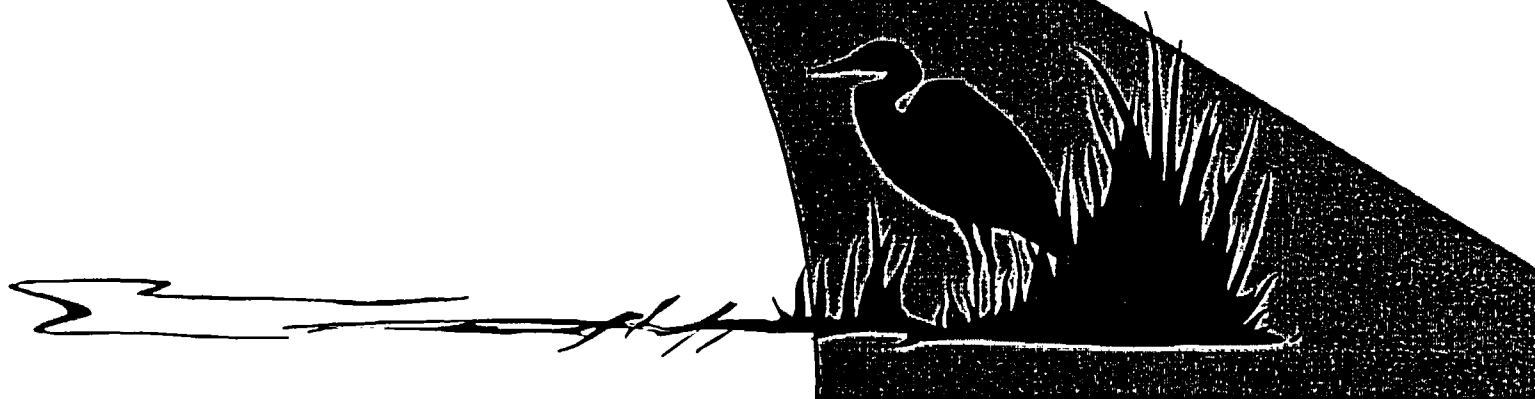




Preliminary Results of Environmental Review Dresden Nuclear Power Station, Units 2 and 3

Nuclear Regulatory Commission

January 14, 2004





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



Dresden Nuclear Power Station, Units 2 and 3 License Renewal

- Operating licenses expire
 - December 2009 for Unit 2
 - January 2011 for Unit 3
- Application requests authorization to operate Dresden Nuclear Power Station, Units 2 and 3 for up to an additional 20 years

