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Via Electronic Mail

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Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
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RE: Natural Resources Defense Council Comments on the Proposed Waste Confidence Scoping Notice (Docket ID NRC-2012-0246)

Dear Ms. Bladey:

The Natural Resources Defense Council (NRDC) writes today to comment on the U.S. Nuclear Regulatory Commission's (NRC or the agency) *Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation: Request for comments on the notice of intent to prepare and environmental impact statement and notice of public meetings*. 77 Fed. Reg. 65137 (October 25, 2012) (hereinafter referred to as the "Waste Confidence Scoping Notice").

I. Summary of Comments

Over the next several years, NRC will have before it several relicensing decisions for existing reactors and, potentially, several decisions on whether to license new nuclear facilities. For the first time in its nearly 40 years of existence, NRC must conduct an in-depth analysis that provides the legal and technical justification for finding that if the NRC continues to license and relicense those nuclear power plants and allow for the associated production of spent nuclear fuel ("SNF"), that SNF can be safely managed, even in the event a disposal option will not be available at any time and that extended storage will be necessary, essentially in perpetuity.

Such a task is before the agency because of a recent decision by the United States Court of Appeals for the D.C. Circuit that will be discussed at length in these comments. Until that decision, the Waste Confidence Determination was used to enable licensing decisions based on its findings and rendered uncontestable general conclusions about the environmental effects of plant licensure that will applied in every licensing decision. The D.C. Circuit vacated the Waste Confidence Determination; noted the Commission apparently has no long-term plan other than

hoping for a geologic repository; observed that if the government continues to fail in its quest to establish one, SNF will seemingly be stored on site at nuclear plants on a permanent basis; and thus required NRC to assess the potential environmental effects of such a failure.

And so here we are today, in receipt of NRC's initial Waste Confidence Scoping Notice for this required NEPA document. As will be detailed in the pages that follow, the Waste Confidence Scoping Notice as currently formulated does not comply with the law as it fails to articulate the major federal action triggering the need for an Environmental Impact Statement and it fails to present possible alternatives to the extent possible. We respectfully request NRC withdraw the document and reissue it with the appropriately defined major federal action and presentation of alternatives.

II. NRDC Statement of Interest

NRDC is a national non-profit membership environmental organization with offices in Washington, D.C., New York City, San Francisco, Chicago, Los Angeles and Beijing. NRDC has a nationwide membership of over one million combined members and activists. NRDC's activities include maintaining and enhancing environmental quality and monitoring federal agency actions to ensure that federal statutes enacted to protect human health and the environment are fully and properly implemented. Since its inception in 1970, NRDC has sought to improve the environmental, health, and safety conditions at the nuclear facilities operated by DOE and the civil nuclear facilities licensed by the NRC and their predecessor agencies. NRDC was instrumental in the original Waste Confidence decision and was a petitioner in the recent proceeding before the United States Court of Appeals for the District of Columbia Circuit where this matter was heard.

III. Background

On June 8, 2012, the United States Court of Appeals for the District of Columbia Circuit decided a consolidated challenge by NRDC, several other environmental groups, and several states to the NRC's "Waste Confidence Decision" and "Temporary Storage Rule." *See New York, et al. v. NRC*, 681 F.3d 471 (D.C. Cir. 2012). When the D.C. Circuit vacated NRC's Waste Confidence Decision and Temporary Storage Rule, which every nuclear power reactor license relied upon when it received an operating license from the agency, it reversed a three decade bar on the public's ability to challenge how the agency regulates the production of SNF and nuclear waste recovered from SNF, including the agency's determination that the issue of nuclear waste has no impact on licensing nuclear power reactors.

The decision and the transcript of the oral argument accompany our comments. *See Attachments 1 and 2* (noted hereinafter as "Att. ___").

A. Initial History of the Waste Confidence Decision

In June of 1977, NRC denied a NRDC petition that forced the question of whether there should be (1) a rulemaking proceeding to determine whether high-level radioactive wastes generated in

nuclear power reactors can be permanently disposed of without undue risk to public health and safety; and (2) withholding of action on pending and future applications for operating licenses for nuclear power reactors until such time as an affirmative determination has been made. We then petitioned the United States Court of Appeals for the Second Circuit to review the NRC decision. The 2nd Circuit found in pertinent part:

[I]t is neither necessary nor reasonable for the Commission to insist on proof that a means of permanent waste disposal is on hand at the time reactor operation begins, so long as the Commission can be reasonably confident that permanent disposal (as distinguished from continued storage under surveillance) can be accomplished safely when it is likely to become necessary. Reasonable progress towards the development of permanent disposal facilities is presently being accomplished. Under these circumstances a halt in licensing of nuclear power plants is not required to protect public health and safety.

Natural Resources Defense Council v. NRC, 582 F.2d 166, 169 (2nd Cir. 1978). And so it was in 1978. The sense of “progress” noted by the 2nd Circuit on the development of permanent disposal facilities provided the basis for what would become the “Waste Confidence Determination” and the compromise described above.

In a parallel action only one year later, the State of Minnesota challenged a NRC decision granting two operators of nuclear plants amendments to licenses to expand on-site SNF storage *without* first determining whether the federal government could permanently dispose of the nuclear waste. The United States Court of Appeals for the D.C. Circuit held that NRC could properly consider the complex issue of nuclear waste disposal in a generic proceeding such as a rulemaking and then apply its determinations in subsequent adjudicatory proceedings, noting the NRC’s “reasonable assurance” a permanent solution would be found. *Minnesota v. NRC*, 602 F.2d 412, 416 (D.C. Cir. 1979). Importantly, the D.C. Circuit remanded the matter before the particular parties to the NRC for further proceedings to determine whether those reasonable assurances existed. *Id.* at 419. This essential situation remained in place for the next thirty years, regardless of what transpired with efforts at nuclear waste disposal.

