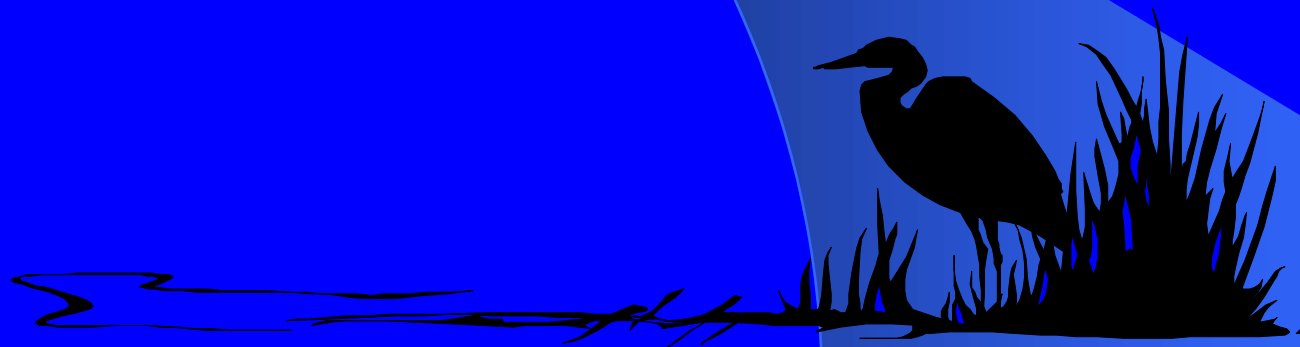




Preliminary Results of Environmental Review Surry Units 1 and 2

Nuclear Regulatory Commission

May 29, 2002





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



Surry Units 1 and 2 License Renewal

-
- Operating licenses expire in 2012 (Unit 1) and 2013 (Unit 2)
 - Application requests authorization to operate units for an additional 20 years

