

November 30, 2005

The Honorable Edward J. Markey
United States House of Representatives
Washington, D.C. 20515

Dear Congressman Markey:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter dated August 8, 2005, about an article in the August 7, 2005 *New York Times* that discussed shipments of radioactive waste from the St. Lucie Nuclear Plant to a public landfill.

The NRC staff has prepared the enclosed answers to your questions. If you need additional information, please contact me.

Sincerely,

/RA/

Nils J. Diaz

Enclosure: As stated

**NRC RESPONSE TO QUESTIONS FROM CONGRESSMAN EDWARD MARKEY'S
LETTER DATED AUGUST 8, 2005
REGARDING RADIOACTIVE WASTE SHIPMENTS FROM FLORIDA POWER AND LIGHT
COMPANY'S ST. LUCIE NUCLEAR PLANT**

Question 1: Has the Commission conducted its own independent investigation into the matters described in the *Times* article and the private litigation referred to in the article? If not, why not? If so, what has the Commission found?

Answer:

The *Times* article discusses a 1982 event involving improper disposal of contaminated waste from the St. Lucie Nuclear Plant to a landfill. Florida Power and Light Company (FPL) reported this event to the NRC when it was discovered, and the NRC staff conducted a special safety inspection to review the event and documented the results of this review in NRC Inspection Report No. 50-335/82-33, dated November 9, 1982. FPL's investigation of the event determined that a sink or wash trough that drained to the sanitary sewage system and was not intended for radioactive material had been used to decontaminate miscellaneous low level contaminated items, such as respirators. Sludge from the sewage treatment facility, which was not monitored for radioactivity, had been shipped to a local dump site. The NRC found that FPL's disposal activities violated regulatory requirements as discussed in the answer to question 2. FPL's corrective actions included rerouting the sink drain to a radioactive waste system and removing contaminated dirt from the dump site until the activity was lower than the cleanup limits established by the Florida Office of Radiation Control, Department of Health and Rehabilitation Services.

Other matters described in the *Times* article are apparently based on review of documents obtained by litigants in a lawsuit against FPL. The NRC staff has been in contact with the litigants' attorney in this case to obtain documents associated with the ongoing litigation, and some documents have already been received. After a preliminary review of the documents received to date, the NRC staff has concluded that a more detailed review of the documents is warranted to determine if additional regulatory actions are necessary. The NRC will perform a detailed review when it receives the additional documents from the litigants' attorney.

Question 2: Have any of Florida Power and Light's nuclear waste disposal practices been found to be in violation of applicable laws and regulations? If so, what penalties have been imposed for these violations? If not, upon what basis did the Commission make its findings?

Answer:

Based on the special inspection mentioned above, the NRC issued a Notice of Violation for two violations of Title 10 of the *Code of Federal Regulations*, Part 20, "Standards for Protection Against Radiation." Specifically, FPL failed to perform adequate surveys to ensure compliance with waste disposal criteria and failed to post the sanitary sewage treatment plant properly as a radioactive materials area. The NRC also issued a Notice of Deviation for FPL's failure to maintain commitments in the Final Safety Analysis Report regarding the configuration of the

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sanitary water system at the St. Lucie Nuclear Plant. The NRC evaluated these inspection findings pursuant to the provisions of the NRC Enforcement Policy and determined that a civil penalty was not warranted.

The NRC found four other examples of waste disposal activities that occurred in the 1982-1986 time frame that were in violation of NRC requirements. Each of the four events involved different elements of Florida Power and Light's nuclear waste disposal program. The NRC evaluated each of these inspection findings pursuant to the provisions of the NRC Enforcement Policy and determined that a civil penalty was not warranted.

Question 3: The *Times* article raises the prospect of unlicensed and illegal nuclear waste disposal practices having been concealed from the Commission by a licensee. What is the penalty for concealing this type of information from the NRC? Has the Commission looked into this possibility? Is there evidence that this may have occurred in this case? If so, what action is the Commission taking in response?

