

African American Environmentalist Association

Written Statement of

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For the

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For

License Renewal

For the

Indian Point Nuclear Power Plant

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Introduction

My name is Norris McDonald and I am the founder and president of the African American Environmentalist Association (AAEA). AAEA, founded in 1985, is an organization dedicated to protecting the environment, enhancing human, animal and plant ecologies and promoting the efficient use of natural resources. AAEA includes an African American point of view in environmental policy decision-making and resolves environmental racism and injustice issues through the application of practical environmental solutions.

AAEA supports the 20-year License Renewal for the Indian Point nuclear power plant located in Buchanan, New York. AAEA expressed public support for nuclear power for the first time in 2001 after a two-year internal process of studying and debating the issue. AAEA was the first environmental organization to support nuclear power and I was the first environmentalist to publicly support this technology. I am a veteran environmentalist with 28 years experience working on environmental and energy issues.¹

The AAEA headquarters office is located in the metropolitan Washington, D.C., area and we also maintain a New York City chapter located in Long Island, New York.² AAEA also has chapters in other states and in other countries.³

Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC (hereafter referred to as "Entergy") has submitted an Environmental Report (ER) in conjunction with the License Renewal Application (LRA) to the U.S. Nuclear Regulatory Commission (NRC) to renew the operating licenses for Indian Point Units 2 and 3 (IP2 and IP3) for twenty years beyond the end of the current license terms. AAEA will comment on the contents of the ER and provide its own environmental perspective about the LRA.

¹ Mr. McDonald has published numerous articles on environmental issues, including: Global Warming and the African American Community (<http://www.blackelectorate.com/articles.asp?ID=629> & <http://www.blackelectorate.com/articles.asp?ID=630>); What A Good Energy Policy Means for Blacks (<http://www.blackelectorate.com/articles.asp?ID=508>); and South Africa Takes the Lead in Nuclear Energy (<http://www.blackelectorate.com/articles.asp?ID=524>).

² <http://groups.msn.com/aaeanewyork>

³ Active: Nigeria, China, Hong Kong, Midwest, Southeast, Missouri. Inactive: Texas and Los Angeles

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Of particular import to AAEA is the promotion of clean air in African American communities. Because nuclear power is emission-free and has a demonstrated safety record, whereas fossil-fuel power contributes to numerous health issues, AAEA seeks to promote the safe use of nuclear power. AAEA specifically supports the Indian Point 2 and 3 nuclear power facilities because these facilities provide significant electrical capacity to the State of New York with minimal human, animal, air, water, and land impacts. This public support started in 2001 and continues to this day. The fundamental reasons that AAEA supports nuclear power are:

- Nuclear power provides electricity safely and reliably,
- Nuclear power produces no smog forming emissions,
- Nuclear power produces no greenhouse gases,
- Spent fuel can be reprocessed for reuse,
- Yucca Mountain is acceptable as a repository for non-recyclable products,
- Nuclear power has an excellent quarter century safety record, and
- Nuclear power plants can use nuclear bomb warhead material as a fuel.

Indian Point is one of 103 other commercial nuclear power plants that provide 20 percent of our nation's electricity.

Environmental Justice

Environmental justice is defined by AAEA as the fair treatment of all people regardless of race or income with respect to environmental issues. AAEA was among the participants at the U.S. Environmental Protection Agency in 1991 when environmental justice policies were first being considered by the agency. AAEA is currently promoting environmental justice locally, regionally and nationally.

The license renewal of Indian Point is vitally needed because if units two and three are not producing emission free electricity then the air pollution will increase throughout the region, which will exacerbate conditions in minority

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communities already overburdened by pollution sites. Indian Point provides reliable emission free energy without contributing pollutants that exacerbate asthma. Closure of Indian Point would also result in compliance issues for the State with respect to the federal Clean Air Act State Implementation Plan ("SIP") and to meeting the requirements of the Regional Greenhouse Gas Initiative (RGGI).

AAEA is deeply concerned with any policy or measure that impacts the air quality of the communities where it is based, or that affects the health of its members. Comments being submitted by our New York Office address the specific environmental justice issues that are negatively affecting minority communities. Those comments will specifically list how the operation of Indian Point continually mitigates those negative effects.

