UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

PACIFIC GAS & ELECTRIC COMPANY

DIABLO CANYON NUCLEAR POWER PLANT UNITS 1 AND 2

DOCKET NOS. 50-275 AND 50-323

RELATING TO DENIAL OF EXEMPTION REQUEST BY

INTERNATIONAL BROTHERHOOD OF ELECTRICAL

WORKERS (IBEW) AFL-C10 LOCAL 1245

1.0 Introduction

By letter dated March 13, 1990, as supplemented by letter dated May 25, 1990, the IBEW submitted a request that certain IBEW members be exempted from random drug testing at the Diablo Canyon Nuclear Power Plant. Such drug testing is required by the U.S. Nuclear Regulatory Commission's (the Commission or the NRC) regulations (10 CFR 26.24(a)(2)).

2.0 Background

This exemption request has been previously addressed by the NRC staff in a "Response to February 5, 1990, Commission Order" dated February 12, 1990. As previously noted by the staff, the arguments advanced by the IBEW, when considered within the context of an exemption request, are essentially generic comments that many individuals and groups advanced when the fitness-for-duty program rule (10 CFR 26) was under consideration by the Commission. The Commission carefully considered the many public comments in determining whether the random testing provisions of 10 CFR 26.24(a)(2) were needed for protection of the public health and safety. The public comments are summarized along with the Commission's responses in the Statement of Consideration accompanying the fitness-for-duty regulation (54 FR 24468 et seq. June 7, 1989). See also NUREG-1354, "Fitness-for-Duty in the Nuclear Power Industry: Responses to Public Comments," May 1989. Additionally, the Commission issued NUREG/CR-5227, "Fitness-for-Duty in the Nuclear Industry: A Review of Technical Issues," September 1988 (and Supplement 1 thereto, May 1989).

As is stated at 54 FR 24468 et seq., the Commission concluded that the imperatives of safe operation of nuclear power reactors fully justified promulgation of the rule as a whole, noting support in two cases decided by the United States Supreme Court on March 21, 1989, that the rule was a proper and prudent regulation for the protection of the public health and safety.

As noted at 54 Federal Register 24488, the two [Supreme Court] cases were decided on March 21, 1989 in favor of drug testing as presented by the circumstances of those cases (Skinner v. Railway Labor Executives Association, No. 87-1555; and National Treasury Employees Union v. Von Raab, No. 86-1879). Neither presented issues to the Court for its consideration in the context of the imperatives of nuclear safety nor addressed random testing. However, the logic of those cases gives the Commission added assurance that this rule represents a proper and prudent regulatory action for the protection of public health and safety. The citations to Skinner and NTEU are 109 S. Ct. 1402, (1989); and 109 S. Ct. 1384, (1989), respectively.

3. Evaluation

A summary of the IBEW's arguments and the staff's discussion of these arguments are as follows:

(A) Diablo Canyon's Safety Record

The IBEW provided, through four of its members, declarations that attested to the excellent safety record of Diablo Canyon and the plant design features, redundancy of safety systems and work procedures on vital equipment, and extensive training for unexpected equipment and personnel malfunctions; all assert that Diablo Canyon is virtually fail-safe as far as the actions of a single individual are concerned.

Staff Discussion

This argument could be advanced with respect to the majority of power reactors licensed by the NRC. However, the NRC, in recognition of the growing evidence of substance abuse problems in the workplace across the U.S., conducted a study in 1982 that was published in NUREG/CR-3196, "Drug and Alcohol Abuse: The Bases for Employee Assistance Programs in the Nuclear Utility Industry," 1983. The study indicated that substance abuse was likely to be an increasingly serious problem at nuclear power plants. Since completion of the study, further incidents with illegal drugs involving workers at nuclear power plants have occurred. These data suggest that the use of illicit drugs, the misuse of legal substances, and performance-impairing psychological disorders are likely to be found among workers with unescorted access to protected areas in nuclear power plants. The important role that nuclear power plant workers play in ensuring safe operation has been demonstrated by events at nuclear power plants where even unimpaired employees have committed errors that challenged plant safety systems. Impaired workers with unescorted access may not only act in ways that could lead to additional events, but are unlikely to be able to respond appropriately to potentially dangerous situations that arise. This, coupled with NRC beliefs that any drug use in the nuclear power industry warrants prevention and active intervention by the NRC to ensure public safety, has resulted in the promulgation and adoption of the fitness-for-duty rule.

(B) Reliability and Validity of PG&E'S Fitness-for Duty Policy Prior to January 3, 1990

IBEW argues that prior to January 3, 1990, PG&E had in effect at Diablo Canyon a fitness-for-duty policy which actually measured that which it was intended to measure (the employee's fitness for duty). IBEW further argues that, in contrast to the medical examination previously used for determining fitness for duty, the drug tests relied upon by the NRC do not measure or approximate impairment, intoxication, or fitness for duty. Therefore, IBEW states, implementation of the NRC random testing program is not needed at Diablo Canyon.

