

# Yucca Mountain

*Importance of the project to industry*

*Importance of industry experience to the project*

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# Yucca Mountain

- The Yucca Mountain project is of critical importance to the nation and the nuclear industry
- Completion of the Yucca Mountain licensing process in an effective and timely manner is vital to achieving critical waste disposal milestones
- Recent industry experience provides DOE and NRC with significant tools

# The importance of Yucca Mountain

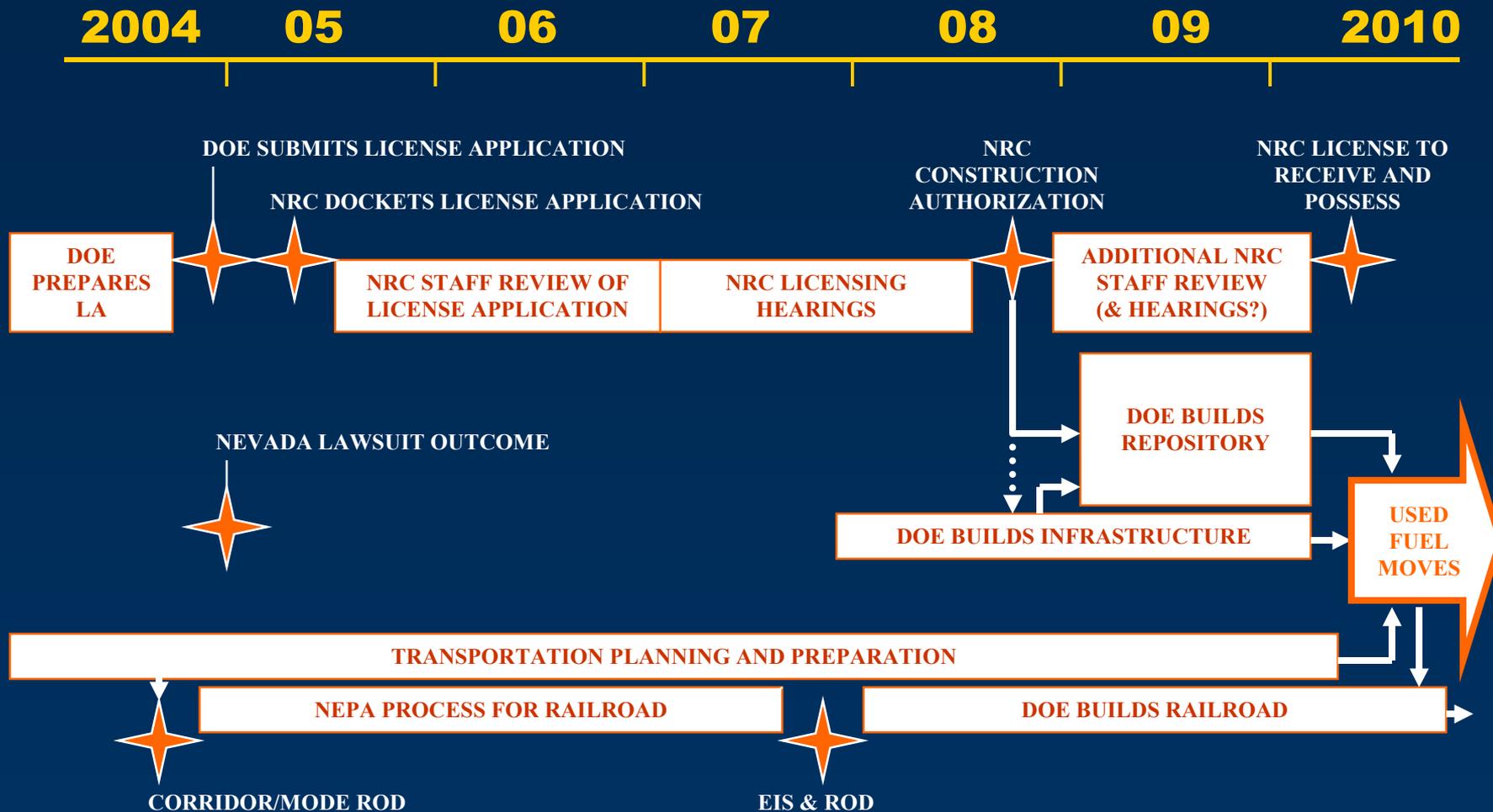
- Energy security
  - Nuclear Energy is 20% of US electricity
  - Additional used fuel storage at reactor sites beyond 2010 will result in additional costs of \$1 billion/year to electric ratepayers
  - Progress toward disposal supports new plant development
- National security
  - Defense site cleanup
  - Navy Fuel disposal
- Environmental preservation
  - Supports use of America's #1 source of clean air energy
  - Shutdown plant decommissioning
  - DOE cleanup mission

