U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos: 50-361/92-04 (EA 92-015)
50-362/92-04

Docket Nos: 50-361
50-362

License Nos.: NPF-10
NPF-15

Licensee: Southern California Edison Company
Irvine Operations Center
23 Parker Street
Irvine, California 92718

Facility Name: San Onofre Units 2 and 3

Inspection Conducted: January 22-23 and February 12, 1992

Inspectors: Lewis F. Miller Jr., Chief, Operations Section
Thomas R. Meadows, Senior Licensing Examiner

Accompanying Personnel: Phillip V. Joukoff, Senior Investigator

Approved by: _____ 3-2-92
Lewis F. Miller Jr., Chief Date Signed
Operations Section

Summary:

Inspection on September 22-23, 1992 (50-361/92-04 and 50-362/92-04)

Areas Inspected: The inspection reviewed the confirmed positive drug test of a licensed reactor operator (operator). An apparent violation of 10 CFR 55.53, "Conditions of Licenses," was identified. The facility licensee's (licensee) Fitness For Duty (FFD) program was also reviewed as it applied to this confirmed positive test result. Inspection procedure 92701 was used.

Safety Issues Management System (SIMS) Items: None.

Results:

General Conclusions and Specific Findings:

The inspectors found that the identified reactor operator had apparently violated 10 CFR 55.53(j), by performing licensed duties while under the influence of an illegal drug (marijuana), and by using two illegal drugs, marijuana and cocaine, while off-duty. The inspectors reviewed the licensee's FFD program as it applied to this case, and found it to be generally adequate.

The inspectors found the FFD program implementation of background investigations (BI), Medical Review Officer (MRO) functions, FFD program manager (FFD PM) functions, and the training received by licensed operators of their responsibilities under 10 CFR 26, to be satisfactory.

However, the inspectors identified two open items regarding the licensee's FFD program implementation, as follows: (1) the FFD appeal process, and (2) the reporting of positive test results. These items require further inspection by the NRC.

Significant Safety Matters: None.

Summary of Violations and Deviations: Two apparent violations of 10 CFR 55.53(j) were identified regarding a licensed reactor operator who performed licensed duties while under the influence of an illegal drug (marijuana), and who used two illegal drugs, marijuana and cocaine, while off-duty.

Open Items Summary: Two followup items were opened regarding the licensee's FFD program.

DETAILS

1. Persons Contacted

Southern California Edison Company

*H. E. Morgan, Vice President and Site Manager
*T. M. Calloway, Manager, Access Authorization
*B. D. Plappert, Supervisor, Compliance
*L. D. Brevig, Supervisor, Onsite Nuclear Licensing
*H. W. Newton, Manager, Site Support Services
*D. A. Werntz, Engineer, Onsite Nuclear Licensing
*J. J. Jamerson, Engineer, Onsite Nuclear Licensing
B. Katz, Manager, Nuclear Oversight
H. Luque, Control Room Supervisor
B. Pohlman, M.D., Senior Medical Review Officer
S. W. Rosen, M.D., Regional Managing Physician, Health Care Center, Site Medical Review Officer

The inspectors also interviewed other members of the licensee's access authorization, operations, and fitness for duty staff.

* Denotes the individuals present during the January 23, 1992 exit meeting.

2. Review of the Confirmed Positive Test for Marijuana of a Licensed Reactor Operator (Apparent Violation, 50-361/92-04-01)

a. Background

The inspectors confirmed that the operator had been licensed as a reactor operator since October 10, 1990, to operate the controls of San Onofre Nuclear Generating Units 2&3 (SONGS 2/3), and had been assigned as a Nuclear Assistant Control Operator to Crew "A."

The site medical review officer (MRO) determined, at 1605 PST, on November 22, 1991, that the operator's November 15-16, 1991 random urinalysis screen test was confirmed positive for marijuana, an illegal drug.

The inspectors confirmed that the operator's protected and vital area unescorted access authorization was terminated within ten minutes after this confirmed positive result.

