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NRC's Decision Process for Independent Spent Fuel Storage Installations (ISFSIs)

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Agenda

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- Spent Fuel Storage Licensing Framework
- NRC's Decision Process for "Away From Reactor" ISFSIs
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  - NRC's Environmental Review
  - NRC's Adjudicatory Hearing Process
- Expected Timelines for ICSF Licensing
- Status of proposed ICSF applications
- Conclusions

Spent Fuel Storage Licensing Framework

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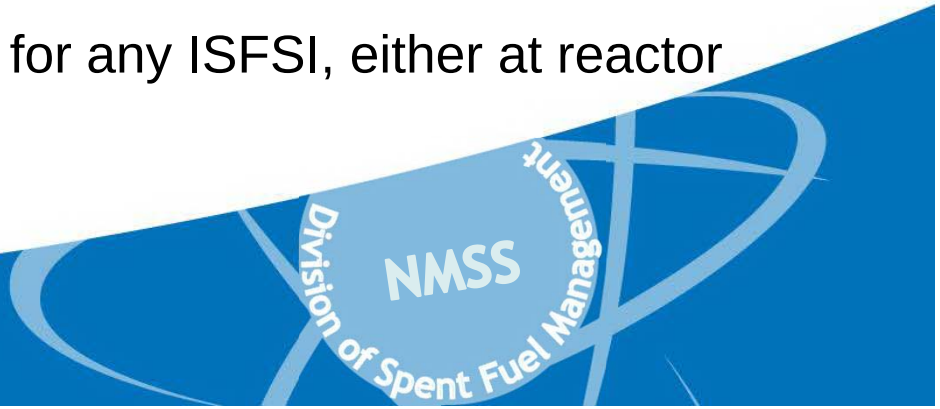
- NRC's regulations in 10 CFR Part 72 establish the requirements for licensing an independent spent fuel storage installations (ISFSI)

- Establishes two types of licenses: site-specific and general licenses
  - General license: only available to holders of Part 50 reactor license, requires use of dry cask storage system certified by NRC
  - Site-specific license: available for any ISFSI, either at reactor site or away from reactor



Licensing of “Away from reactor site” ISFSI

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- Site-specific license required for “away from reactor site”
- Licensing of proposed interim consolidated storage facility (ICSF) no different than other away from reactor site ISFSIs
- Part 72 regulations limit the initial term of storage license to 40 years; can be renewed for up to additional 40 years

NRC's Decision Process for "away from reactor site" ISFSI

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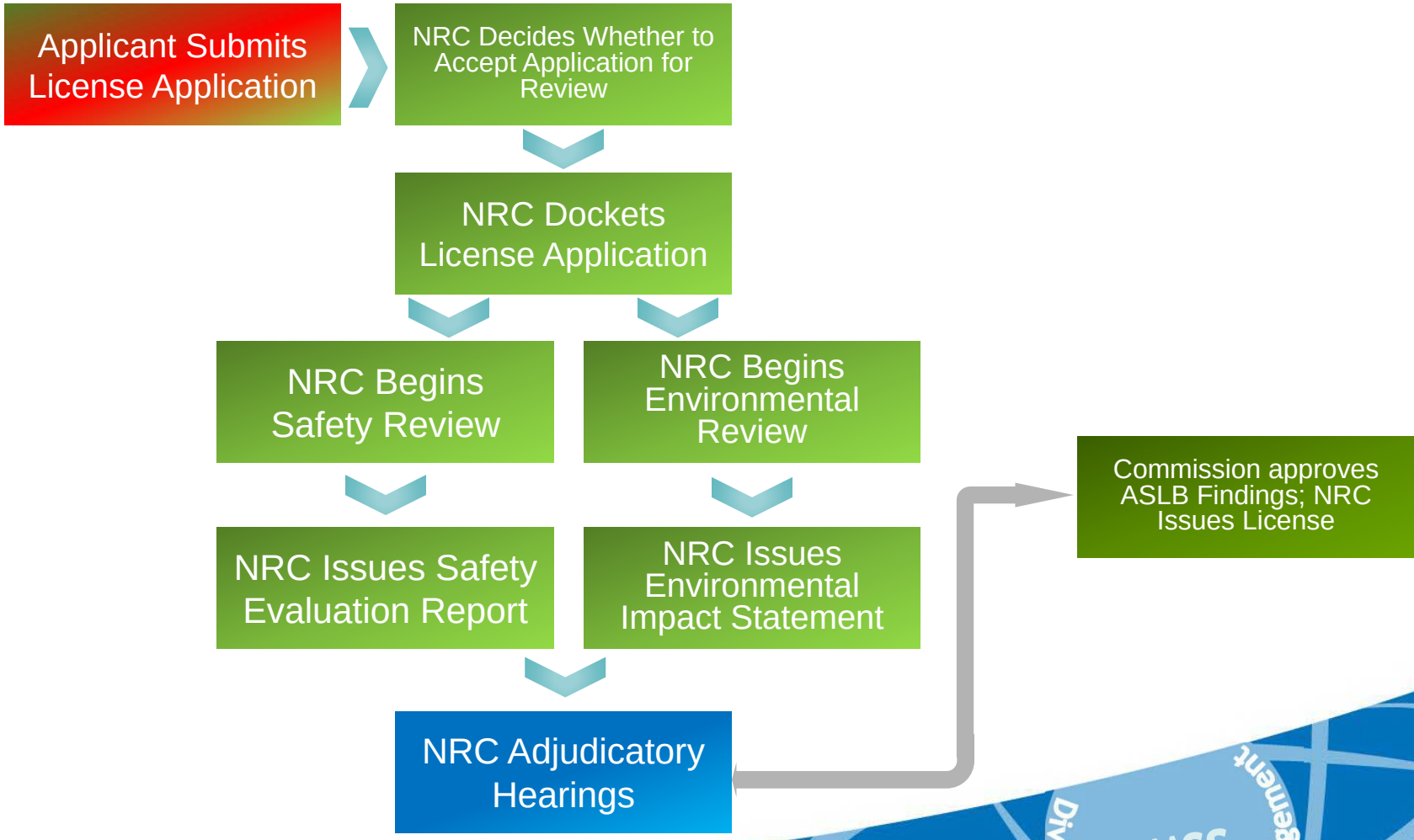