B. The Original Waste Confidence Findings

These cases gave rise to the NRC’s “waste confidence” rulemaking. In 1984, after varying rounds of development, the NRC made five findings that constituted the waste confidence decision:

(1) The Commission finds reasonable assurance that safe disposal of high level radioactive waste and spent fuel in a mined geologic repository is technically feasible.

(2) The Commission finds reasonable assurance that one or more

mined geologic repositories for commercial high-level radioactive waste and spent fuel will be available by the years 2007-09, and that sufficient repository capacity will be available within 30 years beyond expiration of any reactor operating license to dispose of existing commercial high level radioactive waste and spent fuel originating in such reactor and generated up to that time.

(3) The Commission finds reasonable assurance that high-level radioactive waste and spent fuel will be managed in a safe manner until sufficient repository capacity is available to assure the safe disposal of all high-level radioactive waste and spent fuel.

(4) The Commission finds reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the expiration of that reactor's operating licenses at that reactor's spent fuel storage basin, or at either onsite or offsite independent spent fuel storage installations.

(5) The Commission finds reasonable assurance that safe independent onsite or offset spent fuel storage will be made available if such storage capacity is needed.

49 Fed. Reg. 34659 (Aug. 31, 1984) (emphasis added). On the basis of these findings, NRC made a generic determination that spent fuel generated at any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the expiration of any Commission license. The NRC amended 10 CFR § 51 by adding this generic determination as 10 CFR § 51.23(a).

C. Waste Confidence Revisions

The NRC revised the waste confidence rule in 1990, leaving much in place but amending the second and fourth findings as follows:

Finding 2: The Commission finds reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century, and that sufficient repository capacity will be available within 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial high-level radioactive waste and spent fuel originating in such reactor and generated up to that time.

Finding 4: The Commission finds reasonable assurance that, if

necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin, or at either onsite or offsite independent spent fuel storage installations.

55 Fed. Reg. 38474 (Sept. 18, 1990), *see also* a revised 10 CFR § 51.23(a).

In 1999 NRC again confirmed these findings and stated that it would revisit the Waste Confidence issue if “significant and pertinent unexpected events occur, raising substantial doubts about the Decisions continued viability.” 64 Fed. Reg. 68005 (Dec. 6, 1999).

In late 2008, NRC revisited the matter again and initially proposed to amend finding (2) to read:

The Commission finds reasonable assurance that sufficient mined geologic repository capacity can reasonably be expected to be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial high-level nuclear waste and spent fuel originating in such reactor and generated up to that time.

73 Fed. Reg. 59551 (emphasis added). The Commission sought to amend finding (4) to read:

The Commission finds reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin, or at either onsite or offsite independent spent fuel storage installations.

73 Fed. Reg. 59551 (emphasis added). Findings 1, 3, and 5 of the Waste Confidence remained unchanged. Thus, NRC now predicted that a final repository might not be available until fifty to sixty years following the expiration of any reactor license (including any terms for renewed or revised licenses). *Id.* at 46211.

In updating its analysis of the technical feasibility of SNF disposal, NRC briefly surveyed the available literature and concluded in very general terms that various “advances” made in the United States and elsewhere “continue to confirm the soundness of the basic concept of deep geologic disposal.” *Id.* at 46207. For the first time, however, NRC announced that it had rejected bedded salt as a geological medium for SNF repositories

“because heat-generating waste, like spent nuclear fuel, exacerbates a process by which salt can rapidly deform.” *Id.* at 5955.

In comments on the Waste Confidence Decision (“WCD”), NRDC and others argued that the WCD constitutes a licensing decision with significant environmental impacts requiring the preparation of an EIS. *See* ML090410724, *NRDC’s February 6, 2009 Comments on the Waste Confidence and Temporary Storage Rules*, at 17, 19 found online in NRC’s Agencywide Documents Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>. NRDC also pointed out that the WCD fatally undermines the basis for the Table S-3 Rule’s Finding of No Significant Impact (“FONSI”) with respect to SNF disposal, because it rejected the central premise on which the FONSI was based: that SNF disposal in a bedded salt repository would be safe because it would result in no release of radioactivity. *Id.* at 19, 20.

Thus, NRDC argued that while the Supreme Court had upheld the validity of Table S-3 in *BG&E*, NRC’s rejection of bedded salt as a safe geological medium for SNF disposal now showed that Table S-3 was “seriously wrong,” *Id.* (quoting *BG&E*, 462 U.S. at 98 (acknowledging the possibility of significant impacts if future evidence were to disprove the zero-release assumption)). Moreover, “all other geologic settings” could be expected to leak radionuclides into the environment. *See* February 6, 2009 *Comments of the Institute for Energy & Environmental Research* at 35, found online at <http://ieer.org/wp/wp-content/uploads/2012/06/WasteConfidenceComments2009.pdf>.¹ Finally, NRDC and several others asserted that NRC has no basis for confidence in the ultimate disposal of SNF within the foreseeable future. *See, e.g.*, ML090410724, *NRDC 2009 Comments*, at 9-15.

