NO. 09-0005-ag

UNITED STATES
COURT OF APPEALS
FOR THE SECOND CIRCUIT

BURTON v. USA

PETITION FOR REVIEW
UNITED STATES NUCLEAR REGULATORY COMMISSION

PETITIONER'S BRIEF

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(C) Filing dates establishing timeliness of Petition for Review

The NRC issued its final decision on November 6, 2008. The petition for review was filed within sixty (60) days of such issuance on January 5, 2009. Accordingly, the appeal is timely.

(D) The appeal is from a final order

This appeal is from a final order of the agency on November 6, 2008, which affirmed companion decisions of the Atomic Safety and Licensing Board and thereby disposed of all the petitioner's claims.

STATEMENT OF ISSUES PRESENTED FOR REVIEW

1. Did the petitioner present an admissible contention pursuant to 10 CFR § 2.309 and did the agency therefore err in dismissing the petition to intervene?
2. Did the petitioner's waiver petition satisfy the requirements of 10 CFR § 2.309 and did the agency therefore err in dismissing the petitioner's waiver petition?

STATEMENT OF THE CASE

The petition for review arises from the application by Entergy Nuclear Operations, Inc. ("Entergy") on April 23, 2007to the NRC to renew for additional 20-year terms the operating licenses for the Indian Point Nuclear Generating Units 2 and 3 ("Indian Point") located in Buchanan, New York.

Pursuant to the NRC's "Notice of Acceptance for Docketing of the Application

and Notice of Opportunity for Hearing," published on August 1, 2007 (72 Fed. Reg. 42,134), and in accordance with 10 C.F.R. § 2.309, the petitioner, Nancy Burton ("petitioner"), jointly for herself and on behalf of Connecticut Residents Opposed to Indian Point Relicensing ("CRORIP"), filed a petition to intervene and request for a hearing with the NRC on December 10, 2007 ("Petition to Intervene")(Joint Appendix A-1)(hereinafter "JA").

The petitioner is a resident of Redding, Connecticut, which is located approximately 25 miles due east of Indian Point. (JA-48) CRORIP is an *ad hoc* organization consisting of Connecticut residents and organizations opposed to the relicensing of Indian Point. (JA-1)[1]

The Petition to Intervene sets forth a single contention pursuant to 10 CFR §2.309(f) as its basis to challenge the relicensing application, as follows:

> Health risks from the cumulative effects of radiation exposure traceable to Indian Point routine and accidental releases during the projected relicensing term are substantial, have not been adequately accounted for in the RLA [relicensing application] and constitute new information which must be but which has not been analyzed under 10 CFR Part 51.

The Petition to Intervene was supported by the expert declarations of Joseph Mangano, an epidemiologist and executive director of the Radiation and Public Health Project (JA-9), and Dr. Helen M. Caldicott, pediatrician and a founder of

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[1] CRORIP is not a party to this Petition for Review.

Physicians for Social Responsibility (JA-34), as well as the petitioner's affidavit (JA-48).

Contemporaneously with filing the Petition to Intervene, the petitioner, also on behalf of herself and CRORIP, jointly filed a Petition for Waiver ("Petition for Waiver")(JA-52) pursuant to 10 C.F.R. §2.235 seeking a waiver for purposes of the pending relicensing proceedings of the NRC's Generic Environmental Impact Statement ("GEIS") with regard to (a) the exclusion of radiation exposures to the public and occupational radiation exposures during the license renewal term as "Category 1" excluded issues which do not require site-specific analysis and (b) its use of the 'Reference Man' dose models from 1980, together with the supporting affidavit of the petitioner.

In practical effect, the NRC's characterization of radiation doses to the public as a "Category I" issue in its 1996 GEIS completely precludes consideration of Indian's Point's releases of radiation - during routine as well as accident conditions - resulting in exposure and health consequences to the public over the entire projected future relicensing term in relicensing proceedings.

