

Rulemaking Comments

From: Phillip Musegaas [phillip@riverkeeper.org]
Sent: Thursday, May 08, 2008 6:12 PM
To: Rulemaking Comments
Cc: john.sipos@oag.state.ny.us; 'Janice Dean'; 'Joan Matthews'; phillip@riverkeeper.org; 'Mary Lampert'; rochelle489@charter.net; dlochbaum@ucsusa.org
Subject: Riverkeeper Submission of Comments re: RIN 3150-AH45 Decommissioning Planning
Attachments: Riverkeeper Comments to RIN 3150 AH45 May 8 08.pdf

Dear Secretary,

Please find attached Riverkeeper, Inc.'s comments to the above-referenced proposed rule. A hard copy will follow by regular mail by the next business day.

Thank you,

Phillip Musegaas
Staff Attorney/Policy Analyst
Riverkeeper, Inc.
828 South Broadway
Tarrytown, NY 10591
914-478-4501 x224
phillip@riverkeeper.org
www.riverkeeper.org

DOCKETED
USNRC

May 12, 2008 (10:30am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

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RIVERKEEPER.

May 8, 2008

Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Rulemakings and Adjudications Staff

Re: Riverkeeper, Inc. Comments to RIN, 3150-AH45, Decommissioning Planning

Dear Secretary:

I am hereby submitting comments on behalf of Riverkeeper, Inc. regarding the above-referenced proposed rule. Please note that Riverkeeper hereby incorporates by reference all documents cited in our attached comments. Nuclear Regulatory Commission ADAMS reference numbers were included whenever possible.

Riverkeeper also fully supports, and hereby incorporates by reference, the comments filed by the State of New York on May 8, 2008 regarding this proposed rule.

Sincerely,

Phillip Muségaas, Esq.
Staff Attorney

**Riverkeeper, Inc. Comments on RIN 3150-AH45, 10 CFR Parts 20, 30, 40, et al.
Decommissioning Planning Proposed Rule¹**

I. Comments to Proposed Amendments to 10 CFR §20.1406 and §20.1501

A. Riverkeeper supports the proposed change to §20.1406 that would make the regulation applicable to current licensees as well as license applicants.

The general requirement of §20.1406 must apply to licensees of currently operating power reactors, mainly in response to the ongoing issue of groundwater contamination caused by slow, long-term leaks from various plant systems, including spent fuel pools and reactor wastewater storage tanks. It has become evident over the past several years that licensees have been either unwilling or unable to comply with the regulatory ALARA limits, leading to numerous, widespread instances of groundwater contamination at both operating and permanently shut down reactor sites around the country. The following are examples of groundwater contamination at sites around the country.

- In August 2004, the owner of the Dresden Nuclear Power Plant in Illinois discovered an underground leak from the condensate storage tank piping. Tritium levels in onsite ground water monitoring wells were as high as 1,700,000 picocuries per liter. A survey of neighboring private wells revealed tritium contamination in at least one well above background levels (approximately 1,000 picocuries per liter). See NRC, Preliminary Listing of Events Involving Tritium Leaks (March 28, 2006), ML060930382.

- In December 2005, tritium was detected in a drinking water well at a home near the Braidwood Nuclear Plant in Illinois. The "initial evaluation indicated that the tritium in the groundwater was a result of past leakage from a pipe which carries normally non-radioactive circulating water discharge to the Kankakee River, about five miles from the site. Several millions [sic] gallons of water leaked from the discharge pipe in 1998 and 2000." See NRC Preliminary Notification of Event or Unusual Occurrence PNO-RIII-05-016A, "Potential Off-site Migration of Tritium Contamination (Update)" (December 7, 2005), ML053410293.

- In March 2006, a leak was discovered at Palo Verde Nuclear Generating Station in Arizona. See NRC Preliminary Notification of Event or Unusual Occurrence, PNO-IV-06-001, "Followup For Tritium Contamination Found In Water Onsite" (March 17, 2006), ML060760584. An analysis of the ground water revealed tritium levels of 71,400 picocuries/Liter (pCi/L). Id.

- In October 2007, high levels of tritium were detected in the groundwater under the Catawba Nuclear Power Station located in York, South Carolina. At one groundwater monitoring well, the tritium measured 42,000 pCi/L. See NRC Preliminary

¹ Riverkeeper Inc. ("Riverkeeper") hereby incorporates by reference all documents cited in these comments. Riverkeeper included ADAMS Accession numbers for the cited documents where it was practical to do so.

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Notification of Event or Unusual Occurrence, PNO-II-07-012, "Onsite Groundwater Tritium Contamination" (October 11, 2007), ML 073111396.