D. The 2010 Waste Confidence Determination and the Legal Challenge

In the final 2010 Waste Confidence Determination, NRC reiterated its conclusion that safe SNF disposal is feasible and rejected Petitioners’ demand for an EIS. 75 Fed. Reg. 81037-81076 (Dec. 23, 2010). Further, while it concluded that SNF could be safely stored at reactor sites for sixty years after termination of licenses, it wholly dispensed with a predicted time frame for the availability of a final repository. Instead, the final Waste Confidence Determination stated only that a repository will be available “when necessary.” *Id.*

Finally, NRC announced that it would not re-examine the Waste Confidence Determination for decades to come, stating that it has “confidence that either a repository will be available before the expiration of the 60 years post-licensed life discussed in Finding 4 or that the Waste Confidence Decision and [TSR] will be updated and revised if the expiration of the 60-year period approaches without an ultimate disposal solution for [HLW] and [SNF].” *Id.*

¹ Notably, NRDC could not locate this set of comments, timely filed, on NRC’s ADAMS website, even after contacting helpful staff at the agency’s Public Document Room.

Separately, in the TSR, NRC revised its FONSI regarding SNF storage impacts to conform to the Waste Confidence Determination's extended timetable, but made no findings regarding the environmental impacts of SNF disposal. 75 Fed. Reg 81032-37 (Dec. 23, 2010).

E. The D.C. Circuit Decision

In 2011, four states, an Indian community, and a number of environmental groups petitioned the United States Court of Appeals for the D.C. Circuit for review of a NRC rulemaking regarding temporary storage and permanent disposal of nuclear waste. The Court held that the rulemaking constituted a major federal action necessitating either an environmental impact statement or a finding of no significant environmental impact. The Court further held that the Commission's evaluation of the risks of SNF is deficient in two ways: first, in concluding that permanent storage will be available "when necessary," the Commission did not calculate the environmental effects of failing to secure permanent storage—a possibility that cannot be ignored. Second, in determining that spent fuel can safely be stored on site at nuclear plants for sixty years after the expiration of a plant's license, the Commission failed to properly examine future dangers and key consequences. Thus, the Court vacated the Commission's orders and remanded the matter to NRC for further proceedings. *See New York et al.*, 681 F.3d 471, 483.

F. The Remand and Associated Actions

Related actions that are direct progeny of this decision commenced in accord with NRC rules for administrative adjudications (issues must be raised within 30 days of a precipitating event), both NRDC and several other environmental groups and at least one state filed contentions (the equivalent of a count in a complaint) raising the waste confidence issue in relicensing challenges. New York filed such a contention in its Indian Point proceeding and NRDC did so in our challenge to the Limerick Generating Station relicensing in Pennsylvania. More than a dozen environmental groups and a few states filed similar contentions in licensing and relicensing cases across the country. What follows is a key paragraph from NRDC's Limerick contention:

All of the above-listed references to 10 C.F.R. § 51.23 or the Waste Confidence Findings have now been invalidated along with the D.C. Circuit's vacatur of both the Waste Confidence Findings and the Temporary Storage Rule, and as a result NRC Staff must now evaluate and examine, before a decision on Exelon's license can be made: the environmental effects of all reasonable alternatives for on-site and off-site storage of waste during and after the period of extended operation; offsite land, water, and air use impacts of continued operations and the storage of additional spent fuel on real estate values in the surrounding areas; whether the current GEIS adequately evaluates the long term impacts and

safety of the generation and long-term storage of radioactive waste; the comparative impacts of spent fuel storage in pools versus in dry casks; the implications of on-site storage of waste for decommissioning; the effects of spent fuel disposal and the effects of spent fuel storage and disposal in the event of extended delay or if no final disposal option or repository is ever identified; and alternatives to mitigate these impacts, among other issues. Many of these issues appear to be site specific and cannot be dealt with generically.

New York entered a similar contention in the Indian Point case and the same is true with the similar waste confidence contentions filed across the country. In response to the multiple contentions filed with the NRC in individual proceedings, on August 7, 2012 the NRC Commissioners issued CLI-12-16 and stated:

Because of the recent court ruling striking down our current waste confidence provisions, we are now considering all available options for resolving the waste confidence issue, which could include generic or site-specific NRC actions, or some combination of both. We have not yet determined a course of action. But, in recognition of our duties under the law, we will not issue licenses dependent upon the Waste Confidence Decision or the Temporary Storage Rule until the court's remand is appropriately addressed. This determination extends just to final license issuance; all licensing reviews and proceedings should continue to move forward.

CLI-12-16 at 4.

Some few weeks later, the Commissioners indicated its intent to develop a revised Waste Confidence Decision and Rule that addressed the court's remand and directed the staff to continue with licensing reviews and proceedings during this rulemaking. The Commission has directed the staff to complete a revised, final Waste Confidence Decision and Rule by September 5, 2014. *See* SECY-12-0132, Catherine Haney, Director Office of Nuclear Material Safety and Safeguards, *Implementation Of Commission Memorandum And Order CLI-12-16 Regarding Waste Confidence Decision And Rule*, October 3, 2012.

On October 25, 2012, NRC published in the Federal Register the Waste Confidence Scoping Notice, its *Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation: Request for comments on the notice of intent to prepare and environmental impact statement and notice of public meetings*, the subject of our comments today. *See* 77 Fed. Reg. 65137 (October 25, 2012).

IV. NRDC's Specific Comments on the Waste Confidence Scoping Notice

As described above, *New York et al.* was the natural successor to a lawsuit NRDC brought in 1977 to force NRC to address the public health and environmental impacts of SNF and high-level radioactive waste ("HLW") storage and disposal. *See NRDC v. NRC*, 582 F.2d 166, 169 (2nd Cir. 1978). While NRDC's and Minnesota's original lawsuits had a measure of success as a policy matter by forcing the compromise embodied in the Waste Confidence decision – NRC will not license reactors without "reasonable confidence" in the progress and development of a permanent disposal facility and the ability to safely store SNF – at no point over the last 40 years has NRC prepared an EIS regarding the environmental impacts of SNF and high-level radioactive waste disposal. Moreover, NRC continued to assume in its licensing decisions that SNF and HLW disposal caused no public radiation doses and had no appreciable environmental impacts, long after those assumptions were proven wrong.

