetings confirm that -- as suggested by the Acceptance Letter and the Audit

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<sup>53</sup> 85 Fed. Reg. at 39,214-15.

<sup>54</sup> In addition, until this morning -- halfway through the period for requesting a hearing -- the folder for Docket No. 50-049 on ADAMS did not contain the application.

<sup>55</sup> Notice of Meeting with Oklo Power LLC (ML20210M181).

Plan -- the Staff is far from establishing a regulatory framework for Oklo's application, and the application remains substantially incomplete.

### **1. August 4 meeting on maximum credible accident**

On August 4, the NRC plans to discuss MCAs. According to the meeting slides, the "goal" of the meeting is to:

- Discuss background and context associated with event selection and assessment required by regulation
- Provide feedback on the Maximum Credible Accident (MCA) approach proposed by the applicant
- Begin aligning with Oklo on appropriate assumptions to be used in MCA/event assessment<sup>56</sup>

The slides make it clear that with respect to the fundamentally important design issue of MCA, the process of "aligning" with Oklo on the Staff's regulatory framework and the required contents of the application remains at a nascent, conceptual stage. The slide show starts with a review of reactor risk fundamentals, *i.e.*, the "risk triplet" that should be addressed in a license application's safety analysis: (1) "normal operations and transient conditions anticipated during the life of the facility," (2) "prevention of accidents," and (3) "mitigation of the consequences of the accidents."<sup>57</sup> Next the Staff lays out an array of possible conceptual approaches the Staff could take in evaluating Oklo's application with respect to these risk elements: the "traditional deterministic approach," application of the "Maximum Hypothetical Accident ("MHA")), the "Licensing Modernization Project" (evaluating accident risk based on frequency and

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<sup>56</sup> NRC Slides, Public Meeting: Maximum Credible Accident Concept and Discussion, Slide 2 (Aug. 4, 2020) (ML20204A932).

<sup>57</sup> *Id.*, Slide 5.

consequences), and other approaches not mentioned (“Staff recognizes these are not the only available approaches, but they provide a useful framework for understanding the safety finding the NRC staff must make to license a reactor design.”).<sup>58</sup>

The slides also confirm that the Staff has not decided whether Oklo’s own conceptual approach is satisfactory, or even understands what approach Oklo took in its application. In Slide 12, the Staff equivocally states that “[t]he MCA analysis approach described in FSAR Section 5.5 *appears to be reasonable*.”<sup>59</sup> The reason for the Staff’s hedged conclusion becomes more clear in the slides that follow, which express doubt and confusion about what approach Oklo actually took. For instance, Slide 20 states that the “relative importance” of addressing the probability of an accident (*i.e.*, “How likely is it?”) depends on whether the acceptance criteria are based on a deterministic approach (where “nothing may be needed”) or an approach based on “frequency” (where “more rigor behind the frequency basis is needed”).<sup>60</sup> With this introduction, the Staff asks for “clarification” of Oklo’s criteria for what is “credible,” and “additional documentation” of Oklo’s basis “for excluding certain events.”<sup>61</sup>

Similarly, in Slide 21, the Staff expresses confusion about Oklo’s approach to consequence analysis, stating that “[a]t the present stage,” the question of “[w]hat are the consequences” is “difficult to answer -- the MCA provides for zero dose consequences, and does not clearly bound potential events like an MHA might.” The Staff warns that

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<sup>58</sup> *Id.*, Slides 6-9.

<sup>59</sup> *Id.* (emphasis added).

<sup>60</sup> *Id.* at 21.

<sup>61</sup> *Id.*

[i]f these examples or others are determined to be credible, additional evaluations will be needed to identify the consequences.”<sup>62</sup>

Finally, in Slide 22, the Staff points to “potential gaps in the application and the outcome of the Oklo MCA approach along with events that are not evaluated in the FSAR.” And in Slide 23, the Staff concludes that the August 4 meeting “represents the *first step* in moving to address staff questions *so that there is a clear path to making a safety finding.*”<sup>63</sup>