- In October 2007, high levels of tritium were discovered in the groundwater at the Quad Cities Nuclear Power Station located in Warrenville, Illinois. The tritium levels measure up to 800,000 pico curies per litre. See NRC Preliminary Notification of Event or Unusual Occurrence, PNO-III-08-011, "Tritium Leakage" (October 11, 2007), ML 072890262. "Underground piping from the condensate water storage tank is being examined as a possible source." *Id.*

- On October 19, 2007, a leak was discovered in piping within the essential service water system that serviced both reactors at the Byron Nuclear Power Station located in Byron, Illinois. See NRC Preliminary Notification of Event or Unusual Occurrence, PNO-III-07-012, "Both Units at Byron Shut Down Due to a Leak in Pipe" (October 23, 2007), ML072960109. The NRC then announced that had begun a special inspection at the Byron Nuclear Power Station to review the circumstances surrounding the corrosion of piping in the equipment cooling water system and subsequent leak in one pipe. "As a result of the leakage, reactor operators shut both reactors down on Friday, Oct. 19, to repair the leak and inspect similar pipes. The pipes carry water from the plant where it is used for cooling of essential safety equipment back to basins under fan-driven cooling towers." See NRC Press Release, III-07-24, "NRC Begins Special Inspection at Byron Nuclear Station to Review Corrosion and Leakage of Equipment Cooling Water Pipe" (October 23, 2007), ML072960643.

- Similar leaks have been detected at other nuclear power plants, including Salem and Connecticut Yankee (Haddam Neck) as well as the spent fuel pool at the Brookhaven National Laboratory on Long Island. See NRC Office of Nuclear Reactor Regulation, "Spent Fuel Pool Leakage To Onsite Groundwater," NRC Information Notice 2004-05, March 3, 2004 (Salem); NRC Office of Nuclear Reactor Regulation, "Groundwater Contamination Due to Undetected Leakage of Radioactive Water," NRC Information Notice 2006-13, July 10, 2006 (discussing leaks at Haddam Neck and other locations); General Accounting Office, Information on the Tritium Leak and Contractor Dismissal at the Brookhaven National Laboratory (GAO/RCED-98-26) November 1997.

Therefore, it is imperative that licensees of currently operating power reactors conduct their operations to minimize the introduction of residual radioactivity into the site, including subsurface soil and groundwater.² To reduce and subsequently remediate ongoing and long-term contamination of subsurface soil and groundwater, licensees of currently operating reactors must monitor and report to NRC and the public any and all leaks and spills that could result in such contamination. In addition, these reports must form the basis for regular updates to the decommissioning cost estimates of each currently operating reactor site.

² As a caveat to this support, Riverkeeper strongly disagrees with the Rulemaking Staff's "interpretation" of the applicability, or lack thereof, of both §20.1406 and §20.1501. See Comments Section C, *infra*.

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B. Riverkeeper supports the proposed change to §20.1501(a) that would replace the term “radioactive material” with “residual radioactivity.”

Riverkeeper agrees that the undefined term “radioactive material” in 10 CFR 20.1501(a) should be replaced with “residual radioactivity,” in accordance to its definition in 10 CFR § 20.1003. (FR 38140) However, the proposed changes to 10 CFR §20.1501(a) are insufficient, in that the survey of subsurface radioactivity must include a comprehensive assessment of groundwater hydrology onsite, in order to determine both the potential for offsite migration of contamination, and the feasibility of remediation efforts. This requirement must be clearly spelled out in the language of the regulation, in order to make it binding upon licensees. The current language is unacceptably vague.³

Furthermore, 10 CFR 20.1501(b) requires that records from surveys “describing the location and amount of subsurface residual radioactivity identified at the site” be kept. It is unclear whether the surveys made by licensees are simply one-time snapshots of residual radioactivity at one point in time, or if the surveys are to be conducted periodically. Regardless, the regulation must specify that surveys are mandatory, conducted periodically, and the results submitted to the NRC and made public. In our view, this is the only way the regulation can be effective in reducing the likelihood of significant leaks or spills from the same sources and can ensure that any contamination that has occurred in the past is not ongoing.

C. Riverkeeper strongly disagrees with the NRC Staff’s conclusion that currently operating power reactor licensees’ voluntary adherence to the NEI Groundwater Protection Initiative is sufficient to comply with the proposed amendments to 20.1406 and 20.1501.

1. Riverkeeper does not agree with the use of “to the extent practical” in the proposed 10 CFR 20.1406(c) to limit the scope of the provision to actions that are already manifested in practice or action. (FR 3819)

The scope of the provision must not be limited to this extent, as actions already in practice are clearly not sufficient to minimize “residual radioactivity.” In order to comply with the unrestricted use criteria of 10 CFR 20.1402 after decommissioning, it is imperative that power reactors are operated in a manner that minimizes the quantity of residual radioactivity released onsite from current operations, as clearly required by 20.1406.

The NRC staff relates the proposed requirements in 10 CFR 20.1406 to those in the current 10 CFR 20.1101(b), which require each licensee to use, *to the extent practical*, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are “As low as reasonably achievable” (ALARA). However, 10 CFR 20.1101(b) applies to occupational doses and public health impacts, not to environmental impacts. High levels of residual radioactivity in subsurface soil and groundwater, if left unremediated, will have adverse

³ 73 FR 3812, at 3836, contains the proposed language of §20.1501(a).