Answer:

Under the NRC Enforcement Policy, there is a range of enforcement sanctions for addressing willful violations (i.e., violations committed with deliberate intent or with careless disregard for requirements). Such violations are of particular concern to the agency because the NRC's regulatory programs are based on the candor and honesty of licensees and their contractors. A licensee that is found to have willfully violated requirements may be issued a Notice of Violation with an enhanced civil penalty or an order with specified corrective actions. Contractors and licensee employees who deliberately violate requirements may be issued Notices of Violation or orders banning participation in NRC-regulated activities for a specified term. In addition, Chapter 18 of the Atomic Energy Act provides for varying levels of criminal penalties (monetary fines and/or imprisonment) for willful violations of the Act and regulations or orders issued under Sections 65 or 161(b), 161(l), or 161(o) of the Act. Suspected criminal violations are referred to the Department of Justice for appropriate action.

There is currently no indication that FPL concealed any information from the Commission regarding nuclear waste disposal practices. With respect to the shipment of contaminated sludge to the public landfill in 1982, all the documents indicate that the licensee was forthcoming with information to the Commission. For the other violations mentioned in response to Question 2, there was no evidence that information was concealed.

Nevertheless, the NRC staff has been in contact with the litigants' attorney in this case to obtain documents associated with the ongoing litigation and will perform a detailed review of the documents to determine if additional regulatory action is warranted.

Question 4: Does the Commission believe that any of the documents uncovered in the pending private litigation warrant further investigation by the NRC staff to determine whether violations of applicable laws and regulations administered by the NRC may have been violated? If so, is such an investigation underway? If not, why not?

Answer:

As previously stated, based on a preliminary review of the documents received to date from the litigants' attorney, the NRC staff has concluded that a more detailed review of the documents is warranted to determine if additional regulatory actions are necessary.

Question 5: The *Times* article reports that tests of the teeth of two boys whose families have filed lawsuits against Florida Power and Light for alleged illegal nuclear waste dumping practices have revealed "abnormally high levels of radioactive strontium." Has the NRC conducted any testing or analysis to ascertain how these boys, or others living around alleged Florida Power and Light nuclear waste dumping sites, might have come to be exposed to such abnormally high levels of radioactive strontium? If not, why not? If so, please report on your findings and conclusions?

Answer:

As the Federal agency responsible for protecting public health and safety in the use of nuclear materials in commercial nuclear power plants, the NRC bases its regulations on sound science to make determinations that adequate protection of the public and the environment is being maintained. The scientific community generally agrees that approximately 99 percent of the strontium-90 (Sr-90) in the environment resulted from fallout from above-ground nuclear weapons testing. Radioactive releases from the 1986 Chernobyl nuclear power plant accident in the Ukraine are the second largest source of Sr-90 in the environment.

The NRC requires nuclear power plant licensees to establish effluent and environmental monitoring programs to ensure that the radiological impacts from nuclear plant operations are minimized. Licensees are required to report the results of these monitoring programs annually to the NRC, and the reports are available to the public. In general, the monitoring has shown the presence of natural and weapons testing fallout radiation, consistent with the generally-accepted view of the scientific community stated above. In a few cases, licensees have reported very low levels of radioactive material from nuclear power plants. The annual release of Sr-90 from individual nuclear plants in the United States is so low that it is usually at or below the minimum detectable activity of sensitive detection equipment. The staff's review of the St. Lucie effluent and environmental monitoring reports has not identified any concerns with Sr-90 being released from the plant. Furthermore, as stated in the *New York Times* article, the sewage treatment plant sludge at St. Lucie was not contaminated with Sr-90, and the field where the sludge was applied was remediated.

Question 6: If it is true, as the *Times* reports, that Florida Power and Light may have disposed of radioactive waste at unlicensed sites, what would be the company's obligations under federal law with respect to cleaning up those sites and addressing any harm done to persons exposed to radiation as a result of such dumping?

Answer:

NRC regulations ensure that licensees maintain control over licensed radioactive material. One noteworthy example is 10 CFR Part 20, Section 20.1101, "Radiation Protection Programs," which addresses standards and requirements to limit the potential exposure to occupational workers, members of the public, and the environment. NRC licensees are required to control effluents so that radiation doses to members of the public are kept as low as reasonably achievable. Licensees who violate NRC regulations are expected to take appropriate corrective actions, but the regulations do not specify what must be done. The NRC evaluates proposed corrective actions on a case-by-case basis to ensure adequacy. In the case of improper disposal, these actions may include cleaning up the sites, as was done by FPL after the 1982 event.