

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INVESTIGATIONS FIELD OFFICE, REGION I  
631 PARK AVENUE  
KING OF PRUSSIA, PENNSYLVANIA 19406

REPORT OF INQUIRY

SUBJECT: THREE MILE ISLAND NUCLEAR GENERATING STATION, UNIT 1  
(TMI-1)/POSSIBLE FALSIFICATION OF REACTOR OPERATOR  
TRAINING RECORDS

REPORT NUMBER: Q-1-83-015

DATE CLOSED: July 26, 1983

This inquiry was initiated in order to interview Larry G. NOLL, (a former TMI-1 Control Room Operator (CRO) Shift Foreman, and presently a CRO Shift Supervisor), and George A. KUNDER, (formerly TMI-1 Supervisor of Operations and currently Manager Safety Review Group TMI-2) regarding their knowledge of possible falsification of Reactor Operator Training Records at TMI-1.

On June 2, 1983 Robert ARNOLD, President, General Public Utilities Nuclear (GPUN) advised that the GPUN Litigation Team, while reviewing all documentation and transcripts from the Babcock and Wilcox (B&W) trial for information pertaining to allegations regarding training at TMI, found in GPUN files a memorandum, dated July 8, 1977, a copy of which is Attachment 1, addressed from George KUNDER to James P. O'HANLON, former TMI-1 Plant Superintendent. This memorandum contained an undated memorandum from Larry G. NOLL to George KUNDER regarding training problems. A copy of this memorandum is appended as Attachment 2. Attached to the NOLL memorandum was a training letter from N. D. BROWN dated June 28, 1977, a copy of which is Attachment 3. Also attached to KUNDER's note to O'HANLON was KUNDER's handwritten response to NOLL's memorandum dated July 8, 1977, a copy of which is Attachment 4. With regards to training, NOLL stated in his memorandum to KUNDER, "I don't have the time to give two or three lectures so I can't meet the NRC requirements and I am not going to fake it anymore like other shifts do."

On June 8, 1983 Larry G. NOLL was interviewed at TMI and in a signed sworn statement, appended as Attachment 5, NOLL elaborated on the contents of his memorandum to George KUNDER. NOLL stated that he was not aware of any falsification of operator training records.

On July 18, 1983 George A. KUNDER was interviewed at TMI in the presence of his attorney, Smith B. GEPHART. In a signed sworn statement, appended as Attachment 6, KUNDER discussed his memorandums to O'HANLON and NOLL. KUNDER advised that he was not aware of any false training records during the time period of Larry NOLL's letter, i.e. 1977.

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Q PDR

Until it is determined that the information contained in this document will not be used in any subsequent investigation by the Office of Investigations, it should not be distributed outside of the Nuclear Regulatory Commission.

This inquiry is CLOSED.

Prepared by: Peter A. Connolly  
P. J. Connolly, Investigator  
Office of Investigations Field Office  
Region I

Approved by: R. Keith Christopher  
R. Keith Christopher, Director  
Office of Investigations Field Office  
Region I

cc: Pete Baci  
✓ Thomas E. Murley

7/8/77

AA112

S211240215

To Jim O'Hara  
Dr. H.A.L.  
Subj: attached for your info

For your info. see attached  
Represents frustration... Subjective but  
nonetheless a problem.

By separate correspondence  
I've responded to Ray. as to you

George

George:

According to the attached sheet the A.O.'s  
are required to go over 5d6 - there is no  
way I can get the A.O.'s together long enough  
to go over the procedure meaningfully.  
I don't have the time to give 2  
or 3 lectures, so I can't meet this NRC  
requirement and I'm not going to fix  
it anymore like other shifts do. Get  
training for CRO's, A.O.'s, and S's/SF back  
where it belongs - in training and on  
6 shifts. ITS about time training  
Dept trains people - instead of keeping up  
paperwork only.