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and long-lasting environmental impacts, and can significantly increase the cost of decommissioning. The term "to the extent practical" cannot be used in 10 CFR 20.1406 as it is used in 10 CFR 20.1101(b) to limit the scope of the provision to actions that are already in practice. Current power reactor licensee efforts to comply with the regulatory ALARA limits are clearly not working, as evidenced by the recent spate of groundwater contamination discoveries at plants around the country.⁴ In addition, as the NRC staff states in the proposed rule,

Under current regulations, residual radioactivity that enters the ground at a site may go undetected because there are generally no NRC requirements to monitor the ground water onsite for contamination. Based on past NRC experience, significant concentrations or quantities of undetected and unmonitored contamination, caused primarily by subsurface migration or ground water, has been a major contributor to a site becoming a legacy site and a potential radiological hazard.

(FR 3819-3820)

According to the NRC's own Tritium Task Force Report, "[t]he offsite environmental impact from abnormal releases to groundwater ... cannot be readily monitored and evaluated based on the current groundwater monitoring requirements."⁵ Licensees have either not documented onsite spills and leaks or documented them and not submitted reports to the NRC, due to the absence of any requirement to do so under 10 CFR §50.75(g). This regulatory loophole has resulted in residual radioactivity accumulating in the subsoil and groundwater at a number of reactor sites, creating possible future "legacy sites."

The rulemaking staff also notes that several power reactor licensees who have decommissioned their reactor sites have experienced higher decommissioning costs than planned because of larger volumes of contaminated soil than was identified in the initial site characterizations. (FR 3819) The NRC refers to the Connecticut Yankee Nuclear Plant, a site at which decommissioning costs doubled after high levels of groundwater contamination were "discovered." *Id.* It was not until Connecticut Department of Environmental Protection *required* Connecticut Yankee to test for Strontium-90 did the licensee comply, even after NRC urged Connecticut Yankee to test groundwater more comprehensively.⁶ In August 2006, several thousand gallons of radioactive water leaked out of a retired reactor at the San Onofre Nuclear Power Plant over an unknown period of

⁴ Liquid Radioactive Release Lessons Learned Task Force Final Report, NRC, September 1, 2006, ADAMS Accession Number ML062650312. (Hereinafter "Tritium Task Force Report").

⁵ *Id.* at Section 3.1.3 pg 15.

⁶ Gary Libow, *Electric Customers Could Get Rebates if CT Judge Deems 456 Percent Increase Excessive*, HARTFORD COURANT, Nov. 4 & 8, 2005, available at http://www.grassrootspeace.org/news_opinion_headlines/nov-12-2005-electric-customers-could-get-rebates-if-ct-judge-deems-456-percent-increase-excessive/, (last visited May 6, 2008).

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time.⁷ Although the nuclear facility stated that the leak might have started decades earlier, it was only accidentally found by crews demolishing the retired reactor during the decommissioning process. Clearly, the leak would have been detected much earlier if regular onsite groundwater monitoring had been required.

Riverkeeper also disagrees with the rulemaking staff's assertion that current regulations, specifically 10 CFR §50.36a(2), ensure that power reactor licensees conduct adequate monitoring of radioactive effluent discharges, and make such information public. The annual effluent release reports required by 50.36a(2) have little to do with unmonitored radioactive releases onsite; rather, they are focused almost entirely on documenting permitted discharges of airborne, gaseous, and liquid radioactive effluent from monitored pathways into the offsite environment. In Indian Point's case, the *unmonitored* releases of tritium and strontium-90 into groundwater only became part of the effluent release reports *after* the leaks were discovered, and onsite groundwater monitoring began. As we have repeatedly stated, there is currently no regulatory requirement for power reactor licensees to conduct onsite groundwater monitoring for residual, plant related activity, despite the specific recommendation of the Tritium Task Force Report to require just such monitoring.⁸ Instead, the NRC has passively accepted the NEI Voluntary Initiative and apparently deferred any decision whether to ever require such onsite monitoring. This is yet another example of the NRC kowtowing to industry pressure, putting the industry's economic concerns ahead of the environment and public concerns.

2. The NRC must require all power reactor licensees to conduct onsite surveys pursuant to §20.1501 in order to determine the degree of subsurface residual radioactivity, instead of relying on licensees' voluntary participation in the NEI Groundwater Protection Initiative.

In the Regulatory Analysis for Proposed Rulemaking – Decommissioning Planning, NRC staff takes the position that power reactor licensees are not affected by rule change because they've implemented "effective ALARA prevention and monitoring."⁹ This apparently refers to the voluntary guidance for licensees developed by the Nuclear Energy Institute (NEI) in the Industry Ground Water Protection Initiative (GPI). Riverkeeper does not agree with the NRC that power reactor licensees would not need to install additional monitoring equipment or modify existing operating procedures to satisfy the propose 20.1501(a) requirements. In order for power reactor licensees to "make or cause to be made, surveys that ... [a]re reasonable under the circumstances to evaluate ... [c]oncentrations or quantities of residual radioactivity; and [t]he potential radiological hazards of the radiation levels and residual activity detected," (FR p. 3814) licensees must have monitoring systems installed or modified to detect radionuclide leaks and spills into subsoil and groundwater.