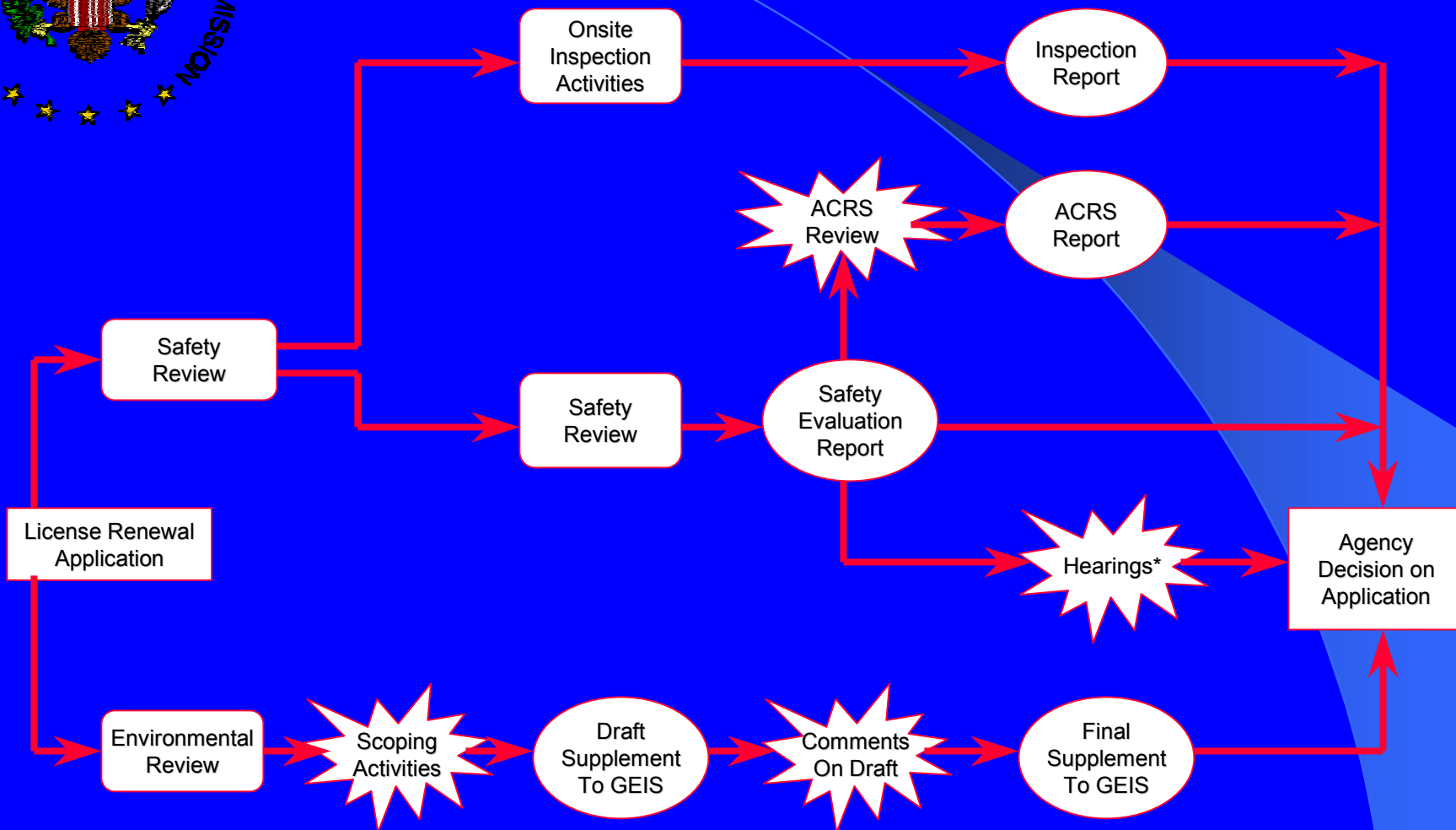


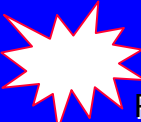
NRC's License Renewal Review

- 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

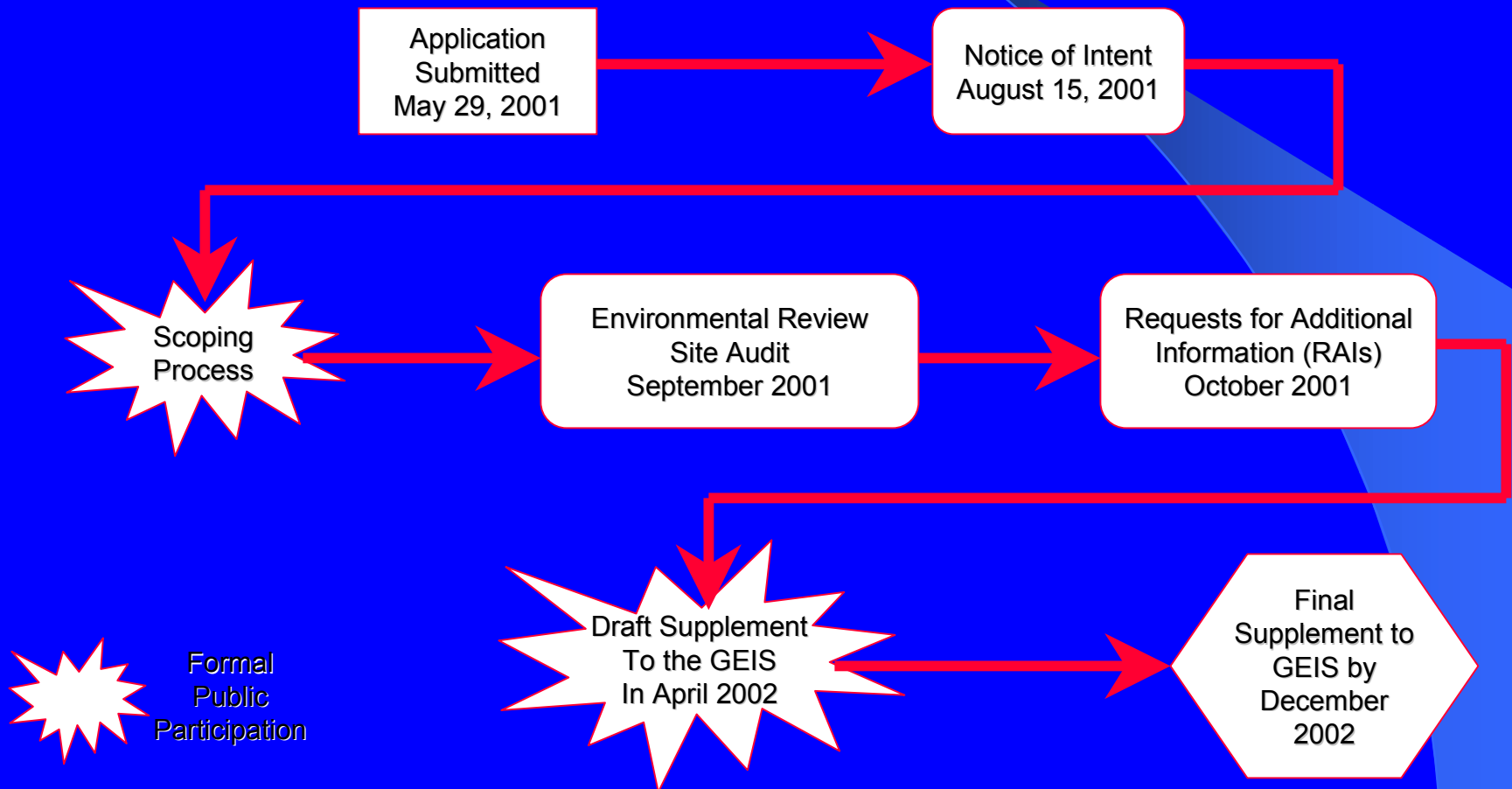


Decision Standard for Environmental Review

To determine whether or not the adverse environmental impacts of license renewal for Surry Units 1 and 2, are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

