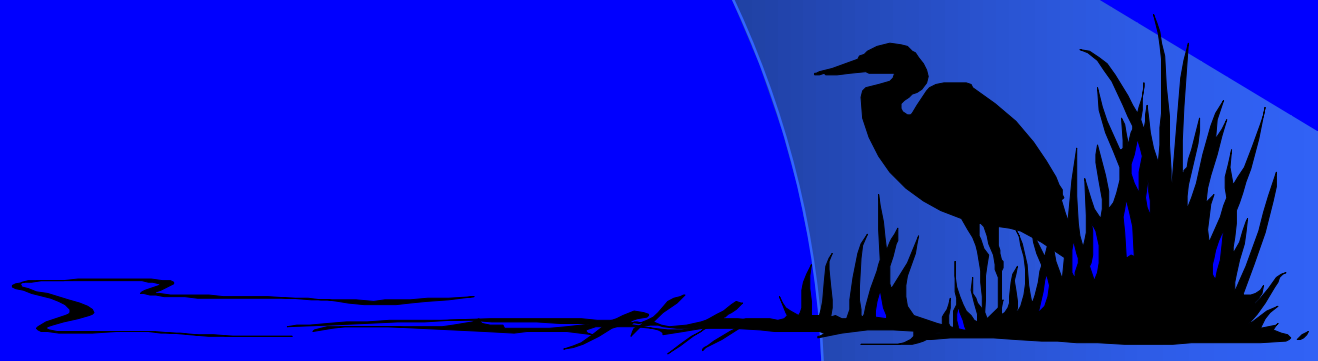
Preliminary Results of Environmental Review H.B. Robinson Steam Electric Plant, Unit 2

Nuclear Regulatory Commission

June 25, 2003



Purpose of Today's Meeting

- Discuss NRC's license renewal process
- Describe the environmental review process
- Discuss the results of our review
- Provide the review schedule
- Accept any comments you may have today
- Describe how to submit comments