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NRC's Safety Review

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- NRC staff conducts a comprehensive technical review of the applicant's Safety Analysis Report (SAR).
  - NRC has its own experienced technical staff and independent contractors to review and evaluate the application
- If needed, NRC staff may:
  - Issue a request for additional information from the applicant
  - Conduct independent confirmatory analyses, as needed
- NRC staff documents its conclusions in a publicly available Safety Evaluation Report (SER)

NRC's Safety Review: What is required?

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- As required by NRC regulations, any proposed ISFSI must provide for the following safety requirements:
  - maintains confinement of radioactive material,
  - provides adequate radiation shielding for workers and the public,
  - prevents nuclear criticality, and
  - maintains retrievability of spent fuel

- The applicant must demonstrate that the proposed storage system design, when used at the proposed location, provides the above safety objectives under the following conditions:
  - Normal conditions of storage
  - Off-normal (Unusual) Events (includes temperature and pressure extremes)
  - Accidents (includes earthquakes, fires, floods, lightning, tornado, complete air flow blockage, and cask drop and tip-over)

NRC's Safety Review: What is required?

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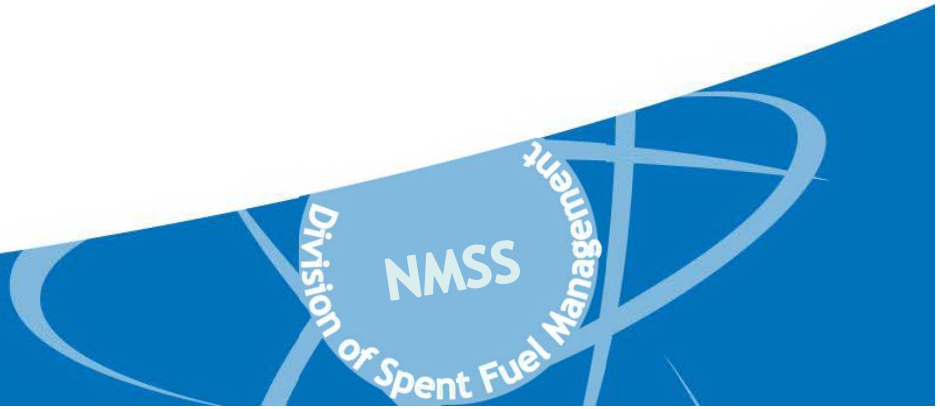
- For a proposed "away from reactor site" ISFSI, NRC regulations require that the license application must also contain the following:
  - A discussion of the applicant's financial qualifications;
  - A Physical Protection Plan;
  - An Emergency Plan;
  - A Decommissioning Funding Plan;
  - A Quality Assurance Program; and
  - A Training and Qualifications Program



NRC's Environmental Review

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- As required by the National Environmental Policy Act (NEPA) and NRC regulations in 10 CFR Part 51, the applicant must submit an Environmental Report in conjunction with its license application

- The applicant's Environmental Report must contain:
  - A description of the proposed action, its purposes, and an evaluation of proposed alternatives
  - An evaluation of potential environmental impacts of the proposed action, including impacts from the construction, operation, and eventual decommissioning of the facility

- NRC staff will use the information provided in the applicant's Environmental Report to inform its own independent Environmental Impact Statement (EIS).
  - NRC regulations require NRC to prepare an EIS for an "away from reactor site" ISFSI license