After years of work by NRDC and many others, those assumptions have now been vacated by the D.C. Circuit. Now NRC has commenced work on a NEPA analysis of the environmental impacts of SNF storage and disposal and the agency must assess the possibility that a final disposal solution may never be found. Unfortunately, NRC has gotten off on the wrong foot and must (1) withdraw this original notice and (2) reissue a notice that complies with federal law and sets forth the major federal action at issue and (3) present alternatives to be examined in the NEPA review, to the extent possible.

A. The Waste Confidence Scoping Notice Fails to Define the Major Federal Action Triggering This EIS

1. NRC's October 25 Notice

According to the agency's Waste Confidence Scoping Notice, NRC intends to prepare an EIS to support the rulemaking to update the Commission's Waste Confidence Decision and Rule, and is conducting a scoping process to gather information necessary to prepare the EIS. 77 Fed. Reg. 65137.

In the notice, NRC describes Waste Confidence to represent the Commission's generic determination that SNF can be stored safely and without significant environmental impacts for a period of time after the end of the licensed life of a nuclear power, citing 10 C.F.R. § 51.23 and noting that this generic analysis is intended to satisfy the NRC's NEPA obligations with respect to post-licensed-life storage of SNF. Discussing the D.C. Circuit's vacatur of the Waste Confidence Determination, NRC states that the Court identified three specific deficiencies in the agency's analysis:

1. Related to the Commission's conclusion that permanent disposal will be available "when necessary," the Court held that the Commission did not evaluate the environmental effects of failing to secure permanent disposal;

2. Related to the storage of spent fuel on site at nuclear plants for 60 years after the expiration of a plant's operating license, the Court concluded that the Commission failed to properly examine the risk of spent fuel pool leaks in a forward-looking fashion;

3. Also related to the post-licensed life storage of spent fuel, the Court concluded that the Commission failed to properly examine the consequences of spent fuel pool fires.

Id. Acknowledging that Waste Confidence Determination is part of the agency's basis for licensing decisions, NRC stated that to fulfill its responsibilities under NEPA, the agency will prepare an EIS "support the potential update to the Waste Confidence Decision and Rule." *Id.* NRC then briefly describes the types of environmental impacts that it proposes to evaluate.

2. NRDC's November 8 Letter

Two weeks after the issuance of the EIS Scoping Notice, NRDC counsel and counsel for several other environmental groups wrote NRC Chairman Macfarlane to request the Waste Confidence Scoping Notice be withdrawn because it fails to satisfy two of the most basic requirements of NRC's regulations for notices of intent to publish an EIS: (1) the Scoping Notice fails to provide a "description of the proposed action;" and (2) the Scoping Notice fails to provide "to the extent sufficient information is available, possible alternatives." *See* 10 CFR § 51.27(a)(2) ("Notice of Intent") and Att. 3, November 8, 2012 letter from NRDC *et al.* to NRC Commissioners.

As explained in our letter, NRC's Waste Confidence Scoping Notice gives no hint of what is the agency action that creates the risk of SNF storage environmental impacts, and thus requires commenters to guess at the proposed action and its alternatives. Moreover, we stated that what little factual information is presented in the Scoping Notice is likely to mislead commenters into viewing the proposed action and its alternatives as some combination of methods for storing SNF. Such a truncated scope of alternatives is far too narrow to satisfy NEPA because fails to address the original agency action that causes the production of spent reactor fuel and its associated environmental impacts: the licensing of nuclear reactors. Therefore, we stated in the letter, the scoping process would not lead to any analysis of the most obvious alternative for the avoidance or mitigation of SNF storage impacts: the cessation of reactor licensing. As a result, the notice fails to give the public sufficient information on which to develop comments on the appropriate scope of the EIS proposed by the NRC.

3. NRC's response to NRDC's Letter

Weeks later NRC responded and declined to reissue or reformulate the Waste Confidence Scoping Notice. *See* Att. 4, December 5, 2012 Response of Chairman Macfarlane to NRDC *et al.* Rather, NRC stated that the "update to the Waste Confidence Rule *is* the federal action; the 'no action' alternative is a decision not to prepare the rule and instead to conduct a site-specific analysis of post-licensed life spent fuel storage for each NRC licensing action that relies on Waste Confidence." *See* Att. 4 at 2.

NRC went on to state “the Waste Confidence rule *is not a licensing action*, it does not authorize the initial or continued operation of any nuclear power plant, and it does not authorize storage of SNF. Thus, licensing of specific reactors or storage facilities is not the purpose of this rulemaking, or the proposed action.” *Id* (emphasis added). Finally, NRC stated while NRDC is correct that scoping notices prepared under §51.27(a) are required to contain the information identified in our letter,

[R]equirements in §51 .27, regarding the content of scoping notices apply only to scoping notices that are prepared under §51.26, i.e., when an NRC staff director determines that an environmental impact statement should be prepared. In this case, an NRC staff director did not determine that an environmental impact statement should be prepared; instead, the Commission exercised its discretionary authority under §51.20(a)(2) to direct the staff to prepare an environmental impact statement to support an update to the Waste Confidence Rule.

Id.

