

## Fermi3CEM Resource

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**From:** ehrlebird32 [ehrlebird32@att.net]  
**Sent:** Wednesday, January 11, 2012 10:33 PM  
**To:** COLEIS@nrc.gov  
**Cc:** Fermi3COLEIS Resource; ehrlebird@organicconsumers.org  
**Subject:** Re: Contentions for Fermi 3

**TO:** **Nuclear Regulatory Commission and Beyond Nuclear, Nuclear Information and Resource Service, Citizens For Alternatives to Chemical Contamination, Sierra Club**

**FROM:** **Lynn Howard Ehrle, M. Ed, Chair, International Science Oversight Board, composed of 41 physicians, scientists, and policy analysts from 11 countries, including 16 members with expertise in low-dose radiation**

**RE:** **CONTENTIONS regarding the Draft Environmental Impact Statement for Combined License (COL) for the *Economic Simplified Boiling Water Reactor Designated as Fermi Unit 3***

**Contention #1: Members of the Nuclear Regulatory Commission (hereinafter referred to as the NRC) have conflicts of interest that prevent an unbiased decision as regards the Draft Environmental Impact Statement (DEIS Fermi 3) or any other environmental impact statement. None have training in low-dose radiation risk, dosimetry, cell biology, or environmental causation of disease.** Furthermore, three commissioners are trained as engineers and have no academic background in radiation risk assessment. Two have worked for the Department of Energy, whose remit is to promote atomic power, and three have held congressional staff positions. These conflicts may interfere with their mandate under the Atomic Energy Act of 1954 **"to protect health and safety and minimize danger to life or property."** For most of its existence the NRC has been dominated by the nuclear industry and has operated in the private interest. Commission approval of over 60 requests to extend for another 20 years the licenses of existing reactors without independent scientific review and the callous disregard for public input (without adequate funding for intervenors) does not inspire confidence that the Commission will protect the public health and safety.

### The Conflicted Commissioners

- 1. Gregory B. Jaczko, PhD, physics; designated Chairman of the U.S. Nuclear Regulatory Commission by President Barack Obama on May 13, 2009. He was first sworn in as a Commissioner on Jan. 21, 2005, and his term runs through June 2013; served as appropriations director and science advisor for U.S. Sen. Harry Reid.**
- 2. Kristine L. Svinicki, BS, nuclear engineering; spent over a decade as a staff member in the United States Senate; served as a professional staff member on the Senate Armed Services Committee for the Committee's former Chairman, Sen. John Warner, R-Va., and, subsequently, for the Committee's ranking Republican member, Sen. John McCain, R-Ariz. Previously, Ms. Svinicki worked as a nuclear engineer in the U.S. Department of Energy's Washington, D.C. Offices of Nuclear Energy, Science and Technology, and of Civilian Radioactive Waste**

Management, as well as its Idaho Operations Office, in Idaho Falls, Idaho; longstanding member of the American Nuclear Society.

**3. George Apostolakis** was sworn in as a Commissioner of the U.S. Nuclear Regulatory Commission (NRC) on April 23, 2010, to a term ending on June 30, 2014. Dr. Apostolakis has had a distinguished career as an engineer, professor and risk analyst. Before joining the NRC, he was the Korea Electric Power Corporation professor of Nuclear Science and Engineering and a professor of Engineering Systems at the Massachusetts Institute of Technology. He was also a member and former chairman of the statutory Advisory Committee on Reactor Safeguards of the NRC. Dr. Apostolakis received his diploma in electrical engineering from the National Technical University in Athens, Greece in 1969. He earned a master's degree in engineering science in 1970 and a **Ph.D. in engineering science and applied mathematics** in 1973, both from the California Institute of Technology.

**4. William D. Magwood, IV, BS in physics and B.A. in English;** reappointment term ending June 30, 2015; served seven years as the Director of Nuclear Energy with the U.S. Department of Energy (DOE); senior nuclear technology policy advisor to the Secretary of Energy; founded and headed Advanced Energy Strategies, a company that provided strategic advice to domestic and international organizations; managed electric utility research and nuclear policy programs at the Edison Electric Institute (an industry think tank); also a scientist at Westinghouse Electric Corporation.

**5. William C. Ostendorff** was sworn in as a Commissioner of the U.S. Nuclear Regulatory Commission (NRC) on April 1, 2010, to a term ending on June 30, 2011 (term renewed). Mr. Ostendorff has a distinguished career as an engineer, legal counsel, policy advisor, and naval officer. Before joining the NRC, Mr. Ostendorff served as the Director of the Committee on Science, Engineering and Public Policy and as Director of the Board on Global Science and Technology at the National Academies. Principal Deputy Administrator at the National Nuclear Security Administration from April 2007 until April 2009. From 2003 to 2007, he was a member of the staff of the House Armed Services Committee. There, he served as counsel and staff director for the Strategic Forces Subcommittee with oversight responsibilities for the Department of Energy's Atomic Energy Defense Activities as well as the Department of Defense's space, missile defense and intelligence programs. Mr. Ostendorff earned a **bachelor's degree in systems engineering** from the United States Naval Academy and law degrees from the University of Texas and Georgetown University.