The petitioner submitted, through her experts, sworn declarations linking Indian Point's projected radiation releases during routine and accident conditions with measurably higher cancer rates corresponding with proximity to the nuclear

facility. Children's mortality from cancer in Fairfield County - including towns in Connecticut closest to Indian Point - was demonstrated to be higher than elsewhere in the state. Moreover, the petitioner demonstrated through the experts that Indian Point's known radiation releases to the air have substantially increased since 1996, due principally to a 40 per cent capacity increase and numerous power uprates allowed by the NRC.

In accordance with the provisions of 10 CFR §2.309, the NRC designated a three-member Atomic Safety and Licensing Board panel ("ASLB panel") to consider the petitions as well as those submitted by other petitioners.[2]

Both Entergy and the NRC staff filed answers to the Petition to Intervene and Petition for Waiver seeking dismissal of both on grounds of legal insufficiency. (Record 13, 14, 15) The petitioner, on behalf of herself and CRORIP, filed responses. (Record 18) The ASLB conducted an oral argument proceeding on March 12, 2008, at which *inter alia* it considered the petitions and objections thereto. (JA-61)

On July 31, 2008, the ASLB issued its decision on both the petition to intervene and the petition for waiver, dismissing them. (JA-97, JA-105)

On August 11, 2008, the petitioner, on behalf of herself and CRORIP, filed a

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[2] The proceedings on Entergy's relicensing application are continuing with regard to various other petitioners.

notice of appeal with the NRC with regard to such dismissals. (Record 26) On November 6, 2008, the NRC denied the appeal and affirmed the decisions of the ASLB. (JA-116)

On January 5, 2009, the petitioner served the present Petition for Review in this matter to challenge the NRC's dismissal of the Petition to Intervene and Petition for Waiver.

STATEMENT OF FACTS

1. To be admitted as a party to the Indian Point relicensing proceeding, a petitioner need demonstrate standing and must submit at least one admissible contention within the scope of the proceeding. 10 CFR §2.309(f).

2. The petitioner asserted her standing based upon the fact that she resides approximately 25 miles due east and downwind of Indian Point and thus is subject to exposure to radiation releases from Indian Point both on a routine basis and in accident conditions. (JA-49)

3. Citing Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), 53 NRC 138, 146-50(2001), the NRC deemed the petitioner to possess standing insofar as the NRC applies a "proximity presumption," whereby a petitioner is presumed to have standing to intervene without the need specifically to plead injury, causation and redressibility if the petitioner lives

within 50 miles of the nuclear power reactor." (Record 25 at 5)

4. The petitioner submitted one contention as follows:

> Health risks from the cumulative effects of radiation exposure traceable to Indian Point routine and accidental releases during the projected relicensing term are substantial, have not been adequately accounted for in the RLA [License Renewal Application] and constitute new information which must be but has not been analyzed under 10 CFR Part 51.

5. The contention was supported by the expert declarations of epidemiologist Joseph J. Mangano, executive director of Radiation and Public Health Project (JA-10) and Dr. Helen M. Caldicott, pediatrician and co-founder of Physicians for Social Responsibility. (JA-34)

6. The NRC's Generic Environmental Impact Statement ("GEIS") deems health effects from nuclear power plant operations to be a "Category 1" issue which need not be considered during relicensing proceedings absent new and significant information or a waiver of the rule.

7. The petitioner pointed to new and significant information about health effects of exposure to radiation[3]; moreover, the petitioner petitioned for waiver of application of the GEIS categorization of health issues as a "Category 1 " issue in the relicensing proceeding.

8. Additionally, the petitioner relied on the following facts to support the filings:

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[3] See Petition to Intervene and accompanying Declarations of Joseph J. Mangano and Dr. Helen M. Caldicott.

A. The GEIS was published in 1996; its analysis of radiation releases from nuclear power plants and effects on human health were based on studies undertaken in the **1970s and 1980s** during the infancy of the nuclear power plants before occurrences of leakages from aging and cracked components. **The GEIS asserts that radiation releases from nuclear power plants will decrease over time.**

B. Facts informing the GEIS are inapplicable to Indian Point, whose operational life has been characterized by some of the highest releases of radiation to the air of any commercial nuclear power station in the nation, and which are increasing, according to the applicant's own reports to the NRC.