Environmental Justice Review

This section of the ER could be a little confusing to the casual observer. In one section it states, "The need for and the content of an analysis of environmental justice will be addressed in plant specific reviews." (4.22.2) The next section states, "Other than the above referenced finding, there is no requirement concerning environmental justice in 10 CFR Part 51." (4.22.3). The Background section then goes on to state, "The environmental justice review involves identifying off-site environmental impacts, their geographic locations, minority and low income populations that may be affected, the significance of such effects, and whether they are disproportionately high and adverse compared to the population at large within the geographic area, and if so, what mitigative measures are available, and which will be implemented. The NRC staff will perform the environmental justice review to determine whether there will be disproportionately high human health and environmental effects on minority and low-income populations and report the review in its SEIS." The section then comes full circle to state, "The staff's review will be based on information provided in the ER and developed during the staff's site-specific scoping process." (4.22.4). So Entergy is not required to develop the environmental justice analysis, but the NRC will conduct an environmental justice review based

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on information provided by Entergy in the ER. Regardless, we agree with Entergy's assessment that, "there can be no disproportionately high and adverse impacts or effects on members of the public, including minority and low-income populations, resulting from the renewal of the IP2 and IP3 Operating Licenses." (4.22.6) We have one caveat. This section did not include the great environmental benefits that Indian Point provides to minority communities. Entergy is enhancing environmental justice and is fighting environmental injustice. It should be allowed to continue doing so for another 20 years.

Fossil-Fuel Power Causes Serious Adverse Health Effects

In 1999, coal-fired power plants in the United States emitted into the environment 11.3 million tons of sulfur dioxide ("SO₂"), a criteria air pollutant that is correlated to asthma and impaired lung functions, 6.5 million tons of nitrogen oxides ("NO_x") which, when combined with other pollutants and sunlight, forms ozone, another lung irritant linked to asthma, and 1.9 billion tons of carbon dioxide ("CO₂"), yet another contributor to increased ozone levels.⁴ This equates to approximately 60% of all SO₂ emissions, 25% of all NO_x emissions, and 32% of all CO₂ emissions nationwide.⁵

These and other airborne pollutants emitted by fossil-fuel power stations may have a direct and significant effect on human health. In a study by Abt Associates, one of the largest for-profit government and business research consulting firms in the world, it was found that over 30,000 deaths each year are attributable to air pollution from U.S. power plants.⁶ Another study found that air pollution from power plants was a contributing factor to higher infant mortality

⁴ See Rachel H. Cease, ADVERSE HEALTH IMPACTS OF GRANDFATHERED POWER PLANTS AND THE CLEAN AIR ACT: TIME TO TEACH OLD POWER PLANTS NEW TECHNOLOGY, 17 J. Nat. Resources & Env'tl. L. 157, 158 (2002-2003); Martha H. Keating, AIR INJUSTICE, at 4 (October 2002) (attached hereto as Exhibit B).

⁵ 17 J. Nat. Resources & Env'tl. L. at 158.

⁶ *Id.* at 159.

rates and higher incidences of Sudden Infant Death Syndrome (“SIDS”).⁷

Research has further shown that pollutants from fossil-fuel power plants form tiny acidic particles (called fine particulate matter) that are linked to diseases of both the respiratory and cardiovascular systems.⁸ Not surprisingly, air pollution has been characterized as one of the largest threats to public health.⁹

The Negative Health Effects of Fossil-Fuel Power Are Borne Disproportionately by African Americans

Sadly, these serious health effects disproportionately fall on the shoulders of low-income and minority communities, including African American communities. For instance, the percentage of African Americans and Hispanics living in areas that do not meet national standards for air quality is considerably higher than that of whites.¹⁰ Correspondingly, respiratory ailments affect African Americans at rates significantly higher than whites. Asthma attacks, for example, send African Americans to the emergency room at three times the rate of whites (174.3 visits per 10,000 people for African Americans versus 59.4 visits per 10,000 people for whites), and African Americans are hospitalized for asthma at more than three times the rate of whites (35.6 admissions per 10,000 people for African Americans versus 10.6 admissions for every 10,000 people for whites).¹¹ Similarly, the death rate from asthma for African Americans is almost three times that of whites (38.7 deaths per million versus 14.2 deaths per million).¹²

⁷ See Martha H. Keating, AIR INJUSTICE, at 3 (October 2002).

⁸ See *id.* at 4. See also Air Quality in Queens County: Opportunities for Cleaning Up the Air in Queens County and Neighboring Regions, at S-6, Synapse Energy Economics, Inc. (May 2003) (“Air Quality in Queens County”) (“Epidemiological studies tell us that on days when air pollution levels are high, more people get sick or die.”) (available at <http://www.synapse-energy.com/Downloads/Synapse-report-queens-air-quality-exec-summary-05-29-2003.pdf>); Children at Risk: How Pollution from Power Plants Threatens the Health of America’s Children, at 2, Clean Air Task Force (May 2002) (“Power plant emissions and their byproducts form particulate matter, ozone smog and air toxics. These pollutants are associated with respiratory hospitalizations, lost school days due to asthma attacks, low birth weight, stunted lung growth and tragically, even infant death.”) (available at <http://cta.policy.net/fact/children/>).

⁹ Allison L. Russell, URBAN POLLUTANTS: A REVIEW AND ANNOTATED BIBLIOGRAPHY, at 3, New York City Environmental Justice Alliance 2000 (available at <http://www.nyceja.org/pdf/Urban.pdf>).

