



Northwest Medical Isotopes Construction Permit Application Review

- Mandatory Hearing (Environmental Panel)
- January 23, 2018

Panelists

- Benjamin Beasley
 - Chief, Environmental Review and NEPA Branch, NRR
- Nancy Martinez
 - Physical Scientist, NRR
- Michelle Moser
 - Biologist, NRR
- David Drucker
 - Senior Project Manager, NRR

Environmental Review

- National Environmental Policy Act
- Environmental review process
 - 10 CFR Part 51
 - Interim Staff Guidance Augmenting NUREG-1537 for Licensing Radioisotope Production Facilities and Aqueous Homogenous Reactors

Scope of the Review: Proposed Action and Connected Actions

Actions are connected if they:

- Automatically trigger other actions that may require environmental impact statements; or
- Cannot or will not proceed unless other actions are taken previously or simultaneously; or
- Are interdependent parts of a larger action and depend on the larger action for their justification

Proposed Action and Connected Actions

- Construction, operations, and decommissioning of the 10 CFR Part 50 production facility
- Construction, operations, and decommissioning related to target fabrication
- Transportation of targets to/from research reactors and irradiation of targets at research reactors

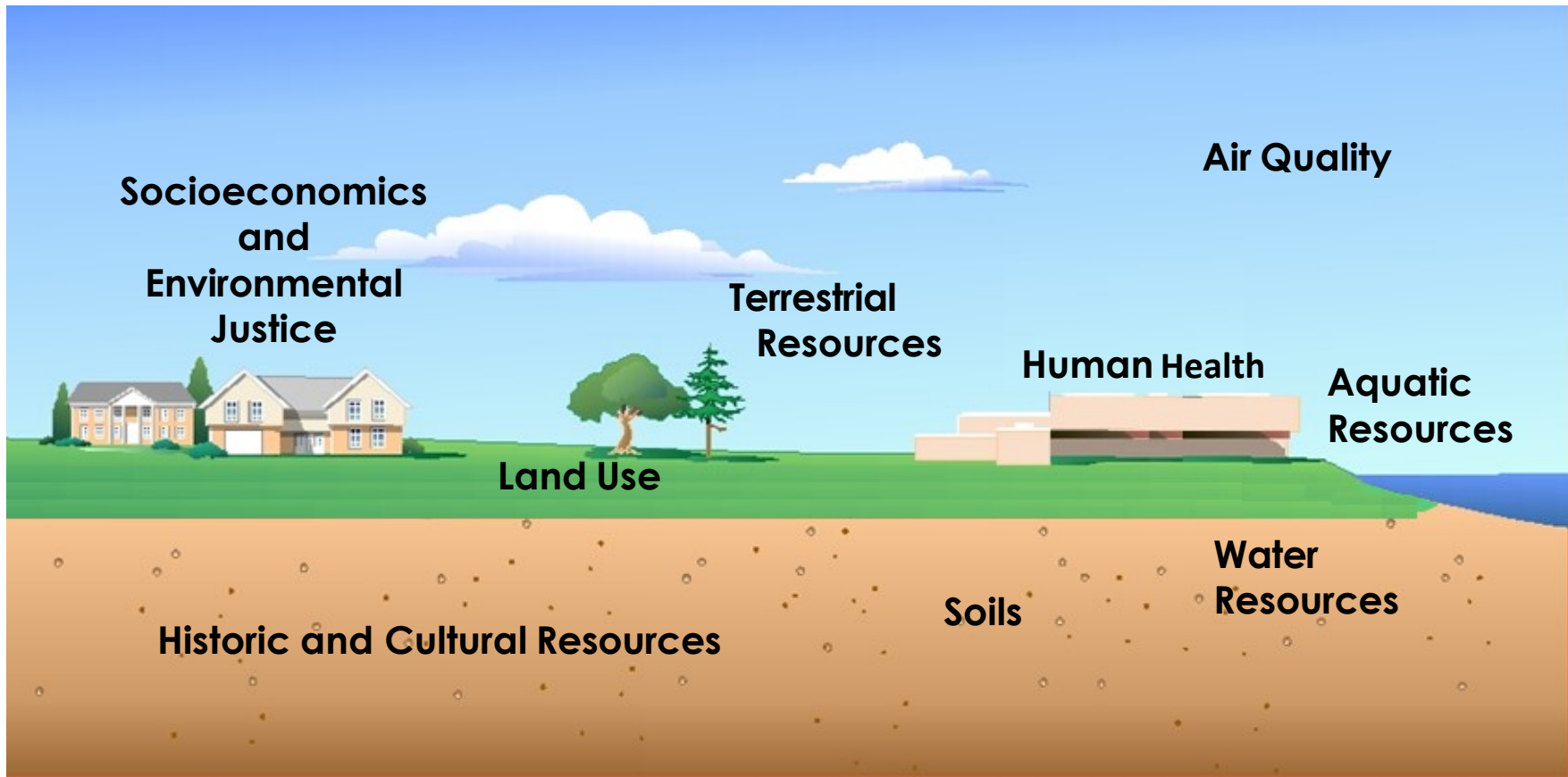
Environmental Impact Statement (EIS)

- 10 CFR 51.20
- Project-specific decision
 - Operation of the proposed Northwest facility would include target fabrication and scrap recovery
 - Environmental assessment might not support a finding of no significant impact

Scoping Process

- Public meeting in Columbia, Missouri
- Six oral commenters
- Eight comment letters or emails

Environmental Review Areas



Environmental Impacts

Resource Area	Impact
Land Use and Visual Resources	SMALL
Air Quality and Noise	SMALL
Geologic Environment	SMALL
Ecological and Water Resources	SMALL
Historic and Cultural Resources	SMALL
Socioeconomics	SMALL
Human Health and Waste	SMALL
Transportation	SMALL

Consultations

Act	Determination
Endangered Species Act, Section 7	No Effect
National Historic Preservation Act, Section 106	No Adverse Effect

Alternatives

- No-action alternative
- Alternative site
- Alternative technologies

Alternative Technologies

- Neutron capture
- Aqueous homogenous reactor
- Selective gas extraction
- Linear-accelerator-based
 - Analyzed in depth
- Subcritical fission
 - Analyzed in depth

Costs and Benefits

- Purpose
 - Inform recommendation to the Commission
- Costs
 - Environmental and financial
- Benefits
 - Societal, medical, and economic

Draft Environmental Impact Statement

- Public meeting in Columbia, Missouri
- Seven oral commenters
- Five comment letters or emails

Staff Conclusion and Recommendation

- Benefits (societal, medical, and economic) outweigh the costs (environmental, economic)
- Considered reasonable alternatives
- Recommend issuance of the construction permit

Future NEPA Analyses

- Application for an operating license
- Application for a license to possess and use special nuclear material for target fabrication and scrap recovery
- License amendment requests from research reactors

Acronyms

- EIS - Environmental Impact Statement
- NEPA - National Environmental Policy Act
- NRR - Office of Nuclear Reactor Regulation