The inspectors interviewed the site MRO on November 23, 1991. The MRO stated that the operator had admitted to using marijuana several days before the test. The MRO stated that he had, therefore, determined that the operator's test was confirmed positive for marijuana. Under the licensee's FFD program, positive test results reported by the FFD program's laboratory are not confirmed positive until the MRO has ruled out plausible alternate explanations for the results, such as drug metabolite producing foods, prescription drugs, or secondary exposure, such as smoke inhalation. Specific FFD program procedures and testing

cutoff levels will be covered in more detail below. In this case, the confirmatory analysis from the laboratory was positive for marijuana metabolites (specifically, THC), since the concentration on a gas chromatographic/mass spectrometric analysis was greater than the FFD program cutoff limit. Cocaine metabolites were also identified, but at a lower concentration than the FFD program cutoff levels.

b. Review of FFD Program Procedures

The inspectors determined that the FFD program required randomly selected employees, or contractors, having unescorted site access, to provide urine and breath samples. The breath tests screen for alcohol using a breath analyzer method (Intoxilyzer-Alcohol Analyzer). At the time of the inspection, each sample was also analyzed for a panel of drugs two or three times, using different analytical techniques, depending on the circumstances. Every test received an immunoassay analysis by the onsite laboratory and, separately, by the offsite laboratory. Some tests also received a gas chromatography/mass spectrometry (GCMS) analysis.

The immunoassay method was used to screen urine specimens from further consideration. For the onsite immunoassay test, the licensee's onsite laboratory used a Hitachi 717 Boehringer Mannheim analyzer.

At SONGS 2/3 the offsite tests were performed at the Nichols Institute, a Department of Health and Human Services (HHS) certified laboratory. The Nichols Institute conducted the second screen of the tests submitted by the licensee's onsite collection facility (CPF). Nichols used a Hitachi 717 Boehringer Mannheim analyzer for the screening immunoassay "preliminary initial test," as defined by 10 CFR 26, and then followed up with a gas chromatography/mass spectrometry (GCMS) test for the "confirmatory test," defined by 10 CFR 26.

Positive GCMS tests were then sent to the licensee MRO, for determining whether the results were to be considered a "confirmed positive test," as defined by 10 CFR 26. The HHS laboratory normally only reported positive test results to the licensee, in accordance with the FFD program. However, if the laboratory suspected that the sample was adulterated, or if a specific detailed test was requested by the licensee, then the detailed test results of a negative sample would also be reported.

The licensee specimen collection staff determined whether a urine sample had been adulterated or diluted by three methods, besides odor and color: (1) Testing for acceptable PH (4.6-8.0), using chemical reagent techniques; (2) Testing for acceptable specific gravity (SG) (>1.005, based on pure water SG = 1.000), using a Clinitek analyzer or a refractometer, if the sample SG is less than 1.005, which is the minimum detectable level of the Clinitek; and, (3) Testing for acceptable temperature (<96 degrees F, under the licensee's program at the time).

All of these tests were based on a minimum sample of at least 60 milliliters (ml) of urine. Additionally, the temperature of the sample was required to be taken within four minutes of its production.

The inspectors found that the licensee FFD program also separated every urine sample into two split-samples. The licensee identified one of these split-samples as the "appeal" sample. The licensee only sent this appeal sample to the HHS laboratory if adulteration or dilution was suspected, or the MRO determined a test to be confirmed positive.

The inspectors found that the licensee's onsite screening cutoff levels for marijuana and cocaine were lower than the cutoff levels used at the HHS laboratory. If the licensee determined a specimen had low specific gravity and temperature, and found trace amounts of a specific drug in the sample, the CPF would request the offsite HHS laboratory to perform a GCMS analysis for the suspect drug, or drugs, utilizing the Limit of Quantitation (LOQ) as the lower limit of detection.

c. Review of the Event:

The inspectors verified the following chronology for the November 15-16, 1991 random test, administered to the operator:

1. 6:26 PM, 11/15/91: The operator was notified to report to the nearest site collection station for random testing. The operator stated that he was unable to provide a sample. The operator was then notified to return to the collection station within two hours, and to drink no more than eight ounces of fluid. The operator was not escorted during this time period.