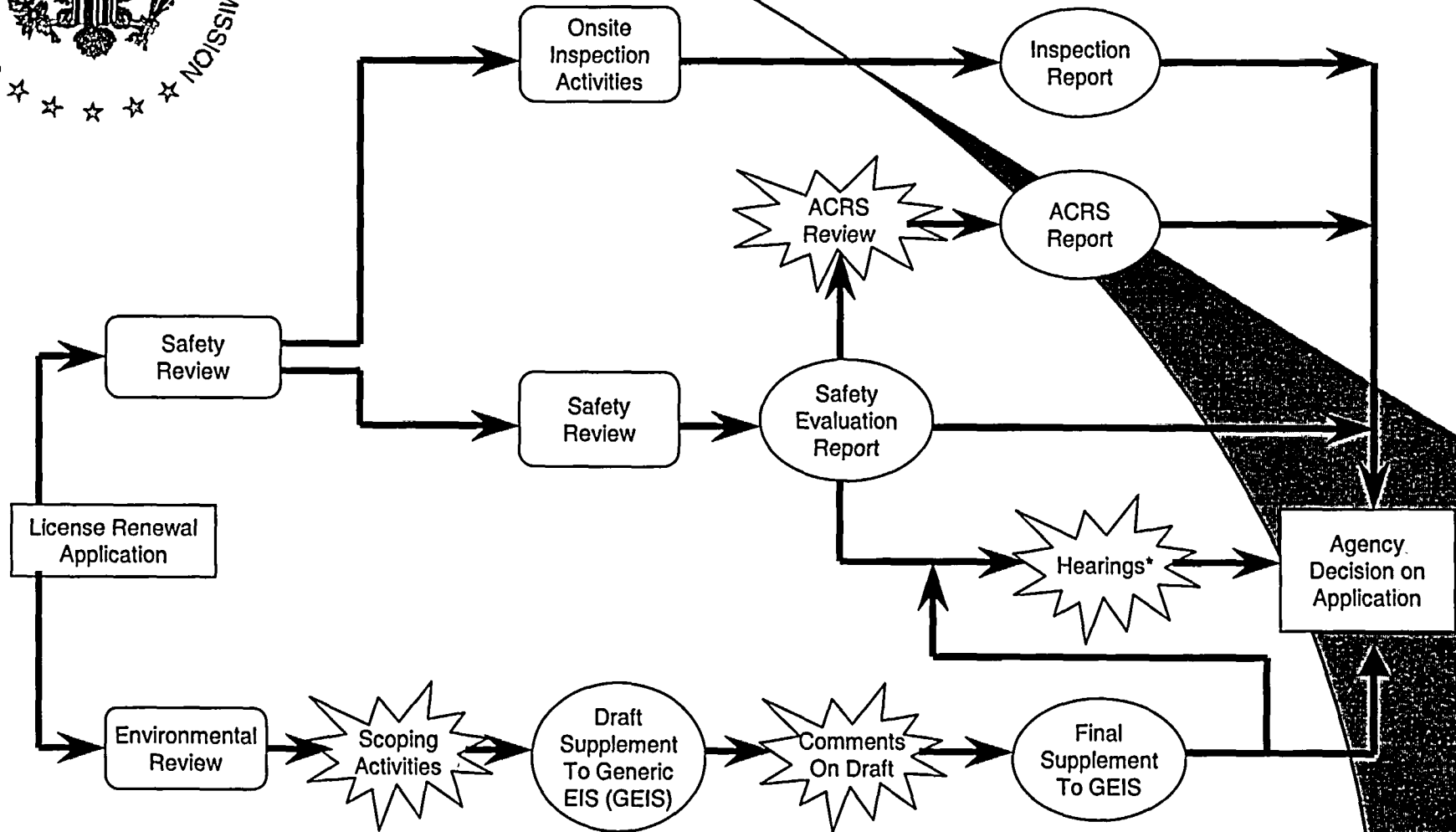


NRC's License Renewal Review

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



License Renewal Process



 Formal Public Participation

*If a request for hearing is granted



National Environmental Policy Act (NEPA)