4. NRC’s Response Unlawfully Truncates the Required Environmental Review

NRC’s response signifies notable problems for this EIS process at the outset for the following reasons. First, the agency’s grasp of its NEPA obligation conflicts with the holding of the D.C. Circuit that vacated the Waste Confidence Determination and remanded this matter to the agency. The Court squarely addressed this matter in its opinion and we include the entirety of its discussion so that there is no mistaking the Court’s meaning:

Under NEPA, each federal agency must prepare an Environmental Impact Statement (“EIS”) before taking a “major Federal action[] significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). ... *The issuance or reissuance of a reactor license is a major federal action affecting the quality of the human environment...*

The parties here dispute whether the Waste Confidence Determination [“WCD”] itself constitutes a major federal action. To petitioners, the WCD is a major federal action because it is a predicate to every decision to license or relicense a nuclear plant, and the findings made in the WCD are not challengeable at the time a plant seeks licensure. *The Commission contends that because the WCD does not authorize the licensing of any nuclear reactor or storage facility, and because a site-specific EIS will be conducted for each facility at the time it seeks licensure, the WCD*

is not a major federal action. To the Commission, the WCD is simply an answer to this court's mandate in [Minnesota](#) to ensure that plants are only licensed while the NRC has reasonable assurance that permanent disposal of the resulting waste will be available. The Commission also contends that the WCD constitutes an EA supporting the revision of [10 C.F.R. § 51.23\(a\)](#), and because the EA found no significant environmental impact, an EIS is not required.

We agree with petitioners that the WCD rulemaking is a major federal action requiring either a FONSI or an EIS. *The Commission's contrary argument treating the WCD as separate from the individual licensing decisions it enables fails under controlling precedent.*

It is not only reasonably foreseeable but eminently clear *that the WCD will be used to enable licensing decisions based on its findings.* The Commission and the intervenors contend that the site-specific factors that differ from plant to plant can be challenged at the time of a specific plant's licensing, *but the WCD nonetheless renders uncontestable general conclusions about the environmental effects of plant licensure that will apply in every licensing decision.*

New York et al. at 476-477 (explanatory brackets inserted, emphasis added, citations omitted).

The D.C. Circuit has heard the argument that the Waste Confidence Determination is not a licensing action and rejected it. NRC's willingness to trot it out mere months after the decision demonstrates an inclination to flout NEPA once again.

The proposed action here cannot simply be to update a rule that was vacated. Rather, what should be the proposed action for NEPA review in a properly formulated Waste Confidence Scoping Notice – the licensing of nuclear reactor and the associated challenges with respect to storage and disposal of nuclear waste – was precisely at issue before the D.C. Circuit. As the D.C. Circuit held, “the WCD is a major federal action because *it is used to allow the licensing of nuclear plants ...* Therefore, the WCD requires an EIS or, alternatively, an EA that concludes with a finding of no significant impact.” *Id.* at 478 (emphasis added).

We are unclear how the Court could have been more direct in its language. The NRC action – licensing nuclear power plants – leads to the environmental impacts associated with SNF storage and a lack of disposal options and that is what must be considered under NEPA. Proceeding as the Chairman suggests in her letter invites unnecessary

disputes and unlawfully truncates the pending environmental review and analysis of alternatives.

We remind NRC the AEA precludes the agency from licensing any new nuclear power plant or re-licensing any existing nuclear power plant if it would be “inimical . . . to the health and safety of the public.” 42 U.S.C. § 2331(d). In conformance with this requirement, the Commission has stated that it will only license a new nuclear power plant “so long as the Commission can be reasonably confident that permanent disposal (as distinguished from continued storage under surveillance) can be accomplished safely when it is likely to become necessary.” *NRDC v. NRC*, 582 F.2d 166 (2d Cir. 1978).

Separate from the AEA, NEPA requires that before licensing or re-licensing nuclear power plants, NRC must evaluate the environmental impacts of its licensing decision in an EIS. 42 U.S.C. § 4332(C); 10 C.F.R. § 51.20(b)(2). An EIS must address the environmental impacts of the proposed action and connected actions, including cumulative impacts. 10 C.F.R. § 51.71(d). It must also weigh the costs and benefits of a reasonable array of alternatives for avoiding or mitigating the consequences of the proposed action. *Id.*

Thus, in proposing to license or re-license nuclear power plants, NRC must examine the environmental impacts of the SNF and radioactive waste generated by the plants. It must also evaluate the relative costs and benefits of alternatives for avoiding or mitigating those impacts, including denying licenses so that the radioactive waste is not produced. *Id.* The environmental impacts that must be examined by the NRC include the risks posed by SNF storage and disposal.

The D.C. Circuit further refined this legacy when it wrote:

The Commission apparently has no long-term plan other than hoping for a geologic repository. If the government continues to fail in its quest to establish one, then SNF will seemingly be stored on site at nuclear plants on a permanent basis. The Commission can and must assess the potential environmental effects of such a failure.

Nonetheless, whether the analysis is generic or site-by-site, it must be thorough and comprehensive. Even though the Commission’s application of its technical expertise demands the “most deferential” treatment by the courts, *Baltimore Gas*, 462 U.S. at 103, we conclude that the Commission has failed to conduct a thorough enough analysis here to merit our deference.

New York et al., 681 F.3d at 479, 480-481.

In order to comply with these controlling precedents we ask NRC to withdraw the existing Waste Confidence Scoping Notice and publish a Scoping Notice with a clear description of the NRC action that leads to SNF storage and disposal impacts: licensing nuclear reactors. The agency should also identify the no-action alternative: the cessation of licensing and relicensing, which would halt further production of SNF. *See* discussion in subsection C, *supra*.