Staff Discussion

The Commission has for a number of years been aware of efforts by the nuclear industry to achieve an environment in which nuclear power plant operations are free of the effects of alcohol and drugs. Nevertheless, evaluations (presented to the Commission in December 1987) of the licensees' fitness-for-duty programs showed that there was evidence of a lack of uniform program standards, there were significant differences in key program elements, and there were many factors that made it unlikely that the nuclear industry could achieve uniformity at the desired level. For example, (1) not all licensees were conducting random tests, some because of union intervention or prohibition by state laws; (2) drug testing cutoff levels varied significantly--some of which were inadequate; (3) disciplinary actions in response to positive test results varied, partly due to the varying degree of local tolerance toward the various fitness-for-duty conditions; and (4) training and awareness programs for contractors needed to be improved by many licensees.

The NRC recognizes that the conduct of a complete physical examination including a drug analysis test is an acceptable approach to assist in the determination if an employee is fit to perform his/her duties in a safe and efficient manner. However, the research literature has shown that supervisors are often unwilling or unable to detect symptoms of substance abuse and often fail to take appropriate actions necessary to ensure that safe work conditions are maintained, i.e., refer employees to authorities for further analysis. Also, medical screening does not by itself provide as much deterrence to substance abuse as does random testing.

Illicit drug abuse and the misuse of legal substances such as alcohol, prescription drugs and over-the-counter medications can impair workers in the performance of their safety-related duties and can result in significantly reduced workforce reliability. The scientific evidence is conclusive that a significant decrement in cognitive and physical task performance results from intoxication due to illicit drug abuse, as well as the use and misuse of legal substances. Except in the case of alcohol, chemical test results do not reveal any direct information regarding drug

impairment per se. However, chemical tests do provide information that is relevant to a fitness-for-duty program.

The reliability, integrity, and trustworthiness of workers within nuclear power plants are important to public health and safety. The granting of a license is based on the assumption that workers will abide by the licensees's policies and procedures in all areas. Indications of lack of reliability, integrity, or trustworthiness, therefore, even when they pertain to offsite behavior, are relevant to the need to assure that nuclear power plants are operated safely. The relationship between reliability, integrity, and impairment is by no means indirect in the case of drug abuse. Most of the substances tested for are either physically or psychologically addictive to many individuals. The NRC cannot be confident of the individual's ability to limit the use of addictive substances to situations that do not adversely affect plant safety.

Illegal drug use can result in on-duty impairment. There is a possibility that a worker who uses illegal drugs off-duty may be impaired from those drugs while on duty. Even if the worker does not use drugs while on duty, he or she may be impaired from either hangover or withdrawal effects associated with drug use. In addition to impairment, any illegal drug use establishes that the worker cannot be relied upon to obey laws applicable to health and safety. This would indicate that the worker also may not scrupulously follow the rules and regulations that have been established in the nuclear workplace to ensure the protection of public health and safety. For these reasons, a worker who uses illegal drugs may not be sufficiently trustworthy or reliable to perform his or her duties on the job in a manner that assures public health and safety. In contrast, the legitimate use of legal drugs does not automatically demonstrate this lack of reliability. However, workers who use alcohol or legal drugs are expected to use those substances responsibly. Irresponsible use of legal substances in a manner that results in, or is likely to result in on-duty impairment, is considered substance abuse within the scope of the fitness-for-duty rule.

The debilitating effects of long-term drug abuse are also well documented in the scientific literature, and have the potential for affecting complex physical and cognitive functions long after the effects of acute intoxication have dissipated. For example, residual effects of intoxication may persist when the worker returns to work the following day. Hangover effects, withdrawal symptoms, and cycles of drug abuse and abstinence can also result in decreased reliability and diligence. Off-site drug use may also result in increased absenteeism, medical costs, and staffing requirements, thus having adverse effects on overall workforce reliability. Ultimately, drug abuse directly and indirectly affects activities which bear on safety. It is, therefore, a reasonable conclusion that the abuse of illicit drugs and the misuse of legal drugs pose safety concerns in the nuclear power industry and are predictive of a lack of reliability, integrity, and trustworthiness.

(C) Evidence of Drug Use or Alcohol Abuse by Diablo Canyon Employees

The IBEW states that there is no evidence of drug use or alcohol abuse by Diablo Canyon employees.

