

Nuclear Regulatory Commission

10 CFR Part 26

Consideration of Changes to Fitness-For-Duty (FFD) Requirements

AGENCY: Nuclear Regulatory Commission.

ACTION: Request for Information and Comments.

SUMMARY: In response to a Federal court decision, the Nuclear Regulatory Commission (NRC) is evaluating its approaches for designation of persons who should be subject to the random drug testing at nuclear power plants, in particular whether employees without direct safety-related duties (e.g., clerical staff) must be subject to random testing. In the evaluation, the NRC staff identified several issues that have a significant bearing on whether the current approach should be revised. Public comments are requested on these issues to aid the NRC staff in completing their evaluation. If any changes are developed to current regulations as a consequence of this evaluation, these proposed changes will again be published in the Federal Register for public comments. If a revised rule is later adopted, these changes would apply to all licensees authorized to construct or operate nuclear power reactors and to all licensees authorized to possess, use, or transport Category I nuclear material.

DATE: The comment period expires (insert date 90 days following publication in the Federal Register). Comments received after this date will be considered if it is practical to do so, but the Commission is able to assure consideration only for comments received on or before this date.

ADDRESSES: Mail written comments to: U. S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch.

Deliver comments to: 11555 Rockville Pike, Rockville, Maryland between 7:30 a.m. and 4:15 p.m. on Federal workdays.

Copies of the NRC staff's report, "Evaluation of Scope of Persons Subject to Random Drug Testing" (Enclosure 1 to SECY-94-016), and comments received may be examined (and/or copied for a fee) at the NRC Public Document Room, 2120 L Street NW (Lower Level), Washington, DC.

Copies of NUREG/CR-1879, NUREG/CR-5227, and Supplement 1 to NUREG/CR-5227 may be purchased from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20013-7082 or from the National Technical Information Service, 5282 Port Royal Road, Springfield, VA 21161. A copy may be examined (and/or copied for a fee) in the NRC Public Document Room, 2120 L Street NW (Lower Level), Washington, DC.

FOR FURTHER INFORMATION CONTACT: Charles H. Hendren, Safeguards Branch,  
Division of Radiation Safety and Safeguards, Office of Nuclear Reactor  
Regulation, U.S. Nuclear Regulatory Commission, Washington, DC, (301) 504-  
3209.

SUPPLEMENTARY INFORMATION:

Background

In International Brotherhood of Electrical Workers (IBEW) v. NRC, 966 F.2d 521 (9th Cir. 1992), the United States Court of Appeals for the Ninth Circuit upheld the NRC's denial of a request by the IBEW on behalf of Diablo Canyon's nuclear workers for an exemption from NRC's random drug-testing requirements. The labor union requested the exemption for bargaining unit members in clerical, maintenance, and warehouse positions. While declining to upset the exemption denial on the record before the court, the three-judge panel questioned the NRC's justification for imposing random drug tests on workers (particularly routine clerical workers) with no direct safety functions and no authorized unescorted access to the vital areas of the plant. (The Diablo Canyon administrative building is in the protected area, and administrative workers are subject to random drug testing because they have unescorted access to the protected area. A number of other plants also have administrative buildings inside their protected areas.)

Because the Court of Appeals affirmed the exemption denial, the NRC is under no immediate legal obligation to take any action. However, the NRC believes that a careful study of the issue raised by the court is in order.

Therefore, the NRC staff conducted an initial study, "Evaluation of Scope of Persons Subject to Random Drug Testing" (Enclosure 1 to SECY-94-016), which is available in the Public Document Room as specified in the "ADDRESS" portion of this Notice. This study evaluated issues relative to random drug-testing of clerks, secretaries, or other employees who have unescorted access to a nuclear plant's protected area, but whose own jobs are not directly safety-related and provide no opportunity for precipitating or escalating a safety-related incident at a nuclear power plant.

