

Preliminary Results of the Environmental Review for the Proposed SHINE Medical Radioisotope Production Facility



June 10, 2015

Ground Rules

- Speak into a microphone
- Identify yourself and your group
- Minimize background noise
- Silence personal electronics

Meeting Background

- SHINE Medical Technologies, Inc. (SHINE) submitted a construction permit application for the proposed medical radioisotope production facility (SHINE facility).
- The NRC:
 - is reviewing that application
 - is reviewing the environmental impacts of construction, operation, and decommissioning of the proposed facility
 - has developed preliminary results of that review
 - wants your comments on those results

Overview

- NRC presentation
 - NRC's regulatory role
 - Summary of the construction permit review process
 - Overview of the draft Environmental Impact Statement
 - Upcoming milestones and how to submit comments
- Your comments

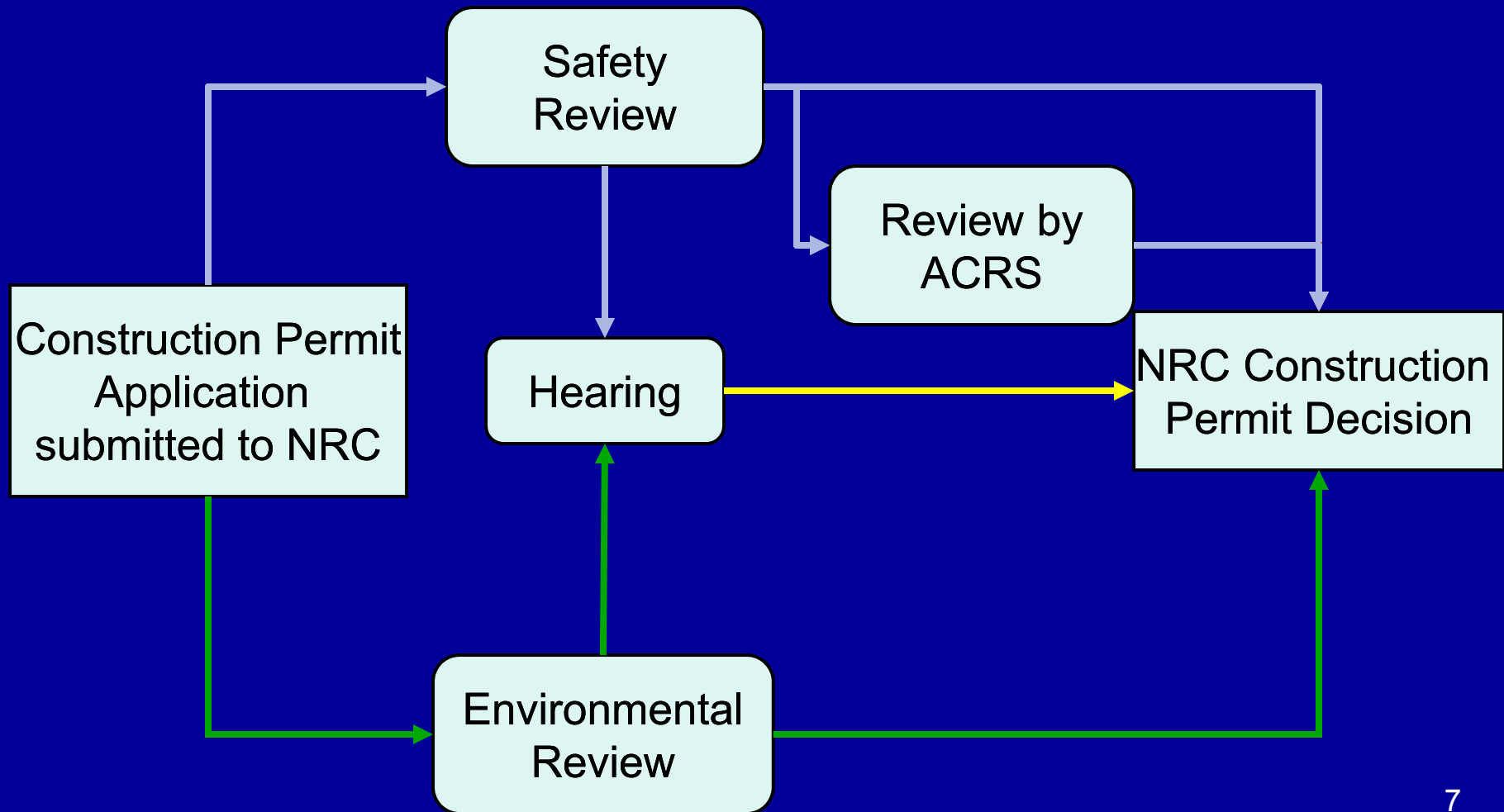
NRC's Regulatory Role

- NRC regulates commercial use of nuclear materials and facilities
- NRC's mission:
 - Protect public health and safety
 - Promote common defense and security
 - Protect the environment