## **2. August 5 meeting on SSCs**

The slides for the August 5 meeting make it clear that the NRC Staff lacks a basis for evaluating Oklo’s list of SSCs, in part because the identification of SSCs is based on the MCA -- whose approach the NRC is not yet able to understand or affirm. Thus, as stated in Slide 2, the August 5 meeting is needed “for the NRC to gain an understanding” of Oklo’s SSCs.<sup>64</sup> In Slide 5, the Staff explains that:

The Staff needs to understand the methodologies and outcomes related to the maximum credible accident (MCA), other potential events, mechanistic source term (MST) and related topics *so that it may further assess the proposed approach for establishing design basis, design commitments, and testing for specific SSCs.*<sup>65</sup>

Thus, weeks after the issuance of the docketing and hearing notices, the Staff is still in the process of collecting a complete application from Oklo and clarifying its own criteria for judging it.

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<sup>62</sup> *Id.*

<sup>63</sup> Slide 23 (emphasis added).

<sup>64</sup> Public Meeting, Safety Classification of Structures Systems and Components (ML20204A922).

<sup>65</sup> *Id.* (emphasis added).

**V. THE NRC STAFF HAS USED AN UNLAWFUL DOCKETING NOTICE TO START A SHAM LICENSING PROCEEDING THAT FAILS TO PROTECT THE PUBLIC’S RIGHT TO A MEANINGFUL HEARING ON OKLO’S COL APPLICATION.**

**A. Docketing of a Complete License Application Is Necessary for a Fair and Efficient Licensing Proceeding.**

An NRC adjudicatory proceeding for review of a license application begins with the issuance of a hearing notice.<sup>66</sup> In that proceeding, NRC regulation 10 C.F.R. § 2.309(f)(1) imposes a heavy -- indeed “ironclad” -- burden on the public of reviewing all relevant licensing documents and raising contentions that show specific and documented legal and/or factual disputes with the applicant.<sup>67</sup> Such a heavy burden must be imposed in a manner that is both efficient and fair.<sup>68</sup> By requiring a complete application before publication of a hearing notice, the Commission ensures that members of the public will have a fair opportunity to review the application and air their disputes with the applicant, as required by Section 189a of the Atomic Energy Act, 42 U.S.C. 2239(a). Furthermore, by requiring a complete application as a prerequisite to docketing, the Commission ensures the efficiency of the process by avoiding a “piecemeal” review.<sup>69</sup>

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<sup>66</sup> *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 2), CLI-04-12, 59 N.R.C. 237, 240 (2004) (“*Dominion*”).

<sup>67</sup> *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), CLI-93-03, 37 N.R.C. 135, 147 (1993) (“*Sacramento*”) (quoting *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 N.R.C. 468 (1982), *vacated in part on other grounds*, CLI-83-19, 17 N.R.C. 104 (1983)). *See also Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 N.R.C. 328, 338 (1999); Final Rule, Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989).

<sup>68</sup> *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 N.R.C. 18, 19 (1998).

<sup>69</sup> *Statement of Policy on Conduct of New Reactor Licensing Proceedings*, 75 Fed. Reg. 20,969, 20,971 (Apr. 17, 2008).

Here, the NRC Staff has strayed so blatantly and so far from compliance with NRC docketing regulations as to make a sham of the hearing process and a mockery of the NRC Staff's claim to seek efficiency through its actions.<sup>70</sup>

**B. The Staff Knowingly Violated NRC Docketing Requirements by Failing to Make a Completeness Finding Regarding Oklo's Application.**

As the Commission explained in *Dominion*:

An application is neither accepted for full review by the NRC Staff nor automatically noticed for a possible hearing when it is submitted; instead, the Staff reviews it to ensure it contains the information and analyses required in a proper application to allow the Staff's full review of the proposed licensing action. If the application does not provide the necessary content, it is returned to the applicant for appropriate changes and possible resubmission. Until an application has been accepted by the NRC Staff, there is not certainty that there will be a proceeding in which a hearing may be requested.<sup>71</sup>

Thus, a license application that is "incomplete" is "not acceptable for processing."<sup>72</sup> As a matter of agency policy, "the Commission will issue a Notice of Hearing [for a COL] *only when a complete application has been docketed.*"<sup>73</sup>

As discussed above in Section IV.B.2, the Staff showed in the Audit Memo and Audit Plan that it knew it had to make a completeness finding before it could accept Oklo's application. The Staff also knew what was required for a completeness finding: an FSAR that comprehensively addressed the NRC's regulations in 10 C.F.R. § 52.79, and a

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<sup>70</sup> See Acceptance Letter at 1 ("Accepting [Oklo's] application should improve the efficiency, timeliness and cost-effectiveness of the licensing review.")

