

The background of the slide features a large, faint, purple-tinted seal of the Prairie Island Indian Community. The seal is circular with a thick border containing the words "PRAIRIE ISLAND INDIAN COMMUNITY" in a serif font. Inside the border, there is a central emblem depicting two Native American figures, a man and a woman, facing each other. Between them are several stalks of grain, possibly corn or wheat, and a bundle of arrows or spears crossed behind them.

TRIBAL PERSPECTIVES ON WASTE CONFIDENCE

March 21, 2014

Ronald Johnson

Tribal Council President

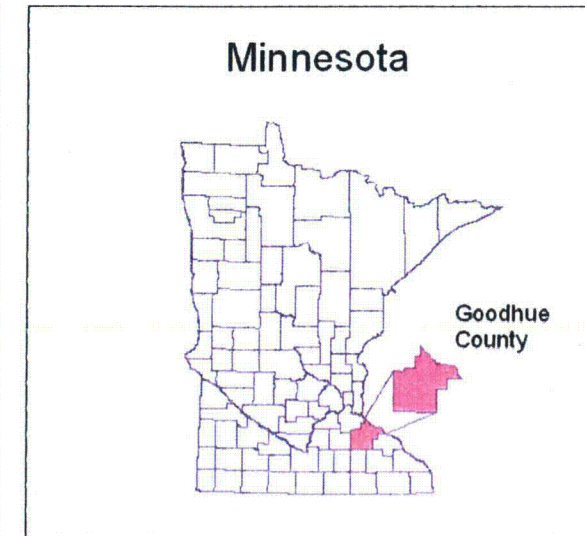
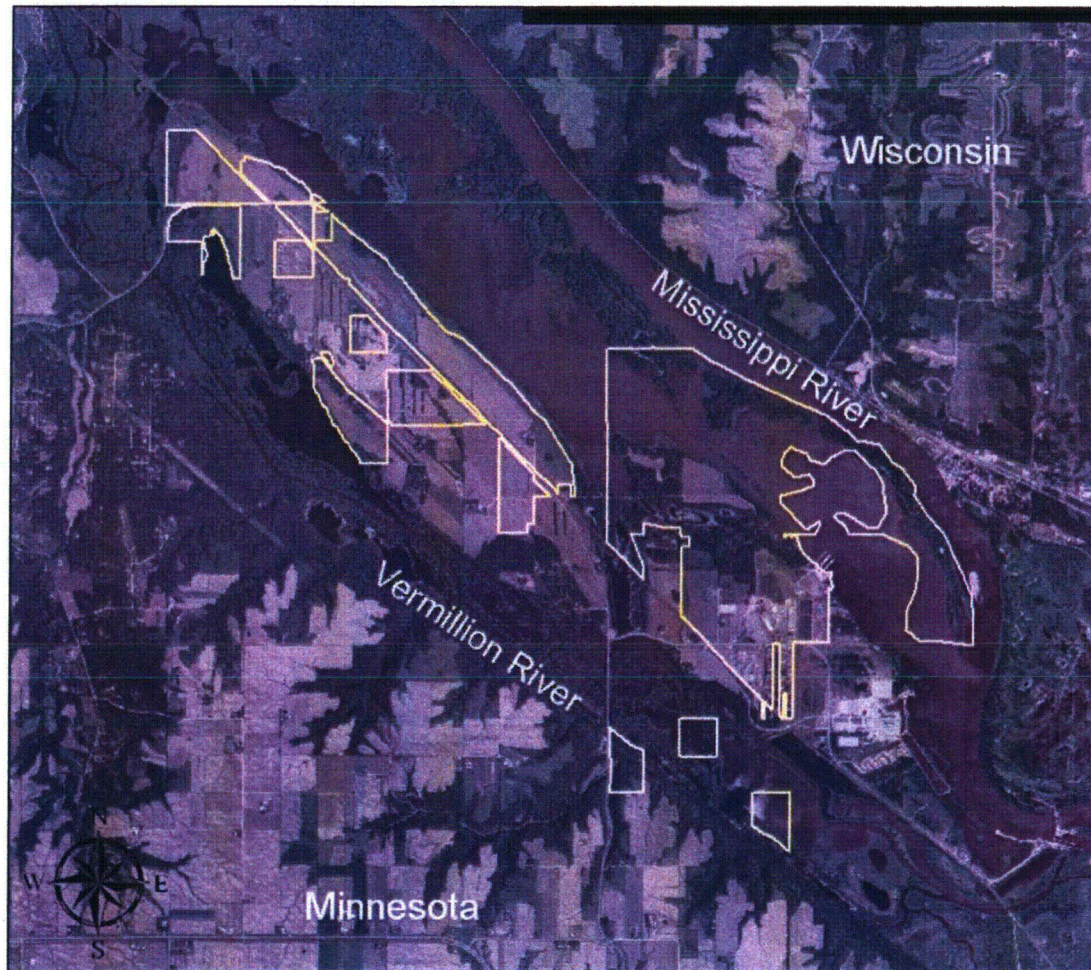
Prairie Island Indian Community