Before the effective implementation date of the Fitness-For-Duty (FFD) Rule (January 3, 1990), licensees had various programs to control substance abuse. However, these programs were not uniform in their procedures, testing methods, standards, or sanctions for substance abuse. Most of the programs did include (1) preemployment drug testing, (2) for-cause drug testing, (3) employee assistance programs, (4) behavioral observation, and (5) some type of training on the problems associated with substance abuse. Not all licensees had random drug testing as an element of their program; in some cases, random testing was precluded because of union intervention or prohibition by State laws.

In developing the FFD Rule, the scope of random drug testing was one issue that received considerable attention. In the Federal Register Notice for the proposed rule published on September 22, 1988 (53 FR 36795), the Commission solicited comments on the appropriateness of the worker categories identified for testing. At 53 FR 36817, the Commission indicated that it was proposing that the rule apply to all persons who have been granted unescorted access to

protected areas because (1) current programs are implemented in accordance with the Commission's Policy Statement on Fitness-for-Duty of Nuclear Power Plant Personnel published on August 4, 1986 (51 FR 27921), which applies to all persons within protected areas at nuclear power plants; (2) these persons could introduce and sell/distribute drugs in the workplace; and (3) any person under the influence of these substances could cause a safety hazard, if not to the general public, to the user and to fellow workers.

Many of the public comments on the proposed rule addressed the scope of random testing. Most comments supported random testing for all persons granted unescorted access to protected areas. However, a considerable number of comments objected to random testing provisions of the rule. A number of the comments asserted that random testing was unnecessary and that many of the individuals granted unescorted access to protected areas have no potential for precipitating or escalating a safety-related incident. Some comments recommended that only those workers who may potentially affect the health and safety of the public be covered. For the final rule, the NRC chose not to reduce the scope of persons subject to random testing.

Currently, the FFD Rule requires licensees authorized to operate or construct a nuclear power reactor to implement an FFD program that applies to "all persons granted unescorted access to protected areas, and to licensee, vendor, or contractor personnel required to physically report to a licensee's Technical Support Center (TSC) or Emergency Operations Facility (EOF) in accordance with the licensee's emergency plans and procedures." Licensees

authorized to possess, use, or transport formula quantities of nuclear material were recently required to initiate FFD programs and are not included in this analysis. Persons who come under the FFD program are subject to the drug testing provisions, which include random drug tests.

### Discussion

Random drug testing involves two distinct functions: (1) random selection of persons to be tested, and (2) collection and analysis of test specimens. The random selection process is used to ensure that all persons subject to drug testing will have an equal probability of selection for testing at any time. Random drug testing is also a very strong deterrent to substance abuse.

In developing the FFD Rule, the NRC decided to specify random drug testing because of a concern about the threat that substance-impaired workers posed to the public health and safety. Based upon comments received during rulemaking, the Commission concluded that all workers with unescorted access to protected areas of operating nuclear power plants should be included within the scope of the rule. However, some workers have argued that they do not perform safety-related functions and have now questioned whether random testing is an undue encroachment on individual expectations of privacy. See International Brotherhood of Electrical Workers, Local 1245 v. NRC, 966 F. 2d 521 (9th Cir. 1992). Other viewpoints contend that expectations of privacy are diminished when workers apply for and accept jobs in the nuclear industry because job applicants willingly agree to significant privacy encroachments including preemployment urinalysis tests, detailed background investigations, security

and fingerprint checks with the Federal Bureau of Investigation, credit checks, and psychological assessments. Accordingly, the Commission is now re-assessing the scope of random urinalysis testing as applied to workers without safety-related duties to ensure a proper balance between safeguarding individual rights and the Commission's responsibility to protect public health and safety.

At nuclear power reactors, the safety risks from someone using illegal drugs or abusing alcohol arise from the potential for that person to inadvertently or deliberately take actions that could affect plant safety. The safety risks from inadvertent acts primarily involve impairment caused by substance abuse and the effect of that impairment on the person's ability to perform safety-related functions. Although the Commission has no information that would indicate that a person is more susceptible to coercion or blackmail due to drug abuse than from any other activity, there is a perception that the safety risks from deliberate acts come from the susceptibility of a substance abuser to be coerced or influenced into deliberately damaging a nuclear power plant, whether or not that person has safety-related duties. For example, the person could lose their inhibitions while under the influence or could be blackmailed into some act against the plant by someone aware of that person's substance abuse.