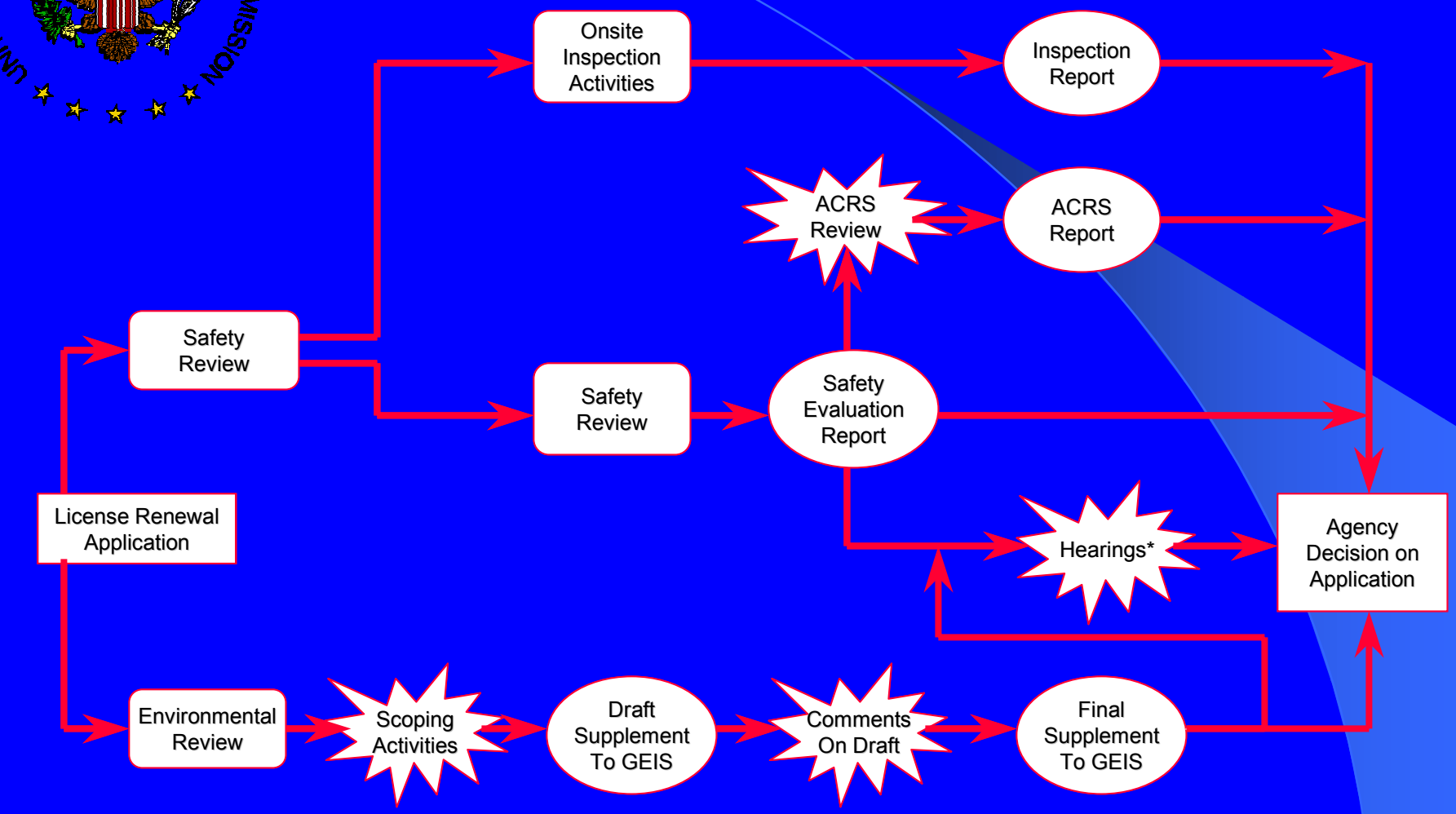
H.B. Robinson, Unit 2 License Renewal

- Operating license expires in 2010
- Application requests authorization to operate H.B. Robinson, Unit 2 for an additional 20 years

NRC's License Renewal Review

- Safety review
- Environmental review
- Plant inspections
- Advisory Committee on Reactor Safeguards (ACRS)