⁷ *Radioactive Water Seeps Out of San Onofre Nuclear Plant*, ABC 7 News, Aug 19 2006, available at <http://abclocal.go.com/kabc/story?section=news/local&id=4474687>, (last visited May 2, 2008).

⁸ Tritium Task Force Report at 15.

⁹ Regulatory Analysis for Proposed Rulemaking – Decommissioning Planning, ADAMS Accession Number ML073531819, at pg. 12.

The voluntary initiative is insufficient for several reasons: (1) NEI's own language supports the need for onsite, periodic groundwater monitoring and reporting to NRC and the public; (2) the current groundwater monitoring requirements fail according to The Tritium Task Force Report; and (3) examples of inaccurate reporting by reactor sites addressed by the Union of Concerned Scientists to NRC.

In its News Release regarding the voluntary guidance policy, NEI states: "[n]uclear power plants are required by the NRC to regularly monitor and report the presence of radioactive material in the environment. This voluntary policy recognizes that public expectations can exceed the regulatory requirements."¹⁰ As stated by Ralph Andersen, Nuclear Energy Institute's chief health physicist:

"The new industry wide program recognizes that, even though radioisotopes have not been detected off-site at levels that would jeopardize public health, the industry should adopt a higher standard of excellence in radiation protection that goes beyond what NRC regulations require. The industry should adopt a higher standard of excellence in radiation protection that goes beyond what NRC regulations require. Even in the instances where inadvertent radiological releases in groundwater occur at levels that do not require formal reporting, we should inform local and state leaders and the public as a matter of openness and transparency. This is an essential part of maintaining public trust and confidence."¹¹

Simply recommending voluntary monitoring and reporting is not sufficient to meet public expectations. If the objectives of the initiative are to (1) improve the management of situations involving inadvertent radiological releases into the groundwater, and (2) enhance trust and confidence on the part of local communities are to be met, mandatory monitoring and reporting must be implemented. Environmental protection initiatives are not currently being met under the voluntary policy.

In order for the new policy to "prevent migration of even very low levels of radioactive material off plant sites and to quantify impacts on the eventual decommissioning of facilities," (NEI – Policy..) every company operating a nuclear power plant *must* have a *mandatory* monitoring and reporting system to detect leaks and spills. NRC *must require* that operating facilities submit a 30-day report to the NRC for any sample of on-site groundwater that exceeds the radiological criteria in the company's existing radiological monitoring program for off-site water samples, regardless of whether it is or may be used as a source of drinking water.

¹⁰ *Id.*

¹¹ *Nuclear Energy Industry Unveils New Policy To Manage Inadvertent Radiological Releases*, Nuclear Energy Institute, May 9, 2006, available at <http://www.nei.org/newsandevents/newpolicyreleases/> (last visited April 22, 2008).

Furthermore, radiological releases in groundwater occurring at levels not requiring formal reporting under NRC regulations do occur at levels that potentially impact the surrounding environment and biota. At the Indian Point Nuclear Power Plant, the NRC has confirmed that highly radioactive water has been found leaking from Indian Point 1 spent fuel pool into the groundwater underneath the plant and leaching into the Hudson River for years contributing strontium-90 to the groundwater contamination.¹² Although the impact of these leaks on Hudson River ecosystem has been minimally studied, results from sampling of fish, shellfish and sediment determined that strontium-90 and cesium-137 are potentially bioaccumulating in the environment.¹³

As mentioned above, the current groundwater monitoring requirements fail to adequately implement the core recommendations of the Tritium Task Force Report; “[t]he offsite environmental impact from abnormal releases to groundwater ... cannot be readily monitored and evaluated based on the current groundwater monitoring requirements.”¹⁴ Furthermore, the “determination of negligible health and environmental impacts required the establishment of new groundwater and/or surface water monitoring to evaluate current and potential movement of the release material; additional radionuclide analyses to define the actual source term radionuclides and their quantities; and supplemental bounding dose calculations or long-term environmental monitoring programs.”¹⁵

The NEI voluntary program also fails to address one of the key findings of the Tritium Task Force Report; namely, there is currently no requirement for licensees to conduct onsite groundwater monitoring for radioactive contamination and leakage. The report recommends that “[t]he NRC should develop guidance to the industry for detecting, evaluating, and monitoring release from operating facilities via unmonitored pathways.”¹⁶ The revision of Regulatory Guide 4.1, “Environmental Monitoring for Nuclear Power Plants” to include an onsite environmental monitoring program for leaks and spills is not sufficient to address the lack licensee requirements to monitor radioactive contamination/leakage.¹⁷ There must be mandatory, periodic monitoring of onsite groundwater at all reactor sites, whether there is current evidence of contamination or not. This is the only way to prevent the accumulation of contamination in the future. Simply keeping internal records of leaks and spills, pursuant to the minimal requirements of §50.75(g), does not adequately address the issue of long-term contamination.