<sup>71</sup> 59 N.R.C. at 241-42.

<sup>72</sup> 10 C.F.R. § 2.101(a)(5).

<sup>73</sup> Statement of Policy on Conduct of New Reactor Licensing Proceedings, 75 Fed. Reg. at 20,971 (emphasis added).

description of the design bases for the proposed reactor.<sup>74</sup> And in the Audit Plan, the Staff had laid out a plan for conducting a completeness review.

Yet, without explanation, the Staff abandoned that course sometime between April 1 and June 5. Despite the Staff's previous commitment, neither the Staff's Acceptance Letter nor the Docketing Notice makes any finding of completeness regarding the license application. And the recent meeting slides described above in Section IV.E confirm that both the NRC's regulatory framework and Oklo's application are far from complete. The Staff's dereliction of its duty under the regulations is unlawful and therefore it should be reversed.

**C. Oklo's Application Does Not Come Close to Providing the Information Required for a Completeness Finding.**

The Staff's violation of NRC's legal requirements for completeness findings is not a minor or clerical error, or a defensible judgment call that some discrete portion of an application can be submitted or completed at a later date. Both Oklo's application and the governing regulatory framework for Oklo's non-LWR design are so grossly incomplete that it would be *impossible* to make a completeness finding under any standard of reasonableness.

Contrary to the requirements of 10 C.F.R. § 52.79)(a), Oklo's application does not include an FSAR that "presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems and components of the facility as a whole."<sup>75</sup> Nor could it do so, because those elements of the application have yet to be developed by Oklo and the NRC in their so-called process of "alignment." In its

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<sup>74</sup> Audit Plan at 1 (citing 10 C.F.R. § 52.79).

<sup>75</sup> *Id.* (emphasis added).

Acceptance Letter, the NRC Staff candidly admits that it has yet to develop standards or requirements for non-LWRs on a range of important safety issues.<sup>76</sup> And Oklo itself has refused to address *more than forty mandatory Part 52 safety regulations* for COL applications, based on Oklo’s unilateral and unreviewed assessment that they are “non-applicable.”<sup>77</sup> Thus, the application does not even approach the state of completeness required for a docketing or hearing notice.

Oklo’s Environmental Report is also grossly incomplete, by failing to address the radiological impacts of the proposed reactor or the uranium fuel cycle, including those aspects that are unique to this project.<sup>78</sup> And the Environmental Report falls far short of meeting NEPA’s basic principles of rigor and public disclosure, by failing to provide a single data point or reference for the Environmental Report. It is fundamental, for example, that an environmental report’s technical assertions about environmental impacts should be specific, quantified, and supported by data.<sup>79</sup> Oklo’s claims of no or low impacts in its Environmental Report are so broad and unsupported that they could never be verified. And contrary to NRC guidance for environmental reports, Oklo does not cite a single reference document.<sup>80</sup>

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<sup>76</sup> Acceptance Letter at 2-3. *See also* Section IV.A.1 above.

<sup>77</sup> Oklo Application, Part V at 2. *See also* Section IV.B.2.c above.

<sup>78</sup> *See* Section IV.A.2 above.

<sup>79</sup> *See* 10 C.F.R. § 51.45(c) (“The analyses for environmental reports shall, to the fullest extent practicable, quantify the various factors considered. To the extent that there are important qualitative considerations or factors that cannot be quantified, those considerations or factors shall be discussed in qualitative terms. The environmental report should contain sufficient data to aid the Commission in its development of an independent analysis.”)

<sup>80</sup> Regulatory Guide 4.2, Rev. 3, Preparation of Environmental Reports for Nuclear Power Stations (Sept. 2018). As provided in Reg. Guide 4.2:



These deficiencies in the Environmental Report are so major that the Staff should have sent it back to Oklo for completion. But the Staff made no attempt to ensure that Oklo's Environmental Report would be complete before docketing.