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

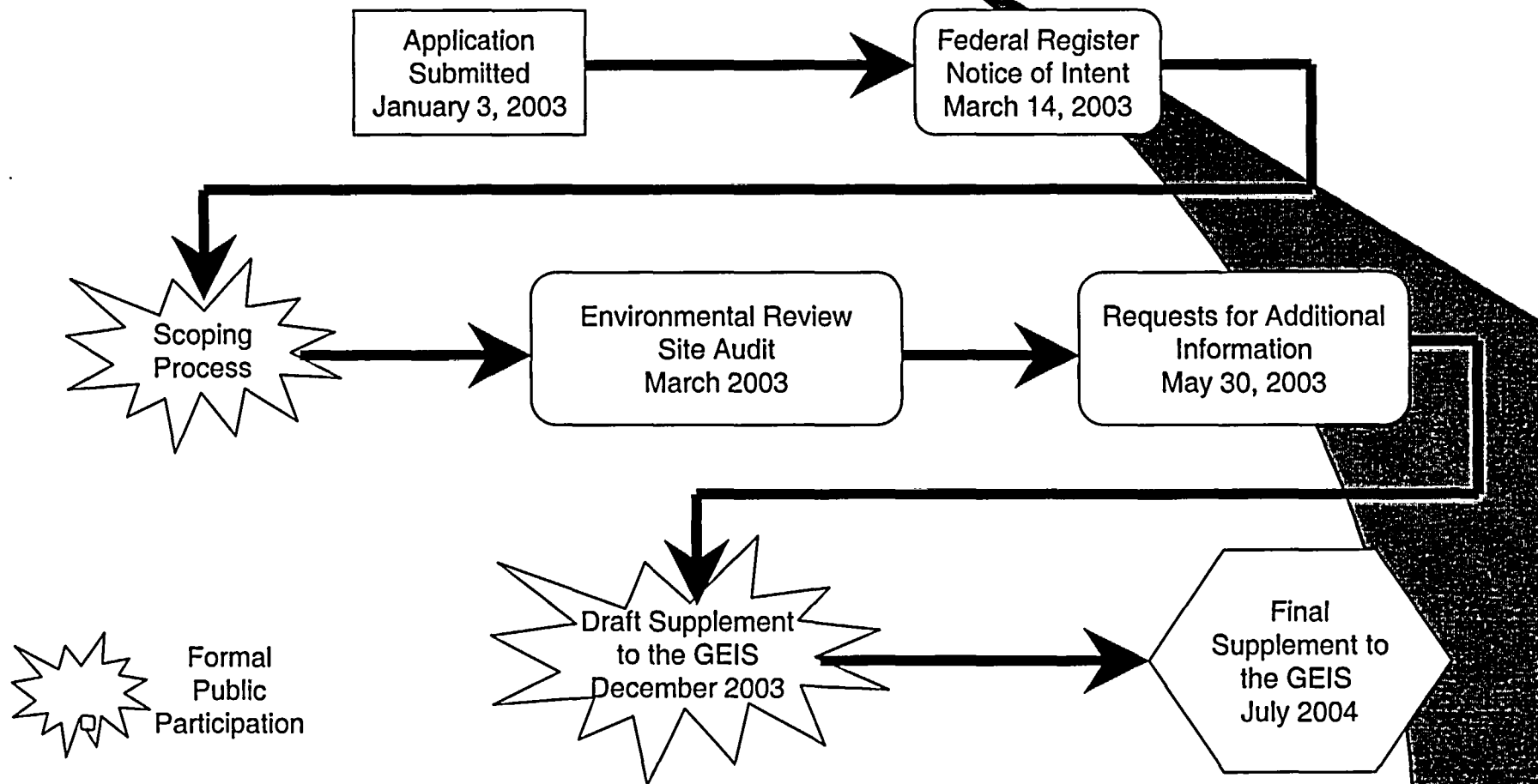


Decision Standard for Environmental Review

To determine whether or not the adverse environmental impacts of license renewal for Dresden Nuclear Power Station, Units 2 and 3 are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