¹² Entergy’s description of the groundwater investigation can be found on the New York State Emergency Management website at <http://jic.semo.state.ny.us/PlantStatus/PlantStatusMain.aspx>, last accessed May 30, 2007. See also NRC’s website on the Indian Point leaks at <http://www.nrc.gov/reactors/plant-specific/items/indian-point/on-going-activities05.html>, last accessed May 30, 2007.

¹³ Memorandum from S. Sandike, Sr. Chemistry Specialist to T. Burns, NEM Supervisor, “Dose Assessments from Sr-90 in the Hudson River for Fish and Invertebrates-January 2007 Results,” January 17, 2007, IPEC-CHM-07-002.

¹⁴ Liquid Radioactive Release Lessons Learned Task Force Final Report, NRC, September 1, 2006. Section 3.1.3 pg 15.

¹⁵ *Id.*

¹⁶ *Id.* at Section 3.1.4.

¹⁷ Liquid Release Task Force Recommendations Implementation Status as of February 26, 2008.

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The NRC reports that several nuclear power plants recently reported abnormal release of liquid tritium and that inadvertent releases of material to ground water occurs which resulted in groundwater contamination (FR 3820). Some releases, leaks and spills *if found* are reported, however *many* leaks are discovered only by accident during secondary projects (e.g. onsite construction) because of the lack of an onsite groundwater monitoring requirement.

Leakage of highly radioactive water from the Indian Point 1 spent fuel pool continued for at least 12 years before being detected and hence reported.¹⁸ The interim fix installed in the early 1990s did not fully contain the leakage, yet the failure of the leak collection system went undiscovered for over a decade, until high levels of strontium-90 were detected in monitoring wells near the Hudson River in March 2006.¹⁹

The Indian Point 2 spent fuel pool leak was found in 1992 and then supposedly repaired.²⁰ Leakage from the Indian Point 2 pool was noticed during excavation near the concrete wall of the pool in August 2005, and subsequent testing of the groundwater near the pool discovered high levels of tritium, at many times the EPA drinking water limit.²¹ Regardless of whether Indian Point's current groundwater monitoring is sufficient, plants without monitoring wells could develop leaks, or could have spills that cause groundwater contamination which could potentially continue undetected for long periods of time, as noted in the Tritium Task Force Report.

The NRC should be well aware of the inherent shortcomings of the NEI voluntary initiative. The Union of Concerned Scientists addressed the issue of inaccurate and incomplete reporting of leaks under this program at Oyster Creek Generating Station in a series of letters to the NRC.²² In Oyster Creek's response to a groundwater protection data collection questionnaire sent to NRC staff, the licensee falsely stated that "[t]here have been no station events requiring remediation efforts at Oyster Creek Station."²³ This is flatly contradicted by an earlier letter transmitting Event Report 50-219/82-51, sent from Oyster Creek to NRC Region 1, which stated: "an abnormal degradation of the Waste Surge Tank located outside on the northwest side of the Old Radwaste Building caused an unmonitored release of radioactive liquid to the soil in the vicinity of the tank

¹⁸ See Hydrogeologic Site Investigation Report for the Indian Point Energy Center, GZA GeoEnvironmental, Inc., January 7, 2008, at pg. ix.

¹⁹ *Id.*

²⁰ *Id.* at viii, ix.

²¹ *Supra* Note 12.

²² See letter to Luis A. Reyes, Executive Director of Operations, NRC, from David Lochbaum, Director, Nuclear Safety Project, Union of Concerned Scientists, dated April 10, 2007, *see also* supplement letter to Luis A. Reyes, Executive Director of Operations, NRC, from David Lochbaum, Director, Nuclear Safety Project, Union of Concerned Scientists, dated April 26, 2007.

²³ Letter from Mr. James J. Randich signed for Mr. Timothy S. Rausch, Site Vice President at Oyster Creek Generating Station and sent in the groundwater protection data collection questionnaire to Mr. Stuart A. Richards on NRC staff, dated July 31, 2006. This letter is publicly available in ADAMS under ML062280608.

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via tank, pump, and/or attached pipe leakage... [and] contaminated soil above 10 CFR 30.70 limits has been removed.”²⁴

Furthermore, the July 31, 2006, answer to survey question 2 stated: “[t]he Station has a groundwater monitoring network that was installed in 1983, for the purpose of detecting any radiological contaminants in the groundwater beneath the facility that could be attributable to leaks or spills from plant systems, structures or components.” This groundwater monitoring network was installed in 1983 as a direct response to the 1982 leakage event that resulted in the aforementioned remediation. The submittal by the licensee was voluntary, however 10 CFR 50.9 requires information submitted to NRC by its licensees to be complete and accurate. The July 31, 2006 submittal was clearly not. The response of NRC staff to the Union for Concerned Scientists letter confirms that volunteer programs are problematic and provide the NRC no recourse for inaccurate or incomplete reporting;

“[i]n summary: (1) Oyster Creek's response to the survey was voluntary; (2) the survey responses were not required by statute, Commission regulations, orders, or license conditions; and (3) the historical information concerning leakage from the waste surge tank was reported as required and subsequently inspected by NRC almost 25 years ago. The omission of this information was not material in any respect to NRC's decision-making process affecting the purpose and intent of the LLTF, or any aspect affecting NRC-regulated activities. We expect licensees to always provide accurate and complete information to the NRC.”²⁵

It is without question that the NEI voluntary initiative is failing to live up to its stated purpose. Indeed, it is unclear how the NRC continues to justify its reliance on an industry sponsored initiative that is aspirational at best, and a poor substitute for adequate regulatory oversight by the NRC.