Thus, Oklo has completely failed to meet the NRC's threshold requirements for completeness of an Environmental Report. And Oklo's suggestion that it should be allowed to operate the reactor before it evaluates the impacts of possessing and using a fuel containing high-assay LEU with radioactive contaminants is exactly the kind of behavior that the National Environmental Policy Act ("NEPA") was designed to

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Information and data should be provided in or with the application at a level sufficient for the NRC staff to comply with Section 102(2) of NEPA. The applicant should describe and provide the following data and information:

- geographic information and geospatial data used to support analyses, including appropriate description of the data formats and sources of the information;
- data formats used to create figures and maps; and
- description and documentation of computer modeling codes that are used to support analyses in sufficient detail to allow the NRC staff to conduct an independent evaluation.

Information obtained from publications or other information from the literature should be concisely summarized and documented using references to original data sources. Where the availability of original sources that support important conclusions is limited, the sources should be adequately summarized in the application and should be available for auditing in the applicant's records. In all cases, information derived from published results should be clearly distinguished from information derived from the applicant's field measurements.

The information the applicant provides to support the conclusions in the NRC's EIS must be publicly available. Because the EIS relies on information from the ER, applicants should ensure that key information supporting the conclusions in the ER can be made publicly available.

*Id.* at 25-26.

prevent.<sup>81</sup> The Staff should never have accepted an Environmental Report with such extreme and facially evident NEPA violations.

**D. By Issuing A Hearing Notice on Oklo's Grossly Incomplete License Application, the Staff has Initiated a Sham Licensing Proceeding.**

As discussed above, a completed license application is essential to any fair and meaningful NRC hearing process. Here, instead of rejecting Oklo's application for its patent incompleteness as required by 10 C.F.R. § 2.101(a)(4), the NRC Staff has effectively offered to help Oklo complete the application and also set its own requirements for the application – *during the licensing proceeding*. Thus, at the same time the NRC Staff is supposedly reviewing the already-docketed license application for compliance with NRC regulations, the Staff will also be negotiating with Oklo over the question of whether to require compliance at all, and what the new alternative standards will be.

The Staff purports to do this in an orderly way, by setting up two separate “Steps” for the review. But although the Staff asserts that Step 1 will be just for completing the application and establishing requirements, the public will still be unfairly required to formulate hearing requests on the largely empty and unformed application.

Even worse, the Staff plans to carry Step 1 activities into Step 2.<sup>82</sup> Thus, it appears there will never be a time, during the licensing proceeding, when it is clear that the application has been completed. This is not only unfair to the public, but undermines the

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<sup>81</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 369 (1989) (“by focusing the agency’s attention on the environmental consequences of a proposed project, NEPA ensures that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast.”).

<sup>82</sup> See Section IV.B.2.d above.

NRC's goal of efficiency by making a "piecemeal" and inefficient mess of the licensing proceeding.<sup>83</sup>

In addition, as discussed above in Sections IV.A.3 and IV.D.2, both the application and the hearing notice contain fatal administrative defects, including Oklo's failure to mark redacted information and the Staff's failure to post all relevant licensing documents in the locations on ADAMS and the NRC's website where they are purported to reside. Interested members of the public should not have to guess at what portions of an application have been redacted or why; nor should they have to hunt for relevant documents beyond posted website locations. Furthermore, Oklo's failure to show, in its application, what portions have been redacted or indicate the grounds for the redactions, makes it impossible to determine what SUNSI, safeguards, or proprietary information should be requested, as directed in the hearing request.<sup>84</sup>

Finally, the NRC has either not completed or not published all documents relevant to its docketing decision. Importantly, the Staff has made no report of the audit described in the Audit Memo and Audit Plan as necessary for a completeness determination.<sup>85</sup> If the audit has been completed, the Staff should have reported on it *before* docketing the application. In the COL proceeding for South Texas Units 3 and 4, for example, the Staff issued a memorandum on its audit of the COL application more than five months before it made a docketing decision.<sup>86</sup> Here, where many of the requirements for a submitted

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<sup>83</sup> Statement of Policy on Conduct of New Reactor Licensing Proceedings, 75 Fed. Reg. at 20,971.