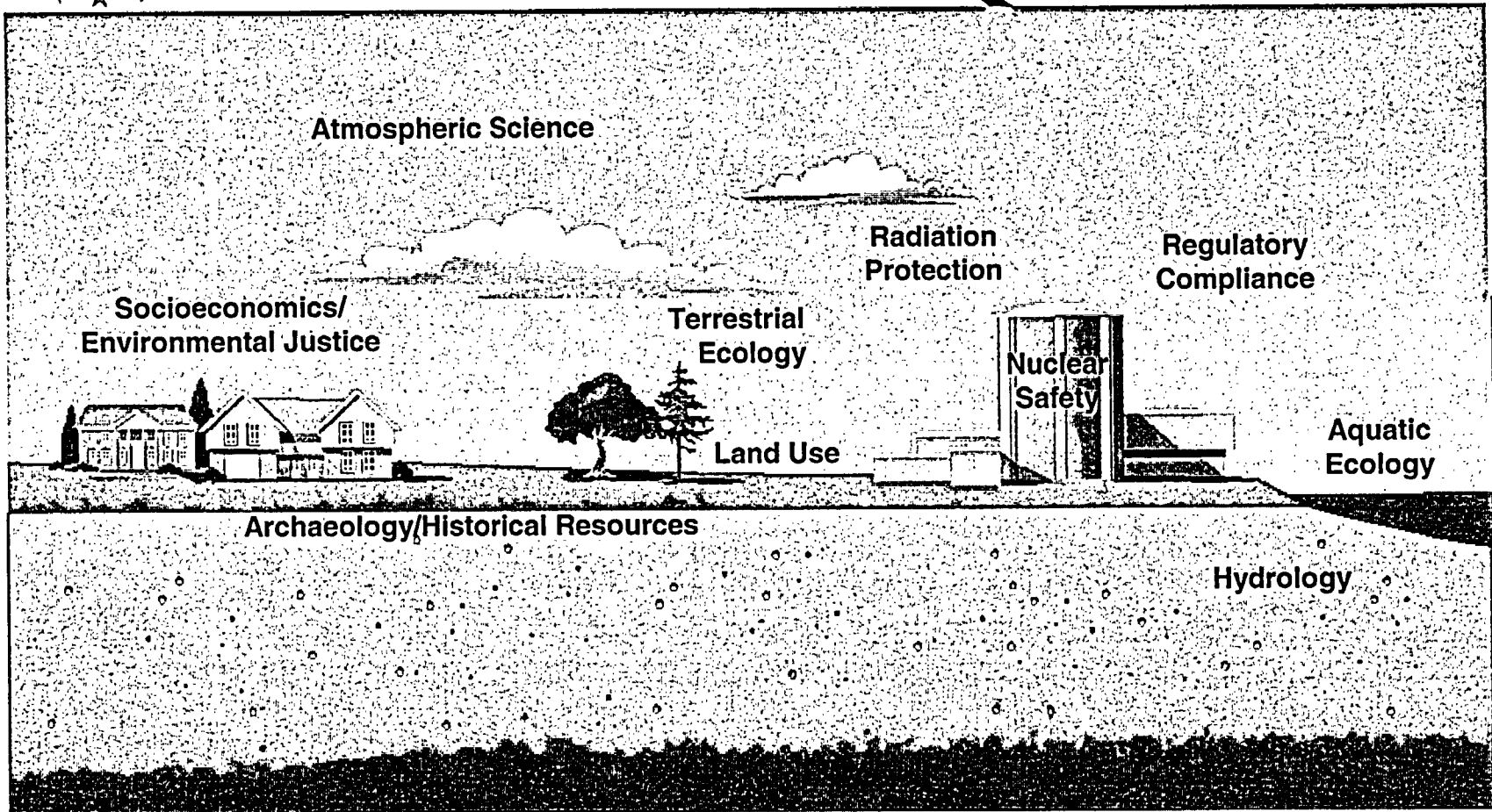


Environmental License Renewal Process



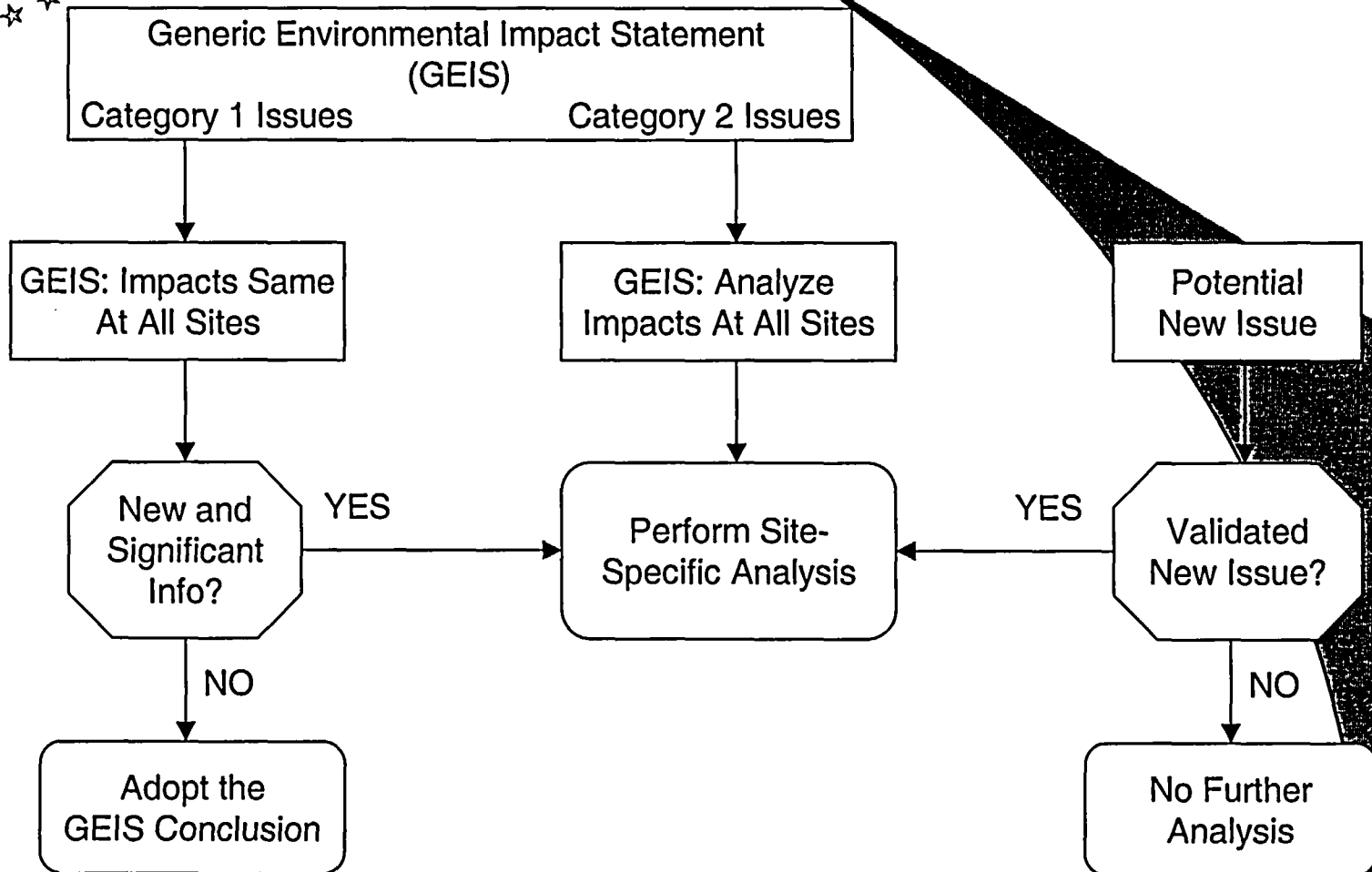


Team Expertise





