RIVERKEEPER, INC. AND HUDSON RIVER SLOOP CLEARWATER, INC. OPPOSITION TO ENTERGY'S MOTION IN LIMINE TO EXCLUDE PORTIONS OF PRE-FILED TESTIMONY AND EXHIBITS FOR CONTENTION RK-EC-3/CW-EC-1

Attachment 1

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION ATOMIC SAFETY AND LICENSING BOARD

) = 4	
)	
In the Matter of)	Docket Nos.
)	50-247-LR
Entergy Nuclear Operations, Inc.)	and 50-286-LR
(Indian Point Nuclear Generating)	
Units 2 and 3)	j ,	February 15, 2012
	\	•

Declaration of Arnold Gundersen

Arnold Gundersen, hereby declares under penalty of perjury that the following is true and correct:

- 1. I have been retained by Riverkeeper, Inc. as an expert witness in proceedings concerning the application by Entergy Nuclear Operations, Inc. ("Entergy") for a renewal of the two separate operating licenses for twenty years beyond their current expiration dates for the nuclear power generating facilities located at Indian Point on the east bank of the Hudson River in the Village of Buchanan, Westchester County, New York.
- 2. I submit this declaration in support of "Riverkeeper, Inc. and Hudson River Sloop Clearwater Inc.'s Opposition to Entergy's Motion in Limine to Exclude Portions of Pre-Filed Testimony and Exhibits for Contention RK-EC-3/CW-EC-L."
- I have reviewed Entergy's Motion in Limine to Exclude Portions of Pre-Filed Testimony and Exhibits for Contention RK-EC-3/CW-EC-1 ("Entergy's Motion in Limine"), and understand that Entergy questions my qualifications to testify about the radiological contamination plumes in the groundwater at Indian Point as well as the potential impacts of radiological leaks on the public and the Hudson River.
- 4. I disagree with the characterizations made in Entergy Motion in Limine relating to my qualifications to provide testimony related to radiological leakage issues at Indian Point.

- 5. In relation to my qualifications to testify about the radiological contamination plumes at Indian Point, I have a long history of successfully identifying and analyzing radiological leak problems involving Entergy-owned nuclear power plants. This includes, but is not limited to, the following:
 - In 2007, I was accepted as an expert in the Pilgrim Nuclear Generating Station license renewal proceeding and provided testimony before an Atomic Safety and Licensing Board about Entergy's Buried Tank and Pipe Inspection Program.
 - In relation to Entergy's Vermont Yankee nuclear power plant, I was appointed by Vermont Governor Peter Shumlin, then Senate President Pro Tem, to be the first chair of the Vermont Yankee Public Oversight Panel that specifically was chartered to evaluate buried pipes at Vermont Yankee. In my consultancy role with the State Legislature as Chief Engineer for Fairewinds Associates, Inc, I accurately predicted the presence of and flow pattern of tritium in the ground water at Vermont Yankee. I also predicted the presence of Strontium-90 in the soil and was praised in writing by Entergy Vice President John McCann for my valuable insights.
 - The United States General Accounting Office (GAO) requested my expertise and I
 was interviewed as an expert on underground pipes and radiological leakage issues at
 nuclear power plants for the GAO report that was issued in June 2011.
 - I was recently accepted as a witness, and testified before Administrative Law Judges of the New York State Department of Environmental Conservation concerning the radiological leaks at Indian Point; this testimony included my opinions about the movement and persistence of the radiological contamination at Indian Point, and potential consequences of the contamination on the public and the Hudson River.

My education and background as a nuclear engineer, along with decades of professional experience, have provided me with the qualifications to provide testimony about leaking plant components and the behavior of radiological contamination at nuclear power plant sites.

6. In relation to my qualifications to testify about the potential impacts of radiological leaks on the public and the Hudson River, as stated in my *curriculum vitae* and in my prefiled testimony, my 39 years of nuclear industry experience includes experience in radiological and dose assessment. My educational and professional background in nuclear engineering, and familiarity with the nature and effect of the various radionuclides at issue at Indian Point, provides me with the qualifications to provide an opinion about potential consequences of radiological leaks from Indian Point.

In accordance with 28 U.S.C. §1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed this 15th day of February, 2012

Arnold Gundersen, MSNE

Chief Engineer, Fairewinds Associates, Inc.