<sup>84</sup> See Section IV.A.3 above; 85 Fed. Reg. at 39,216-18.

<sup>85</sup> See Section IV.B.1 above.

<sup>86</sup> See Memorandum from John Nakoski to Mohammed Shuaibi re: NRC Audit Report for South Texas Project Pre-COL Application Review (July 16, 2007) (ML071650376);

application have not been satisfied by Oklo, a report of the Staff’s audit would help the public to understand what the gaps are and how Oklo and the Staff plan to fill them. The Staff’s lack of transparency therefore frustrates a meaningful review by the public of Oklo’s license application.

**E. The Staff’s Conduct is Not Mandated or Excused by NEIMA.**

The Staff’s radical departure from NRC’s long-established agency regulations for docketing and hearing notices is based on an erroneous interpretation of a NEIMA, a new statute passed by Congress in 2019. The Staff cites NEIMA for the proposition that “[i]t is in the national interest to allow innovation and the commercialization of safe and secure advanced nuclear reactors,” and thus concludes that “it is in the best interest of the nation and the agency to accept this application for docketing.”<sup>87</sup>

While NEIMA requires the NRC to establish new programs for review of “advanced” reactor designs, nothing in NEIMA excuses the Staff from complying with current NRC regulations. Indeed, the statute specifically states that NRC initiatives for consideration of advanced reactor designs should be carried out “*within* the existing regulatory framework.”<sup>88</sup> No changes have been made to that regulatory framework. And in their most recent report to Congress regarding the NRC’s implementation of NEIMA, the Commissioners confirmed that it is developing “guidance for a flexible non-LWR regulatory review process *within the bounds of existing regulations*, including the use of

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South Texas Project Nuclear Operating Company; Notice of Hearing and Opportunity To Petition for Leave To Intervene on a Combined License for the South Texas Project Units 3 and 4, 72 Fed. Reg. 73,381 (Dec. 27, 2007).

<sup>87</sup> Acceptance Letter at 1.

<sup>88</sup> *Id.*, § 103(a)(1).

conceptual design reviews and staged-review processes.”<sup>89</sup> The Commissioners’ 2020 “Update on the Nuclear Regulatory Commission’s (NRC) Implementation of the Nuclear Energy Innovation and Modernization Act (NEIMA) made no changes to this representation.”<sup>90</sup>

The Staff’s interpretation of NEIMA is not only incorrect, but it places the Staff in the role of cheerleader and promoter for new reactor designs, rather than a neutral safety regulator as required by the Atomic Energy Act. The Staff’s actions sacrifice the orderliness and fairness of the licensing proceeding to some perceived advantage in rushing the Oklo application through the NRC’s review process. The result is a messy and disorganized process that will be neither efficient for Oklo nor fair to the public. And public confidence in the NRC’s objective rigor as a safety regulator is undermined by the Staff’s claim that the “national interest” is served by rushing to accept an application that describes NRC safety regulations as “voluntary guidance” that can be satisfied by demonstrating compliance with their “intent” rather than their express terms.<sup>91</sup>

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<sup>89</sup> Letter from Kristine L. Svinicki to Hon. John a. Barrasso (July 12, 2019) (ML19128A311), Enclosure 1: Approaches for Expediting and Establishing Stages in the Licensing Process for Commercial Advanced Nuclear Reactors, A Report for the Senate Committee on Environment and Public Works and the House Committee on Energy and Commerce at 3 (ML19128A311)

<sup>90</sup> Letter from Kristine L. Svinicki to Hon. John A. Barrasso (Feb. 7, 2020) (ML20024E771), Enclosure 1: Update on Implementation of the Nuclear Regulatory Commission’s (NRC) Implementation of the Nuclear Energy Innovation and Modernization Act (NEIMA) (ML20024E851)

<sup>91</sup> See Oklo’s Cover Letter at 1 and Section IV.A.1 above.