Analysis Approach



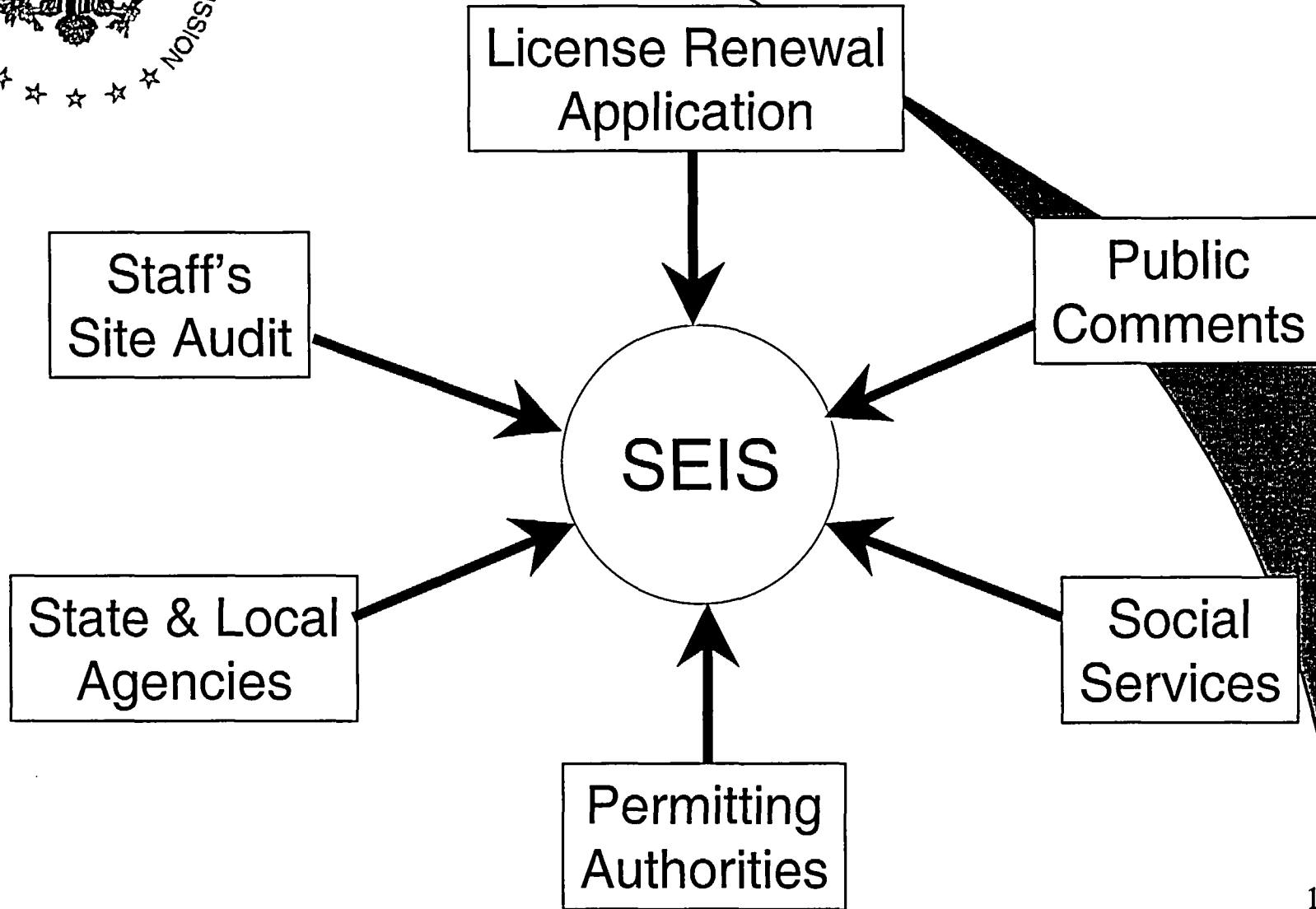


How Impacts are Quantified

- 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



