

DS09

9950



USNRC

Southern California Edison Company

23 PARKER STREET

IRVINE, CALIFORNIA 92718

FEB 17 09:28

G. Mankinsky

58FR5438

10/21/93

February 15, 1994

WALTER C. MARSH
MANAGER OF NUCLEAR REGULATORY AFFAIRS

TELEPHONE
(714) 454-4400

7

Chief, Rules Review and Directives Branch
Division of Freedom of Information and Publications Services
Mailstop P-223
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Gentlemen:

SUBJECT: Southern California Edison Comments on
NRC Draft NUREGS Regarding PWR Decommissioning Costs

This letter provides our comments on the NRC's draft reports, "Revised Analyses of Decommissioning for the Reference Pressurized Water Reactor Power Station" (NUREG/CR-5884) and "Estimating Pressurized Water Reactor Decommissioning Costs" (NUREG/CR-6054). Our comments are provided below.

The revised analyses indicate a determination of whether costs associated with the storage of spent fuel are operating expenses or decommissioning costs has not been made. It should be clear in the analyses that from a utility standpoint, all costs following permanent shutdown of a facility should be considered decommissioning costs. This ensures that current ratepayers (who receive the benefit of nuclear power) are properly providing funds to meet the decommissioning obligations. If these costs are not collected prior to shutdown the utility may be precluded from collecting operation and maintenance (O&M) costs after shutdown. These expenditures include operations & maintenance of the spent fuel pool for the five-year period (analyses assumes seven years), dealing with DOE's inability to accept spent nuclear fuel (continued spent fuel pool operation or dry cask construction and operation), transition costs (defueling, draining, decon, surveillances, etc.) as well as any other O&M. Whether dealing with the public utility commission or the NRC, the site cannot be fully decommissioned until all spent fuel has been removed. All of the expenses associated with the storage of spent fuel in a spent fuel pool, no matter what the length of storage is, should be decommissioning costs. Also the costs incurred in the construction, operation, and decommissioning of a dry cask storage facility (identified as the option to deal with the DOE problem in the study) at the site should be included as decommissioning costs.

9402230138 940215
PDR NUREG
CR 5884 C PDR

A contingency of 25% that is applied to the decommissioning costs is considered to be too low. Many significant uncertainties exist in decommissioning. These include: 1) the standards for residual contamination are still being developed and will not be issued for several years; 2) the industry has minimal experience; 3) problems/delays in siting low level radioactive waste disposal sites; and 4) problems/delays in siting the high level radioactive waste disposal site. Appendix B of the revised analyses states the contingency could be as high as 100% for an untried process where no engineering is complete and the job is to take place in the distant future. In addition, it states that a contingency of 20% - 35% is not uncommon for projects in the proposal stages. In order to assure that sufficient funds are accumulated during the operating life of nuclear power plants to support decommissioning, a more appropriate contingency should be in the range of 40% - 50%.

The staffing estimates provided in the revised analyses should be scrutinized closely. First, the salary levels could vary significantly between utilities (e.g., privately-owned and public). The cost of living as it varies from region to region (Northeast, South, Midwest, West Coast, Northwest, etc.) is adjusted for in the computer program. Even with this adjustment, the salaries are not considered to be conservatively large enough.

Second, the staffing levels identified in the revised analyses are considered insufficient. In Period 1, there should be more involvement from the lower levels, particularly, there should be significant involvement from licensing personnel. In general, there should be less involvement of management personnel through all four periods. Closer scrutiny may allow removal of certain management positions. In Period 2 the levels are too low to perform all the required activities (i.e., defueling, draining, decon, surveillances, etc.). In Period 3 again the levels identified are too low. At SONGS 1, we will require 104 equivalent persons for this stage versus the 53 identified in the revised analyses. In Period 4, the HP Tech Staff is provided by the Decommissioning Operations Contractor (DOC). The basis for not using utility personnel should be provided.

Also in Period 4 when the DOC staff has been mobilized, it is indicated that additional utility staff is returned to the site to support the active decontamination and dismantlement. This is not a good assumption. It should be expected that a large part of the utility staff would either leave the utility or be placed elsewhere in the company. If these people were placed elsewhere in the company, it is unreasonable to assume that they could all be brought back without adversely impacting their new organizations' operations. Returning these people to the site during Period 4 should not be assumed.

The labor cost to perform certain tasks is low. Our estimate for removal of the reactor pressure vessel is \$2.9 million as compared to the \$0.1 million provided in the revised analyses. Our removal of the RCS piping is estimated to be \$1.1 million as compared to the \$0.13 million. These significant differences bring into question the labor costs for other activities.

In Period 2 of DECON it is considered unnecessary to remove the reactor vessel internals. Removal of the internals can be done as part of the removal of the reactor vessel. This is based on the fact that there is no compelling reason for handling the internals twice. In addition, cutting the vessel into so many pieces does not seem appropriate. A basis for cutting and shipping the vessel in 2 or 3 pieces should be provided. Other assumptions which should be considered or revised are as follows. Recycling of non-compactable LLW should be assumed. Assuming that one cask in and out of containment per day is too optimistic, a more reasonable assumption would be 1 or 2 casks per week. The revised analyses are not clear whether piping, electrical, and HVAC are removed by system or area. The appropriate assumption would be to remove this equipment by area. The revised analyses are not clear on the handling of equipment which is to be used as part of the decontamination and dismantlement. A discussion should be provided which addresses if onsite equipment will be maintained, laid up, or left to rust in place (e. g., radwaste processing). The discussion should also include temporary equipment which may be brought in for the dismantlement.

In addition to these comments, we believe the NRC should consider a new approach in handling decommissioning costs. Instead of the formula, use site specific estimates submitted by utilities on a periodic basis to provide a range of acceptable values. Utilities not wishing to develop a site specific estimate would adopt a minimum or average amount calculated by the NRC using statistical analyses on the estimates submitted to it by other utilities. Use of a minimum or average amount would be determined by the NRC. The statistical analyses would also be used to ensure that site specific estimates are within the acceptable range.

If you have any questions regarding these comments, please let me know.

Sincerely,

Walter C. Marsh