Furthermore, in the next several years the relicensing of nuclear power plants will allow continued operation far passing the original operating life they were designed for. As a result of this prolonged operation, the safe design capacity of spent fuel pools will continue to be surpassed, resulting in tightly packed pools that will, by default, be needed to store spent fuel for an as yet undetermined amount of time. The current voluntary monitoring program has already proven ineffective in finding and reporting spills and leaks. The continued failure of the federal government to establish a long term repository for nuclear waste at Yucca Mountain means that all the spent fuel produced during the additional twenty-year life span of a relicensed plant will have to be stored onsite, which

²⁴ Letter from Peter B. Fiedler, Vice President and Director – Oyster Creek, to Mr. Ronald C. Haynes, Administrator of NRC Region I, dated November 23, 1982. This letter is publicly available in the NRC's PDR and LPDRs under accession nos. 8212080240 and 8212080263.

²⁵ Letter to David Lochbaum, Union of Concerned Scientists from Luis A. Reyes, Executive Director for Operations, NRC, dated May 7, 2007.

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may increase the likelihood of spills and leakage from the aging spent fuel pools.²⁶ Such unidentified spills and leaks can accumulate in subsoil and groundwater, creating severe adverse impacts on the environment and leading to higher decommissioning costs and creation of future “legacy sites.”

3. The NRC must define “significant contamination” in its regulations.

NRC comments that “no additional surveys will be required of power reactor licensees... monitoring and related reports would contain sufficient information to satisfy the proposed 20.1406(c) and 20.1501.” (FR 3821) Current requirements under 50.75(g), etc. are not sufficient, because they are not made public and do not specify/define what constitutes “significant contamination.” This must be defined in the regulations.²⁷

Operating facilities *must be required* to inform state and local officials, with follow-up notification to the NRC on-site leaks and spills into groundwater and on-site or off-site water sample results exceeding established criteria in the radiological monitoring program. NRC cannot rely on an undocumented promise from an industry with a long track record of broken promises.

C. All surveys and reports of leaks and spills prepared pursuant to §§ 20.1406, 20.1501 and 50.75(g) must be submitted to the NRC and disclosed to the general public through publication on the NRC’S ADAMS Database.

In the proposed rule, the NRC states there is no requirement for licensees to submit reports, they are only required to keep reports onsite. (FR 3821) Riverkeeper strongly disagrees. Reports should be submitted to NRC and made public on ADAMS. The public has a right to know what radioactive materials, whatever the amount, are being “inadvertently” discharged, whether through leaks or spills, into the environment. In the past several years occurrences of spills and leaks have increased at a number of plants around the country, resulting in a high level of public concern. The inaccurate and misleading information regarding the presence of high levels of radioactive contamination near the Hudson River caused by the Indian Point leaks resulted in negative perceptions regarding the degree of environmental harm and the adequacy of the licensee and NRC response. The heightened level of public concern surrounding these leaks was addressed by the NRC in its Task Force Report of September 2006.²⁸ The

²⁶ Alternatively, even if Yucca Mountain is eventually approved and put into use, there is only enough space in the repository to store spent fuel produced by all nuclear plants in the U.S. until 2011. At that point the repository will reach its capacity. App. A, Table. A-7, Vol. II, *Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High Level Radioactive Waste at Yucca Mountain, Nye County, Nevada*, February, 2002.

²⁷ See also Tritium Task Force Report, Section 3.2.1.4, pg. 22, “[the staff should] clearly define ‘significant contamination.’”

²⁸ Liquid Radioactive Release Lessons Learned Task Force Final Report, U.S. Nuclear Regulatory Commission (September 1, 2006), ADAMS Accession No.

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report commented on the widespread media coverage and concern voiced by State and local officials.²⁹ Referring to the incidences of leakage at Braidwood and Indian Point, the report noted that "Public meetings in the vicinity of the plants were widely attended, and the opinion expressed by the audiences was generally negative toward both the plant operator and the NRC."³⁰ Radioactive contamination of any degree is inherently controversial, and no less so when it is occurring unseen and undetected for long periods of time, as the Indian Point leaks were before Entergy "discovered" them in 2005. The public has a right to accurately know what radioactive materials are being inadvertently released into the environment.