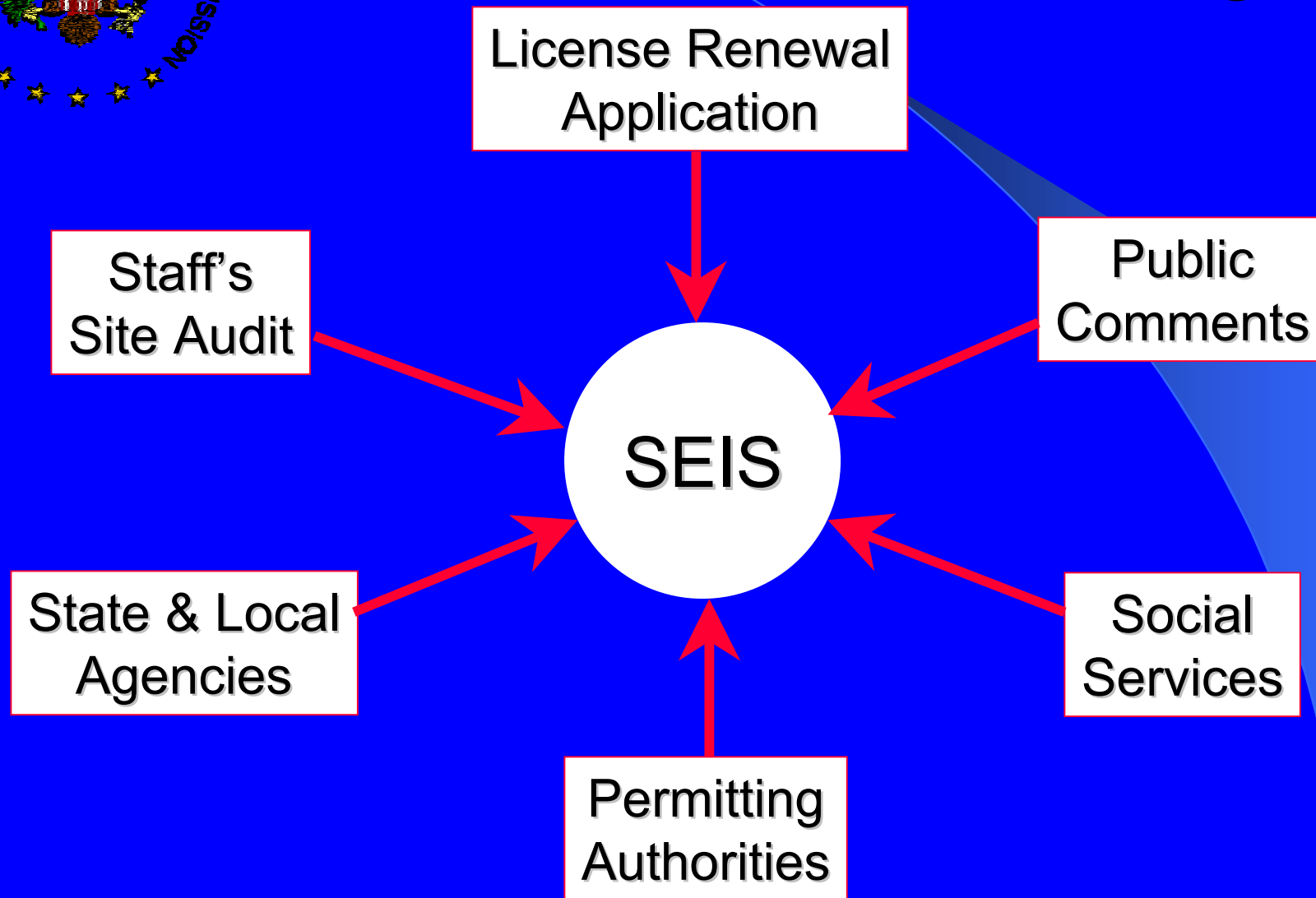


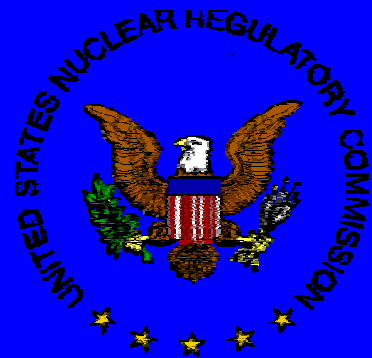
Environmental License Renewal Process



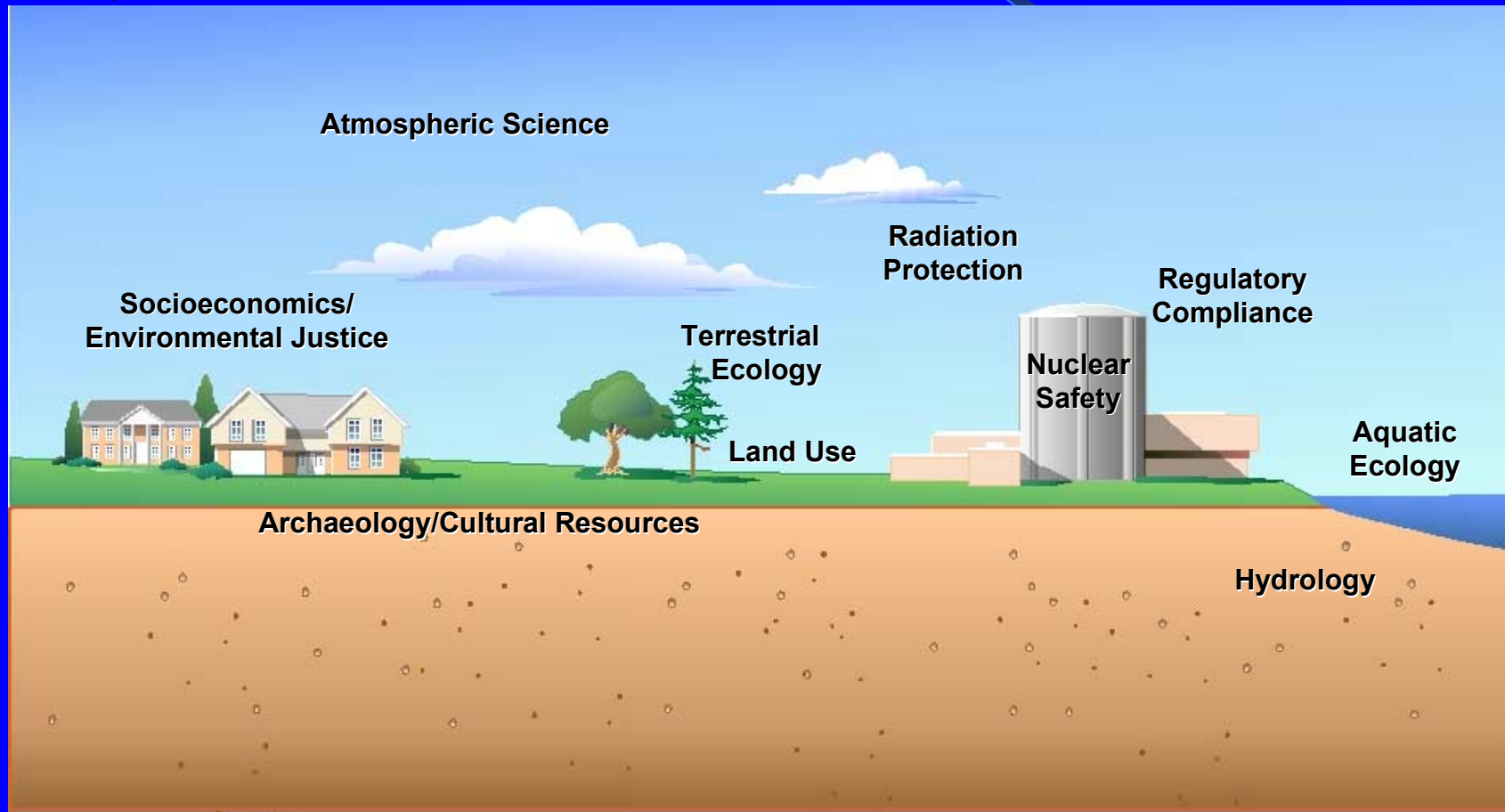


Information Gathering



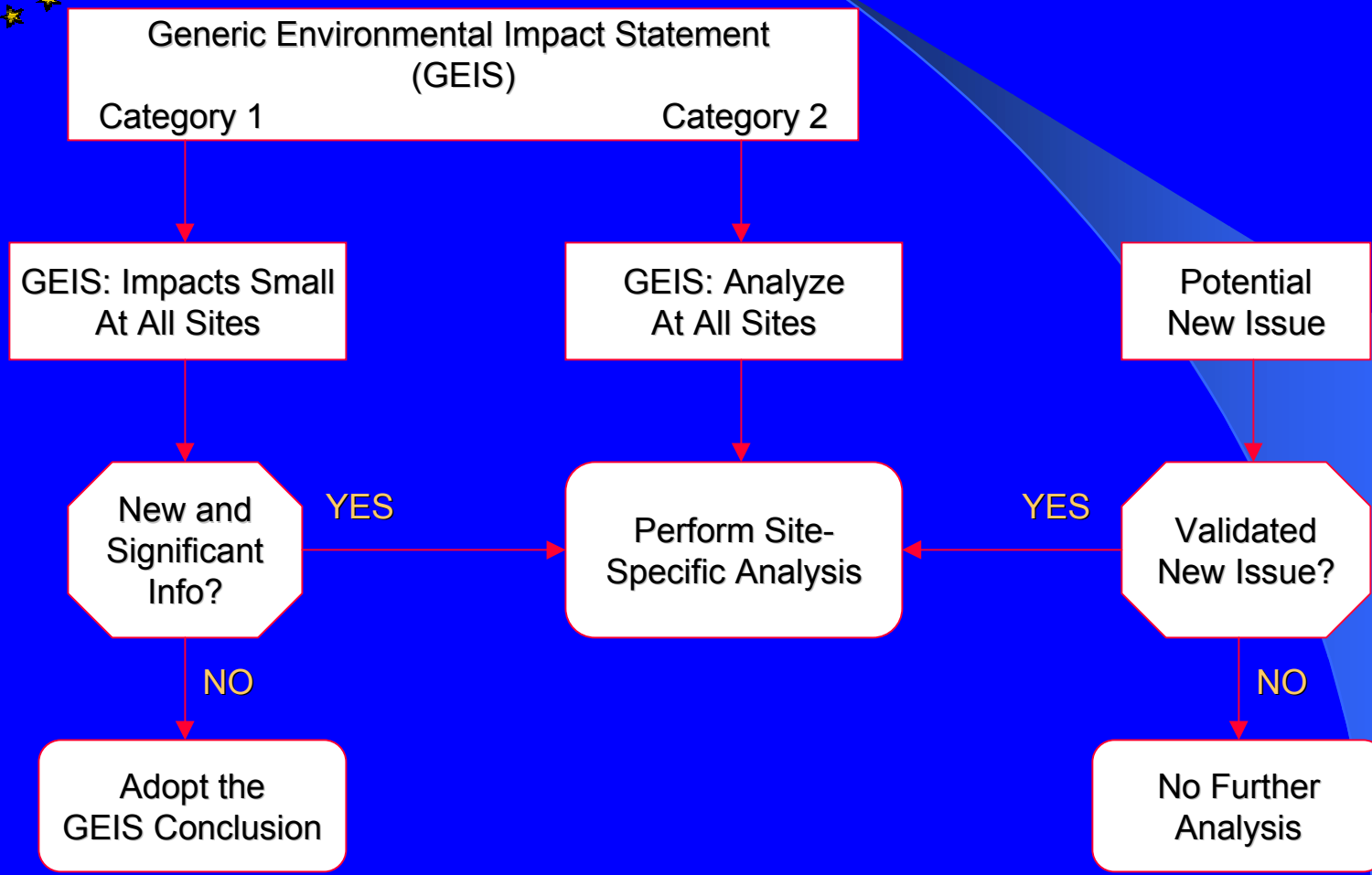


Team Expertise





Analysis Approach





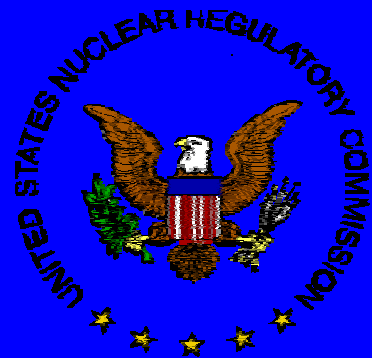
How Impacts are Quantified

- 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



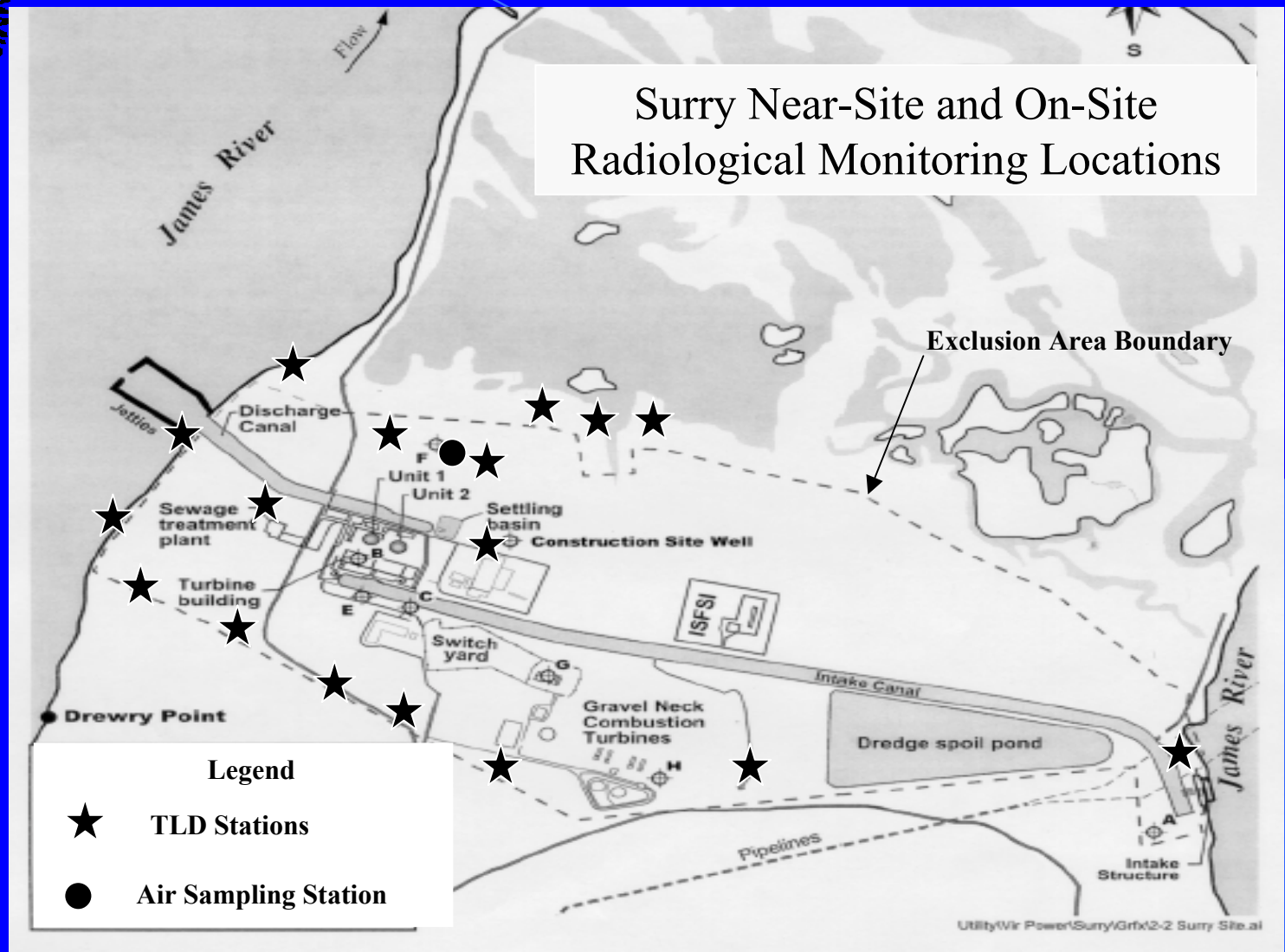