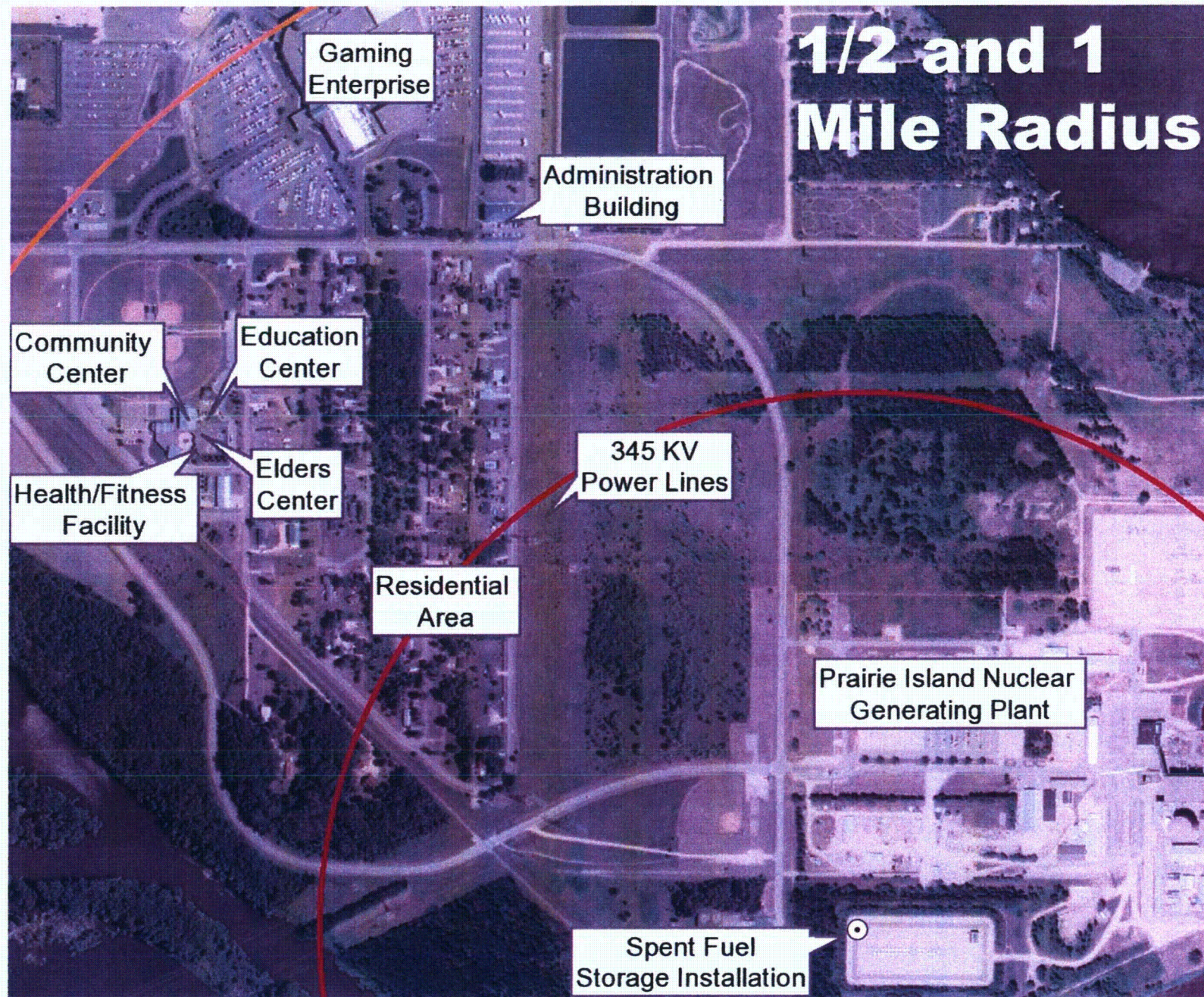
Prairie Island Indian Community – Background

- **Descendants of Mdewakanton Band of Eastern Dakota – “Those who Were Born of the Waters”**
- **Mdewakanton Dakota have lived on Prairie Island, *Tinta Wita*, for generations due to its richness in aquatic and terrestrial resources**
- **Approximately 3,200 acres tribal land**

