

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC

BEFORE THE NUCLEAR REGULATORY COMMISSION

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OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

In the matter of  
PACIFIC GAS AND ELECTRIC  
COMPANY  
(Diablo Canyon Nuclear Power  
Plant, Units 1 and 2)

DOCKET Nos. 50-275  
50-323

AFFIDAVIT OF THOMAS M. DEVINE

STATE OF CALIFORNIA )  
CITY AND COUNTY OF )  
SAN LUIS OBISPO )

ss.

The above being duly sworn, deposes and says:

I, Thomas M. Devine, am legal director of the Government Accountability Project (GAP). On October 13, 1984, I interviewed a Diablo Canyon worker on condition that I not divulge his identity. He agreed that I could prepare an affidavit on certain points he raised as follows:

1. The witness was concerned about the premature failure of fills of capillary tubing such as instrumentation lines in the Reactor Vessel Level Indicator System (RVLIS), because of inade-

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quate procedures. The RVLIS system is highly significant for public safety. It alerts the control room of an accident condition. Basically the problem is that water in the capillary tubes -- which measure changes in reactor vessel radiation levels -- was not sufficiently de-aerated, or free from air. One reason was because there was no aerator in use. The water merely was boiled and sucked on to create a vacuum. The state of the art now, using a Nome de-aerator, routinely leaves the water much more free of oxygen than the previous practice.

The second reason was that the test standards in the procedures were ten times too lax. They allowed the mercury level that measures internal moisture to raise 2 inches within a minute during the retention test, when the proper level is 0.2 inches.

As a result, leaks or air bubbles can be created. These developments will affect the accuracy of readings covered by those instrumentation lines. The capillary fill in the lines could fail after a year or two, instead of the normal life span. The witness cautioned that he could not personally confirm these assessments. They came from a seminar conducted between 2½-3 months ago by Westinghouse, which designed the system.

2. Based on previous experience, the witness reported that there have been serious problems with the system since it was installed. The problems are continuing. The fill has been going bad within as little as two months on some systems, as demonstrated

by leaks. The failures have been occurring on various systems, but the rate has varied. One isolator system, for example, had to be refilled eight or nine times. The isolator system tells the control room whether the high or low leg of the instrumentation line is having the problem, if something has gone wrong.

3. The witness also believed that a possible design flaw should be checked. He explained that the valves on the RVLIS lines should be welded instead of threaded, as they are now. That would preclude a possible source of leaks.

4. The witness was particularly concerned with PG&E's response to the Westinghouse recommendations: Change the procedures prospectively only. The instrumentation lines are being installed with upgraded procedures in Unit 2, but there has been no similar commitment in Unit 1. He said that the explanation on site was that the corrective action can be postponed a year, until the first fuel outage. In the meantime, however, the level indicators and other affected instrumentation may be prone to premature failure.

5. Even more significant for the witness, postponing corrective action for Unit 1 would force workers to do the work in a radioactive environment. Currently the corrective action could be performed with little or no exposure. The witness feared that workers would not receive the benefit of federal As Low As Reasonably Achievable (ALARA) standards against unnecessary radiation exposure.

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6. Curiously, despite the lack of a general commitment, the witness said that some work on the RVLIS lines was occurring in Unit 1 up to at least a month ago. That was after the Court<sup>TD</sup> of Appeals decision preventing operation of the plant. It would not have occurred if the court had upheld the NRC licensing decision. The witness could not explain how the plant was ready to operate in August if PG&E thought it necessary to do further work on Unit 1 in September. He did not know if the NRC were aware of the new work on the RVLIS system.

7. The witness challenged the generic practice in Unit 1 of welding the 3/16 inch instrumentation tubing with welders qualified for 6 inch piping. He explained that welding on the small tubing is more difficult and must have a procedure whose reliability has been tested and proved for tubing whose diameter is 3/16 inch or less.

8. Numerous Foley QC inspectors criticized the weld procedure internally, according to the witness. Management's response may be as significant as the problem. He stated<sup>TD</sup> that in the Spring of 1984 the QC inspectors were instructed to sign an affidavit that they would not discuss or pursue the issue further. The witness believed that this indicated how threatened management was about the problem.

9. The witness was reluctant to contact the Government Accountability Project. He is not opposed to nuclear power and wanted to work within the system. He went outside the system

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because of his disillusionment after previously contacting the QC Hotline. The hotline had failed to recontact him in a timely fashion, did not directly respond to the issues he raised and challenged him on why he was questioning management at all.

10. The witness emphasized that his desire for confidentiality was due to his fear of reprisal. He believes that retaliation has had a significant effect on the quality of work at Diablo Canyon. He summarized the environment on-site as follows: "Regardless if you want to do something right, do it their way. That way you'll keep getting your paycheck."

I read the above statement back to the witness, who confirmed its' verbatim accuracy. He testified to the Nuclear Regulatory Commission's (NRC) Office of Investigations on the same and other issues.

After the NRC interview was concluded, the witness recalled that during the September RVLIS repairs he learned that both legs in one portion of the system were nonfunctional, in violation of the license. The conventional wisdom on site was that there would be an NRC fine<sup>10</sup>, but nothing happened.

I have read the above five-page statement, and it is true, accurate and complete to the best of my knowledge and belief.

*Thomas M. Devine*  
*personally and*  
DISTRICT OF COLUMBIA  
Subscribed and sworn to before me

*17<sup>th</sup>* day of *November*, 19 *84*  
*[Signature]*  
Notary Public

My Commission Expires *3-14-89*

*Thomas M. Devine*  
Thomas M. Devine