5. NRC's Assertion that §51.20 Allows Latitude to Flout NEPA Lacks Merit

We also respond to the Chairman's assertion that scoping notices prepared under the Commissioners' discretionary authority found in § 51.20(a)(2) impliedly have no such obligations as those found in §51.27(a), as such restrictions apply only to scoping notices that are prepared under §51.26. *See* Att. 4 at 2.

The Chairman's assertion is flawed in two respects. First, it flouts basic NEPA obligations as nothing in § 51.20(a)(2) removes the Commissions' responsibility to comply with the whole of NEPA.² While NRC may make a licensing determination through a notice-and-comment rulemaking, it must provide adequate support for its determination to satisfy the requirements of the Administrative Procedures Act. *State of Minnesota*, 602 F.2d at 419. And while NRC may make environmental determinations generically, *it must comply with the procedural requirements of NEPA*, including preparation of an environmental impact statement EIS for actions having a significant adverse impact on the human environment. *BG&E v. NRDC*, 462 U.S. 87, 99 (1983).

Second, the Chairman's assertion conflicts with the agency's own Waste Confidence Scoping Notice—which at no point references §51.20 – but does, in fact, reference §51.26. NRC's Scoping Notice states:

NRC regulations implementing NEPA are contained in 10 CFR Part 51, "Environmental protection regulations for domestic licensing and related regulatory functions." To fulfill its responsibilities under NEPA, the NRC is preparing an EIS to support the potential update to the Waste Confidence Decision and Rule. The Commission's regulations *in 10 CFR 51.26*, "Requirement to publish notice of intent and conduct scoping process," contain requirements for conducting a scoping process prior to preparation of an EIS, including preparation of a notice of

² 10 C.F.R. § 51.20(a)(2) states in full: "(a) Licensing and regulatory actions requiring an environmental impact statement shall meet at least one of the following criteria: (2) The proposed action involves a matter which the Commission, in the exercise of its discretion, has determined should be covered by an environmental impact statement." Notably, the Chair's December 5 letter omits any mention of §51.20(a)(1), which states: "(1) The proposed action is a major Federal action significantly affecting the quality of the human environment." NRDC respectfully suggests that in light of the recent D.C. Circuit vacatur of the Waste Confidence Determination for precisely the reason cited in §51.20(a)(1), the Commission should have cited that particular regulation rather than its own discretion.

intent in the Federal Register regarding the EIS and indication that the scoping process may include holding a public scoping meeting.

77 Fed. Reg 65138 (emphasis added).

In any event, NRDC fails to see the point of NRC's assertion that somehow the fact that the Commissioners decided to initiate an EIS process after Court remand alters fundamental NEPA obligations. The agency must comply with the procedural requirements of NEPA and it has failed to do so in this instance. Simply providing notice of an update of the Waste Confidence Determination fails to provide sufficient information for commenters to help define the scope of the analysis or suggest alternatives. Moreover, the agency's interpretation of its NEPA responsibilities is so narrow that it transparently assumes further production of nuclear wastes without a permanent waste repository. Such a position is a transparent attempt to turn the EIS process into a quick and nearly meaningless exercise and will surely fail under the law.

B. NRC's Schedule Arbitrarily Truncates the Necessary EIS

In late 2010 and contemporaneous with the issuance of the final iteration of the Waste Confidence Determination vacated by the D.C. Circuit, the former Chairman of the NRC and other Commissioners directed NRC Staff to prepare a generic EIS to assess the environmental impacts of SNF storage beyond 120 years.³ Such an effort was contemplated to involve several year period of serious effort by the Staff. Indeed, in December 2011 NRC Staff suggested to the Commissioners the following timeline:

A general timeline for the Waste Confidence update is provided below. The staff's schedule for developing the update is subject to the availability of resources in the coming years.

April 2012 Publish final report, "Background and Preliminary Assumptions for an Environmental Impact Statement—Long-Term Waste Confidence Update."

2012-2013 Develop preliminary information to support identification of EIS scope (see discussion in Section 12).

2013 Announce in the Federal Register the NRC's intent to develop the EIS.

³ Staff requirements memoranda providing this direction are available in the ADAMS at the following Accession Numbers: ML103400287: SRM-COMSECY-10-0007, December 6, 2010; ML102580229: SRM-M100915, September 15, 2010.

2013-2016 Hold public scoping under NEPA and develop draft EIS, possible draft decision, and possible proposed rule.

2017-2019 Publish draft EIS and, if necessary, draft Waste Confidence decision and proposed rule for public comment. If necessary, develop and publish final Waste Confidence EIS, decision and rule.

See, Draft Report for Comment, Background and Preliminary Assumptions For an Environmental Impact Statement— Long-Term Waste Confidence Update, December 2011 at 17 (found online at <http://pbadupws.nrc.gov/docs/ML1134/ML11340A141.pdf>).

Now that the D.C. Circuit has vacated the Waste Confidence Determination, the Commission and Staff have suggested that the NEPA analysis can be conducted in a mere two years.⁴ Such an evolution of NRC Staff’s understanding of the technical and legal work necessary for such an analysis makes no sense. This is especially so in light of the fact that this EIS must examine the configuration for safe storage of SNF beyond a time ever considered and an analysis that must examine the environmental consequences of failing to establish a repository when one is needed. As we detail *supra*, there are a host of associated matters that must be addressed and we are hard pressed to envision NRC finishing its work in two years.