Staff Discussion

Experience with operating nuclear plants suggests that the level of drug- and alcohol-related impairment within the nuclear power industry is significant and warrants regulatory action. Also, the NRC's evaluation of licensee fitness-for-duty programs revealed a significant lack of key program elements necessary to address the full spectrum of fitness-for-duty problems that exist in the nuclear power industry. Therefore, pursuant to the NRC's statutory authority to protect the public health and safety, the NRC must acknowledge that nuclear power plant workers are not immune to, nor insulated from, drug abuse or abuse of substances that may adversely affect safety-critical job performance. The NRC believes that any drug use in the nuclear power industry warrants prevention and active intervention by the NRC to ensure public safety. The NRC's purpose in establishing uniform industry standards is to ensure that licensee fitness-for-duty programs maintain the objectives of public health and safety.

A recent semi-annual report submitted to the Commission pursuant to 10 CFR 26.71 (d) showed that for the period from January 1 through June 30, 1990, there were two positive random drug tests and three positive for-cause tests at Diablo Canyon. One of the two positive random drug tests was for alcohol. This positive rate of random testing is 0.78 percent, which is about 50 percent higher than the industry average, based on data available at this time.

The NRC believes that random drug testing does not violate a worker's constitutional right to privacy. It is already well established that people working in nuclear power plants have diminished expectation of privacy in the work place with respect to fitness-for-duty issues. For example, control room operators are licensed under rules (10 CFR Part 55) that require medical examination biennially and general good health. All personnel and their hand-carried items are subject to search upon entering the protected areas of nuclear power plants, including pat-down searches when metal and explosive detectors are not working or when there is suspicion that the person may be attempting to bring proscribed items into the protected area. Most, if not all, licensees of nuclear power plants also are committed through their security plans under 10 CFR Part 73 to conduct background investigations, administer psychological examinations, and observe employees for indications of aberrant behavior. Licensees also have behavioral observation programs that follow Edison Electric Institute Guidelines. Finally, all persons with unescorted access to nuclear power plants are, by Federal law (10 CFR 73.57), subject to a criminal history records check that requires the taking of fingerprints

and the submission of the fingerprints to the Federal Bureau of Investigation. The additional requirement that employees submit a urine sample or take a breath analysis test is a small increment in the diminished expectation of privacy under which people work in a nuclear power plant.

(D) Over Broad Application of the Rule at Diablo Canyon

The IBEW asserts that the fitness-for-duty rule as applied to Diablo Canyon covers hundreds of workers who do not have access to radiologically controlled areas or vital access areas of the plant and whose work never brings them into contact with systems or equipment whose failure could create challenges to safety systems or complicate the response to off-normal conditions. Declarations were provided by three IBEW members who attested to this.

Staff Discussion

The NRC believes that the inclusion of all workers with unescorted access to the protected area within the scope of the rule is the proper response to the threat constituted by the substance abuse. All such workers have the ability to carry in and distribute impairing substances. All such workers under the influence of any substance can engage in deliberate or accidental actions that can lead to challenges to safety systems or interfere with the ability of other workers to safely operate and maintain the plant. Accordingly, the Commission does not believe that the fitness-for-duty rule should be limited only to workers who have access to radiologically controlled areas or vital access areas.

4. Conclusion

The arguments made by the IBEW are not unique to Diablo Canyon. Similar arguments could be made for any operating power reactor within the Commission's jurisdiction. Further, these arguments were addressed and rejected by the Commission prior to promulgation and adoption of the fitness-for-duty regulation. If the IBEW members were exempted from the provisions of 10 CFR 26.24(a)(2), there would be no logical basis not to exclude all applicable power reactor employees from the provisions of the section in question. Thus, the granting of an exemption patently would not be in the public interest.

In essence, the IBEW Petition requests that the Commission assume that the IBEW's arguments will ultimately be adopted by the courts (presumably through and including the United States Supreme Court) and that the provisions of 10 CFR 26.24(a)(2) will be invalidated. This is an assumption that the Commission has already considered and rejected. Granting the relief sought by IBEW through the granting of an exemption would be tantamount to a finding by the Commission that 10 CFR 26.24(a)(2) should not have been included within the fitness-for-duty rule in the first place. As demonstrated above, there is no basis in fact or law for such a finding.

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FROM: ORIGINAL DUE DT: 06/15/90 TICKET NO: 0909116
DOC DT: 05/25/90
NRR RCVD DATE: 05/30/90

TOM DALZELL, STAFF ATTORNEY
IBEW

TO:

PARTLOW

FOR SIGNATURE OF: ** YEL **

PARTLOW

DESC:

REGARDING INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS (IBEW) EXEMPTION REQUEST, DATED MARCH 13, 1990.

ROUTING:

MIRAGLIA
GILLESPIE
HOLAHAN
PARTLOW
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ASSIGNED TO: DRIS CONTACT: ~~GRIMES~~ McKee - action

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