Location

Prairie Island Indian Community





**ISFSI < 1 mile from PIIC's Lower
Island reservation area and about
600 yards from the nearest homes.**

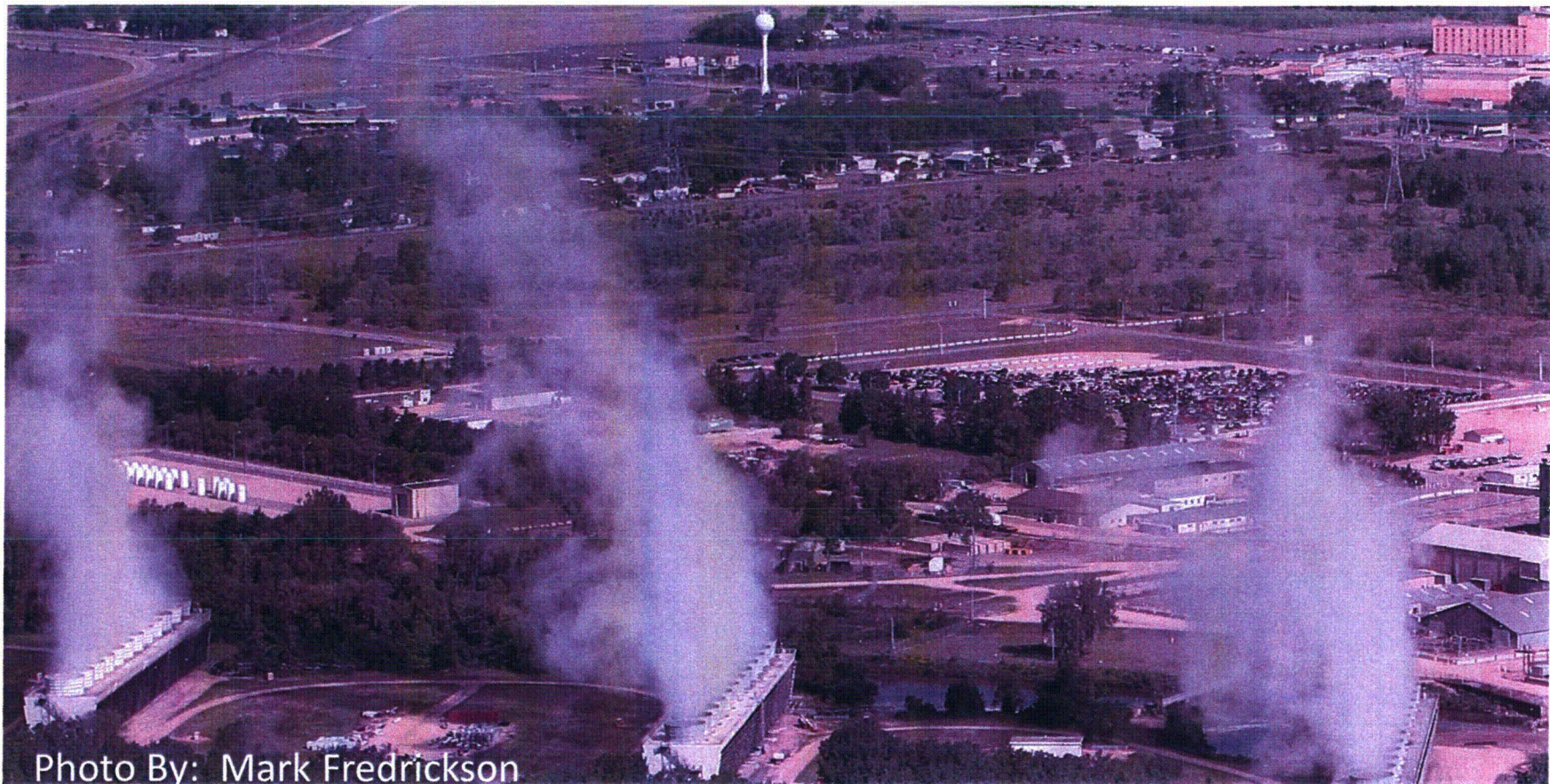


Photo By: Mark Fredrickson



“Confidence”

“ . . . faith or belief that one will act in a right, proper, or effective way. . . ”

“ . . . the quality or state of being certain. . . ”

“ . . . of, relating to, or adept at swindling by false promises . . . ”

Seven Generations

- **Spent Nuclear Fuel has already been stored on site far longer than originally promised.**
- **Indefinite on site spent fuel storage creates long-term issues affecting *Seven Generations*.**

The NRC cannot fulfill the Court's mandate to analyze the impacts associated with long-term, on site storage by assuming there will be no long-term, on site storage.

- On what basis can the NRC assume that casks will be reloaded every 100 years?**
- On what basis can the NRC assume that institutional controls will exist in 100 years? In 200 years?**

Will adequate funding be available in 100 years? In 200 years?

- **The average price per cask at the PINGP ISFSI has increased by 734% in less than 25 years – from \$812,500 in 1990 to \$5.96 million in 2013.**
- **Should the NRC assume that per cask costs will increase by this same percentage every 25 years?**



Photo By: Mark Fredrickson

Preserve Ancestral Homeland, Culture & Heritage



Questions?





Waste Confidence Rulemaking

A Host State's Perspective

March 21, 2014
Commission Meeting

Presentation of the State of New York

John J. Sipos

Assistant Attorney General

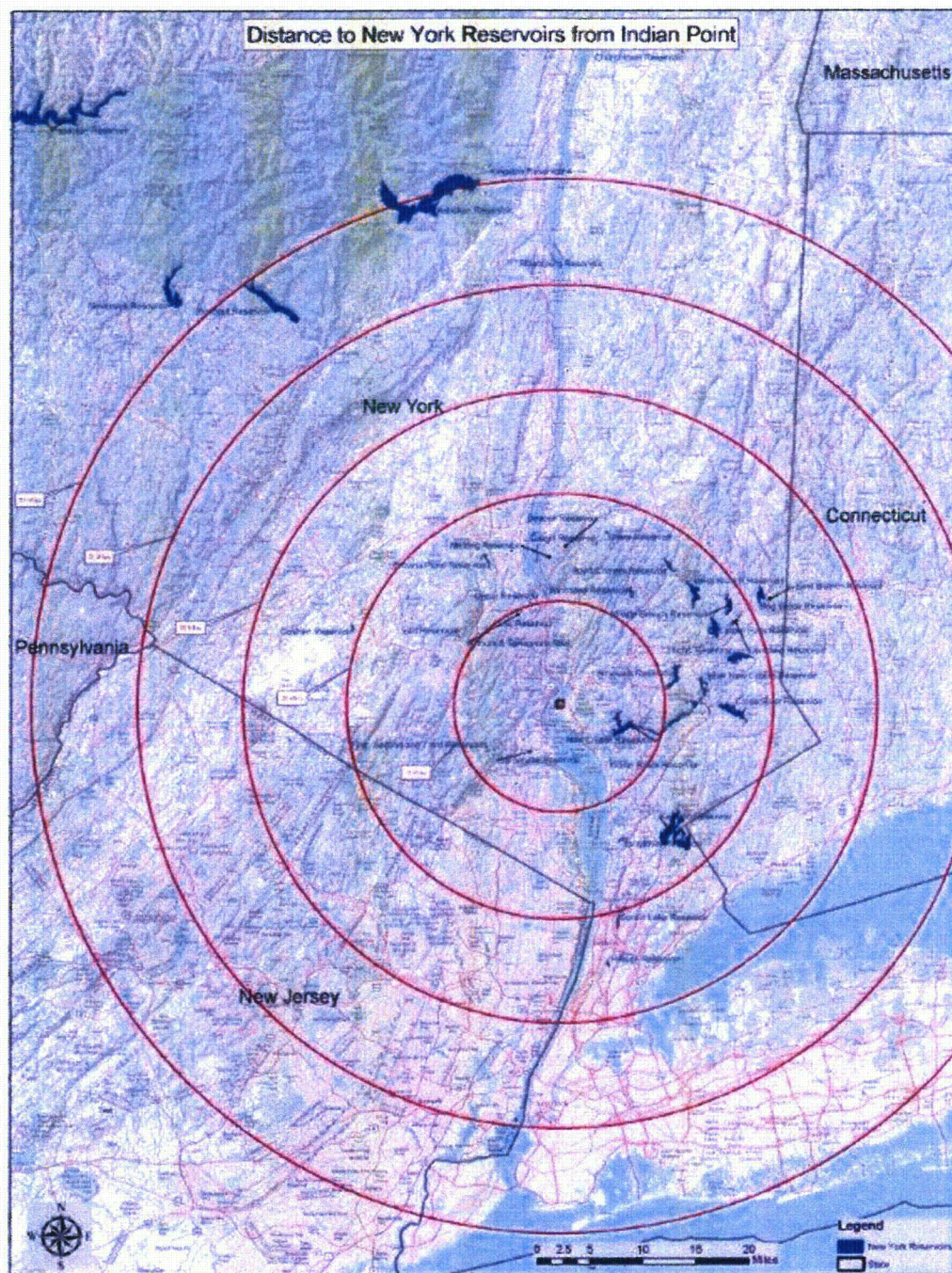
- The Waste Confidence DGEIS does not meet the D.C. Circuit's and NEPA's requirements.
- The DGEIS miscasts the federal action.
- The DGEIS's discussion of alternatives is artificially limited.
- The treatment of severe accidents is flawed.