Thus, the NRC’s severely truncated time frame runs afoul of the law. NEPA, requires a federal agency to take a “hard look” at potential environmental consequences of its decisions by preparing an EIS prior to any “major Federal action[] significantly affecting the quality of the human environment.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); 42 U.S.C. §4332(c). Preparing an EIS ensures that the agency “will have available, and will carefully consider, detailed information concerning significant environmental impacts” and that “the relevant information will be made available to the larger audience that may also play a role in both the decision-making process and the implementation of that decision.” *Robertson*, 490 U.S. at 349. The “heart” of the EIS is “the requirement that an agency rigorously explore and objectively evaluate the projected environmental impacts of all reasonable alternatives for completing the proposed action.” *Van Ee v. EPA*, 202 F.3d 296, 309 (D.C. Cir. 2000); *see also* 40 C.F.R. § 1502.14 (among the alternatives an agency must consider in an EIS is “the alternative of no action.”).

⁴ *See, e.g.*, NRC DIRECTS STAFF TO CONDUCT TWO-YEAR ENVIRONMENTAL STUDY AND REVISION TO WASTE CONFIDENCE RULE, September 6, 2012, found online at <http://pbadupws.nrc.gov/docs/ML1225/ML12250A653.pdf> .

C. Issues that Should Be Evaluated and Presented in a Waste Confidence Scoping Notice

NEPA is clear in its well-established mandates. NEPA characterizes environmental impacts broadly to include not only ecological effects, such as physical, chemical, radiological and biological effects, but also aesthetic, historic, cultural, economic, and social effects. 40 CFR § 1508.8. NEPA requires an agency to consider both the direct effects caused by an action and any indirect effects which are reasonably foreseeable. Effects include direct effects caused by the action and occurring at the same time and place and indirect effects caused by the action, but later in time or farther removed in distance, but still reasonably foreseeable. 40 CFR § 1508.8.

NEPA directs NRC take a “hard look” at the environmental impacts of its proposed program and compare them to alternative means of fulfilling the same purpose and need for agency action that may avoid or mitigate environmental harms or risks posed by the Proposed Program. “What constitutes a ‘hard look’ cannot be outlined with rule-like precision, but it at least encompasses a thorough investigation into the environmental impacts of an agency’s action and a candid acknowledgement of the risks that those impacts entail.” *Nat’l Audubon Soc. V. Dept of the Navy*, 422 F.3d 174, 185 (4th Cir. 2005).

In taking the “hard look” required by law, any Waste Confidence Scoping Notice must first sketch out a process for an EIS that fully assesses the environmental impacts of the entire uranium fuel cycle, including health and environmental impacts and costs, and that examines a reasonable array of alternatives, including the alternative of not producing any additional radioactive waste. Within this general framework, we have several specific areas that we suggest should inform the scope of a reissued Notice of Scoping for an EIS on Long Term Storage.

1. The Properly Identified Major Federal Action – the Licensing of Nuclear Power Plants and the Associated Production of SNF – And The Basic Alternatives Must Be Articulated in the Waste Confidence Scoping Notice

We urge NRC to be mindful of the precise direction of the DC Circuit regarding the major federal action at issue in this matter and the parameters of what must be analyzed via a lawful NEPA review. The Court was clear that “the WCD nonetheless renders uncontestable general conclusions about the environmental effects of plant licensure that will apply in every licensing decision . . . the WCD is a major federal action because it is used to allow the licensing of nuclear plants.” *See New York et al.* at 477.

In short, the Waste Confidence Scoping Notice should present the major federal action for which this EIS must be prepared. And that is to determine whether or how much additional SNF may be generated when there is no permanent, safe and secure waste disposal facility, no date certain by which such a facility will exist and the significant possibility that such a disposal facility may never exist. Further, if such additional SNF is allowed to be generated, what alternatives exist to the current practice of allowing nuclear wastes to be generated and stored at individual reactor sites indefinitely and in spent fuel pools for as long as the licensee chooses? And finally, regardless of how much new SNF may or may not be allowed to be generated, what are the long

term storage alternatives and associated environmental impacts for the SNF and high-level radioactive waste that are already in existence? 10 C.F.R. § 51.27(a)(2).

Rather than issue such a Waste Confidence Determination, NRC's October 25 Waste Confidence Scoping Notice has essentially asserted that significance must be evaluated in terms of environmental impacts alone rather than in relation to *reasonable alternatives that may reduce those impacts*. NEPA – and NRC's regulations – rightly focus on reasonable alternatives, and thus when presenting an initial scoping document, reasonable alternatives must be appropriately considered even if they have similar impacts. *See, e.g., Alaska Wilderness Recreation and Tourism Ass'n v. Morrison*, 67 F.3d 723, 730 (9th Cir. 1995) (because alternatives are “the heart of the environmental impact statement,” when new reasonable alternatives arise they must be independently considered in the NEPA process); *see also* 10 C.F.R. § 51.103(a)(iv) (explaining that an NRC Record of Decision must “[s]tate whether the Commission has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted.”). The Waste Confidence Scoping Notice has failed in this regard and must be withdrawn and then rewritten to conform to NEPA requirements.

2. Storage Configuration of SNF

The recently vacated Temporary Storage Rule proposed to find that if necessary, SNF generated in any reactor can be stored safely and without significant environmental impacts beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent fuel storage installations until a disposal facility can reasonably be expected to be available. *See, e.g., 73 Fed. Reg. 59547* (Oct. 9, 2008). Now the NRC must assess the environmental ramifications of storing that fuel safely for extraordinary lengths of time and even in the event a repository solution is never identified.

The Waste Confidence Scoping Notice tepidly stepped into presenting its concept of impacts analysis when it wrote “[p]ossible scenarios to be analyzed in the EIS include temporary SNF storage after cessation of reactor operation until a repository is made available in either the middle of the century or at the end of the century, and storage of SNF if no repository is made available by the end of the century.” 77 Fed. Reg. 65138. This is an inadequate statement and fails to provide meaningful guidance to members of the public regarding the scope of what is at issue.