Environmental Regulatory Background

- National Environmental Policy Act (NEPA)
 - Informs Federal decision making
 - Public disclosure of environmental impacts and other considerations
- NRC's Environmental Regulations
10 CFR Part 51
- Staff prepared an Environmental Impact Statement (EIS)

Construction Permit Review Process



Safety Review Milestones

Application Received	March 26 & May 31, 2013
Notice of Acceptance	July 1 & December 3, 2013
Requests for Additional Information	September 2014 January, March & April 2015
Draft Safety Evaluation Report	June 2015
Advisory Committee for Reactor Safeguards Meetings	Summer 2015
Final Safety Evaluation Report	October 2015

Environmental Review Milestones

Application Received	March 26, 2013
Notice of Intent	July 1, 2013
Public Scoping Meeting*	July 17, 2013
Environmental Site Audit	July 30-Aug.1, 2013
Draft EIS	May 11, 2015
Draft EIS Public Meeting*	June 10, 2015
Draft EIS Comments Due*	July 6, 2015
Final EIS	October 2015

* Opportunity for Public Participation

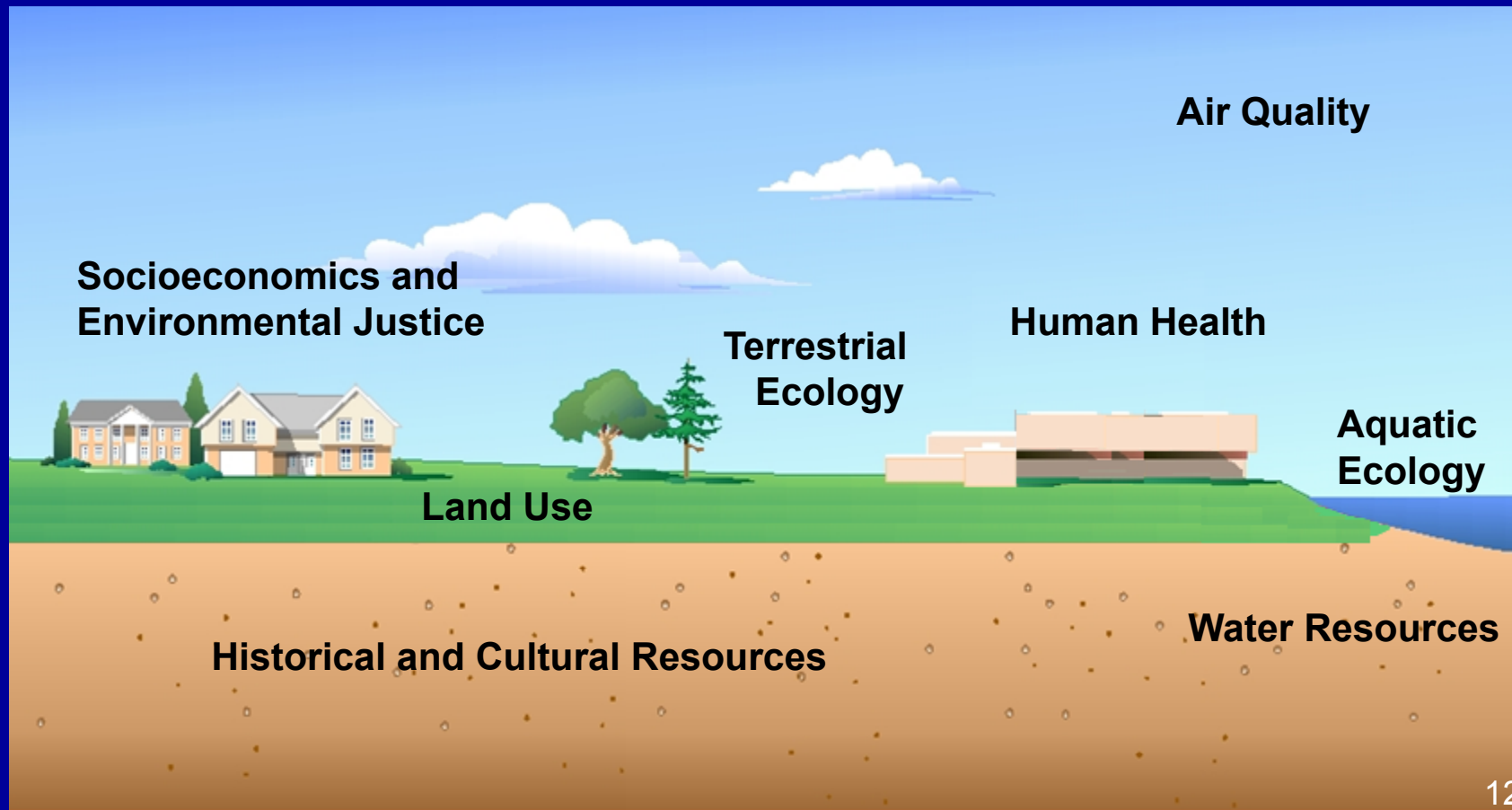
Overview of the draft Environmental Impact Statement