Site-Specific Analysis of On-Site High-Density Storage of Spent Nuclear Fuel at the Indian Point Facilities, Westchester County, NY

- 24 miles from New York City
- 6 miles from New York City reservoir





High-Density Spent Fuel Pools

- Site-Specific Impacts
- Site-Specific Alternatives & Mitigation Measures



Transparent, Objective, Thorough Review of Site-Specific:

- Impacts
- Alternatives
- Mitigation

Mitigation Alternatives

Severe Accident Mitigation Alternatives

for on-site spent nuclear fuel storage



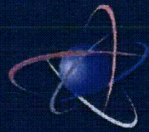
Site-Specific Analysis

- subject to review by host State & experts
- test assumptions, inputs, outputs
- natural resources
- unique & critical infrastructure
- residential & commercial areas
- MACCS2 / MELCOR Accident Consequence Code System
- site risk



Price Anderson Concerns





U.S.NRC
UNITED STATES NUCLEAR REGULATORY COMMISSION
Protecting People and the Environment

One Commissioner's Observations: *Post - Accident Policy Questions*

- There is no regulatory framework for environmental restoration following a major radiological release.
 - Some point to CERCLA – which is not designed for that purpose.
 - There is an active discussion within the Executive Branch regarding this subject – unclear how stakeholders will have an opportunity to provide input.
- No international framework is in place to facilitate accident response cooperation and information dissemination

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Source: from *Nuclear Issues in the Post Fukushima World*, February 6, 2012, Commissioner William D. Magwood, IV.

Until a proper NEPA analysis is done, decisions to allow nuclear reactors to continue the dense storage of spent nuclear fuel in spent fuel pools at reactor sites and to continue to generate spent fuel for which there is no permanent waste repository violate NEPA.





Nuclear Industry Perspectives on Waste Confidence

Briefing on Waste Confidence Rulemaking
March 21, 2014

Ellen C. Ginsberg
Vice President, General Counsel and Secretary
Nuclear Energy Institute



NUCLEAR ENERGY INSTITUTE

nuclear clean air energy



Background

- **Waste Confidence Decision:**
 - A generic determination that used fuel can be stored at nuclear power plant sites or at offsite consolidated storage facilities— safely and without significant environmental impact – between the end of the license term and the time it is shipped for disposal.
- **D.C. Circuit Decision Required Further *Environmental* Review Under NEPA:**
 - Environmental impacts of a hypothetical federal failure to establish a high level waste repository (as required by statute)
 - Risks of spent fuel pool leaks
 - Risks of spent fuel pool fires, considering probability and consequences
- **NRC's Draft Environmental Impact Statement (DGEIS) comprehensively addresses the remanded issues *and more***

The Major Federal Action

- **Question:** Did the NRC appropriately define the proposed action as a rulemaking rather than a licensing action?
- **Response:** The D.C. Circuit stated that the "*rulemaking* at issue here constitutes a major federal action"
 - NRC evaluated appropriate alternatives to a Waste Confidence *rulemaking* – (1) no action/site specific consideration; (2) GEIS-only; and (3) policy statement.
 - NRC considers the alternatives to *licensing* in connection with individual licensing decisions – including no action and project alternatives.
 - Regardless of whether Waste Confidence is a rule or a licensing action, NRC took the required "hard look" at the issues involved – impacts of continued storage and a lack of a repository.

Assessment of the No Repository Scenario

- **Question:** Did the NRC adequately examine the impacts of no repository?
- **Response:** DGEIS examines the reasonably foreseeable consequences of a (highly unlikely) failure to provide a repository, as required by the D.C. Circuit.
 - DGEIS provides ample basis to conclude that a repository will be available within the 60-year timeframe: NEI considers this the most likely scenario.
 - Consistent with statutory obligations, technical feasibility, and international experience.
 - DGEIS considers the impacts for 60-year and 160-year timeframes – based on reasonable assumptions regarding the control of the spent fuel.
 - It is not reasonable to assume a gross and permanent failure to develop a repository – the D.C. Circuit did not reverse longstanding NEPA law: NEPA does not require analysis of the consequences "remote and speculative scenarios."
 - But the NRC still considered the indefinite storage scenario.
 - By any reasonable measure, the DGEIS meets the NEPA "hard look" standard.

Assumptions of Institutional Controls

- **Question:** Did the NRC "arbitrarily" rely on continued institutional controls?
- **Response:** NEPA does not require assessment of "remote and speculative" "worst case" scenarios; NRC's assumptions regarding institutional controls are reasonable.
 - The DGEIS reasonably assumes institutional controls during the short-term (60-year) and long-term (160 years) scenarios; fuel can be managed onsite by licensees who will remain subject to NRC jurisdiction.
 - DGEIS (at 1-14) references federal precedent under NEPA for institutional controls, even in perpetuity.
 - The *indefinite* "no repository" scenario remains highly speculative and highly unlikely; the DGEIS appropriately does not layer an additional conservatism of a loss of institutional controls – this would exceed what is required by NEPA.
 - In connection with the proposed repository, DOE did consider a loss of institutional controls after 100 years – this is an unnecessary "worst case" analysis
 - But the DOE analysis can be referenced in the NRC's GEIS.

