

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Nuclear Regulatory Commission

)
 In the Matter of)
)
 PACIFIC GAS AND ELECTRIC) Docket Nos. 50-275
 COMPANY) 50-232
)
 Diablo Canyon Nuclear Power)
 Plant, Units 1 and 2)
)

AFFIDAVIT OF

STATE OF CALIFORNIA SS
 COUNTY OF San Luis Obispo
 CITY OF Arroyo Grande, CA

The above, being duly sworn, deposes and says:

My name is . I am providing this affidavit freely and voluntarily, without any threats, inducements or coercion to Mr. Thomas Devine, who has identified himself to me as the legal director of the Government Accountability Project (GAP). This statement evidences my concern over a quality assurance (QA) breakdown at the Diablo Canyon nuclear power plant, particularly with respect to the accuracy of design drawings. I have instructed Mr. Devine to disclose my statement to the Nuclear Regulatory Commission (NRC) but to remove my identity until a suitable agreement is signed by government officials to protect my anonymity.

I worked at Diablo from October 1981 to April 1982, when I

resigned as a draftsman for small-bore piping drawings in the program for design, redesign and modifications of pipe supports. My work helped prepare for and implement the seismic design review of the facility. The areas where I worked included the annulus, auxiliary building, diesel generator and for a short while the turbine building.

As qualifications, I have been drafting mechanical design drawings since I was 14. I am just short of earning a Mechanical Engineering degree from college. Outside of Diablo Canyon, I have worked as supervisor of a drafting department and as a design engineer.

My specific allegations are listed below. They are presented to define the issues and serve as a starting point for further discussion with the NRC.

1. For an extended period, nearly every day I had to go into the field to check the location of hardware before drafting the drawing, because the requested measurements were physically impossible.

2. During my field reviews I routinely found instances of hardware deficiencies, such as loose U-bolt and missing nuts.

3. During my field reviews I also frequently discovered problems due to design conflicts, where pipes couldn't move or even be installed as the drawings were supposed to reflect, due to piping ^{& PIPE SUPPORTS} which ~~was~~ already in place.

4. Although ^{which were} specifically-identified problems were corrected, my supervisors responded by restricting the rate at which I could report inaccuracies through their instructions to stop making waves by reporting so much, although it was all right

occasionally.

5. Subsequently, management responded with restrictions on the channels available to correct inaccurate drawings, by telling other draftsmen and myself not to report problems directly to the QA department; but rather simply to tell our supervisor who would pass the information to QA.

6. Finally we were told not to attempt correcting inaccuracies, not to check in the field, and not to tell our supervisor; but rather to simply draft what was requested.

7. Because I was outspoken in criticizing the restrictions on our ability to correct inaccuracies in the drawings, I believe that I was denied promised pay raises and promotions.

8. In general during my time at Diablo Canyon draftsmen worked on the basis of informal instructions rather than the Engineering Specifications-Diablo (ESD's), even when the instructions conflicted with the ESD's.

9. During my participation in an early 1982 PG&E-ordered field audit for the accuracy of a random sample of Unit 1 drawings dating back to 1972, I found that approximately 85% of the drawings were inaccurate.

10. Management responded by refusing to expand the sample and terminated the program, although deficiencies were corrected that I had identified.

11. The errors I found routinely had occurred in drawings which previously had been checked and approved, raising questions in general about both the accuracy of design quality assurance and the reliability of later engineering reviews based on these

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drawings during the seismic design review.

12. ~~Other personnel in the field audit routinely did not report many of the inaccuracies which I disclosed and had led to corrective action, raising questions about whether the inconsistencies led to underreporting of the errors.~~

13. I can testify from personal experience that the drawings I had drafted subsequently were falsified by altering them without any documentation or signature, particularly with respect to weld symbols.

14. Management failed to investigate who had changed my drawings without documentation on each occasion that it occurred.

15. Modifications were made to Unit 1 pipe supports without assessing the impact from prior modifications on the same pipe support, which helps to explain the design conflicts discussed above.

16. Isometric drawings were used as the primary vehicles for engineering review and analyses but did not reflect all the changes recorded on as-built drawings.

17. An underlying cause of the outdated isometrics was a loophole in the procedures to update the drawings, which did not require that the impact be noted how changes on up to five or six piping lines from different systems that could cross the same support would affect each other.

Mr. Devine has informed me that the following concerns support prior allegations by other employees.

18. One of the main problems was due to unqualified quality control (QC) personnel, who did not always have ~~high school~~

prior technical
training

~~degrees,~~ familiarity with the requirements of ESD's, or the capacity to read drawings dimensionally, yet were checking the engineers' work.

19. Although the NRC eventually required classes in ESD's for all personnel, there was no program to go back and check for errors that may have occurred before the training.

20. There was no uniform standard for weld symbols on the drawings, which were the subject of ongoing argument and debate among different groups on-site.

21. Because the ESD's did not specify the correct weld symbols, employees brought and relied on their own charts from other jobs, such as one that I saw from the American Petroleum Institute.

22. Although as draftsmen we had to draw and interpret weld symbols daily, I never received any training in the subject.

I have read the above 5-page affidavit and it is true, accurate and complete to the best of my knowledge and belief.

State of California)
County of San Luis Obispo) ss

On this 4th day of February, 1985, before me, Marciana R. Romero, the undersigned Notary Public, personally appeared _____ who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged that he executed it. WITNESS my hand and official seal.