Information Gathering





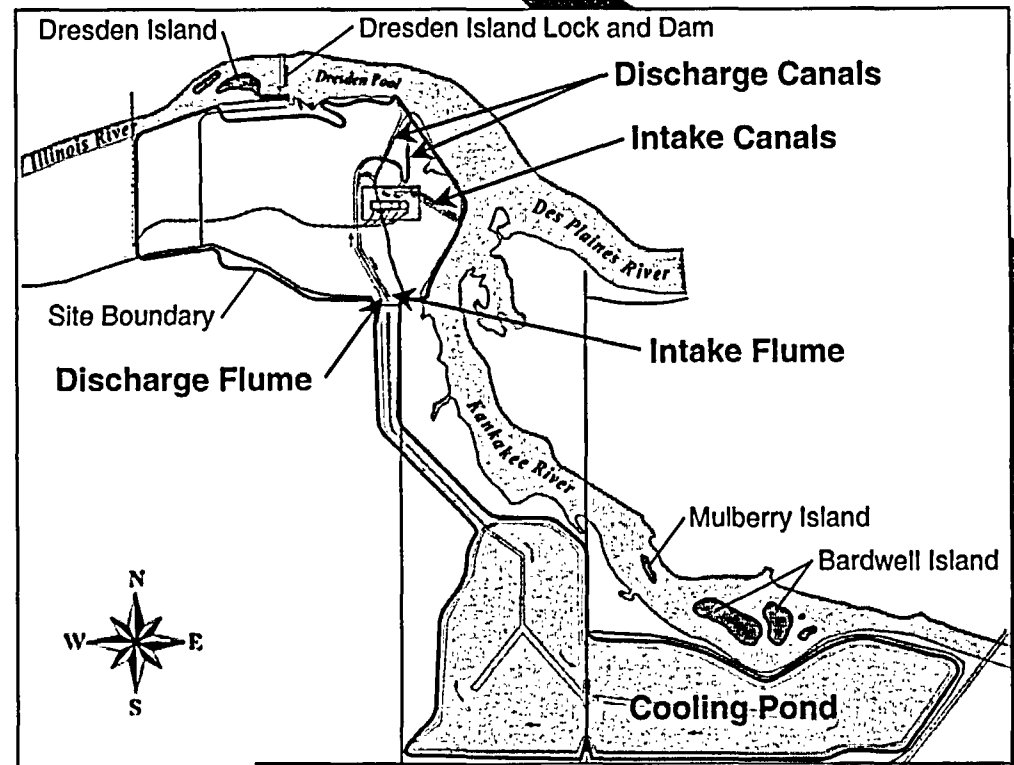
Environmental Impacts of Continued Operation