Analysis of Spent Fuel Pool Leaks

- **Question:** Did the NRC sufficiently analyze the significance of past spent fuel pool leaks and, further, inappropriately rely on the regulatory structure to prevent leaks?
- **Response:** DGEIS includes a conservative, bounding assessment of the risk of spent fuel pool leaks that fully meets NEPA and the D.C. Circuit remand.
 - The regulatory regime in the future is a fact; the Court of Appeals did not mandate that NRC ignore the regulatory regime.
 - Industry will maintain the ability to prevent, detect and mitigate leaks – as required by the NRC.
 - Designs are robust, detection capability exists, and mitigation can and will be taken.
 - DGEIS (Appendix E) compiles an ample record *including but not limited to past operating experience* to establish the low likelihood of leaks and assesses the potential consequences of leaks.
 - Past experience has in fact been considered in a reasonable, technically-informed way.
 - There is ample support for the conclusions in the DGEIS that impacts of future leaks would be small.

Generic Analysis of Fires

- **Question:** Must the NRC conduct site-specific impact analyses of spent fuel pool fires, including terrorist attacks?
- **Response:** NRC has thoroughly evaluated the *risks* of spent fuel pool fires, consistent with the D.C. Circuit remand and the standard in *Carolina Environmental Study Group v. United States*.
 - Risk analysis includes probability and consequences: Environmental impacts are small based on probability weighted consequences.
 - DGEIS (Appendix F) references a substantial body of technical research on the remote probability and potentially severe consequences of a spent fuel fire.
 - Consequence assessments include health effects and economic consequences.
 - NUREG-1738 shows that the likelihood of spent fuel pool fires diminishes to zero as fuel cools.
 - This issue therefore applies only at the very early stages of the short-term timeframe.
 - DGEIS is consistent with the results of the NRC's recent Consequences Study.
 - NRC has accurately characterized the very low probability of a successful terrorist attack; NEI's comments also cite extensive safety analyses and testing that establish the robust nature of storage systems that would be used for long term storage.

Incorporation of Impacts Into Site-Specific Analyses

- **Question:** Must the GEIS incorporate impacts into site-specific cost-benefit analyses?
- **Response:** There is no evidence that either the costs or environmental impacts of spent fuel storage will "tip the balance" of a NEPA cost-benefit analysis for an individual project.
 - Environmental impacts of continued spent fuel storage in the short and longer term are small.
 - Specific projects costs-benefits are addressed in individual licensing reviews (without re-litigation of the issues addressed in the Waste Confidence rule).

Reasonable Assurance Finding

- **Question:** Does the proposed rule violate the Atomic Energy Act (AEA) by eliminating essential reasonable assurance findings?
- **Response:** The NRC has an ample record to conclude that there is *reasonable assurance* that a repository can be available when needed and fuel can be stored safely until then.
 - 2nd Circuit has rejected an argument that AEA requires a definitive finding on disposal in *NRDC v. NRC*, 582 F. 2d 166,170 (2d Cir. 1978).
 - The NRC's prior Waste Confidence findings made *reasonable assurance* findings; the DC Circuit did not invalidate any aspect of the prior decisions under the AEA.
 - The DGEIS further supports reasonable assurance findings.
 - The rule language should reflect "reasonable assurance" findings which are supported by the record and consistent with the NRC's traditional findings and case law.

Proposed Revision to Proposed 51.23 (a) and (b)

- (a) The Commission has developed a generic environmental impact statement (NUREG-2157) analyzing the environmental impacts of storage of spent nuclear fuel beyond the licensed life for operation of a reactor.
- (b) The Commission has reasonable assurance that: (i) sufficient mined geologic repository capacity to dispose of spent nuclear fuel generated in any reactor can be available when necessary, and (ii) spent nuclear fuel can be safely stored until that time.

Decommissioning Plant Coalition Perspectives on Waste Confidence

March 21, 2014

Michael S. Callahan, President,
CCMSC CORP on Behalf of GSI
and the Decommissioning Plant
Coalition

NRC Waste Confidence Effort

- Outstanding Work
- Keith McConnell & Team Bring Great Credit to Themselves & NRC

Members

- Maine Yankee, Connecticut Yankee, Yankee Rowe
- Dairyland
- Sacramento Municipal Utility District
- Pacific Gas & Electric
- Exelon
- Edison International

Purpose

- Since 2001 – Ensure Issues with Unique Impact on Our Sites Are Properly Addressed
- Hasten Federal Government's Fulfillment of its Contractual Obligations
- Have Kept, Will Keep, Stored Spent Fuel & Greater Than Class C (GTCC) Safe and Secure as Owners & Licensees

Draft Rule

- Appropriately Limited to Court-Identified Deficiencies
- Analyses More Than Adequate to Support Tenet That U.S. Can & Will Successfully Store & Dispose of Spent Fuel & Reactor Generated GTCC.