**Contention #2: The composition of the NRC Advisory Committee on Reactor Safeguards (ACRS) represents a blatant violation of the Federal Advisory Committee Act (FACA).**

Under 5 USC TITLE 5 - APPENDIX 01/02/01-- Sec. 5. (a) Responsibilities of Congressional committees; Any such legislation shall-- (1) contain a clearly defined purpose for the advisory committee;

(2) require the membership of the advisory committee to be **fairly balanced** in terms of the points of view represented and the functions to be performed by the advisory committee;

(3) contain appropriate provisions to assure that the advice and recommendations of the advisory committee **will not be inappropriately influenced by the appointing authority or by any**

**special interest,** but will instead be the result of the advisory committee's independent judgment.

11 of 13 committee members have advanced degrees in engineering and/or lengthy engineering work in industry, a clear FACA violation requiring fair balance. Furthermore, 7 members had careers in nuclear industries and 9 had posts in government nuclear agencies. 4 hold memberships in the American Nuclear Society, the top cheerleader for the nuclear power industry. In addition to this gross imbalance and lack of independence the engineering course of study does not include radiation dosimetry, low-dose health risks, medical physics, or radiation environmental impacts. This deficiency is *prima facie* evidence of an inability and/or unwillingness of the Committee to carry out its Congressional mandate “to advise the Commission on the hazards of proposed and existing reactor facilities and the adequacy of proposed reactor safety standards.” Its advisories to the NRC should be rejected, as per the FACA rules.

**1.Said Abdel-Khalik, Chair; PhD, mechanical engineering; Fellow- American Nuclear Society (industry think tank).**

**2. Dr. Sam Armijo** earned his BS and MS degrees in Metallurgical Engineering and, his PhD degree in Materials Science from Stanford University. He worked for General Electric Nuclear Energy as general manager of the nuclear fuel business and was president, GE-ENUSA Nuclear Fuels; also director, Japan Nuclear Fuel Co., Ltd.

**3. Dr. Sanjoy Banerjee, PhD, chemical engineering;** Professor in the Department of Chemical Engineering, with a joint appointment in Mechanical Engineering at UC Santa Barbara; acting director, Applied Science Division, Atomic Energy Canada.

**4. Dennis C. Bley, PhD, nuclear reactor engineering;** president of Buttonwood Consulting, Inc., with more than 30 years of experience in nuclear and electrical engineering, reliability and availability analysis; technical review panels for NRC and DOE.

**5. Mr. Charles H. Brown, Jr., M.S., engineering, B.S. in electrical engineering;** 22 years as director of Instrumentation and Control Division of the Naval Nuclear Propulsion Program. Currently, Senior Advisor for Electrical Systems with BMT Syntek Technologies, Inc.

**6. Dr. Michael Corradini, PhD, nuclear engineering and BS degree in mechanical engineering;** chair of the Nuclear Engineering and Engineering Physics program at the University of Wisconsin; Fellow-American Nuclear Society; consultant to the NRC Advisory Committee on Reactor Safeguards (1982-1997).

**7. Dana A. Powers, PhD, chemistry, chemical engineering and economics;** began his career with Sandia National Laboratories in 1974 as a Staff Member in the Chemistry and Metallurgy Division. Presently, a Senior Scientist, Nuclear Technology Center. He is responsible for the development of safety research programs for Department of Energy nuclear facilities.

**8. Harold Ray, B.S. degree in mechanical engineering and M.S. degree in Management;** reactor engineer in the Naval Reactors Division, U.S. Atomic Energy Commission, during 1964-1969, during which time he completed the reactor engineering certification at the Bettis Atomic Power Laboratory; served as the Chief Nuclear Officer at Southern California Edison (SCE) from 1990 until his retirement in 2006. Mr. Ray is also a past President of the American Nuclear Society and served in industry leadership positions as part of the Nuclear Energy Institute and at the Institute of Nuclear Power Operations.

**9. Joy L. Remke, PhD, nuclear engineering;** directorate fellow and group leader, Idaho National Laboratory; member of several advisory groups reviewing the US Department of Energy's Office of Nuclear Energy Research and Development programs; board of directors, American Nuclear Society.

**10. Michael T. Ryan, PhD and BS, radiological health physics and a Master's degree in Radiological Sciences and Protection;** Editor-in-Chief of the Journal, *Health Physics* since 2000; Chairman of the External Advisory Board for Radiation Protection at Sandia National Laboratories from 1999-2007. Dr. Ryan previously worked for Chem-Nuclear Systems, Inc., as Vice President and General Manager for operations and previously as Vice President for Regulatory Affairs for the low-level radioactive waste disposal and service facilities in Barnwell, South Carolina. Dr. Ryan also spent 7 years in operational and environmental health physics at Oak Ridge National Laboratory.

**11. William J. Shack, PhD, applied mechanics and BS in civil engineering;** In 1968, joined the Mechanical Engineering Department at the Massachusetts Institute of Technology as an Assistant Professor. He taught there until 1975. In 1975, he joined the Argonne National Laboratory, retiring in 2007.

