



PHYSICIANS FOR SOCIAL RESPONSIBILITY • LOS ANGELES

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Re: Southern California Edison's San Onofre Nuclear Generating Station
Proposed Steam Generator Replacement Project (Application No.
A.04-02-026)

Dear Mr. Barnsdale:

I write in opposition to the Southern California Edison (SCE) application to replace steam generators for Units 2 and 3 at San Onofre Nuclear Generating Station, (SONGS). By way of introduction, I served on Governor Schwarzenegger's transition team on environmental issues (2003-2004), and on Governor Davis' committee on the disposal of radioactive waste (1999-2001).

Among the applicant's chief errors, SCE mischaracterizes the process of decommissioning and disposal of the steam generators and related waste.

The Environmental Impact Report (EIR) states, "The original steam generators would be classified as Class A low-level radioactive waste (LLRW, defined in 10 CFR 61), and they would require disposal at a licensed facility," (p. B-34). Yet, it is highly premature for SCE to assert that the used generators would wholly be comprised of Class A waste.

In the course of operation, a nuclear reactor creates highly radioactive fission products which in turn leak into pipes and pumps and contaminate the steam generators. Some of the radioactive waste may classify as Class A waste – but by no means exclusively. Filters and resins, and the surface metal of the generator will be classified as more dangerous Class B or C waste.

As Edison envisions steam generator replacement in 2008-2009, and preparing

the radioactive material for disposal takes a considerable amount of time, there will not be an available licensed disposal facility for Class B and C waste. I repeat, in 2008-2009, sections of the radioactively-contaminated steam generators will likely have no place to go. Yet the EIR states on page B-34,:

“SCE prefers immediate offsite disposal for the original steam generators because it conserves use of the limited space at the site and removes uncertainty concerning future disposal costs. The activities of preparing the OSGs for offsite transport and disposal would be similar regardless of disposal location. SCE has not specified a disposal location, but the likely destination would be Envirocare of Utah, Inc., at Clive, Utah (SCE, 2004d).”

California-generated Class B and C waste has only one place to go in the United States. The only licensed radioactive waste dump currently accepting such classified waste is South Carolina’s Barnwell facility. Yet, after June 30, 2008, Barnwell will no longer accept waste from California and the rest of the country but only that of the Atlantic Compact – consisting of the states of South Carolina, Connecticut and New Jersey.

The only other radioactive waste facility open to California is the privately operated Envirocare facility in Clive, Utah – which is permitted to accept Class A waste only, and is now foreclosed by a law to accept the more toxic material. In February 2005, Utah signed into law, S.B. 24, a ban stopping the disposal of Class B and C waste at Envirocare.

Therefore, SCE’s claim that the used steam generators will be immediately disposed offsite is highly dubious. In the off-chance SCE miraculously beats the June 2008 deadline and can dump at Barnwell, it must be noted that the South Carolina facility charges fees that are triple those of Envirocare.

The Public Utilities Commission should also be apprised of federal efforts to deregulate the disposal of certain radioactive materials. Despite SCE assurances in the EIR that all waste will be sent to a licensed facility, Edison will likely take advantage of these new rules.

The Commission should be aware of the Nuclear Regulatory Commission’s (NRC) current rule-making process, as the new rules will not merely impact disposal costs – but also the controversial rules could potentially result in legal appeals, resulting in a delay in the disposal of waste. For more information on the new rulemakings, please see <http://www.nrc.gov/materials.html>, and then the section on “Controlling the Disposition of Solid Materials.”

In brief, NRC seeks to release industry from the cost of properly disposing of radioactive waste in licensed dumps. Radioactive iron, steel, copper and aluminum may soon be sent to scrap yards for

recycling into consumer products as well as disposed, not at licensed facilities but at municipal landfills. The NRC rule, NUREG-1640, minimizes health impacts from low-dose radiation, and offers ludicrous scenarios where radioisotopes do not traverse from landfill to drinking water wells. The California experience shows otherwise. The Bradley Landfill (19-AR-0008), in the City of Los Angeles, shows that gross beta measurements in the leachate exceed the state's drinking water maximum-contaminant-level (MCL), and radioactive tritium from exit signs is also found in the leachate.