¹⁰ See *id.*

¹¹ *Id.*

¹² *Id.*

The Benefits of Indian Point 2 and 3

The Indian Point facilities, located in the affluent and predominantly white Westchester County, have a combined generating capacity of approximately 2000 MW. The facilities provide approximately 20-30% of the electricity for New York City and its northern suburbs. And, unlike New York's fossil-fuel burning facilities, Indian Point 2 and 3 do not pollute the air.

Applicant's Environmental Report

The proposed action of renewing the operating license for Indian Point would lead to continued environmental benefits for the region. The alternatives to the proposed action: no action, decommissioning or utilizing alternative energy sources, will either have very negative environmental impacts or are not feasible. The proposed action is to renew the operating licenses for IP2 and IP3 for a period of twenty (20) years beyond the current operating licenses' expiration dates. For IP2 the requested renewal would extend the existing license expiration date from September 28, 2013 until September 28, 2033. For IP3 the requested renewal would extend the existing license expiration date from December 12, 2015 to December 12, 2035.

Physical and Chemical Environment

The lower Hudson River is a 152-mile tidal estuary and Indian Point is located 43 miles from the mouth. Two of the most serious issues around the plant are 1) it is located in a Clean Air Act nonattainment area and 2) serious PCB contamination occurred upriver and there are currently plans for mitigation. Regarding air issues, Indian Point is probably the most positive industrial structure in the region that provides valuable electricity service while adding no EPA criteria pollutants. In terms of the river, poison runoff from urban, suburban and rural sources is the principle threat to the river. The ER comprehensively covers the environmental issues related to the physical and chemical environments in the area. The ER also includes helpful information generated from years of environmental impact statements generated by the New York

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Department of Environmental Conservation. The report provides extensive coverage of the endangered species in the area. The NRC Generic Environmental Impact Statement is utilized to establish characterization methods for fish populations and other environmental characteristics.

Minority and Low Income Populations

The NRC performs environmental justice analyses utilizing a 50-mile radius around the plant as the environmental "impact site" and the four states (New York, New Jersey, Pennsylvania & Connecticut) individually when all or part of a block group is in those states as the "geographic area" for comparative analysis. The NRC Procedural Guidance for Performing Environmental Assessments and Considering Environmental Issues indicates that a minority population is considered to be present if either of the two following conditions exists: (1) The minority population in the census block group exceeds 50 percent. (2) The minority population is more than 20 percentage points greater in the census block group than it is in the minority percentage of the geographic area chosen for the comparative analysis. The NRC defines "minority" population as American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, Black, other, multi-racial, the aggregate of all minority races, or Hispanic ethnicity. The ER includes significant demographic information related to minority and low-income populations.

Indian Point is, and has been, a positive environmental structure for minority and low-income people. This positive influence should be allowed to continue.

Taxes, Local Land Use and Housing

The ER contains an exhaustive description of benefits it provides to local entities in terms of income. All of the counties around the facility are growing rapidly and will be challenged to meet electrical capacity needs and the aforementioned atmospheric regulations. Indian Point is a positive factor for growth in the region.

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History

The description of the history of the Indian Point site is illuminating. The construction and operation of the facility has added to the fine history of this site. The NRC should provide the license renewal requested so that the excellent emission free electricity can continue to flow throughout the region.

Radioactive Waste Treatment Processes

We are satisfied that Entergy is taking the appropriate steps to manage its waste products. They are following the procedures for managing and storing liquid, gaseous and solid radioactive wastes. Entergy also initiated site preparation work in 2006 for dry cask storage. This Independent Spent Fuel Storage Installation (ISFSI) Facility will provide acceptable temporary storage until Yucca Mountain is ready to accept spent fuel. According to the ER, the ISFSI Facility will contain a 96' x 208' concrete storage pad, which will provide storage locations for 78 Holtec International HI-STORM 100S(B) Casks. The HI STORM Casks will be arranged in a 6 x 13 array with 75 storage locations allocated for the casks.

IP2 and IP3 Gaseous Effluent Releases

The quantities of gaseous effluents released from the site are controlled by the administrative limits defined in the Offsite Dose Calculation Manual (ODCM). Entergy has operated the plant within ODCM parameters and we are satisfied that releases have never caused environmental harm.

Employment

The work force at Indian Point consists of approximately 1,255 persons. The ER gives a comprehensive description of this workforce: where they live and how many employees live in a particular jurisdiction. AAEA wants these employees and future employees to have the opportunity to work at this electric power facility for an additional 20 years beyond 2013 and 2015. They probably do not consider themselves to be environmental justice activists, but by their functions, they are fighting environmental injustice.