II. Riverkeeper comments on changes to 10 CFR § 50.82.

Riverkeeper generally supports the proposed changes under 50.82(a). Specifically, the requirement of additional details of decommissioned power reactor licensees in the PSDAR under proposed 10 CFR 50.82(a)(4)(i), and reporting of the actual costs of decommissioning before license termination as proposed under 10 CFR 50.82(a)(8)(v) be provided to NRC accurately without reference to confidential information so that NRC may apply the information in reviewing similar decommissioning activities that are planned or in progress. (FR 3322 Section L) This is conditioned upon required public disclosure of all yearly reports on decommissioning fund status and funds spent. (*see* FR 3843).

The public has the right to know the amount of funds accumulated to cover the current cost of managing spent fuel; the projected costs of spent fuel management until the Department of Energy takes title to the spent fuel; and the plan to obtain additional funds if the accumulated funds do not cover the projected costs to be identified. Reports should be submitted to NRC and made public on ADAMS.

III. Riverkeeper comments on changes to 10 CFR § 72.30

Riverkeeper supports additional requirements for decommissioning funding updates for independent spent fuel storage installations (ISFSI), such as the dry cask storage facility at Indian Point. Concern over the permanent solution to onsite nuclear waste storage continues to grow, given the failure of the federal government to approve the Yucca Mountain repository. Even if Yucca Mountain is eventually approved and put into use, there is only enough space in the repository to store spent fuel produced by all nuclear plants in the U.S. until 2011. At that point the repository will reach its capacity.³¹ As a result, all the spent fuel produced during the additional twenty-year life span of a relicensed plant will have to be stored onsite, or in a second, as yet unnamed repository

ML062650312.

²⁹ *Id.* at ii.

³⁰ *Id.*

³¹ App. A, Table. A-7, Vol. II, *Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High Level Radioactive Waste at Yucca Mountain, Nye County, Nevada*, February, 2002.

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that is potentially decades away from approval. At present, the best guess for Yucca Mountain's opening is 2018. The Department of Energy (DOE) has yet to submit its license application for Yucca Mountain to the NRC for approval, a proceeding which will undoubtedly result in protracted litigation and opposition from the state of Nevada, public stakeholder groups and additional states through which the waste would be transported on its way to Yucca Mountain. It is critical that the NRC requires ISFSI licensees to maintain adequate funding to decommission these facilities, if and when a permanent repository becomes available.

IV. Riverkeeper comments on changes to 10 CFR § 72.50

Riverkeeper supports the proposed addition to 10 CFR §72.50 requiring license transfer applications to contain financial assurance for decommissioning. This is especially true for plants owned by Entergy, which recently applied to the NRC to "spin off" its merchant nuclear plants into a new holding company with limited financial assets. Under the current regulations, it remains unclear what financial assurances applicants have to provide to the NRC to address this issue.

V. Riverkeeper comments on the permissibility of "fee incentives" in 10 CFR §171.11(b)

"Fee incentives," as permitted in 10 CFR § 171.11(b), can not be used to induce licensees to characterize subsurface residual radioactivity while their facility is operating, instead of waiting until the facility is in decommissioning. To use the exemption of annual fees as a "fee incentive" would go against Congress' requirement that the NRC collect user fees.

10 CFR §171 was promulgated as "necessary to comply with the statutory mandate of the Consolidated Omnibus Budget Reconciliation Act of 1985(COBRA)."³² COBRA requires the NRC to assess and collect annual charges from persons licensed by the Commission pursuant to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) in an amount to approximate 33 percent of the Commission's estimated budget.³³ The Congressional Managers of COBRA, in describing this legislative provision, asserted: "[t]he charges assessed pursuant to this authority shall be reasonably related to the

³² 51 Fed. Reg. 33224 (Sept. 18, 1986).

³³ Pub. L. 99-272 (1986) (Section 7601 of the Budget Reconciliation Act states that the charges assessed shall be established by rule and, specifically, in paragraph (b)(I) that: the Nuclear Regulatory Commission shall assess and collect annual charges from its licensees on a fiscal year basis, except that; (A) the maximum amount of the aggregate charges assessed pursuant to this paragraph in any fiscal year may not exceed an amount that, when added to other amounts collected by the Commission for such fiscal year under other provisions of law, is estimated to be equal to 33 percent of the costs incurred by the Commission with respect to such fiscal year; and (B) any such charge assessed pursuant to this paragraph shall be reasonably related to the regulatory service provided by the Commission and shall fairly reflect the cost to the Commission of providing such service. The legislative history shows that Congress intended the authority of this mandate to go beyond that contained in the Independent Offices Appropriation Act (IOAA) of 1952 (65 Stat. 290; 31 U.S.C. 9701)).