Objective data establishes a relationship between substance abuse, impairment, and inadvertent acts [NUREG/CR-5227, "Fitness for Duty in the Nuclear Power Industry: A Review of Technical Issues"], but the staff's



review of the relevant literature suggests that insufficient scientific data exist to directly link substance abuse to the performance of deliberate (or malicious) acts. However, it has been clearly shown that, as human error rates increase, the risks to plant safety will increase significantly. [See NUREG/CR-1879, "Sensitivity of Risk Parameters to Human Errors in Reactor Safety Studies for a PWR."] It has also been shown that substance abuse can sufficiently impair a worker's motor skills and judgment that accidents attributable to neglect and human error become significantly more probable. [See NUREG/CR-5227 and Supplement 1 to NUREG/CR-5227.]

Information reported to the Commission indicates that arrests for sale and distribution of illegal substances inside nuclear power plant protected areas have decreased markedly since January 1990 when the FFD Rule was implemented. Prior to the FFD Rule, a number of cases involving the sale and distribution of illegal substances at nuclear power plants were reported, as described in the staff's report cited previously. The persons arrested for on-site sale and distribution of drugs included both safety-related and non-safety-related workers. The job categories included clerks, custodial workers, craftpersons, and engineers. Since implementation of the FFD Rule, however, only one case of this type has been reported to the Commission by a nuclear power plant licensee. Two of the more significant deterrents added by the FFD Rule were: (1) the requirement for random drug testing, and (2) the five-year minimum revocation of unescorted access for persons determined to have been involved in the sale, use, or possession of illegal drugs within a protected area.



The threat of someone either inadvertently or deliberately damaging or manipulating equipment that affects plant operations or could result in radiological consequences arises from that person having access to the equipment. Persons whose tasks involve design, operation, or maintenance of that equipment represent a greater potential threat because of their familiarity and more direct access to that equipment. Safeguards measures that protect against someone from inside the organization are intended to counter this threat by ensuring that persons who have an opportunity to operate or manipulate any equipment affecting plant functions are not impaired and are trustworthy and reliable. To achieve these goals, the Commission believes that although there are substantial unknowns currently associated with the true detection and deterrence effectiveness of random testing, the use of random drug testing provides an effective means for both detecting and deterring the use of illegal drugs or abuse of alcohol.

The fundamental approaches for selecting those to be included in a random testing program are to either test everyone (the "universal" approach) or to test only those in "safety-sensitive" positions. Proponents of the universal approach contend that the safety-sensitive approach tends to be discriminatory in that blue-collar workers are tested but management is not. Proponents of the safety-sensitive approach contend that random testing should be limited to only workers in positions where a direct link to safety exists. The NRC's current approach is a combination of these two fundamental approaches. The NRC's approach tests everyone who has unescorted access to a protected area

and, therefore, tests everyone who has an opportunity to operate or manipulate important systems and equipment that could challenge the safe operation or emergency shutdown capability of a nuclear power plant.

To satisfy the intended objective of random drug testing, one approach would be to base the decision on who should be randomly tested on a person's access to equipment that could, if manipulated, cause a safety problem. This is a conservative approach and does not take into account the abilities and skills of persons who may have access. For someone who has access and whose tasks do not include safety-related activities, the approach assumes they present some risk of either inadvertently or deliberately causing safety problems.

Nuclear power plant security requirements provide distinct security boundaries where personnel access is controlled. The nuclear power plant protected area is one of these boundaries and is defined as an area encompassed by physical barriers to which access is controlled (10 CFR 73.2). Protected areas contain components and systems that are important to plant operations and whose failure could result in challenges to more critical plant systems and components. The NRC staff's evaluation study cites numerous cases where reactors have been tripped and safety systems challenged as a result of accidents that occurred in protected areas. Since 1987, there have been over two thousand "events" that caused reactors to be scrambled.