License Renewal Process



Formal Public Participation

*If a request for hearing is granted

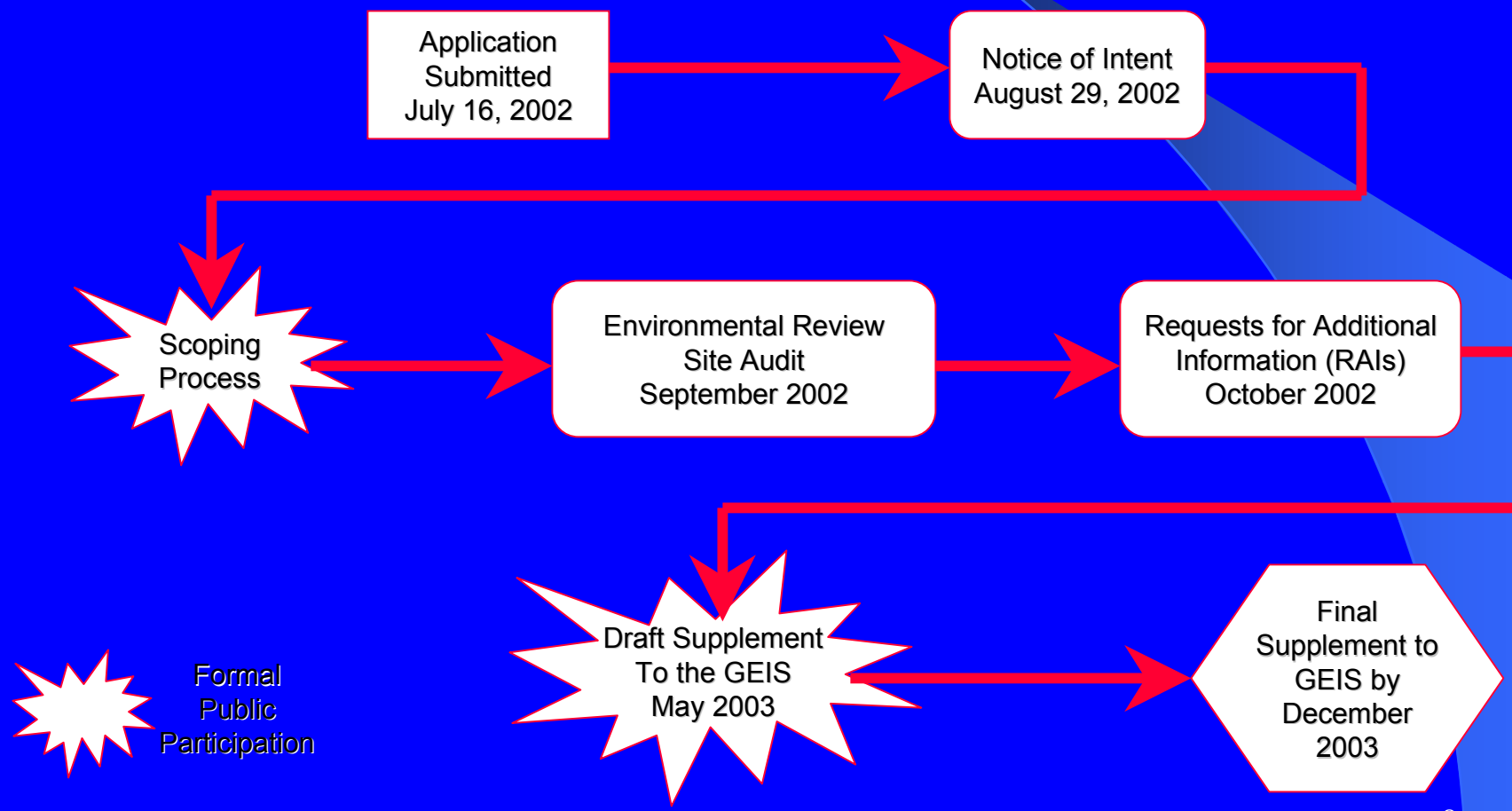
National Environmental Policy Act

- NEPA requires Federal agencies to use a systematic approach to consider environmental impacts
- Commission has determined that an environmental impact statement (EIS) will be prepared for a license renewal action