NRC needs to grapple directly with the matter of SNF storage and its associated environmental and safety impacts so that the public has a clear sense of the alternatives. For example, NRC should assess via this EIS the current state of the highly radioactive irradiated nuclear fuel in spent fuel pools. Then the agency must turn to an analysis of the possible and environmentally sustainable configurations for the long term in the event a disposal solution is never identified. Included in this should be lessons learned from the recent Japanese disaster, where drain downs and fires were concerns, or a host of other scenarios. Further, the Scoping Notice should engage in similar set of analysis with respect to dry storage, contrasting the environmental impacts of

radioactive releases and health consequences from a disruption of current dry storage, fuel pools and “hardened” dry storage. Finally, NRC must examine alternative changes in its regulatory requirements for waste storage on-site in light of the above information. Such an analysis will not just analyze storage configurations, but waste forms, locations, shielding, institutional controls, and even transportation matters.

3. The Relationship of the EIS to Repositories Should Be Clearly Defined

The 2011 NRC Long Term Storage Report for Comment states that the EIS “will include geologic disposal as the end point for all scenarios evaluated. The Waste Confidence EIS will not include an assessment of the impacts of the disposal facility; these impacts will be assessed in an EIS for licensing a disposal facility.” *See Report at 9.* NRDC agrees that the upcoming proposed Waste Confidence on extended storage (and potentially no disposal solution ever) need not assess the impacts of specific disposal facility such as the EIS that was done for the proposed Yucca Mountain Project. However, that does not relieve NRC of the obligation to discuss the potential environmental consequences and impacts of geologic disposal under a variety of possible disposal options, including, for example, in varying geologic media and in diverse areas of the country in all scenarios where NRC assumes that storage will be followed by disposal. Further, NRC must assess and present the potential consequences should there be no option for geologic disposal. In this regard, the Waste Confidence EIS must fully assess and discuss the potential impacts of extended surface storage, both at existing individual sites, and at potential consolidated storage sites, and this discussion must include the possibility that there will be no geologic storage prior to the loss of institutional control over the storage sites (and indeed, NRC must examine the impacts and consequences of loss of institutional control at all storage sites of whatever configuration).

For example, the EIS should discuss the advantages and disadvantages of an integrated waste management strategy, based on extended storage, for the design and operation of a geologic repository, relative to transportation, surface facilities, waste package design, thermal loading, and long-term performance, as discussed in the President’s Blue Ribbon Commission for America’s Nuclear Future Final Report.

Examples how such matters should be analyzed are as follows:

- a. What are the advantages and disadvantages of extended storage of varying kinds (from 50 years to 300 years) on repository design? Would this affect site selection?
- b. What are the advantages and disadvantages of extended storage on repository design with respect to waste packaging?
- c. What are the advantages and disadvantages of extended storage (of varying kinds) on worker and public exposures at reactor sites, storage facility sites, and at a repository site?
- d. What are the advantages and disadvantages of extended storage on the transportation of SNF to and from an interim storage site, to

and from a repository, and regarding design of the transportation packages?

e. What would be the advantages and disadvantages of extended storage on public exposures from the transportation, storage, and disposal of such SNF?

And turning briefly to transportation and potential interim storage sites (as opposed to on-site storage at existing commercial facilities), there is an extraordinary amount of work to be done – as evidenced by the Yucca Mountain history and the BRC process – to properly analyze and support transport evaluations over such long periods of time. Periods of potential transport (over a course of decades) of SNF must be analyzed and incorporated into the overall evaluation of preferred alternatives.

4. Terrorism and Sabotage

NRC should also clarify that it plans to consider the environmental impacts of terrorism related to storage and transportation at both a generic and site-specific level.” Notably, NRC planned to do so, at least generically, in its 2011 Report for the Long Term Storage EIS. See LTR at 13. Given the long timeframe covered by the EIS, provisions should be made for periodic updating of the terrorism and sabotage analyses to address: (1) advances in the technology of terrorism and counter-terrorism; (2) changes in population density near storage facilities and shipment routes; and (3) changes in understanding and definition of the design basis events and design basis threats.

5. The No Action Alternative Must Be Clearly Stated

In addressing the “No Action Alternative,” the EIS must analyze the option of barring additional production of this SNF; based on no additional licenses, no license extension and expiration of existing licenses. Inclusion of this alternative must include a consideration of the environmental and health consequences of the production of nuclear fuel since commercial production of nuclear fuel would be phased out under this alternative, but not others. An EIS must address the environmental impacts of the proposed action and connected actions, including cumulative impacts. 10 C.F.R. § 51.71(d). It must also weigh the costs and benefits of a reasonable array of alternatives for avoiding or mitigating the consequences of the proposed action. *Id.*

Conclusion

Nearly five years ago NRDC wrote NRC and requested the Proposed Waste Confidence & Temporary Storage Rules be withdrawn until such time as they comply with AEA and NEPA. NRC rejected those comments and now we are here today, in receipt of NRC’s initial Waste Confidence Scoping Notice. Again, we respectfully request NRC withdraw the Scoping Notice and reissue it with the appropriately defined major federal action and presentation of alternatives. Now is the time to finally commence work on an Environmental Impact Statement that fully assesses the environmental impacts of the entire uranium fuel cycle, including health and

environmental impacts and costs, and that examines a reasonable array of alternatives, including the alternative of not producing any additional radioactive waste.

We appreciate the opportunity to comment. If you have any questions, please do not hesitate to contact us.

Sincerely,

Geoffrey H. Fettus /s/ electronic signature

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