C. During the previous six years, Indian Point's capacity factor had risen by 40 per cent - a number correlating with at least equal increases in radiation releases to the air.

D. Since publication of the GEIS, Indian Point has been granted several applications to amend its operating license to allow for power generation uprates; the percentage of uprate correlates with increased percentage of radiation releases to the air and a corresponding increase in health risks.

E. Epidemiological studies undertaken since 1996 correlate heightened cancer risks in communities nearest Indian Point. (Mangano Declaration)

F. Analysis of strontium-90 in baby teeth of children near Indian Point establishes a link between childhood cancer incidence, proximity to Indian Point and heightened strontium-90 levels. (Mangano Declaration)

G. Entergy asserts that radiation found in the environment near the nuclear power plant is "background radiation" and is not attributable to its nuclear power plant operations which admittedly release significant quantities of radiation to the air.

SUMMARY OF THE ARGUMENT

I. The petitioner submitted a legally sufficient contention to qualify for admission as a party to the proceedings.

A. To be accepted as an intervenor in an NRC licensing proceeding, a petitioner must propose at least one admissible contention. The petitioner submitted the following contention:

Health risks from the cumulative effects of radiation exposure traceable to Indian Point routine and accidental releases during the projected relicensing term are substantial, have not been adequately accounted for in the RLA [License Renewal Application] and constitute new information which must be but has not been analyzed under 10 CFR Part 51.

B. The petitioner submitted a legally sufficient contention under the criteria

applied by the NRC to qualify her admission as a party to the proceedings.

The NRC applies the criteria set forth in 10 CFR §2.309(f) to assess whether a contention is legally sufficient. Under each subsection of this provision, the contention meets all criteria.

II. The petitioner submitted a legally sufficient petition for waiver pursuant to 10 CFR §2.335.

The petitioner's petition for waiver asserts that special circumstances exist - including Indian Point's documented operational history of substantially increasing radiation releases since GEIS was adopted in 1996 - such that application of the categorical exclusion rule precluding consideration of Indian Point's projected radiation doses to the public during the relicensing period in the course of the relicensing proceedings would not serve the purposes for which the exclusionary rule was adopted.

ARGUMENT

I. The petitioner submitted a legally sufficient contention to qualify for admission as a party to the proceedings.

A. To be accepted as an intervenor in an NRC licensing proceeding, a petitioner must propose at least one admissible contention. 10 C.F.R. § 2.309(a). Section 2.309(f)(1) requires a petitioner to "set forth with particularity the

contention sought to be raised" and the petition need satisfy six criteria.

Thus, to be admissible, a contention must:

(1) provide a specific statement of the legal or factual issue sought to be raised;

(2) provide a brief explanation of the basis for the contentions;

(3) demonstrate that the issue raised is within the scope of the proceeding;

(4) demonstrate that the issue raised is material to the findings the N.R.C. must make to support the action that is involved in the proceeding;

(5) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents that support the petitioner's position and upon which the petitioner intends to rely; and

(6) provide sufficient information to show that a genuine dispute exists with regard to a material issue of law or fact.[4]

The petitioner's contention satisfies the standards of admissibility set forth in 10 C.F.R. § 2.309. In every respect, the contention meets the NRC's legal standards. The ASLB panel did not identify any failings by the petitioner in complying with the technical and substantive standards of 10 C.F.R. §2.309

The ASLB panel rejected the contention for one stated reason: that it was

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[4] See 10 C.F.R. §2.309(f)(1)(i)-(vi).

"outside the scope of this proceeding"[5] because the issue of health effects of Indian Point's radiation releases is a GEIS "Category 1" issue. The ASLB panel determined contemporaneously that the petitioner did not provide an adequate basis to qualify for a waiver of the Category 1 issue. The NRC employed circular logic to defeat the petitions. The Petition to Intervene provides the requisite factual and legal foundation to meet the requirements of 10 C.F.R. § 2.309(f) as follows:

(i) Provide a specific statement of the issue of law or fact to be raised or controverted.