NRC's Environmental Review: EIS Process

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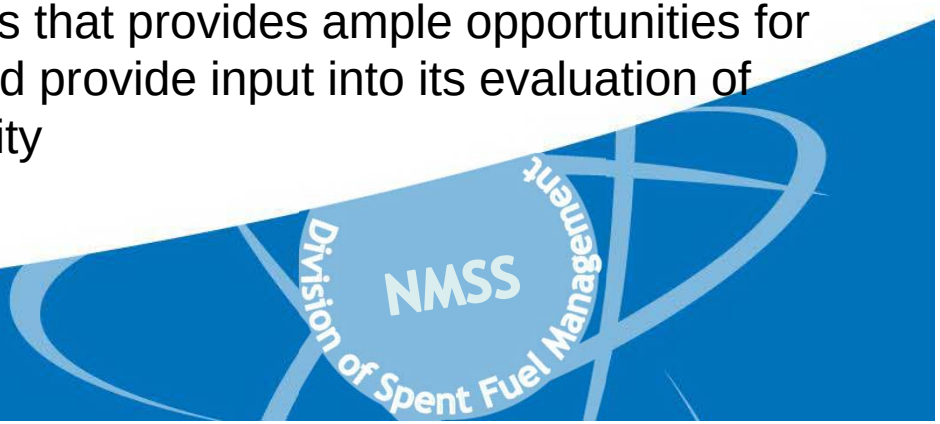
- The EIS is a comprehensive assessment of the environmental impacts of a proposed NRC action, and provides an analysis of impacts to air, water, animal life, vegetation, natural resources, and property of historic, archaeological, or architectural significance, among others

- The range of impacts considered in an EIS include cumulative, economic, social, cultural, and other impacts and environmental justice

- NRC staff employs many qualified technical experts, and has access to independent contractors, to conduct its environmental review

- NRC's EIS process is a public process that provides ample opportunities for the public to participate, comment, and provide input into its evaluation of the environmental impacts of the facility



NRC's Adjudicatory Hearings

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- NRC's adjudicatory hearing process provides opportunity for the public to get a full and fair hearing on civilian nuclear matters

- Conducted by Administrative judges from the NRC's Atomic Safety and Licensing Board Panel (ASLBP)
  - Independent adjudicatory arm of NRC, acts as Commission "Trial Court"
  - Hears cases in Licensing Boards of three judges, typically consisting of one legal judge and two technical judges
  - Completely independent from NRC staff, not subject to Federal personnel laws, performance reviews, or performance-related compensation

- ASLBP's purpose is to hear and decide disputes regarding proposed NRC licensing actions, and create a complete and accurate record of the proceedings
  - Adjudicatory hearings follow very detailed, trial-like rules and procedures

NRC's Final Licensing Decision

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- Commission approval of ASLBP's initial decisions is required before becoming final
- After Commission approval, NRC staff may proceed to issue the final license and technical specifications to the applicant; licensee may begin construction of the facility
- NRC staff may issue the storage license for an initial term not to exceed 40 years

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Expected Timelines for NRC's Decision Process

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NRC Decision Stage	Estimated Timeline for Completion
Acceptance Review	~90 days after receipt of license application
NRC Safety Review and Environmental Review	~36 months after acceptance of application
NRC Adjudicatory Hearings	Depends on hearing procedure (i.e., formal or informal), number and scope of contested issues
License Issuance	Within 10 days after final Commission decision

Status of potential applications for consolidated storage facilities

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- On February 6, 2015, Waste Control Specialists LLC (WCS) notified NRC of its intent to submit a license application for an independent spent fuel storage installation, to be located in land currently owned by WCS in Andrews County, Texas, by April 2016

- WCS has entered in partnership with AREVA and NAC International to support the development of the license application and environmental report

- NRC staff has held several public meetings with WCS, and continues to engage with them in pre-licensing interactions

Status of potential applications for consolidated storage facilities

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- On August 3, 2015, Holtec International also notified NRC of its intent to submit a license application for an independent spent fuel storage installation, to be located in land owned by the Eddy-Lea Energy Alliance in Southeast New Mexico

- The Eddy-Lea Energy Alliance, a limited liability company owned by the City of Hobbs, the City of Carlsbad, Eddy County, and Lea County, has secured the support of the Governor of New Mexico for the construction of the facility

- Holtec has not stated a proposed date of submission of its license application to NRC

- Holtec expects to hold initial pre-licensing interactions with NRC by December 2015

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Conclusions

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- NRC has an established regulatory framework in place for the potential licensing of a proposed consolidated storage facility
- Any NRC decision on a proposed consolidated interim storage facility will only be made after the completion of:
  - A comprehensive safety and environmental review; and
  - A fair and impartial public adjudicatory hearing
- NRC continues to engage in public interactions with potential applicants for proposed consolidated interim storage facilities