2. 8:54 PM, 11/15/91: The operator submitted the first sample (sample 1). However, this sample was found to be <96 degrees F, with a SG of approximately 1.000. Note: Pure water is 1.000 SG. Therefore, the sample was not considered acceptable as a normal urine sample. The operator was then notified to return, in four hours, for another test. In accordance with the licensee's program, this test was not observed. The operator was escorted during this period. Sample 1 tested negative for drugs and alcohol at both the CPF's and the HHS laboratory's screening cutoff levels.

3. 12:45 AM, 11/16/91: The operator submitted an acceptable temperature and specific gravity sample (sample 2). The sample was positive for the marijuana metabolite, THC, at the onsite cutoff level of 20 ng/ml. Samples 1 and 2 were subsequently sent to the HHS laboratory for detailed testing as discussed in the previous section.

In this case, the sample was tested for cocaine and a cocaine metabolite was detected by the offsite laboratory at a concentration of 90 ng/ml. However, the laboratory screen and confirmatory test cutoff levels were higher than this, at 300 ng/ml and 150 ng/ml, respectively. Therefore, this test for cocaine was not considered positive.

The licensee's onsite laboratory screen cutoff level for the marijuana metabolite (THC) was 20 ng/ml. However, the offsite laboratory screen and confirmatory cutoff levels were 50 ng/ml and 10 ng/ml, respectively. THC was reported by the offsite laboratory as negative on the screen test, and positive only on the confirmatory test at 11 ng/ml. The inspectors noted that this test was specifically requested by the licensee, because the onsite screen sample was positive, at the more conservative onsite cutoff levels used by the licensee.

This laboratory positive GCMS test was documented on Nichols Institute laboratory report accession No. A4251171, and was reported on 11/22/91 to the licensee. The NRC confirmatory test cutoff limit for marijuana is 15 ng/ml. Therefore, the specimen was only positive under the licensee's more conservative program. 10 CFR 26, Appendix A, 2.7 (f)(2), "Confirmatory Test," permits more conservative licensee FFD cutoff limits. Therefore, the inspectors determined that the positive result for marijuana was valid, and the licensee's actions were appropriate. The inspectors noted that the laboratory test also identified traces of the cocaine metabolite (benzoylecgonine) at a concentration of 90 ng/ml. The licensee and NRC confirmatory test limits are 150 ng/ml; therefore, the test was negative for cocaine.

The MRO stated that he recalled that the operator had suggested during the MRO's evaluation interview on November 22, 1991, that the explanation for the detectable cocaine test result was from the ingestion of secondary smoke from friends, on November 11, 1991. The test process was begun the evening of November 15, 1991 and continued into November 16, 1991. The MRO stated that the operator did not identify any of these friends.

After reviewing site access records, and conducting additional licensee staff interviews, the inspectors verified that the operator had assumed licensed duties after the initial random testing process was completed on November 16, 1991, and continued to perform licensed duties, on the scheduled crew "A" shift rotation, until November 22, 1991, when the operator was removed from his responsibilities and denied site protected area access.

Therefore, the inspectors concluded that the operator had apparently violated 10 CFR 55.53(j), in that he performed licensed duties while under the influence of an illegal drug (marijuana), as defined under 10 CFR 26. (50-361/92-04-01)(Open)

c. Interview of the Licensed Operator

After further regional review of the preliminary inspection results, an interview of the operator was conducted on February 12, 1992. The operator was interviewed under oath by P. Joukoff, OI and L. Miller. The interview was recorded by a qualified court reporter.