Health risks from the cumulative effects of radiation exposure traceable to Indian Point routine and accidental releases during the projected relicensing term are substantial, have not been adequately accounted for in the RLA and constitute new information which should be but which has not been analyzed. The RLA dismisses these potential effects as being of only inconsequential ("small") concern, where they are of paramount concern to the petitioner and indeed all the communities in the environs of Indian Point and require consideration in the Indian Point relicensing proceedings as a matter of law.

(ii) Provide a brief explanation of the basis of the contention.

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[5] JA-113.

Indian Point released 17.50 Curies of radiation to the atmosphere between 1970 and 1993, making it the fifth highest of 72 nuclear power stations then operating in the U.S., behind Dresden, Oyster Creek, Millstone and Quad Cities. (Tichler J. et al. Radioactive Materials Released from Nuclear Power Plants, annual reports. Brookhaven National Laboratory, Upton NY, NUREG/CR-2907) More recent data collected by the NRC demonstrates a six-fold increase in release of fission gases from fourth-quarter 2001 to 1st quarter 2002, about 100 times higher than 1st quarter 2001, including a 15-fold increase for Xenon-133. These facts provide a basis for concern about the potential releases of radiation during the projected relicensing period as the facility ages and cracks and leaks which have been detected currently inevitably worsen over time. Indeed, these facts also suggest an upward trending of radiological releases, contrary to the RLA, which asserts that radiological releases will continue at "current" levels. See Entergy's Environmental Report, Operating License Renewal Stage, Section 4.23.3 ("Cumulative Radiological Impacts")("With respect to the future, the REMP sampling locations identified in the IP2 and IP3 ODCMs have not identified increasing levels or the accumulation of radioactivity in the environment over time.")

(iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding.

The issue of the environmental and health consequences of radiation releases to the environment is clearly within the scope of the Indian Point relicensing proceeding. In its Environmental Report, Appendix E, Entergy made reference to the issue of its release of radiological materials to the environment in Sections 2.11.2 ("Radiological Environmental Monitoring Program Air Sampling Program"), 3.2.3 ("Radioactive Waste Treatment Processes (Gaseous, Liquid and Solid)") and in 4.23.3 ("Cumulative Radiological Impacts"). 10 CFR Part 51 requires an analysis of the environmental impact of these releases during the projected relicensing term.

(iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding.

Ultimately, the NRC is charged with deciding whether Indian Point can operate safely through the projected relicensing term without causing harm to the health and safety of the public. The petitioner submits that continued Indian Point operations beyond the current licensing period will subject the public to undue health and safety risks which have not been adequately analyzed.

The NRC's NUREG-1555, Supplement 1, is very specific about what the licensee is required to analyze with regard to radiological impacts of normal

operations. See Section 4.3. Nevertheless, the RLA entirely omits data and information which is required regarding "new information on the radiological impacts of operation during the renewal term known to the applicant" as well as "new and potentially significant information on the impacts of renewal-term operations on radiological issues identified by the public."

The petitioner contends that information regarding the credible statistical link between elevated levels of strontium-90 detected in baby teeth of children living in the region surrounding Indian Point and heightened cancer and associated disease incidence in the same region has been made public and brought to the attention of Entergy for a sufficient period of time to require its presentation in the application pursuant to the NUREG 1555, Supplement 1 passage quoted above, *inter alia*. This information is further developed in the Declaration of Joseph J. Mangano and his related report, "Public Health Risks to Fairfield County CT of Keeping the Indian Point Nuclear Reactors Open" (September 12, 2007)(JA-18). Entergy's deliberate omission of this information requires admission of this contention.

(v) Provide a concise statement of the alleged facts or expert opinions which support the requestor/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue.