Primary Recommendation

- Must Hold to Long-Established Tenet that NRC Does NOT Support Indefinite On-site Storage of Spent Fuel or GTCC

Four Issues

- (1) Specific Timeline not Necessary
- (2) & (3) Retain Ample Explanations
- Include Statement that NRC Does NOT Support Indefinite On-site Storage
- (4) Endorse Name Change

GEIS

- Draft FRN for Rule and GEIS Refer to “Current Technology and Regulation”
- Language Needs Clarification
- Exact requirements will be Determined by Research Combined with Policy, Legislative, and Legal Activities

Additional Comment

- Additional Plants Face Shut-Down Transition & Decommissioning
- Strains at Both Sites and NRC
- Impact on Planning, Decisions, and as a result, Communications With the Public
- Past Can Inform the Present

Summary

- Addresses the Deficiencies Found by the Court
- Expand and Clarify
- Exercise Safety and Security Role
- Thank You

Briefing on Waste Confidence Rulemaking

Presentation Before the Full Commission
Nuclear Regulatory Commission
Geoffrey H. Fettus, Senior Attorney
Natural Resources Defense Council
March 21, 2014

Three Primary Points

- NRDC and NRC have different understandings of National Environmental Policy Act (NEPA) obligations.
- NRC's failure to formulate and compare distinct and environmentally meaningful alternatives is unlawful.
- NRDC has provided NRC with a way forward, but it entails a wholesale reworking of what the agency has done thus far.

And a fourth point

- None of what said here today is new or adds to the record before the NRC on the Draft Waste Confidence Generic EIS.
- NRDC's December 20, 2013 comments were timely filed and speak for themselves.

Our fundamental disagreement

- NRC thinks the proposed action is whether or not it writes a rule.
- NRDC thinks the proposed action is the continued licensing of nuclear power plants that produce nuclear waste that must be stored and managed, possibly indefinitely, pending final disposal.
- And we think the Court agreed with us.

NRC's Proposed Action

- Page 1-5. *“Proposed Federal Action.* The Commission proposes to issue a revised Rule, 10 CFR 51.23, that generically addresses the environmental impacts of continued storage. This revision would adopt into regulation the environmental impact analyses in this draft GEIS.

NRC's Purpose & Need

- The NRC continues:
- Page 1-6. “The purpose and need for the proposed action are threefold:
 - (1) to improve the efficiency of the NRC’s licensing process by generically addressing the environmental impacts of continued storage;
 - (2) to prepare a single document that reflects the NRC’s current understanding of these environmental impacts; and
 - (3) to respond to the issues identified in the remand by the Court in the *New York v. NRC* decision. The NRC intends to codify the results of its analyses in this draft GEIS at 10 CFR 51.23. NRC licensing proceedings for nuclear reactors and ISFSIs will continue to rely on the generic determination in 10 CFR 51.23 to satisfy obligations under NEPA with respect to the environmental impacts of continued storage.”

NRC's Alternatives

- Page 1-6. Alternatives. "The NRC could pursue several alternatives, other than the proposed action, to address the environmental impacts of continued storage in its licensing actions.
 - First, the NRC could take no action and address the environmental impacts from continued storage in each of its nuclear power plant and ISFSI initial licensing and license renewal proceedings.
 - Second, the NRC could develop a GEIS without incorporating the results into a rule. This approach would allow the NRC to adopt these draft GEIS findings into environmental reviews for future licensing activities, but without the binding effect of a rule.
 - Third, the Commission could issue a policy statement. The policy statement would not bind licensees and applicants like a rule, but it would provide notice of the Commission's intent to incorporate the findings of the GEIS into environmental reviews for future licensing activities."

What Actually Happened Here?

- By statute, a “major federal action” warranting preparation of an EIS is one “significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C).
- NRC has performed the minor bureaucratic act of selecting among four alternative pathways for completing NEPA documentation on continued spent fuel storage.
- Such an act does not, in and of itself, rise to the level of a “major federal action significantly affecting the quality of the human environment,” and therefore it cannot legitimately serve as the appropriate decision analysis framework for a Draft GEIS.

What Happened?, cont'd.

- We know of no comparable instance in which a Federal Agency proposing a major federal action – much less one responding to specific NEPA direction from a Federal Court – has sought to substitute a *cost-benefit comparison of alternative procedural pathways for NEPA analysis* in place of the required substantive and searching *environmental impact comparison of reasonable alternatives* required under NEPA.

NRDC's Understanding of What Went Wrong with NRC's Federal Action

- The Draft GEIS misconstrues NRC's NEPA obligation to properly define the nature and scope of the “major federal action” – in this instance a rulemaking – that NRC proposes as a fundamental predicate to all pending and future licensing actions authorizing the production and storage of spent nuclear fuel.
- In so doing, the Draft GEIS ignores the DC Circuit's unambiguous language vacating *en toto* the Commission's 2010 iterations of the WCD and TSR – “we are invalidating the Commission's conclusions as a whole.” *New York et al. v. NRC*, 681 F.3d 471, at 482.

NRDC's Suggested Framing

- A legally compliant definition of a proposed action:
- *The NRC proposes to reinstate, as a pre-determined stage of its individual licensing actions for nuclear reactors and Independent Spent Fuel Storage Installations, a binding rule that generically considers, and determines for the purposes of future licensing, reasonably foreseeable and cumulative environmental impacts of continuing to store on the surface of the earth for extended periods, including indefinitely, all spent fuel previously generated and requiring storage pursuant to past Commission licensing actions, and any spent fuel that would be generated pursuant to pending and reasonably foreseeable licensing actions the Commission may undertake in the future.*

NEPA Implications of a Lawful Framing of the Major Federal Action

- A Draft GEIS must analyze the environmental consequences of reasonable alternatives for actually *implementing* continued storage of spent fuel the Commission may authorize in future commercial power reactor and spent fuel facility licensing actions.
- A NEPA compliant analysis must embrace a range of reasonable surface storage alternatives with greater or lesser environmental impacts, over a relevant range of time periods extending from an initial 20-year license renewal to indefinite storage. For more distant time periods, the analysis must consider the consequences for the human and natural environment in the absence of institutional controls.

Implications Under NEPA, cont'd.

