

Table of Contents

Acronyms.....	iii
1.0 Background.....	1
1.1 Facility History	1
1.2 Facility Description.....	3
1.3 Current Status.....	6
1.4 Public Involvement	9
2.0 Purpose and Need for Agency Action	9
3.0 Description of the Proposed Action and No Action Alternative	10
3.1 Proposed Action.....	10
3.2 No Action Alternative.....	14
4.0 Affected Environment.....	16
4.1 Site Description.....	16
4.2 Air Quality	18
4.3 Environmental Justice.....	18
5.0 Environmental Consequences.....	20
5.1 Proposed Action.....	20
5.1.1 Decontamination and Decommissioning	20
5.1.2 Natural Hazards and Accidents.....	25
5.1.3 Transportation.....	28
5.1.4 Other Potential Direct, Indirect, Cumulative, or Long-Term Impacts.....	29
5.1.5 Compliance with Regulations	30
5.1.6 Pollution Prevention.....	30
5.2 No Action Alternative.....	30
6.0 References.....	32
Appendix A: Illinois State Historic Preservation Officer Concurrence Letter	35
Appendix B. Illinois Emergency Management Agency Comment Letter	37

List of Figures

Figure 1-1.	Juggernaut Reactor, inside Building 335.....	2
Figure 1-2.	Map of Argonne National Laboratory-East, Argonne, Illinois	3
Figure 1-3.	Building 335, front view.....	4
Figure 1-4.	Building 335, rear view showing reactor building and cooling tower	4
Figure 1-5.	Building 335, floor plan	5
Figure 4-1.	Location of Argonne National Laboratory – East	17

List of Tables

Table 1-1.	Radionuclides Present or Anticipated in the Juggernaut Reactor Facility	7
Table 3-1.	Elements of the Proposed Action	11
Table 3-2.	Estimated Waste Volumes.....	14
Table 5-1.	Radiological Exposure to Project Workers	22

Acronyms

ALARA	as low as reasonably achievable
ANL-E	Argonne National Laboratory – East
ASA	Auditable Safety Analysis
CFR	Code of Federal Regulations
CH	contact-handled
DOE	U.S. Department of Energy
EA	environmental assessment
ESH	Environment, Safety, and Health
HEPA	high-efficiency particulate air
LLW	low-level radioactive waste
mrem	millirem (1/1000 th of a rem)
NEPA	National Environmental Policy Act
NTS	Nevada Test Site
OSHA	Occupational Safety and Health Act
PCBs	polychlorinated biphenyls
RCRA	Resource Conservation and Recovery Act
RH	remote-handled
TSCA	Toxic Substances Control Act