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



Cooling System Impacts

- Category 2 issues
 - Water Use Conflicts
 - Entrainment
 - Impingement
 - Heat Shock
 - Microbiological Organisms
- Preliminary findings
 - Impacts are SMALL
 - No additional mitigation required





Radiological Impacts

- Category 1 issues
 - Radiation exposures to the public
 - Occupational radiation exposures

- Preliminary findings
 - No new and significant information identified
 - GEIS concluded impacts are **SMALL**



Threatened or Endangered Species





Cumulative Impacts of Operation

- Considered impacts of renewal term operations combined with other past, present, and reasonably foreseeable future actions
 - evaluated to end of 20-year renewal term
 - geographic boundaries dependent on resource

- No significant cumulative impacts



Other Environmental Impacts Evaluated

- Uranium Fuel Cycle and Solid Waste Management
- Decommissioning

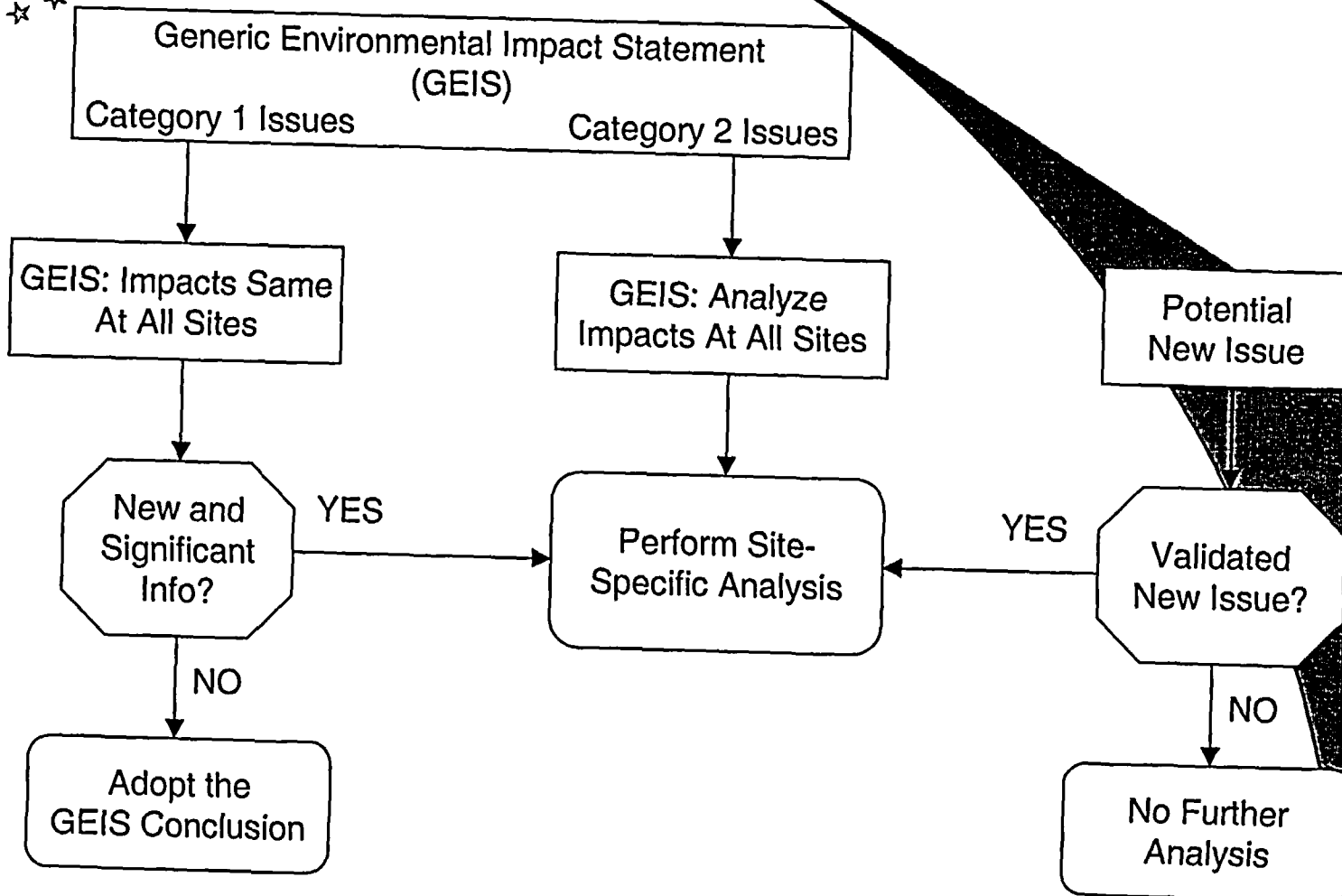


Alternatives

- No-action
- Alternative energy sources
 - New generation (Coal, Natural Gas, Nuclear)
 - Purchased electrical power
 - Other alternatives (Oil, Wind, Solar, Conservation)
 - Combination of alternatives
- Environmental effects of alternatives in at least some impact categories reach MODERATE or LARGE significance



Analysis Approach





Preliminary Conclusions

-
- GEIS Conclusions on Category 1 issues adopted.
 - Impacts resulting from Category 2 issues are of SMALL significance.
 - No new impacts identified.
 - Environmental effects of alternatives may reach MODERATE or LARGE significance.



Postulated Accidents

- Design-basis accidents