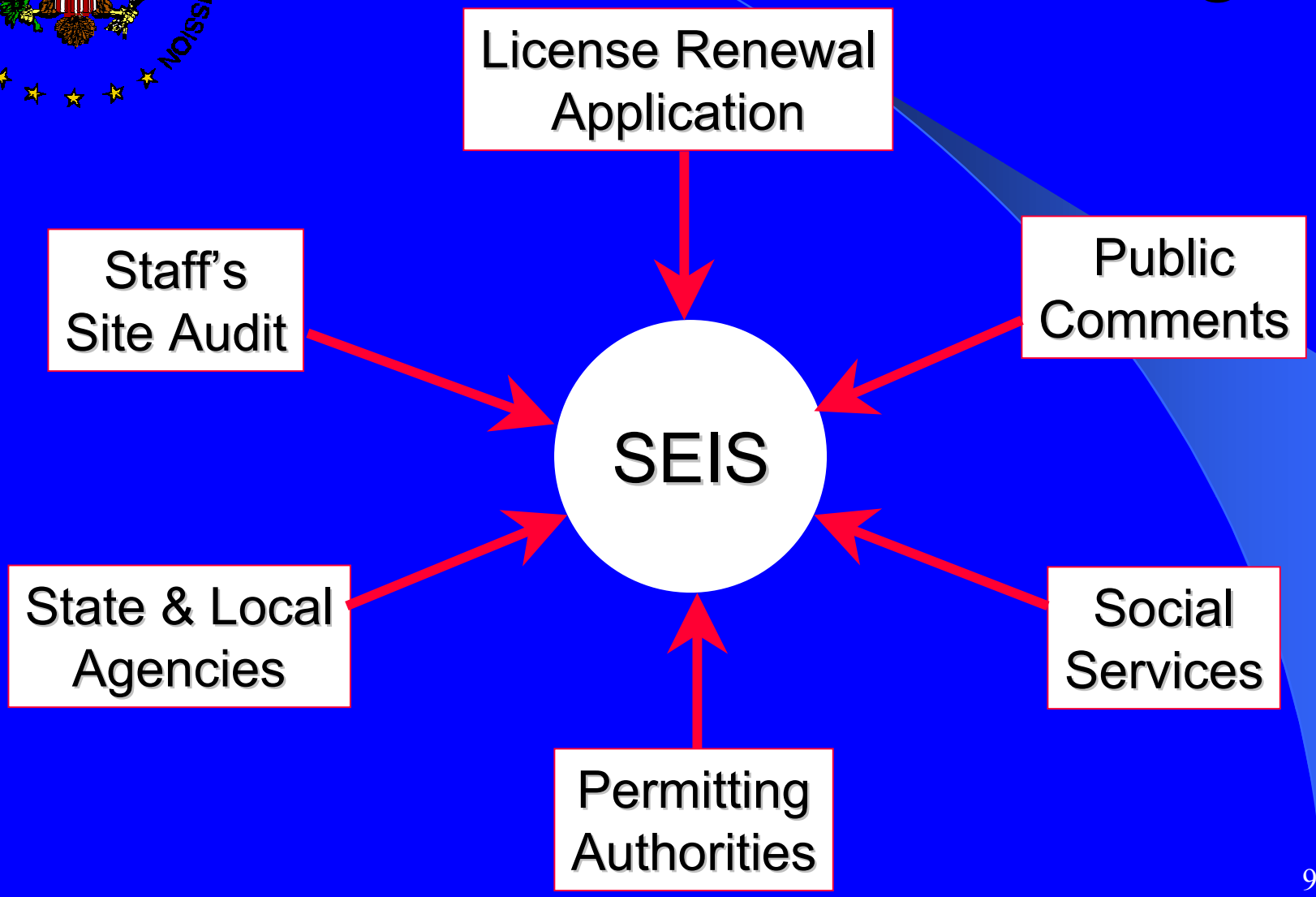
Decision Standard for Environmental Review

To determine whether or not the adverse environmental impacts of license renewal for H.B. Robinson, Unit 2 are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