**12. Mr. John Sieber, BS and M Ed;** attended Purdue University to study reactor core physics in 1973, and in MIT to study reactor safety in 1981. His 45-year career involved numerous positions in management at Duquesne Light Company, including core engineering, fuel manager, licensing manager, station manager, vice president – nuclear power division and senior vice president – chief nuclear officer.

**13. John W. Stetkar, BS, nuclear and environmental engineering;** is a principal of Stetkar & Associates and has more than 27 years of experience as an engineering consultant; internationally recognized expert in the fields of risk assessment and reliability analysis; technical expert for the International Atomic Energy Agency. Prior to his career as a consultant, he was a licensed senior reactor operator at the Zion nuclear station.

**Contention #3: External costs of nuclear power generation are never quantified in this Draft EIS nor are they referenced in NRC documents or in corporate annual reports.** Is it true that there is an increase in cancer incidence or non-cancer diseases and morbidity within a fifty-mile radius of reactors? The NRC won't tell us. And what of the serious socioeconomic factors that are off the books? Read the DEIS comments of Frank Zaski on the NRC website if you want to become informed about the economic consequences of a Fermi 3 reactor. The most egregious and unethical consequence, though, is that we are forcing future generations to become nuclear watchdogs over highly radioactive wastes that remain toxic for thousands of year.

**Contention #4: The DEIS Fermi 3 fails to describe and quantify its biological impact upon humans and all other life forms.** This failure is primarily the result of a huge public relations and lobbying effort by the nuclear industry and its surrogates in the radiological establishment and by the mainstream media.

**Contention #5: The exclusion of a biological impact statement in DEIS Fermi 3 renders this report meaningless. The only remedy is to put a hold on this final comment deadline (11 January, 2012), appoint a panel of independent scientists who have no ties to industry to draft the biological statement, consult with the public interest intervenors during the selection process, convene three public hearings with locations agreeable to the intervenors, and establish a new comment period.**

**Contention #6: Through sins of omission and commission the NRC and its staff refuse to acknowledge or reference studies on the impact of low levels of radiation exposures.**

- 1) ***ECRR: 2003 Recommendations of the European Committee on Radiation Risk and its 2010 update.*** These reports, by more than 50 low-dose experts, challenge the International Commission on Radiological Protection (ICRP) model based upon a single bomb blast (A-bomb Life Span Study) to the exclusion of internal exposures.
- 2) ***Chernobyl: 20 Years On by the ECRR (2006).*** This study cites genomic instability effects and damage to all living organisms from low levels of exposure, resulting in radiation-induced ageing and over a 150-fold increase in childhood leukemia.
- 3) ***The German government-sponsored KiKK study, Epidemiological Study on Childhood Cancer in the Vicinity of Nuclear Power Plants.*** The study found children < 5 years of age who lived within 5 km of a nuclear power plant during 1980-2003 are 2.19 times more likely to develop leukemia than children living > 5 km from all 16 reactors.
- 4) ***Chernobyl: Consequences of the Catastrophe for People and the Environment.*** First published by the New York Academy of Sciences (now out of print and reprinted by Greko Printing, Plymouth, Michigan), it is the only study to assess nonmalignant diseases and morbidity. Lead author, Russian biologist Alexey Yablokov, former advisor to Boris Yeltsin, stated that 100% of the clean-up workers are ill and about 15% of the 830,000 were deceased by 2005.

**Contention #7: Commission impact statements, including the DEIS Fermi 3, have been developed absent a review by a panel of independent scientists and without public hearings.**

**Contention #8: The DEIS Fermi 3 document has been prepared without informed consent of the effected citizens.**

**Contention #9: The NRC has never analyzed the impact of a serious accident at the Fermi site.** Fermi 1 sits disabled and shuttered and Fermi 2, a copy of the Fukushima reactors, is an accident waiting to happen. Now a third reactor is waiting in the wings, with no real need for additional capacity. Detroit Edison is now applying for a 20-year extension of its current license. Three on the fragile shore of Lake Erie.

**Contention #10: The NRC has never engaged the public in a serious discussion of damage to the human gene pool from reactor emissions. Of course, that may mean phasing out all nuclear power plants. In his 1946 Nobel lecture Hermann J. Muller concluded there is no safe threshold and he further stated,**

*With the coming increasing use of atomic energy, even for peace-time purposes the, problem will become very important of insuring that the*  
***human germ plasm, the all- important material of which we are the temporary custodians, is effectively protected from this additional***  
***potent source of permanent contamination.***

**Irreparable damage is our fate so let's compound the problem!**

**Contentions by Lynn Howard Ehrle, M. Ed**, Senior Biomedical Policy Analyst, Organic Consumers Association (*pro bono*). Freelance medical writer, National Writers Union, UAW Local 1981; Vice President, Consumer Alliance of Michigan (1970s); presented numerous briefs before the Public Service Commission and was twice-nominated for a post by two legislators; consumer law / economics / sociology / teacher , 37 years (ret).

**Member:** Radiation Research Society; American Federation Teachers (ret); National Education Assoc (ret); American Association for the History of Medicine

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