During the interview, the operator admitted to smoking marijuana, and inhaling cocaine through his nose, on November 11, 1991 in a garage with four unidentified males in San Clemente, California. He stated this occurred due to bad judgement, while he was too intoxicated to drive, in a social setting. He also admitted to having smoked marijuana once or twice a month and inhaling cocaine a total of four or five times in the period from November 1981 until December 1982. This was the period between his service in the U.S. Marine Corps and with the licensee. Finally, he admitted smoking marijuana a few times in college, prior to entry in the U. S. Marine Corps.

He denied any other usage of any legal or illegal drugs. He also stated that he did not have an alcohol problem. He stated that he had never purchased illegal drugs. Finally, he denied tampering with any of his urine samples.

He stated that he had not used any of these illegal drugs in the presence of other licensee employees, and was not aware of any illegal drug usage by any other licensee employees.

The inspectors concluded that the operator's admitted use of illegal drugs (marijuana and cocaine) on November 11, 1991 was an apparent violation of 10 CFR 55.53(j). (To be tracked as part of Open Item 50-361/92-04-01.)

d. Review of Operator's Work History:

The inspectors determined that the operator had been employed by Southern California Edison (SCE) since December 9, 1982. The inspectors found that the operator had not previously failed a drug screen urinalysis test.

The inspectors interviewed the operator's immediate supervisor, the Control Room Supervisor (CRS). The CRS said that the operator had been an adequate worker. However, until about a year ago the operator had some occurrences of tardiness and sickness that affected his performance.

On November 22, 1991, the operator was put on investigatory suspension by the licensee. On December 2, 1991, the operator was placed on disciplinary suspension, 80 hours without pay. The operator returned to work outside the protected area on December 4, 1991, and enrolled in the employee assistance program (EAP) outpatient program. This outpatient program was approximately twelve weeks long, meeting twice a week for two

to three hours. This program also included increased observed testing, and additional medical/psychological evaluation. The inspectors determined that, under the licensee's FFD program, the operator's site protected area access would not be restored unless the operator had completed the following:

1. Update of the psychological evaluation and background investigation with satisfactory results, supplemented with satisfactory forensic psychiatrist interviews,

2. Satisfactory completion of the EAP, and

3. Approval of the EAP Division Manager, Access Authorization Manager, and SONGS Vice President/Site Manager.

3. Review of the FFD Program (Open Items: 92-04-02 and 92-04-03)

The licensee's FFD procedures in effect at the time of this event (SO123-XV-7, "Drug and Alcohol Testing Program for Area Access and Assignment to Emergency Operations Facility Duties," and SO123-XV-7.1," Processing Random Screening Notices and Associated Information," both dated Nov. 5, 1990) are described in section 2 above. These procedures were in effect during the event, through November 1991. The licensee has since expanded these procedures into five procedures (SO123-XV-7.1-5, dated Dec. 6, 1991), to provide more administrative detail, and to clarify their record keeping procedures. The procedures were revised in response to the licensee's internal Nuclear Oversight Division audit findings, dated 11/16/91, that departmental written procedures needed to be more thoroughly codified as facility procedures. The inspectors reviewed all of the procedures, and confirmed that the revisions were not relevant to this event, with one exception discussed in section 3.b below. The inspectors focused primarily on the illegal drug related part of the program, and the program inspection was, therefore, limited in scope.

The inspectors found the licensee's FFD program implementation of background investigations (BI), Medical Review Officer (MRO) functions, FFD program manager (FFD PM) functions, and the training received by licensed operators of their responsibilities under 10 CFR 26, to be satisfactory.

However, the inspectors identified two open items, regarding the licensee's FFD program implementation, as follows: (1) The FFD appeal process, and (2) the reporting of positive test results.

a. The FFD Appeal Process (Open Item 50-361/92-04-02):

As stated above, the inspectors found that the licensee FFD program separated every sample into two split-samples. The licensee also identifies one of the two split-samples as an "appeal" sample. The licensee only sent this sample to the HHS laboratory if there was reason to suspect adulteration or dilution (suspect for cause), or the MRO determined a test to be confirmed positive.