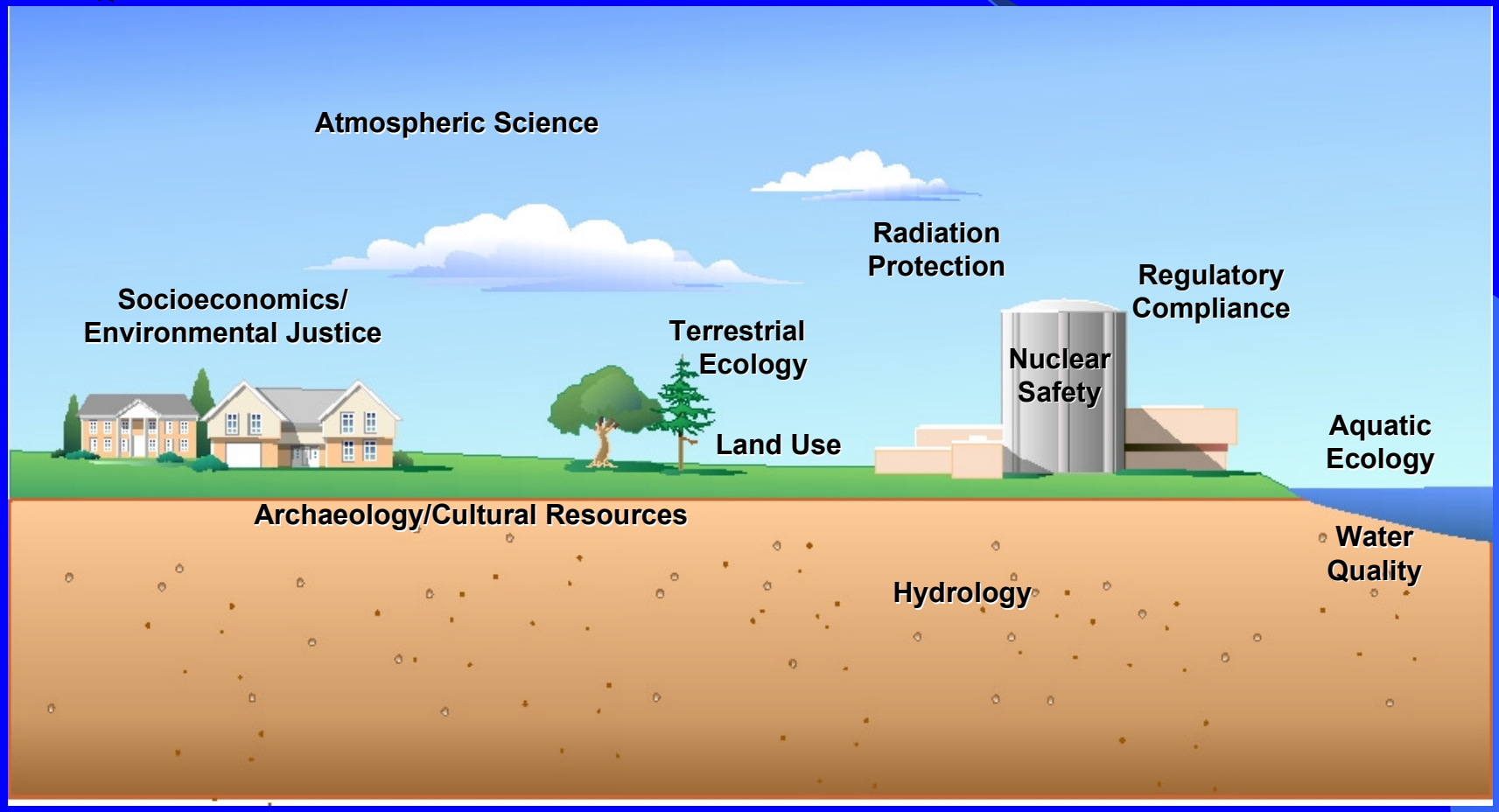
Environmental License Renewal Process



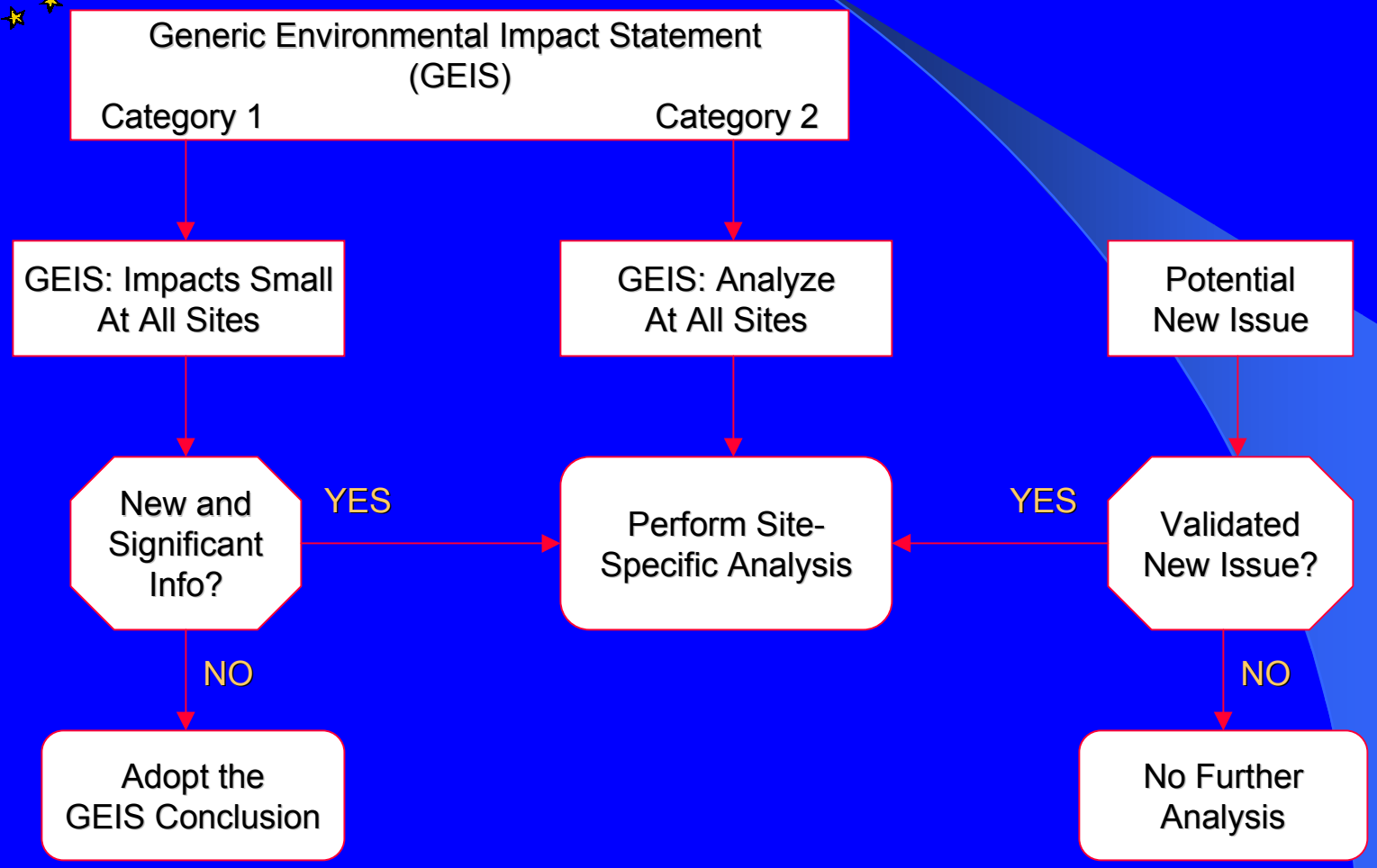
Information Gathering



Team Expertise



Analysis Approach



How Impacts are Quantified

- NRC-defined impact levels:
  - **SMALL**: *Effect is not detectable or too small to destabilize or noticeably alter any important attribute of the resource*
  - **MODERATE**: *Effect is sufficient to alter noticeably, but not destabilize important attributes of the resource*
  - **LARGE**: *Effect is clearly noticeable and sufficient to destabilize important attributes of the resource*
- Consistent with the Council on Environmental Quality guidance for NEPA analyses

Environmental Impacts of Operation

- Cooling System
- Transmission Lines
- Radiological
- Socioeconomic
- Groundwater Use and Quality
- Threatened or Endangered Species

