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

February 6, 1991

Dr. Donna Bush
Chief, Drug Testing Section
Division of Applied Research
National Institute on Drug Abuse
5600 Fishers Lane (Room 9-A-54)
Rockville, MD 20857

Dear Dr. Bush:

Forwarded for your action in accordance with Section 2.8(e) of Appendix A to 10 CFR Part 26 are copies of nine reports of investigations into errors and other incidents involving HHS-certified testing laboratories, as follows:

1. Florida Power and Light letter, dated May 29, 1990, concerning false negative results of four blind performance tests reported by Roche Biomedical Laboratories, as follows:

   - Two specimens fortified with benzodiazepine and codine. The laboratory had difficulty in identifying codeine, apparently due to an interference in assay procedure. Test method was revised.

   - One specimen fortified with morphine and codeine. The laboratory had difficulty in identifying morphine, apparently similar to problems identifying codeine, as described above. New validation procedure was developed.

   - One specimen fortified with amphetamines and opiates. Technician inadvertently transcribed the result as negative and the reviewer compared the result with the wrong data source.

2. Pacific Gas and Electric Company letter, dated May 11, 1990, concerning a false negative report on five blind performance test specimens spiked 40% over the cut-off level with cocaine. The report indicates that the cause was probably degradation of the specimens.

3. Duquesne Light letter, dated December 18, 1990, concerning incorrect analysis of nineteen blind performance test specimens. The report indicates that metabolite dissipation might have caused seven of the incorrect analyses on specimens spiked with THC at the cut-off level. All other samples were spiked with various drugs at least 40% over the cut-off level. All nineteen specimens were retested at another certified laboratory; the results are not provided. The cause of the incorrect analyses was not determined.

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4. GPU Nuclear Corporation letter, dated January 4, 1991, concerning a false negative report on a blind performance test by Roche Biomedical Laboratories. The report indicates that the incorrect test result was caused by clerical error despite a dual review procedure.

5. Detroit Edison letter, dated January 10, 1991, concerning a false negative report on a blind performance test by MetPath Laboratories. The report concludes that the incorrect test result was caused by conducting two separate screening tests with different cut-off values and the technician failing to input the correct information in the computer mainframe.

6. Public Service Electric and Gas Company letter, dated January 10, 1991, concerning false negative reports on 6 blind performance test specimens by PDLA. Three were tested low for THC, apparently caused by incorrect calibration standards. One specimen spiked with cocaine was reported close to the 20% allowable limit; that error was caused by less than optimal regression analysis of screening values. Another specimen spiked with cocaine was incorrectly analyzed because the positive quality control ran low. The cause of the incorrect analysis of the specimen spiked with amphetamine and methoamphetomine could not be determined.

7. Florida Power Corporation letter, dated January 16, 1991, concerning a false negative report on a blind performance test by Doctors and Physicians Laboratory. The specimen was spiked with morphine at more than double the cut-off level. The cause of the error could not be determined

8. Southern California Edison Company letter, dated January 17, 1991, concerning several problems encountered with blind performance testing since January 1990, as follows:

   - Administrative errors in repackaging of specimens caused discrepancies between the anticipated results and the reported results.

   - Six blind specimens spiked with PCP were incorrectly reported as negative by Nichols Institute (NISAT). NISAT was using two consecutive EMIT tests administered on two different devices. Investigation disclosed that two different cut-off levels, 25 and 75 ng/ml were being used. NISAT was instructed to discontinue the second screening test.

   - Three blind specimens were not sufficiently spiked to test positive, probably due to deterioration of the specimens.

   - Two blind specimens provided NISAT on December 20, 1990, did not meet the new standard issued by NIDA on December 21, 1990.

8. Nebraska Public Power Distric letter, dated January 24, 1991, concerning a false positive report by NISAT of an actual "for-cause" test. The investigation concluded that the false positive was caused by a switching of drug test results between two specimens. The investigation further concluded that a contributing factor was the special processing to bypass the screening test, as ordered by the MRO, because of suspected adulteration of the specimen.

Should you have any questions, please call me at 492-0944.

Sincerely,

Loren L. Bush, Jr.
Reactor Safeguards Branch
Office of Nuclear Reactor Regulation

Enclosures:
As stated

Distribution w/o enclosure
Central Files
PDR
LPDR
RSGB r/f
DRIS r/f
L. Bush
P. McKee

Distribution w/enclosure
E. Koup, (Lab Error File)

OFC	:RSGB:NRR	:RSGB/NRR	:	:	:	:
NAME	:LLBush:cb	:PMcKee	:	:	:	:
DATE	:2/5/91	:2/6/91	:	:	:	:

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