- NRDC's suggestion considers "real environmental issues" *in the context of* "reasonable alternatives to proposed actions that would avoid or minimize adverse impacts," and compares the *environmental* costs and benefits of meaningful alternatives.
- Contrast this with NRC's approach – an approach which fails to comply with NEPA's basic requirements and *delivers the absurd result of performing NEPA analysis on ways to carry out NEPA analysis.*

NRDC Provided Matrix of Meaningful Alternatives to Consider

- Relevant timescales
- Alternative Storage Modes & Configurations
(Spent Fuel Pools with At-Reactor Dry Storage)
- Safety-Relevant Classes of Spent Fuel
Requiring Continued Storage
- Storage Cask Technology Options
- Reliance vs. Erosion of Institutional Controls as
a Function of Time

NRDC's Suggested Reasonable Alternatives for Consideration

- “No Action”: continued storage of SNF discharges “baked-in” under *existing* licenses
- RA #1: “License Extension Only” (based on current SFP/ISFI licenses)
- RA # 2: Store SNF from current licensed & proposed reactors with COLs received by 12-31-2030
- RA # 3: Constant Nuclear Market Share Scenario
- RA# 4: Nuclear “Major Growth” Scenario

What Should Happen Now?

- As per the Court's direction, NRC must:
- 1) properly identify the major federal action necessitating an environmental impact statement;
- 2) evaluate the environmental effects of failing to secure permanent storage, with associated alternatives and mitigation strategies; and
- 3) properly examine future dangers and key consequences with respect to spent fuel pool fires and leaks.
- NRC failed to perform each of these actions.

What Next? cont'd.

- Therefore, the NRC should
- (1) withdraw this first draft and the proposed rule; and
- (2) commence work on a draft EIS that complies with federal law.
- The agency must present reasonable alternatives and subject them to NEPA's "hard look requirements" and rely on reasonable projections, forecasts and assumptions to formulate its alternatives and examine their reasonably foreseeable environmental impacts.

END

Acknowledgement

The author of this presentation thanks NRDC
colleagues for their assistance in the
preparation of this presentation



Briefing on Waste Confidence

**NRC Staff Presentation
March 21, 2014**

Waste Confidence Activities

2012

Scoping for
GEIS (Generic
Environmental
Impact
Statement)

2013

Develop Draft
GEIS and
Proposed Rule

2014



Public
Comment

Develop Final
GEIS and
Final Rule



Open Government

- **Transparency**
 - **Diverse communication tools**
- **Participation**
 - **Written Comments**
 - **Public Meetings**
 - **Open Houses**
- **Collaboration**



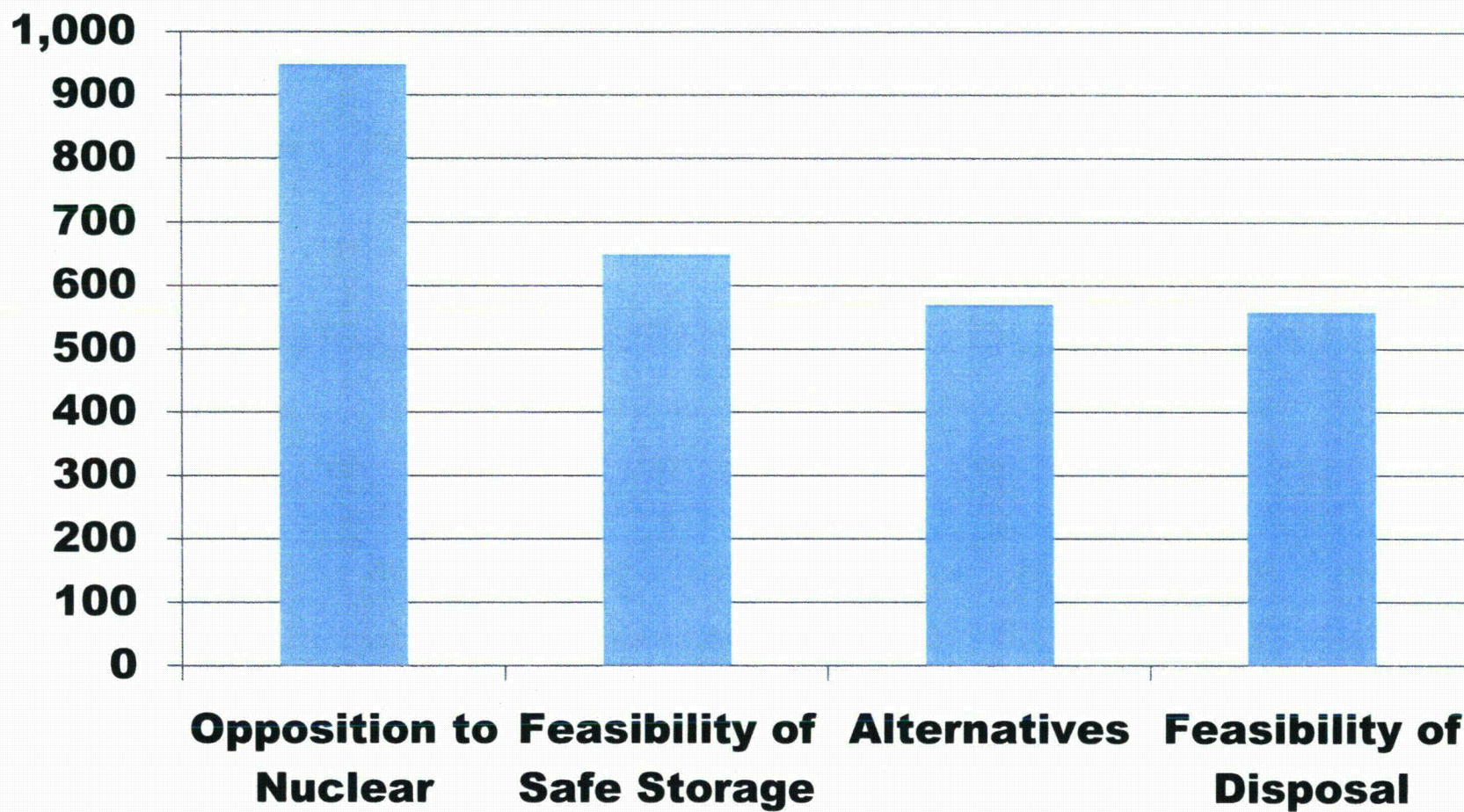
Public Outreach – Lessons Learned

- **Successes**
 - **Dedicated Communication Team**
 - **Open-House Opportunities**
 - **Facilitated Telephone Call-in Opportunities**
- **Challenges**
 - **Web-based “Chat”**