- Purpose and Need
- Affected Environment
- Environmental Impacts of the Proposed Action
- Environmental Impacts of Alternatives to Proposed Action
- NRC's Staff Preliminary Recommendation

Purpose and Need for Proposed Federal Action

- The proposed Federal Action:
 - NRC:** Whether or not to issue a construction permit
 - DOE:** Whether or not to provide cost-sharing financial support to SHINE
- The purpose and need is to provide a medical radioisotope production option that could help fill the need for a domestic source of medical radioisotopes.

Environmental Resource Areas



Definition of Impacts

- NRC-defined impact levels:
 - **SMALL** - Effects are not detectable or are so minor that they will neither destabilize nor noticeably alter an important attribute of the resource.
 - **MODERATE** - Effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.
 - **LARGE** - Effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

Impacts of the SHINE Facility

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

Transportation

- **Construction: MODERATE**
 - 11 percent increase in traffic on U.S. Highway 51
- **Operation: SMALL to MODERATE**
 - Slight degradation of service at the intersections of State Truck Highway 11 and U.S. Highway 51
- **Decommissioning: MODERATE**
 - Additional vehicles from workers, truck deliveries, and waste shipments could noticeably increase traffic along U.S. Highway 51

Other Regulatory Requirements

- Endangered Species Act (Section 7)
- National Historic Preservation Act (Section 106)
- Environmental Justice (Executive Order 12898)

Impacts of the SHINE Facility Other Regulations and Orders

Resource Area	Impact
Special Status Species	No Effect
Historic and Cultural Resources	No Adverse Effect
Environment Justice	No Disproportionately High and Adverse Impacts

Cumulative Impacts

- Overlapping impacts with past, present, and reasonably foreseeable future actions
 - evaluated through the end of decommissioning
- Preliminary findings
 - MODERATE impacts on ecological resources primarily from climate change and agricultural run off
 - SMALL to MODERATE impacts on transportation based on increased traffic due to the proposed SHINE project
 - SMALL impacts for all other resources

Alternatives

- Two Alternative Sites

- Chippewa Falls

- SMALL to MODERATE: Noise & Transportation
 - SMALL: all other resource areas

- Steven's Point

- SMALL to MODERATE: Visual Resources, Noise, & Transportation
 - SMALL: all other resource areas

Alternatives

- One Alternative Technology
 - Linear Accelerator-based at the Janesville site
 - SMALL to MODERATE: Transportation
 - SMALL: all other resource areas
- No action alternative
 - NRC denies the construction permit
 - SMALL: all resource areas

Preliminary Conclusion

The NRC staff's preliminary recommendation is that after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, the NRC staff recommends the issuance of the construction permit to SHINE, unless safety issues mandate otherwise.

Submitting Comments After the Meeting

By mail: Chief, Rules, Announcements, and
Directives Branch (RADB)
Division of Administrative Services
Mailstop OWFN-12-H08
U.S. NRC, Washington, D.C. 20555-0001

In person: 11545 Rockville Pike
Rockville, Maryland

Internet: www.regulations.gov
docket ID: NRC-2013-0053

Comments due by July 6, 2015

Additional Information

- Environmental Project Manager:
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- The draft EIS can be viewed at:
Hedberg Public Library
316 South Main Street, Janesville, Wisconsin 53545
- NRC's Web site (www.nrc.gov):
 - <http://nrcweb.nrc.gov:400/reading-rm/doc-collections/nuregs/staff/sr2183/>