- Severe accidents
 - Severe accident mitigation alternatives (SAMAs)



SAMA Evaluation Process

-
- Characterize overall plant risk
 - Identify potential improvements
 - Quantify risk reduction potential and implementation costs
 - Determine whether implementation of any of the improvements is required to support license renewal



Preliminary Results of SAMA Evaluation

-
- 265 candidate improvements considered.
 - Set of SAMAs reduced to 12 based on multi-step screening process.
 - Detailed cost/benefit analysis shows that none of the 12 candidates are cost beneficial.



Preliminary Conclusions

- Impacts of license renewal are SMALL for all impact areas.
- Impacts of alternatives range from SMALL to LARGE.
- The staff's preliminary recommendation is that the adverse environmental impacts of license renewal for Dresden Nuclear Power Station, Units 2 and 3 are not so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.



Environmental Review Milestones

- Draft EIS issued – 12/02/03
- Comment period – 12/12/03 to 02/24/04
- Issuance of Final EIS – July 2004



Point of Contact and Reference Documents

- NRC contact: Duke Wheeler
(800) 368-5642, Ext. 1444

- Documents located at local libraries
 - Morris County Library
 - Coal City Public Library

- Draft SEIS can also be viewed at the NRC's Web site (www.nrc.gov) at: www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/supplement17/



Submitting Comments

- By mail: Chief, Rules and Directives Branch
Division of Administrative Services
Mailstop T-6D59
U.S. Nuclear Regulatory Commission
- In person: 11545 Rockville Pike
Rockville, Maryland
- E-mail: DresdenEIS@nrc.gov