Within protected areas are vital areas. Vital areas contain equipment, systems, devices, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation. Unescorted access from protected areas into vital areas is controlled and limited to persons who require access to perform their duties.

An approach based on unescorted access to protected areas results in a large variation among sites in the number of people subject to random testing. Many power reactor sites have few administrative or technical work stations inside their protected areas. At these sites, most workers who have unescorted access also have job functions directly related to plant operations and require access to one or more vital areas. However, a number of power reactor sites have administrative and technical support buildings located inside protected areas. At these sites, many workers who have unescorted access only to protected areas (and not to vital areas) do not have tasks directly related to plant operations or maintenance.

Another approach to designating who would be subject to random testing would be to base the decision on tasks the person performs. This approach recognizes that people whose tasks directly involve plant safety have the access, the opportunity, and the knowledge to cause a safety problem. This approach addresses more directly the safety problems that might be caused by a person who is impaired due to substance abuse. Many positions and tasks are fairly well defined at nuclear facilities. A core of individuals such as

plant operators, maintenance personnel, and quality control inspectors have tasks that are clearly subject to NRC regulations and directly involve safety-related activities. However, the relationship of some positions to plant safety is more difficult to establish.

One ongoing NRC activity that could affect considerations for changes in regulatory requirements for persons subject to random testing is a study of security requirements associated with the insider threat. There have been some indications that access control safeguards could, in some circumstances, make it much harder for reactor operators to maintain control of a plant. The NRC staff is considering whether reductions are possible in the safeguards that control access into vital areas from protected areas. Substantial reductions in the access control safeguards for vital areas could alter the safety impact assessments for optional approaches to random drug testing. These safety assessments are based to some degree on the use of access controls to segregate persons having access to vital areas from persons whose access is limited to protected areas (i.e., persons who do not have access to vital areas). Depending on how much importance is given to concerns about deliberate acts based on influence from illegal drug or alcohol abuse, future relaxation of the safeguards to control access into vital areas from protected areas could significantly affect any considerations for narrowing the scope of persons subject to random testing.

To assist in the ongoing evaluation of the scope of random testing, the Commission seeks comments on the proposed alternative approaches to the scope

of random testing and other related issues. Further information on these alternative approaches is contained in the NRC staff's report cited previously. This study addressed five options for the scope of random testing. The first option is maintaining the existing random drug testing scope, which is based on personnel access to a particular location. Option 2, which would exclude certain groups of workers from the random testing pool, and Option 3, which would apply random testing to persons who have access only to vital areas, represent relatively simple variations of the current program. Options 2 and 3 would narrow the pool of individuals subject to random testing. Option 4 would base the scope of random testing on the tasks the person performs. Option 5 would allow alternative testing (in lieu of urinalysis) for workers in certain defined positions. For all five options, it is assumed that the other elements of the FFD program (such as suitable inquiries, preaccess testing, and for-cause testing) will remain applicable to all workers who are given unescorted access to protected areas. Specifically, comments are requested on the following:

1. Should the Commission retain the current scope of the random drug testing requirements in 10 CFR Part 26, which requires that all persons granted unescorted access to protected areas at nuclear power plants be subject to random drug testing? (Option 1)
2. Should the Commission revise the scope of the 10 CFR Part 26 random drug testing requirements to adopt one or more of the following approaches?