In 2002, Governor Davis issued an executive order (D-62-02) directing water boards to impose a moratorium on disposing decommissioned materials above background radiation levels. Industry is diligently worked to reverse the executive order. Your sister agency, the California Integrated Waste Management Board, has in fact written a letter of opposition to the promulgation of NRC's NUREG-1640.

The NRC is further proposing the use of radioactive concrete in road building. Removing SONGS' steam generators will entail cutting a 28' x 28' block in each containment vessel. The resulting irradiated concrete rubble will be massive and substantial. The hauling and disposal of these many tons of radioactive concrete would be very expensive. To lower costs to industry, the NRC is seeking to allow release of radioactive concrete debris for use in road construction. Thanks to new NRC rules, San Onofre's concrete domes may wind-up becoming part of the Pacific Coast Highway.

The National Academy of Sciences (NAS) reviewed NRC's proposed regulations. The report, of the Committee on Alternatives for Controlling the Release of Solid Materials from Nuclear Regulatory Commission-Licensed Facilities, published in 2002, as "The Disposition Dilemma, Controlling the Release of Solid Materials from Nuclear Regulatory Commission-Licensed Facilities" cited numerous problems with NRC's proposed deregulation scheme.

The NAS committee emphasized the importance of consistent, protective, health-based standards. NRC failed in this regard. The report chides NRC as having "no specific standards or regulations for clearance of volume-contaminated slightly radioactive solid material," (p. 172). NAS recommends that NRC re-tool its rules so that "a dose-based standard should be employed as the primary standard," (p. 173). The committee also emphasized the importance of public involvement. "Stakeholder involvement will be important and worthwhile, as well as a prerequisite for making progress," (p.171).

CPUC should also be aware that radioactive materials are treated differently than toxic materials. The U.S. Environmental Protection Agency traditionally legislates contaminants so that it will create a fatal cancer in no more than one-in-a-million (1×10^{-6}) exposed. In special circumstances,

fatal exposure may rise to 1×10^{-5} and 1×10^{-4} – no contaminant is permitted to kill more than one in ten thousand exposed. By comparison, NRC permits radiation to kill one in every 2,500 individuals, and, at times, NRC allows public exposures to be reduced to 1-in-60. Industry routinely takes advantage of these Cold War vestigial regulations. SCE will surely do so if CPUC gives them the opportunity to dump outside a licensed facility. CPUC should therefore be extra cautious, even vigilant, in not allowing SCE to take advantage of these lax regulations and thereby place the public at risk.

In summary, Physicians for Social Responsibility-Los Angeles recommends to the California Public Utilities Commission:

- CPUC should deny SCE's request for replacing SONGS' steam generators, a naked first step towards relicensure. Additional decades of operation would place Californians at great risk.
- If CPUC permits the replacement of steam generators, CPUC should then legally bind SCE to send all waste to a licensed facility, as stated in the project EIR. CPUC must not be lax and allow SONGS to place radioactive concrete on California's roadways and allow other dangerous materials in proximity to the public.
- If CPUC fails to require SCE to send all waste to a licensed facility, and SCE subsequently seeks to recycle radioactive scrap metal or dispose of waste, CPUC should require SCE to conduct extensive well-publicized public hearings – allowing the public a say in their being further exposed to radiation.

Thank you for your consideration of our organization's views. Physicians for Social Responsibility is American recipient of 1985 Nobel Peace Prize, and has over 5,000 members in Southern California. I can be reached to further discuss these matters at (213) 689-9170 x107, or at parfrey@psr.org.

Sincerely,



Jonathan Parfrey
Executive Director