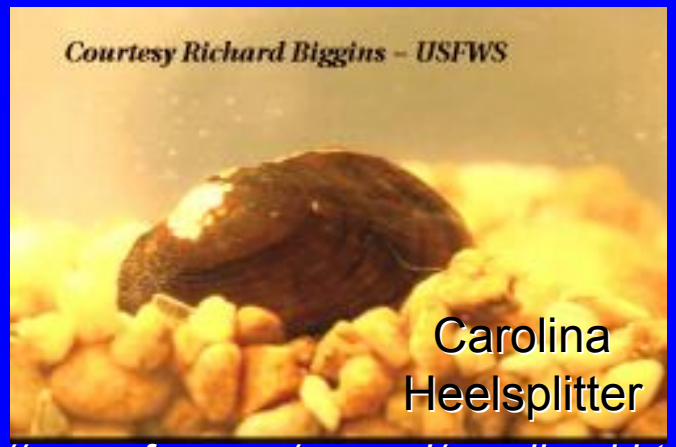
Cooling System Impacts

Radiological Impacts

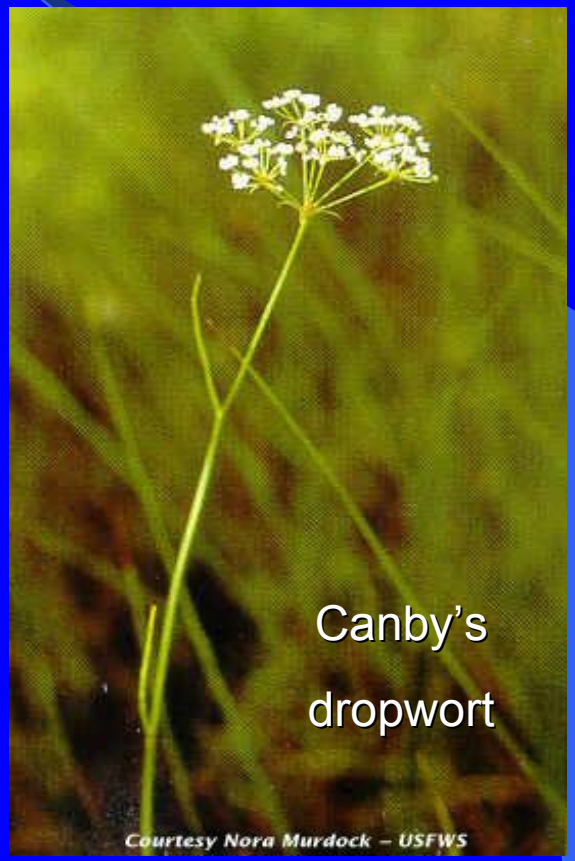
- Addresses exposures to the public and to workers
- No Category 2 issues
- No new and significant information
- GEIS concluded impacts are SMALL

Threatened or Endangered Species

(http://www.nwf.org/keepthewildalive/woodpecker/)



(http://nc-es.fws.gov/mussel/carolheel.html)



(http://nc-es.fws.gov/plant/canbydrop.html)

Potential New and Significant Information

- No new and significant information identified:
  - during scoping
  - by the licensee
  - by the staff

Other Environmental Impacts Evaluated

- Uranium Fuel Cycle and Solid Waste Management
- Decommissioning

Alternatives

- No-action
- New generation
- Purchased electrical power
- Alternative technologies
- Combination of alternatives

Preliminary Conclusions for Alternatives

- Alternatives (including the no-action alternative) may have environmental effects in at least some impact categories that reach MODERATE or LARGE significance

Impacts of Postulated Accidents

- Design-Basis Accidents
- Severe Accidents
  - Severe Accident Mitigation Alternatives (SAMAs)

Results of SAMA Evaluation

- 266 candidate improvements identified in ER
  - 218 eliminated during the initial, qualitative screening
  - Remaining 48 SAMAs reduced to 10 based on cost and risk reduction considerations
- Detailed cost/benefit analysis shows none of the 10 remaining candidates are cost beneficial
- NRC staff identified 2 additional improvements that could be cost beneficial
  - Replacing RHR valve components to increase seismic capacity
  - Adding heat shield to shutdown diesel electrical conduit

Results of SAMA Evaluation (continued)

- Overall conclusion:
  - Additional plant improvements to further mitigate severe accidents are not required at H.B. Robinson as part of license renewal
  - Improvements to RHR valves and electrical conduit heat shielding are being further evaluated as current operating license issues

Preliminary Conclusion

- Impacts of license renewal are SMALL for all impact areas
- Impacts of alternatives to license renewal range from SMALL to LARGE
- The staff's preliminary recommendation is that the adverse environmental impacts of license renewal for H.B. Robinson, Unit 2 are not so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable

Environmental Review Milestones

- Draft EIS issued – May 5, 2003
- Comment period – May 5 to July 30, 2003
- Final EIS issued on or before – December 2003

Point of Contact

- Agency point of contact:

  Richard L. Emch, Jr.

  (800) 368-5642, Ext. 1590
- Documents are located at the Hartsville Memorial Library, 147 West College Avenue, Hartsville, South Carolina and can be viewed at the NRC's Web site (www.nrc.gov/reading-rm.html)
- Draft SEIS can also be viewed at: **www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/supplement13/**

NRC Addresses

- Provide comments:
  - By mail at: Chief, Rules and Directives Branch
    Division of Administrative Services
    Mailstop T-6D59
    U.S. Nuclear Regulatory Commission
    Washington, DC 20555-0001
  - In person at: 11545 Rockville Pike
    Rockville, Maryland
  - E-mail at: RobinsonEIS@nrc.gov
  - On-line comment form with web version of draft

UNITED STATES NUCLEAR REGULATORY COMMISSION