- a. Exclude from random drug testing certain groups of workers (e.g., clerical, administrative) who have unescorted access to protected areas but not to vital areas. (Option 2)
  - b. Limit random drug testing to only those workers who have unescorted access to vital areas of nuclear power plants. (Option 3)
  - c. Limit random drug testing to workers whose jobs involve safety- or security-related functions regardless of whether these workers have unescorted access to protected areas. (Option 4)
  - d. Allow use of alternative testing methods in lieu of urinalysis for certain groups of workers who have unescorted access to protected areas (but not to vital areas) only because their normal workstations are within a protected area of the nuclear power plant. These methods could include performance-based testing, even though there are current technical limitations, primarily varying degrees of detectability, reliability, sensitivity, and accuracy. (See also question 7, below.) (Option 5)
3. For each of the four approaches above (2.a - 2.d), what are the potential effects on risk to public health and safety or on vulnerability of nuclear power plants resulting from accidental acts and deliberate acts such as sabotage or vandalism? Will vulnerability or risk increase or decrease to any significant degree, or will they remain unchanged?



4. What would be the expected effect on the need for random drug testing under each of the four approaches above (2.a - 2.d) if vital area access controls are reduced ( e.g., allowing certain vital area doors to normally be unlocked, but be capable of (i) being remotely locked on demand in the event of a security contingency, and (ii) generating an alarm if a vital area door is opened without an authorized keycard )?
  
5. Does substance abuse increase the probability of a person committing a deliberate act such as sabotage or vandalism? These acts might be caused by indirect influences of drugs on a person's attitude or susceptibility to being influenced by others. What data exist to show a relationship between substance abuse and deliberate acts? Is random drug testing an appropriate means to control the risk of deliberate acts associated with substance abuse and, at the same time, not encroach unreasonably into individual privacy expectations?
  
6. Does the Commission's policy in 10 CFR Part 26 deter the introduction of illegal substances into protected areas of nuclear power plants? If so, what aspect(s) of the FFD program creates this deterrent effect? If not, should the Commission require licensees to implement measures to cause this deterrent effect, and what type of measures should be required? (Information describing the measures and their effectiveness in sufficient detail to show the cause and effect relationship between the deterrent measure and the resulting reduction/elimination of illegal substances being brought into the workplace would be useful.)



7. Should the Commission continue to investigate new testing methods that could be used for all workers who have unescorted access to protected areas? What are some methods that might be acceptable and effective alternatives to the existing approach? For proposed methods, please provide data that establishes accuracy (i.e., test's error rate), specificity (i.e., degree to which the test can measure what it's supposed to measure), reliability (i.e., the precision with which the test can be repeated and the consistency of test results), and similar supporting parameters. The Commission is specifically interested in data on the validity of performance testing measures.

Dated at Rockville, Maryland this 4<sup>th</sup> day of May, 1994.

For the Nuclear Regulatory Commission.

  
John C. Hoyle,

Assistant Secretary of the Commission.

CONGRESSIONAL CORRESPONDENCE SYSTEM  
DOCUMENT PREPARATION CHECKLIST

This checklist is to be submitted with each document (or group of Qs/As) sent for filing into the CCS.

1. BRIEF DESCRIPTION OF DOCUMENT(S) Letter to Sen. Lieberman
2. TYPE OF DOCUMENT  Correspondence  Hearings (Qs/As)
3. DOCUMENT CONTROL  Sensitive (NRC Only)  Non-sensitive
4. CONGRESSIONAL COMMITTEE and SUBCOMMITTEES (if applicable)

\_\_\_\_\_ Congressional Committee

\_\_\_\_\_ Subcommittee

5. SUBJECT CODES

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_

6. SOURCE OF DOCUMENTS

- (a) \_\_\_\_\_ 5520 (document name) \_\_\_\_\_
- (b)  Scan- (c) \_\_\_\_\_ Attachments
- (d) \_\_\_\_\_ Rekey (e) \_\_\_\_\_ Other \_\_\_\_\_

7. SYSTEM LOG DATES

- (a) 6/27/94 Date OCA sent document to CCS
- (b) \_\_\_\_\_ Date CCS receives document
- (c) \_\_\_\_\_ Date returned to OCA for additional information
- (d) \_\_\_\_\_ Date resubmitted by OCA to CCS
- (e) \_\_\_\_\_ Date entered into CCS by \_\_\_\_\_
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8. COMMENTS

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