Cooling System Impacts

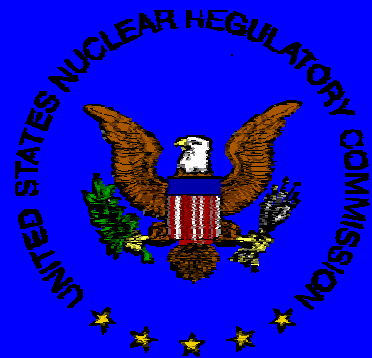




Radiological Impacts

Surry Near-Site and On-Site Radiological Monitoring Locations





Threatened or Endangered Species





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)



Preliminary Results of SAMA Evaluation

-
- 160 candidate improvements identified
 - 38 were already implemented
 - 69 not applicable
 - Cost/benefit analysis for 53 remaining candidates, with detailed estimates for 8 candidates
 - None of the 53 candidates were found to be cost beneficial



Results of SAMA Evaluation (continued)

- Overall conclusion:

Additional plant improvements to further mitigate severe accidents are not required at Surry Units 1 and 2.



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 Surry Units 1 and 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 – 4/3/02
- Comment period – 4/26/02 to 7/12/02
- Final EIS issued on or before – 12/02



Point of Contact

- Agency point of contact:
Andrew J. Kugler
(800) 368-5642, Ext. 2828
- Documents located at the Swem Library, College of William & Mary, and can be viewed at the NRC's Web site (www.nrc.gov)
- Draft SEIS can also be viewed at:
www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/supplement6/



NRC Addresses

Provide comments:

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

UNITED STATES NUCLEAR REGULATORY COMMISSION