**VI. THE HEARING NOTICE MUST BE REVOKED OR SUSPENDED IMMEDIATELY.**

Immediate action is required because the NRC's hearing notice now places virtually impossible procedural burdens on interested members of the public who seek to raise concerns about the adequacy of the Oklo application, with an effective deadline of August 30, 2020 (60 days from the publication of the hearing notice). Given the huge gaps in both Oklo's application and the NRC's regulatory framework for evaluating it, there is no way a petitioner could meet the heavy burden of 10 C.F.R. § 2.309(f)(1) of showing a material dispute with Oklo about whether its application satisfies NRC regulations. The NRC therefore should notify the public immediately that they need not expend time and resources in attempting to meet this impossible burden within the 60-day time limit provided by the Hearing Notice.

**VII. CONCLUSION AND REQUEST FOR RELIEF**

For the foregoing reasons, Petitioners respectfully request the Commissioners to take the following actions:

- *Immediately* revoke or suspend the Oklo docketing and hearing notices;
- Order the Staff to return Oklo's application as per 10 C.F.R. § 2.101(a)(4);
- Order that no docketing or hearing notice may be issued or reinstated unless and until the NRC has established a regulatory framework for its review, and unless and until Oklo's application is complete;
- Order that significant administrative defects in the application and hearing notice must be corrected;
- Order that all relevant Oklo environmental data and reference documents must be submitted to NRC rather than audited by the NRC Staff; and

- Clarify that nothing in NEIMA authorizes the Staff to avoid or disregard NRC's current legal requirements for issuing docketing notices and hearing notices in licensing proceedings.

Respectfully submitted,

*[Electronically signed by]*

Diane Curran

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July 31, 2020

### **CERTIFICATE OF COUNSEL**

Pursuant to 10 C.F.R. § 2.323(b), I certify that on July 27, 2020, I consulted counsel for Oklo and the NRC Staff in a sincere effort to resolve the issues raised by this motion. Counsel for Oklo stated that “Oklo does not consent to your emergency motion.” Counsel for the NRC Staff and undersigned counsel communicated regarding the potential for settlement but were unable to reach agreement.

     *[Signed electronically by]*     

Diane Curran

### **CERTIFICATE OF SERVICE**

I certify that on July 31, 2020, I posted copies of the foregoing EMERGENCY PETITION BY BEYOND NUCLEAR, BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE, CITIZENS AWARENESS NETWORK, CITIZEN POWER, CITIZENS’ RESISTANCE AT FERMI TWO, CONCERNED CITIZENS FOR NUCLEAR SAFETY, DON’T WASTE MICHIGAN, ECOLOGICAL OPTIONS NETWORK, FOOD AND WATER WATCH, FRIENDS OF THE EARTH, HEAL UTAH, INDIAN POINT SAFE ENERGY COALITION, MANHATTAN PROJECT FOR A NUCLEAR-FREE WORLD, NATIONAL NUCLEAR WORKERS FOR JUSTICE, NEVADA NUCLEAR WASTE TASK FORCE, NUCLEAR ENERGY INFORMATION SERVICE, NUCLEAR INFORMATION AND RESOURCE SERVICE, NUCLEAR WATCH NEW MEXICO, OAK RIDGE ENVIRONMENTAL PEACE ALLIANCE, PHYSICIANS FOR SOCIAL RESPONSIBILITY, PORTSMOUTH/PIKETON RESIDENTS FOR ENVIRONMENTAL SAFETY AND SECURITY, PROMOTING HEALTH AND SUSTAINABLE ENERGY, TENNESSEE ENVIRONMENTAL COUNCIL, THREE MILE ISLAND ALERT, SAN LUIS OBISPO MOTHERS FOR PEACE, SNAKE RIVER ALLIANCE, TRI-VALLEY CARES, AND URANIUM WATCH TO IMMEDIATELY REVOKE OR SUSPEND DOCKETING NOTICE AND HEARING NOTICE FOR COMBINED LICENSE APPLICATION BY OKLO POWER, LLC AND REQUEST FOR CLARIFICATION THAT NUCLEAR ENERGY INNOVATION AND MODERNIZATION ACT DOES NOT MANDATE OR AUTHORIZE DISREGARD OF NRC PROCEDURAL REQUIREMENTS FOR NEW REACTOR LICENSE APPLICANTS on the NRC’s Electronic Information Exchange System.

     */signed electronically by/*     

Diane Curran