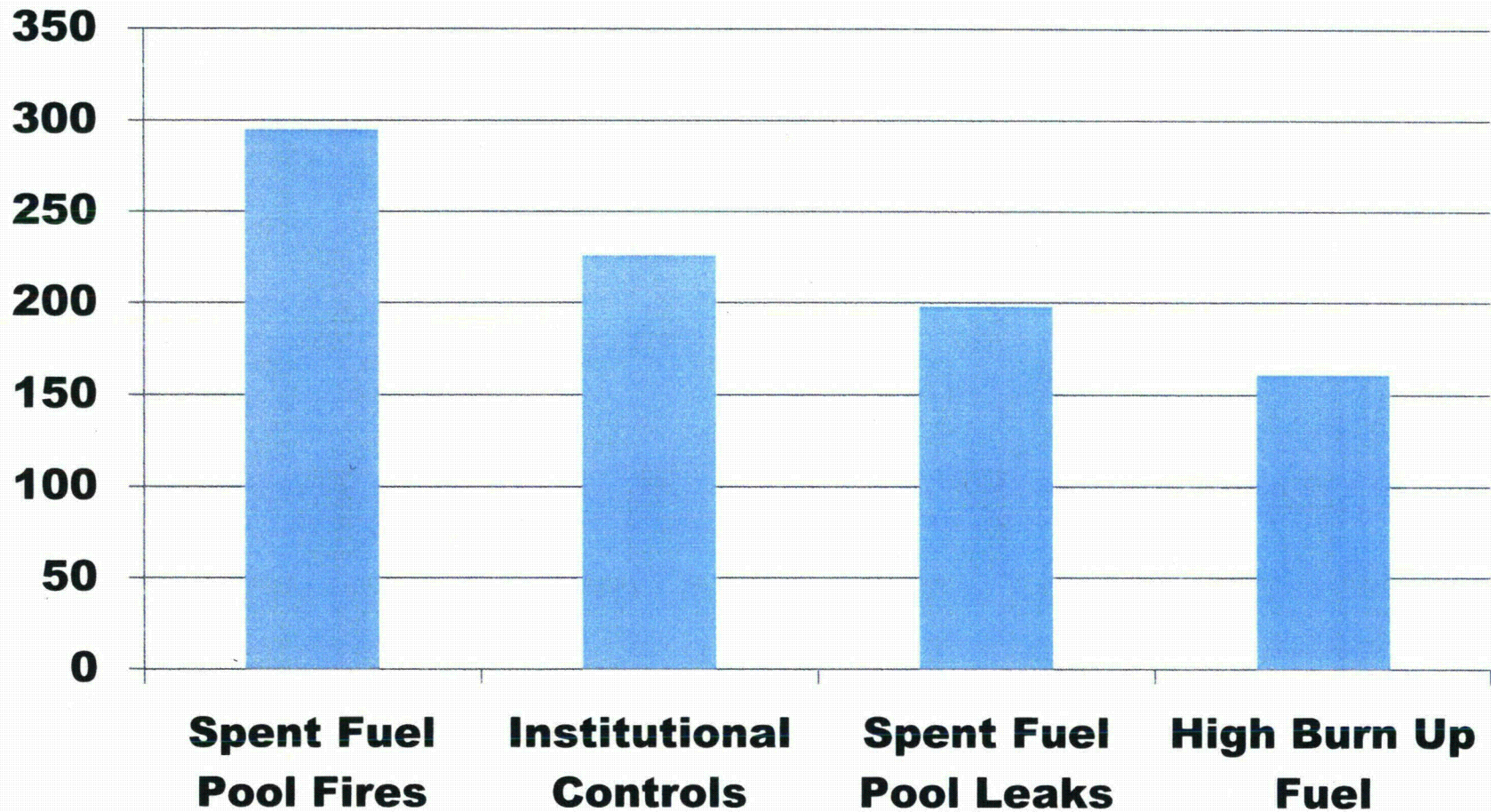
Results – Proposed Rule

- **Nearly 9,000 Unique Comments**
- **Public Meetings:**
 - **> 1400 participants; ~ 500 Transcribed statements**
- **Written Comments:**
 - **~ 33,000 Submittals; ~ 1500 Unique Submittals**

Most Common Topics



Example High-Interest Topics



Public Input to Policy Issues

- **Solicited in *Federal Register***
- **Summarized in “Waste Confidence - Continued Storage of Spent Nuclear Fuel Proposed Rule: Public Feedback on Specific Issues”**
 - **(SECY-14-0025, Feb 28, 2014)**

Issue 1

- **Whether specific policy statements regarding the timeline for repository availability should be removed from the rule text.**

Issue 2

- **Whether a specific policy statement regarding safety of continued storage should be made in the rule text.**

Issue 3

- **Whether the Discussion portion (Section III) of the Statements of Consideration should be streamlined by removing content that is repeated from the draft Generic Environmental Impact Statement.**

Issue 4

- **Whether the title of the rule should be changed in light of a Generic Environmental Impact Statement being issued instead of a separate Waste Confidence Decision.**

Path Forward

- **Complete Comment Resolution**
- **Recommend Draft GEIS and Draft Final Rule to Commission in Summer 2014**
- **Publish in Fall 2014**

Back Up Slide

Waste Confidence Directorate

- **Formed – September 6, 2012**
- **Full Time Staff:**
 - **7 offices within NRC**
- **Contract Support:**
 - **Pacific Northwest National Laboratories**
 - **Center for Nuclear Waste Regulatory Analyses**

Back Up Slide

Other High-Interest Topics