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regulatory service provided by the Commission and fairly reflect the cost to the Commission of providing such service.”³⁴ This is intended by the conferees to establish a standard separate and distinct from the Commission's existing authority under the Independent Offices Appropriation Act of 1952, in order to permit the Commission to more fully recover the costs associated with regulating various categories of Commission licensees.³⁵

Thus, under the Final Rule power reactor licensees must pay an annual charge (COBRA) under §171 and Independent Offices Appropriation Act (IOAA) of 1952³⁶ fees under §170.³⁷ NRC goes on to state that in COBRA, “Congress had laid down a standard ... the NRC is to recover approximately 33 percent of its budget from user fees... this delegation of authority to the NRC satisfies all Constitutional requirements.”³⁸ At the urging of Congress the NRC examined the impacts of the annual fee on power reactors with operating licenses to determine if exemptions should apply.³⁹ The only exemption stated in the final rule is Section 171.11 and provides that:

[T]he holder of a license to operate a power reactor who believes that the annual fee is unfair or overly burdensome may apply to the Commission for partial relief from the annual fee. The Commission may grant such relief, if it is persuaded by the licensee that factors such as age and size of the plant and size and impact on its customer rate base substantially reduce the NRC's regulatory costs for that plant and the benefits bestowed on that licensee below that of the other power reactors. Nevertheless, the agency's intent is to grant exemptions sparingly.⁴⁰

The NRC's proposal to allow exemptions to encourage compliance with existing or proposed regulations in the Decommissioning Planning Proposed Rule does not fit into the narrow range of exemptions contemplated in 10 CFR §171.11.

The NRC specifically addresses the amount of annual fees to be collected in promulgating the Final Rule, stating that although the COBRA provides the estimated amount of fees to be assessed is estimated to be equal to 33 percent of the costs incurred by the NRC (on its face creating a ceiling), “[t]he legislative history clearly indicates that

³⁴ See 132 Cong. Rec. H879 (Daily Ed. March 6, 1986); 132 Cong. Rec. S2725 (Daily Ed. March 14, 1986).

³⁵ *Id.*

³⁶ 65 Stat. 290; 31 U.S.C. 9701 (1952).

³⁷ See 51 Fed. Reg. 33224 (Sept. 18, 1986).

³⁸ *Id.* at 33225.

³⁹ *Id.* at 33227, see Proposed Rule 51 Fed. Reg. 24078, 24082.

⁴⁰ *Id.* at 33228, see 10 CFR 171.11 The Commission may, upon application, grant an exemption, in part, from the annual fee required pursuant to this part. An exemption under this provision may be granted by the Commission taking into consideration the following factors: (a) Age of the reactor; (b) Size of the reactor; (c) Number of customers in rate base; (d) Net increase in KWh cost for each customer directly related to the annual fee assessed under this part; and (e) Any other relevant matter which the licensee believes justifies the reduction of the annual fee.

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Congress expected the NRC to charge the full amount authorized by the statute.”⁴¹ Furthermore, the annual fee is “consistent with the President’s request to Congress that the NRC recover a far greater amount of its budget from user fees.”⁴² In the past 20 years, 10 CFR §171 has been amended to revise the fee schedules in response to COBRA amendments, which has increased the total percentage of the Commission’s budget required to be collected from power reactor licensees by the NRC.⁴³ The NRC cannot simply give a blanket exemption to all power reactor licensees under Part 171 by characterizing it as a “fee incentive” for complying with proposed regulation or a volunteer monitoring program.

In promulgating Part 171, NRC addresses public policy concerns and finds that “[n]o public policy would be served by reducing a power reactor’s annual fee because a utility violated NRC’s requirements. We are unwilling to attribute such an intent to Congress.”⁴⁴

In the proposed rule, NRC is trying to reduce and/or waive a power reactor’s annual fee because it is complying with existing or proposed regulation. This goes completely against public policy and Congressional intent. Furthermore, the public has a right to know the annual fees paid by reactor licensees. 10 CFR § 171.13 provides that the annual fees applicable to any NRC licensee subject to this part will be published as a notice in the Federal Register as soon as possible. Licensees must be required to characterize subsurface residual radioactivity while their facility is operating, without an annual fee exemption incentive.

⁴¹ *Id.*

⁴² *Id.*

⁴³ See 53 Fed. Reg. 30423 (Aug. 12, 1988)(Interim Rule); 53 Fed. Reg. 52632 (Dec. 29, 1988)(Final rule action necessary for the NRC to collect under 10 CFR Part 171 not less than 45 percent of the Commission’s budget for each of the Fiscal Years of 1988 and 1989 to comply with Section 5601 of the Omnibus Budget Reconciliation Act (COBRA) of 1987. The plain meaning of COBRA (of 1987) states: “in no event shall such percentage be less than a total of 45 percent of such costs in each such fiscal year.”)

⁴⁴ *Id.*

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08 May 2008 18:12:34 -0400

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2008 22:11:44 -0000

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spout.spiders.net with SMTP; 8 May 2008 22:11:37 -0000

From: Phillip Musegaas <phillip@riverkeeper.org>

To: <Rulemaking.Comments@nrc.gov>

CC: <john.sipos@oag.state.ny.us>,
"Janice Dean" <Janice.Dean@oag.state.ny.us>,
"Joan Matthews" <jlmatthe@gw.dec.state.ny.us>,
<phillip@riverkeeper.org>,
"Mary Lampert" <mary.lampert@comcast.net>,
<rochelle489@charter.net>,
<dlochbaum@ucsusa.org>

Subject: Riverkeeper Submission of Comments re: RIN 3150-AH45 Decommissioning Planning

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