The petitioner presented facts supporting her contention through the Declaration of Joseph J. Mangano, MPH, MBA, Executive Director, Radiation and Public Health Project and his report titled "Public Health Risks to Fairfield County CT of Keeping the Indian Point Nuclear Reactors Open" (September 12, 2007), together with the sources cited by Mr. Mangano. The Declaration of Helen M. Caldicott, M.D. addressed to medical hazards of nuclear power generation is also incorporated in the Petition to Intervene.

Thus, the petitioner asserted that a statistical link has been established between elevated levels of the fission product strontium-90 in baby teeth of children living near Indian Point and heightened incidences of cancer and related diseases in the same population. Heightened health risks from exposure to Indian Point-generated radiological releases – which are cumulative in effect in the human body - coupled with the inevitable progression of cracking and leaking as the facility ages lead to the conclusion that continued operation of Indian Point in the projected relicensing term cannot occur without undue and therefore unacceptable risk to the public health and safety.

(vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must contain references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter

as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

Entergy's Environmental Report, Operating License Renewal Stage. Section 4.23.3 ("Cumulative Radiological Impacts") states in pertinent part:

> On the basis of an evaluation of REMP [Radiological Environmental Monitoring Operating Reports] results, Entergy concludes that impacts of radiation exposure on the public and workers (occupational) from operation if IP2 and IP3 during the renewal term would be SMALL.. . . and therefore mitigation measures are not warranted.

The petitioner contends that Entergy failed to adequately evaluate the impact of its radiological releases on the public health during the projected relicensing term. In fact, the application is totally absent any analysis of the environmental impact of its radiation releases during the relicensing term on human health and on its own workforce.

B. The petitioner's contention fully complies with the requirements of 10 CFR § 309(f)(1) and is admissible for these proceedings.

"To trigger a full adjudicatory hearing, petitioners must be able to 'proffer at least some minimal factual and legal foundation in support of their contentions.'"In the Matter of Florida Light & Power Company (Turkey Point Nuclear Power Plant), 54 NRC 3, (2001), citing Duke Energy Corp. (Oconee Nuclear Stations, Units 1, 2 and 3), 49 NRC 328, 334 (1999). "Hearings should serve the purpose for which they are intended: 'to adjudicate genuine, substantive

safety and environmental issues placed in contention by qualified intervenors.' Id. (Citing H.R. Rep. No. 97-177, at 151 (1981). "While intervenors need not be technical experts, they must knowledgeably provide some threshold-level factual basis for their contention."

The petitioner has submitted a substantial factual and legal foundation in support of her contention, including expert declarations of Joseph Mangano and Dr. Helen M. Caldicott.

These submissions establish evidence of heightened risk of serious health effects to the community, including its most vulnerable population, its children, due to continued and recently enormously increased releases of radioactive materials into the air.

C. NEPA Requires the NRC to Consider New and Significant Information

NEPA, codified in 10 CFR §51.53(c)(3)(iv), requires license renewal applicants to address new and significant information or changed circumstances in their Environmental Reports ("Ers"), even if a matter would otherwise be considered a Category I issue.

NRC regulatory guidance defines "new and significant information" as follows:

> (1) information that identifies a significant environmental issue that was not considered in NUREG-1437 [the GEIS] and, consequently, not codified in

Appendix B to Subpart A of 10 C.F.R. Part 51 or (2) information that was not considered in the analyses summarized in NUREG 1437 and that leads to an impact finding different from that codified in 10 C.F.R. Part 51.[6]

Entergy argued that the NRC is barred from applying its own Regulatory Guidance.[7] The petitioner submits that the NRC should have accepted its "new and significant information" for analysis by admitting its contention.