# Yucca Mountain Timeline

PROGRAM MILESTONE



PROGRAM ACTIVITY



# Yucca Mountain Industry Focus

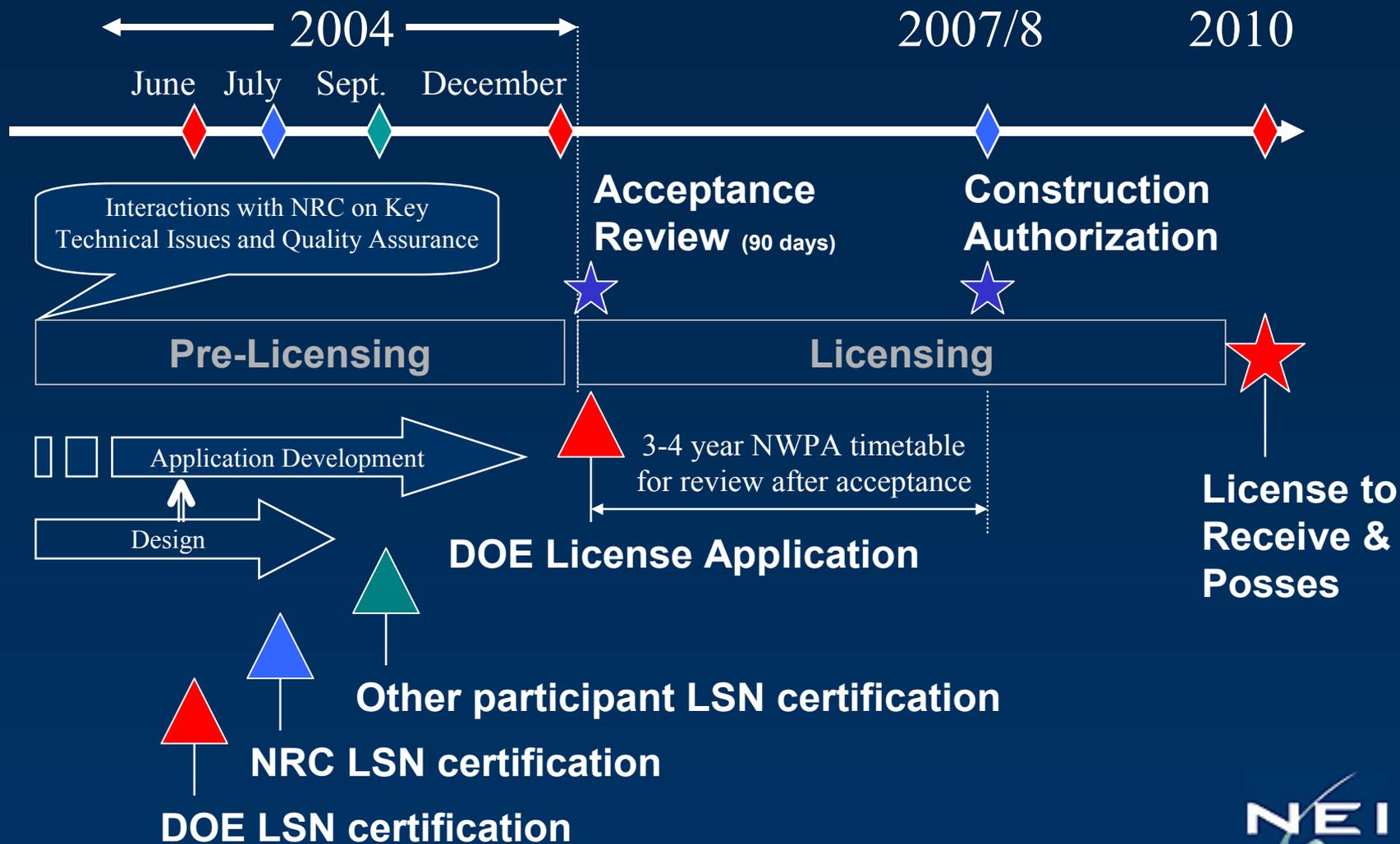
- **High quality Yucca Mountain license application**
- Transportation strategy for the Yucca Mountain Project
- FY-05 appropriations sufficient to maintain initial repository opening in 2010
- Nuclear Waste Fund budget reform
- Yucca Mountain litigation

