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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY)	Docket No. 50-289 SP
)	(Restart)
(Three Mile Island Nuclear)	
Station, Unit No. 1))	

LICENSEE'S TESTIMONY OF

FRANK L. KELLY

I. Introduction

My name is Frank L. Kelly. I testified earlier in this proceeding, as reflected in the Partial Initial Decision (PID), ¶¶ 199, 226-232. My professional credentials are briefly summarized by the Licensing Board in PID ¶ 226. The focus of my previous testimony was my involvement in and independent assessment of the Operator Accelerated Retraining Program (OARP), given at TMI in 1979-1980. Essentially, I was able to review Licensee's retraining program and its operators' qualifications on the basis of the comprehensive mock examination in April of 1980 which I and three other consultants administered to OARP participants.

One of the issues raised in this reopened proceeding is Licensee's past and present training administrative practices. Because my examination team wrote, administered, and graded the written and oral OARP "mock" exams, I am testifying on this limited aspect of past training administrative practices. I will also discuss briefly the issue of examination "coaching", including retesting in specific subject areas.

II. Administration of OARP Mock Exams

At the time the OARP was conducted, it was assumed that TMI-1 operators would be scheduled for NRC examinations in the spring of 1980. In order to assess the readiness of these individuals to take the NRC examinations, a comprehensive mock

exam was scheduled for April of 1980. I was asked by Licensee to write and give this exam, using the teaching materials used in the OARP. Of course, subsequently, it became clear that the operators would not be scheduled for the NRC examinations in the spring of 1980; consequently, the OARP "mock" exams served as annual requalification examinations for previously licensed personnel working in the Unit 1 control room. In addition to serving as requalification exams, a section of the mock exams included a separate category on TMI-2 accident events, called the Category T section of the exam. Operators were required to achieve a 90% on this particular subject category.

The mock examinations which I administered in April of 1980 were given, beginning on April 2, for three consecutive days. Each of these three days, the written examinations were given twice, in essentially a day and an evening session, to accommodate the shift staff. The exams were eight hours long. On April 2, only the RO exam was given. Originally, we had planned to first administer all RO exams and then follow these with the SRO exams. However, since every operator license candidate was taking the test, and due to the need to maintain the correct shift composition and the absences of certain individuals, days two and three of the exam included individuals taking both the RO and the SRO exams. From April 5 through April 11, we administered the oral portion of the RO and SRO exams. The oral exams were approximately four hours in length.

The "we" which I have described as administering the exams consisted of myself, an associate of mine from PQS Corporation, and two additional consultants hired by the Licensee, one of whom I subsequently hired as a result of my experience working with him during the April, 1980 mock exams at TMI. With the exception of the individual I subsequently hired, who previously had worked for a private utility company, the other three of us all had substantial experience as license examiners at the NRC.

A. Instructions Given to Examinees

In the April, 1980 mock exams, as I usually do, I attached a list of "do's" and "don'ts" to the front of the exams, a copy of which is attached to this testimony. These instructions, which I review orally with the operators, are intended to focus examinees on the basic rules of successful exam taking. The admonition, "Do not cheat" is not mentioned, not because it is unimportant, but because it is so basic that it did not occur to me to state it.

B. Proctoring

The mock exams were proctored by all members of the mock examination team. One or more proctors were in the room at all times, with one exception. On the morning of April 2, 1981, I proctored the exam room alone so that the other three examiners could tour the plant in preparation for administering oral exams. That morning I did leave the room for very short periods of time, e.g., five minutes to go to the bathroom and to get a snack.

The proctors were seated perpendicular to the rows of tables at which the examinees sat. Thus, every examinee was visible. Occasionally, a proctor would walk around the room. I perceived our presence primarily as a need to have an examiner available to answer questions. Our deterrent function was secondary, although an effort was made to proctor virtually 100 percent of the time.

Individuals were permitted to leave the room, one at a time, to go to the bathroom. Examinees had been instructed to bring their lunches with them to the exam. Here, we were trying to not only give the operators a sense of the kind of NRC written examination to expect, but we were also simulating the NRC examination atmosphere, including the NRC's administrative procedures, with which I was familiar. The purpose, after all, of such a mock exam is to determine individual weaknesses in a simulated test environment.

C. Safeguarding the Integrity of Exam Materials

I personally brought the original and only copy of the written examinations to TMI the morning of April 2 from my office in New York. Prior to that time, no one at TMI, including members of the Training Department, had seen the examinations. On the morning of the 2nd, I showed the exam to the Supervisor of Training. I also personally photocopied the exam that morning, and gave a copy of the exam to the Supervisor of Training. Other than that, no copies of the exam were available. I followed essentially the same procedure the following two days with respect to the RO and SRC exams.

Although the exam was repeated the next few days and thus individuals could have orally repeated questions to their friends if they so chose, the examination answers and questions were collected at the end of each examination session, with a set of questions stapled to the front of each set of answers. Thus, exams could not have left the room.

D. Grading

The OARP exams were graded by all four members of the examination team -- essentially, we divided up the papers, and graded them over the period of time that we were administering the oral exams. On the evening of April 10th, just prior to completion of the orals, I gathered up all of the written exams and tabulated the grades. I gave the finished exams and tabulation to the Supervisor of Training the next morning.

In general, the administrative procedures I utilized for the April, 1980 mock examinations were comparable to the procedures I employ at other utility companies when I conduct comprehensive examinations. In my experience, this kind of care, but not policing of the exam process, is typical in NRC exam administration. The only exception, here, was the use of the same examination over several days, a practice which should be avoided because of its potential to compromise the examination process. Nevertheless, I have no reason to believe that the April, 1980 comprehensive mock examinations were compromised in any way.

III. Coaching

Finally, I would like to briefly discuss the issue of coaching. Training to take the NRC license examinations is an arduous process. There is no question in my mind but that to successfully pass these exams, an operator must memorize a great deal of information. He must also understand many concepts, and know how to apply them. In my view, it would be impossible for a training program to avoid teaching either of these kinds of knowledge and yet somehow train its operator candidates so that they pass the NRC exams. Thus, there are specific materials which must be memorized, and which instructors frequently tell operators must be memorized, e.g., knowing all functions that trip the reactor in an emergency and what their set points are. There is simply no way around memorizing this kind of information. Similarly, while certain concepts must be understood, the form of the question in which the NRC covers this topic varies from exam to exam. In my view it is not possible to drum this kind of knowledge into the operators' heads without actually teaching the information, not the exam question (which, of course, is unknown).

In summary, I do not believe that the OARP program or my April, 1980 examinations were structured so as to "coach" operators to pass exams. They are, however, intended to "coach" information requiring memorization, and to give the operators a sense of the kinds of theoretical or conceptual questions which the NRC might ask. Similarly, re-examinations

on specific weak areas may be sufficiently narrow that an operator is repeatedly asked to show whether he knows or understands specific material. I do not consider this effort to be counterproductive or "coaching"; rather, it forces the student to learn the information he really does need to know.

DO'S AND DON'TS FOR EXAMS

DO'S

1. Read the questions carefully.
2. Note the number of points allotted to each question.
3. Question the examiner if in doubt.
4. Pace yourself - don't spend hours drawing fancy sketches.
5. Show all calculations.
6. Look for any two-part questions which may not be labeled as such.
7. Recognize whether definition or explanation (discussion) is required.
8. List more than two reasons if some or few are requested.

DON'TS

1. LEAVE ANY BLANKS
2. Read hidden meanings into the questions.
3. Show the examiner your answers for his concurrence.
4. Write your name on every sheet.