II. The Petition for Waiver Meets the Commission Regulations

A. The Waiver Petition

On December 10, 2007, simultaneously with filing its Petition to Intervene and Request for Hearing, CRORIP petitioned the NRC for a waiver pursuant to 10 C.F.R. §2.335(b), for purposes of the pending relicensing proceedings, of the NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants ("GEIS")[8] with regard to (a) its exclusion of radiation exposures to the public and occupational radiation exposures during the license renewal term as Category 1 excluded issues which do not require site-specific analysis and (b) its use of the "Reference Man" dose models from 1980.[9]

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[6] RG 4.2, Supp. 1, "Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses, 4.2-S-4 (Sept. 2000), available at ADAMS Accession No. ML003710495.

[7] Entergy Answer (Record 15 at 26-28)

[8] See NUREG 1437.

[9] The applicable rules for which waiver is sought is 10 CFR §51.53(c), which provides in pertinent part as follows: "The environmental report for the license renewal stage is not

In an accompanying affidavit, Ms. Burton respectfully submitted that special circumstances with respect to the subject matter of the instant proceeding are such that the application of the categorical exclusion rule would not serve the purposes for which it was adopted.

In its most pertinent passages, the affidavit states as follows:

> 12. In the application at hand, the GEIS relegates the important topic of "Human Health" vis-a-vis radiation exposures to the public and occupational radiation exposures during the relicensing term to Category I exclusion.
> 13. Thereby, the GEIS excludes consideration of site-specific conditions involving human health impacts from radiological exposures to workers and the public during the public license renewal proceedings.
> 14. With regard to conditions at the Indian Point Nuclear Power Station, this is clearly an mistaken course to follow. Factors which demonstrate that the exclusion of Human Health as a Category I issue in these proceedings would not serve the purposes for which the rule was adopted include the following:
> A. It entirely removes from the proceedings arguably the most critical issue involved in continuation of operations during the license renewal term: the very health of the plant's workers and the public surrounding the plant. Thus, rather than effectuate the purposes underlying enactment of the GEIS - to assist the NRC and the applicant in complying with NEPA in an efficient way - it simply buries the issue so that the true environmental impacts cannot and will not be probed nor evaluated in the public proceedings.
> B. The Petitioners respectfully represents that Indian Point's radiological emissions cannot be completely disregarded as a possible factor in the high levels of strontium-90 found in baby teeth near the plant and the correlation found between high strontium-90 levels and elevated cancer incidences in the communities closest to the plant. (See Declaration of Joseph J.

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required to contain analyses of the environmental impacts of the license renewal issues identified as Category 1 issues in Appendix B to subpart A of this part."

Mangano, November 30, 2007, and attachments thereto, filed by Petitioners in support of the December 10, 2007 intervention petition and incorporated by reference herein.)

C. It is a fact that even the applicant recognizes that substantial leaks of radioactive material have occurred at the plant since GEIS was enacted in 1996: the occurrence of such leakages and the prospect for continued and/or worsening leakages in the relicensing term are issues which need be considered for their environmental impact to human health.

15. The Petitioner also seeks a waiver of the NRC's use of "Reference Man" - a healthy white male - in its dose calculations.

16. In 2005, the Committee to Assess Health Risks from Exposure to Low Levels of Ionizing Radiation (National Research Council of the National Academies) issued a report that concluded that women have a 52 per cent greater chance than men of getting cancer from radiation exposure. Seven years ago the Environmental Protection Agency had reached similar conclusions. Yet, radiation protection regulations applicable to U.S. nuclear power plants is still stuck in the past - their "reference" person is a man.

17. Thus, a central principle of environmental health protection - protecting those most at risk - women, children and fetuses - is missing from the regulatory framework.

18. As a consequence, the true health effects of Indian Point on the community and workers and their children from exposure to plant-generated radiation to date and in the projected relicensing period has been under-assessed.

19. Children and fetuses are at the highest risk: they suffer far higher doses from the same exposures adults receive. See "Science for the Vulnerable: Setting Radiation and Multiple Exposure Environmental Health Standards to Protect Those Most at Risk" at 35-37, 78 (". . . current dose limits, unchanged since the late 1980s and early 1990s need to be re-evaluated in light of today's knowledge regarding radiation risks and the recognition that the most vulnerable populations should be the focus of protective actions." (http://www.ieer.org/campaign/report.pdf) (October 19, 2006)(Arjun Makhijani, Ph.D. et al.)

