



OKLO INC.

Meeting on security, source term, principal design criteria

March 29, 2023

Agenda

Security

Principal design criteria (PDC)

Source term



Security approach

Simple design enables a strong safety-security interface

Small amount of nuclear material and infrequent fuel movement as compared to a large light water reactor (LWR)

Security-by-design principles protect against malicious actors and reduce the reliance on operational security



Purpose and goals – security

Detail Oklo's approach to security for small, inherently safe reactor technologies

Familiarize new staff on Oklo's approach to security for its facilities – initial pre-application meeting with NRC Office of NSIR was held in 2019

Understand key security topics of staff interest that might require extensive review



Approach to PDC

Oklo is creating PDC for its facilities to meet the relevant regulatory requirements

10 CFR 52.79(a)(4)(i) requires that the applicant include in the design of the facility principal design criteria

10 CFR 52.79(a)(4)(ii) requires that the applicant explain the relationship of the PDC to its design bases

Oklo is familiar with guidance staff will use for evaluating PDC for non-LWRs

Regulatory Guide 1.232, Revision 0, “Developing Principal Design Criteria for Non-Light Water Reactors”

10 CFR Part 50, Appendix A (considered guidance for non-LWRs)



Purpose and goals – PDC

Discuss Oklo's approach to development of PDC and compliance with the relevant requirements associated with development of PDC

Ensure clarification of Oklo's approach to development of PDC for its design for the purposes of pre-application

Obtain feedback from the staff on additional considerations for these topics that may arise during future application reviews



Purpose and goals – source term

Provide the modeling approach for source term analysis for Oklo's design

- Sources of radionuclides produced during operation

- Modeling tools used in source term analysis

- Experimental data that supports modeling approaches

Obtain feedback from staff on areas that may need additional clarification during the application review