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GEIS Categories For Environmental Issues

The NRC identified and analyzed 92 environmental issues in its Generic Environmental Impact Statement (GEIS) that it considers being associated with nuclear power plant license renewal and has designated the issues as Category 1, Category 2, or NA (not applicable). Entergy lists 43 Category 1 issues that are applicable to the site. The NRC identified 21 issues as Category 2. Entergy lists 11 Category 2 issues that are applicable to the site. Regarding Not Applicable License Renewal Issues, NRC determined that its categorization and impact-finding definitions did not apply to electromagnetic fields (chronic effect) and environmental justice. However, the ER goes on to state that, “for environmental justice, NRC does not require information from applicants, but noted that it would be addressed in individual license renewal reviews (10 CFR Part 51, Appendix B, Table B-1, Footnote 6). Entergy has included environmental justice demographic information in Section 2.6.2.

Impingement and Entrainment

AAEA concurs with Entergy’s conclusion on impingement and entrainment that withdrawal of water from the Hudson River for the purposes of once-through cooling at the site does not have any demonstrable negative effect on representative Hudson River fish populations, nor does it warrant further mitigation measures. (Section 4.3.6)

Heat Shock and Thermal Discharge Analysis

The ER states that Indian Point, “is complying with this permit, including limits and conditions established by the NYSDEC for thermal discharges...and the associated agreement to continue implementation of the fourth Consent Decree ensures that thermal impacts will satisfy the requirements of CWA 316(a) and will thus remain SMALL during the license renewal term. Therefore, no further mitigation measures are warranted. .” (Section 4.4.6) AAEA has no information to challenge this conclusion.

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Endangered Species

AAEA concurs with Entergy's conclusion regarding endangered species: "The continued operation of the site will not adversely impact any federally listed species which may exist on or pass through the site."

Groundwater contamination

AAEA believes that any leakage of radiation into the groundwater is unacceptable. The site does not use groundwater in its operations or as a source of drinking water. Groundwater is not the source of drinking water for Peekskill or Buchanan. Current conditions of the radiological contamination appear to be largely limited to the general area beneath the facility. The ER provides extensive coverage of this issue. The information is satisfactory to AAEA and should be comforting to the public. The ER also states, "The investigation of the radionuclide contamination of the groundwater began in 2005, and although the investigation is on-going, Entergy and the NRC have concluded that although there appears to be some level of contaminated groundwater that discharges to the Hudson River, these levels do not exceed the effluent or radiological dose criteria established by the NRC. Entergy plans to continue to investigate groundwater contamination mitigation methods to determine their feasibility, as deemed appropriate by the NRC." (4.23.5) Thus, the current condition of this contamination should not be an impediment to license renewal.

Alternatives Considered

AAEA supports the proposed action, opposes the no-action alternative, and believes that alternative energy technologies are not feasible for replacing the electricity output at the facility. The ER gives thorough coverage to these alternatives.

Closed Cycle Cooling Alternatives

The ER examines four alternative technologies for heat dissipation: 1) evaporative ponds, spray ponds or cooling canals, 2) dry cooling towers, 3) natural draft cooling towers, and 4) mechanical draft wet cooling towers. A closed cycle cooling retrofit has never been performed on a nuclear power plant before and the consequences of trying are wildly unpredictable. The

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consideration of these technologies is comprehensive in the ER. We oppose all of these technologies and fear that if any of them are imposed, it is our belief the company will choose to close.

Natural Gas or Coal Replacement

AAEA believes these fossil fuel plants are not feasible at the Indian Point location. AAEA believes natural gas should be used to produce base-load electricity as little as possible. The site is not large enough to accommodate a coal plant.

Water Permit (Water Quality 401 Certification)

The ER states, "NYSDEC has taken the position that it will require submission of an application for a new state water quality (401) certification in conjunction with the license renewal application, rather than relying on the SPDES permit as evidence of continued certification. To initiate the approval process, Entergy will file the Joint Application for Permit with the NYSDEC for the water quality certification at a date determined by the NYSDEC. The SPDES permit for discharges at the site expired on October 1, 1992. However in accordance with the New York State Administrative Procedures Act, Entergy filed a timely SPDES permit renewal application 180 days prior to the current permit's expiration date on April 3, 1992. Therefore, the SPDES permit has been administratively continued." This summary of the current status of Entergy's Indian Point water permit illustrates that the company is in compliance with the Clean Water Act. AAEA intends to participate in the future adjudication of this issue. There is also the matter of EPA finalizing regulations for determination of best available technologies for power plants.

Recommendation and Conclusion

The license should be renewed. There are not environmental considerations that would merit refusal of the renewal. AAEA supports the License Renewal. The facility is an environmental asset for the local area, the state and the planet. The license renewal would promote environmental justice and mitigate global warming. The license would enhance New York's ability to meet its clean air requirements and global warming agreement.