20. Radiation releases - planned and unplanned, monitored and unmonitored are likely to increase as Indian Point's physical plant ages. See Declaration of Helen M. Caldicott, M.D. (filed by Petitioners on December 10, 2007 in support of their intervention petition and incorporated by reference herein).

21. Correspondingly, the true environmental impact of radiation exposures

on human health - to the public and plant workers - in the projected relicensing period should be examined on a site-specific basis as a Category II issue.

B. The Petitioner's Waiver Petition Satisfies the Requirements of 10 CFR §2.335(b).

A petitioner for waiver under 10 CFR §2.335 must demonstrate that it meets each of the following factors for a waiver to be granted:

> 1. The rule's strict application would not serve the purpose for which it was adopted;
> 2. The movant has alleged "special circumstances" that were "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived";
> 3. Those circumstances are "unique" to the facility rather than "common to a large class of facilities"; and
> 4. A waiver of the regulation is necessary to reach a "significant safety problem."[10]

A §2.335 petition can be granted "only in unusual and compelling circumstances."[11] Petitioner's waiver petition satisfies all requirements of 10 C.F.R. §2.335.

The petition sets forth compelling facts which establish *inter alia* a scientific correlation between high levels of strontium-90 recently found in baby teeth of children living near the Indian Point and heightened cancer incidences among children aged 0-9 living near Indian Point, as well as enormously increased levels

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[10] Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-20, 30 NRC 231, 235 (1989).

[11] Id.

of airborne radiation released by Indian Point since the NRC adopted the Generic Environmental Impact Statement ("the GEIS")(published in May 1996), which facts contribute to other information submitted by the petitioner to illustrate how Indian Point airborne releases of radiation are markedly increasing beyond levels assumed by the GEIS and human health is being significantly affected as a result.

C. The GEIS and Indian Point

The GEIS is the underpinning of the determination that radiation exposure is a Category I issue.[12] The GEIS reflects the NRC's awareness that "[H]ealth impacts on individual humans are the focus of NRC regulations limiting radiological doses and its dedication to adequately protecting the public from radiological doses." (the GEIS at 4.6) The GEIS was published in 1996, following a rulemaking proceeding that gathered information on past operational experience of the nation's nuclear power plants, including Indian Point. The GEIS states:

> Public Radiation Doses to the public during the license renewal term were estimated using current (baseline) levels and trends. [4.6.2]

(Accompanying Table 4.6 shows Indian Point but not Millstone releases, although Millstone had even higher airborne and liquid emissions than Indian Point.)

The GEIS further states:

> Projections into the future can be made on the basis of current trends. The

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[12] Entergy Answer at 36, footnote 173.

> first objective of the analysis was to determine to what extent known information about all sites could be used to predict what the dose commitment values for each site were for the years 1979-1987. [4.6.2.2]

Much of the information regarding operational experience thus is from the 1970s and 1980s - during the first and second decades of Indian Point operations when the plant was in its infancy. At 32 and 35 years of age, Indian Point is now at an advanced age. Since Indian Point Unit 2 went online in 1973, that means the GEIS was issued only two-thirds into Unit 2's current operating life, and less than two-thirds into Unit 3's current operating life, necessarily not taking into account the operational history which has evolved in the 12 years since the GEIS was published and not including any new or significant information developed in the intervening twelve (12) years of operating experience.

The major conclusions drawn by the GEIS which are pertinent to these proceedings appear in Section 4.6.2.3 and 4.6.2.4:

> 4.6.2.3 Projected Doses for License Renewal
> Similarly, radiation exposure to the average individual and collective dose to the population around a nuclear power plant are not anticipated to increase from present levels in the period after license renewal. Analysis of all available pertinent information suggests that, if anything, radiation doses to the public are decreasing.
> 4.6.2.4: No changes in the operation of power plants under license renewal are expected to increase radiation doses to the public compared with current operation.