The inspectors noted that the HHS laboratory appeal test results for sample 2 had also detected the presence of marijuana and cocaine. This appeal test did not conform to the appeal sample guideline in 10 CFR Part 26. Specifically, in this case, the operator did not appeal, a different HHS laboratory was not used, and the numerical GCMS results of the split sample were not reported to the facility (at their request). Rather, the licensee used their appeal process to implement what appeared to be a more aggressive split-sample testing program.

10 CFR 26.28 requires the licensee to establish a procedure for a suspect employee or contractor to appeal any positive test determination with "notice and opportunity to respond" to the positive test determination. This may involve an impartial internal management review and evaluation by a second independent laboratory.

The inspectors determined that under the licensee's program, the appeal sample would not be sent to a second off-site laboratory. The inspectors determined that the licensee's FFD procedures did not specify how a suspect individual was made aware of appeal rights. This item remains open (Open Item 50-361/92-04-02).

b. Licensee FFD program identification and handling of suspect specimen samples:

The licensee staff determined whether a urine sample was potentially adulterated or diluted by three principal methods, besides odor and color: (1) testing for acceptable pH; (2) testing for acceptable specific gravity (SG); and, (3) testing for acceptable temperature ranges (<96 degrees F; note that this permits much less cooling of the sample for whatever reason than the NRC guideline of 90.5 degrees F). If the sample did not meet all of these criteria, a second sample was obtained and analyzed for comparison.

At the time of this event, the licensee did not routinely record the temperature of a sample if it was less than 96 degrees F unless it felt cool to the lab technician's touch. This practice was changed as part of the procedural revisions which were made in December, 1991 to require recording sample temperature even when below the cutoff limit.

The inspectors also noted that the licensee's December 1991 FFD procedure revision, changed their minimum temperature screen limit to a less conservative 94 degree F temperature. It was understood that the licensee, based on the advice of their medical staff, adopted a more conservative approach for the temperature screen as a deterrent to introducing a surrogate sample. It was also noted that this conservative approach was in existence during the NRR's examination of San Onofre's program in 1989 and since the existence of the requirements of Part 26.

c. Reporting Requirements of "Presumptive" Positive Test Results (Open Item 50-361/92-04-03):

10 CFR Part 26, Appendix A, 2.7 (e)(2), "Preliminary Initial Test," specifies guidelines for the cutoff levels for illegal drugs and alcohol for screening analysis. This section states: "In addition, licensees may specify more stringent cut-off levels. Results shall be reported for both levels in such cases." (emphasis added)

After review of the licensee's FFD program reporting documents and procedures, particularly those documents associated with the above event, the inspectors determined that the licensee had not reported the results of onsite screening of samples analyzed at the NRC guideline cutoff levels because this screening was not being performed. However, the licensee did report the results of screening at its onsite screening levels, as well as the results of the HHS laboratory's analyses at both the laboratory's and the NRC's cutoff levels. This issue requires further evaluation, and is an open item (Open Item 50-361/92-04-03).

d. Staffing of MRO position

The inspectors observed that the licensee FFD program incorporated the use of two MROs. The licensee's junior MRO was stationed onsite, and conducted the majority of FFD evaluations. The junior MRO was a licensed medical doctor. The licensee's supervising MRO reported to the SCE corporate office, and had final authority on all test evaluations. The supervising MRO was a licensed medical doctor, as well as a licensed toxicologist. The inspectors concluded that this relationship appeared functional, even though formal working relationships were not described in the FFD program.

4. Exit Meeting (30702)

On January 23, 1992, the inspectors discussed the above issues and apparent violation with the licensee management and staff.

The licensee staff acknowledged the findings.

The licensee management stated that the operator would not be granted protected area access, or returned to licensed operator duties without prior notification of the NRC.