# Yucca Mountain Licensing

## The challenge ahead

- Yucca Mountain is a major first-of-a-kind project
- A wide and diverse range of technical issues must be addressed
- Uncertainties that are inevitable in a 10,000 year safety analysis must be reasonably evaluated
- The Yucca Mountain licensing process will include significant opposition and receive intense outside scrutiny
- Congress has imposed a tight timetable (3-4 years)
  - Important national interests are at stake

# Yucca Mountain Licensing Timeline



# Yucca Mountain Licensing Encouraging Progress

- DOE's 2002 Management Improvement Initiative (MII) established an appropriate framework for quality
  - DOE is demonstrating significant progress in implementation
- Recent public interactions indicate that the pre-application phase of the process is being used to address issues early on
  - DOE and NRC appear to have reached a common understanding on many issues
  - Interactions in the coming months will be critical to continuing to build understanding
  - Needed interactions must occur sooner rather than later so as not to distract from both agencies final preparations for the license application and application review

# Yucca Mountain Licensing

## The value of industry experience

- The US nuclear industry has evolved significantly over 4 decades of nuclear plant licensing and operations
- Industry has reached extremely high levels of quality, safety, and performance
- The management approaches and lessons learned that successfully drive continuous improvement in industry are being applied at Yucca Mountain

# Yucca Mountain Licensing

## The value of industry experience (cont.)

- DOE's 2002 Management Improvement Initiative was patterned after industry best practices
- DOE has benefited from industry experience in many areas
  - Corrective Action Programs
  - Safety Conscious Work Environment
  - Procedures
  - Fuel handling facility design and operations
  - Licensing
- DOE is making progress
  - Management is well aligned behind the right principles
    - Demonstrating line management ownership of quality
  - Complete organizational culture transition can be accomplished in time for repository construction and operations
  - DOE must demonstrate quality of License Application while improvement is underway

# Yucca Mountain Licensing

## The importance of regulatory consistency

- NRC has also evolved over time
  - NRC regulatory processes have become more safety focused
- Precedents set in reactor regulation assure safety and should be followed
- There is no need to reinvent the wheel for Yucca Mountain
- 10 CFR Part 63 is consistent with current reactor regulations and should be implemented consistently
- Oversight at Yucca Mountain should be based on the same principles as the Reactor Oversight Process

# Other critical elements of success

- Transportation system must be ready by 2010
  - DOE's recently issued strategy & corridor announcements signal progress
  - NRC must clarify plans for package performance study
- Appropriations must be sufficient
  - Industry supports DOE request of \$880 million
  - Transportation work, long-lead procurement items, infrastructure, site preparation and continued scientific and technical work in support of licensing all must be funded
- Nuclear Waste Fund Budget reform is needed
  - \$23 billion committed to Nuclear Waste Fund vs. expenses of \$8 billion
  - Reform needed to assure that funds are available for construction

# Conclusion

- Yucca Mountain is an important national priority
- DOE looks on track for 12/04 License Application
  - NRC and DOE seem to be coming into alignment on pre-License Application issues
  - DOE making progress in transportation
- Full appropriations and funding reform are needed
- Industry lessons learned can help assure DOE's success
- It is essential that NRC establish regulatory consistency between reactors and the repository