Indeed, the GEIS concluded that future release from all nuclear power plants in

the United States would be so inconsequential that of the 150,000,000 people living within 50 miles of a nuclear power plant, there would only be 5 (five) fatalities attributable to exposure to nuclear power plant radiation during the relicensing periods of all.

The facts brought forth herein by the petitioner illustrate overwhelmingly why application of the rule excluding considerations of health effects of Indian Point radiation releases during the relicensing term would not serve the purpose for which the rule was adopted, namely, to aid the NRC to implement its "dedication to adequately protecting the public from radiological doses" in a relicensing proceeding. (The GEIS 4.6)

The petitioner has asserted in her filings that radiation releases from Indian Point have risen steeply since the GEIS was promulgated and that Indian Point has had a large and measurable effect on the health of its community that corresponds with such releases. Clearly, the conclusions drawn by the GEIS in Sections 4.6.2.3 and 4.6.2.4 do not apply to Indian Point.

The petitioner has presented "special circumstances" indeed which were clearly "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived."[13] Such "special circumstances

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[13] Public Service Co. of New Hampshire, supra.

are demonstrably "unique" to Indian Point, as has been shown herein.

As a practical matter, the NRC will not be able to address this discrepancy, now that it has been brought to its attention through these proceedings, in a revised GEIS applicable to these proceedings.

Clearly, a waiver of the regulation is necessary to address a significant safety problem, one involving to a significant degree the health of the children - and their families - living near Indian Point. Under these unusual and compelling circumstances, the only reasonable course is for the NRC to grant CRORIP's waiver petition.

(B) The petitioner's 2.335 petition was legally adequate.

The standards for waiver are set forth in 10 C.F.R. §2.335 as follows:

> . . . The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted. . .

The obvious purpose for adoption of the rule was to avoid unnecessary proceedings over issues so in common among nuclear power plants that it would be inefficient to deal with them in relicensing proceedings. Clearly, the petitioners demonstrated that Indian Point radiation releases are very different from the findings and standards incorporated in the GEIS with regard to health issues and radiation releases and exposures.

For example, the GEIS - published in 1996 - states that radiation releases from nuclear power plants would decrease over time. Yet, since 1996, radiation releases from Indian Point have increased substantially. Such increases are in part attributable to Indian Point's substantially increased capacity factor as well as recently allowed power uprates.

Indeed, the ASLB panel chairman found that the increased capacity factor is site-specific to Indian Point[14] - and thus the Order on Waiver is inconsistent with the ASLB panel chairman's own finding: the evidence of the 40 per cent increase in capacity factor of the past six years constitutes a *prima facie* showing of special circumstances unique to Indian Point that is a prerequisite to the grant of a waiver as the petitioners request.

There was no evidence before the ASLB panel that any other nuclear power plant in the nation had experienced a 40 per cent capacity factor increase during the past six years. Thus, the evidence submitted by the petitioner established a *prima facie* case of a site-specific condition warranting granting of the waiver. Nor was there any evidence before the ASLB panel that a 40 per cent capacity rate increase was considered as a factor by the GEIS.

Similarly, the GEIS's projection that radiation releases by nuclear power plants

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[14] Transcript of March 12, 2008 proceedings, JA-726.

CERTIFICATE OF COMPLIANCE

This is to certify that the foregoing brief contains 6585 words exclusive of the Table of Contents and Table of Authorities.

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

NANCY BURTON,	:	**09-0005-ag**
Petitioner	:	
v.	:	
UNITED STATES OF AMERICA	:	
UNITED STATES NUCLEAR	:	
REGULATORY COMMISSION	:	
ENTERGY NUCLEAR OPERATIONS, INC.	:	
Respondents	:	**April 6, 2009**

CERTIFICATE OF SERVICE

I, Nancy Burton, hereby certify that copies of the foregoing Petitioner's Brief were sent via U.S. Mail, postage pre-paid, and e-mailed on April 6, 2009 to the following:

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