# METROPOLITAN EDISON COMPANY

Subsidiary of General Public Utilities Corporation

Subject REQUALIFICATION PROGRAM

Location TMI Nuclear Station  
Middletown, Pa.  
Date June 28, 1977

To SHIFT SUPERVISORS  
SHIFT FOREMAN (UNIT I LICENSED)

Between July 11, 1977 and August 12, 1977 you will be tested, as part of the Unit I Requal Program, on the following procedures which are to be reviewed on shift.

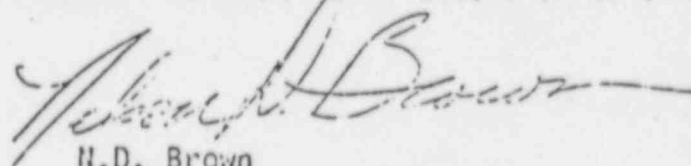
1. 1202-11 High Activity in Reactor Coolant
2. 1203-5 High Cation Conductivity in Condensate
3. 1203-7 Hand Calculation of Quadrant Power Tilt and Axial Imbalance
4. 1203-38 Post Accident Hydrogen Purge
- \*5. 1203-8 Operator Determination of Gross 15 Minute degased Beta Gamma
- \*6. 1203-9 Operator Determination of Boron

NOTE: Items \*5 and \*6 require Auxiliary Operator participation, this is an NRC Requirement.

You may ask, why should we review these procedures on-shift when we are already busy enough? The answer is that we feel the review of a procedure at the location of response will be more meaningful than sitting in a room while the procedure is read to you. The on-shift review will also re-enforce the location of the controls and indications to enable a quicker and smoother response in the event the Emergency Condition exists. The review will also enable you to compare similar procedures to identify, (with the major systems listed) the condition quickly and correctly.

Shift Supervisors please ensure that the on-shift review is documented on the attached Administrative Form.

If you have any questions or comments contact me at extension 261.



H.D. Brown  
Admin. Inuc. Tech. Training

HDB:lmr  
Enclosure

"J.P. Dubiel" 7/8/77  
Dubiel

To Larry Hall & Other Shift Foremen.  
3m. Let's handle

Subj: Items # 5 & 6 Emergency Procedure  
On-shift training

I recommend you request the  
Lead Comm. <sup>1203-8</sup> to spend approx 1/2 to 1 hr.  
going over the procedures

1203-8  
1203-9

Dick <sup>DUBIEL</sup> Dubiel has indicated that  
1203 8 is surely out of date and has had  
a change made. It's due to be on  
the street  $\approx$  3 weeks.

As for your other concerns.... I understand  
and am working hard toward 6 shifts.  
Believe me!

Please note that all shifts are  
expected actually perform the training.  
If <sup>comm</sup> genuine problems prevent spending  
the necessary time to train - I'd like  
sit with such Foreman who has a problem.

L 21 1

to discuss how we can fit it in.

I believe that your CRO's can each be responsible to conduct a session to help spread out the workload and in fact be more effective. This or better methods may be already in effect.

George

STATEMENT  
(typed copy of original)

I, Larry George Noll, hereby make the following voluntary statement to Peter J. Connolly who has identified himself to me as an Investigator with the U. S. Nuclear Regulatory Commission. I make this statement freely with no threats or promises of reward having been made to me. Investigator Connolly is writing this statement for me at my request.

I am presently employed as the Three Mile Island TMI; Nuclear Generating Station, Unit I Shift Supervisor. I have been in my present position since July 1, 1979. Prior to my present position I was shift foreman at Unit I from June, 1975 till July, 1979. Prior to that I was Control Room Operator (CRO) from Dec. 1972. Prior to my CRO I was an Auxilary Operator from the date of my coming to TMI on October 20, 1969. Prior to that I was employed with Metropolitan Edison, Crawford Station on June 9, 1969.

Mr. Connolly questioned me concerning a letter I wrote to George Kunder, at the time Supervisor of Operations TMI-Unit I. The letter was shown to me by Mr. Connolly. I do recall writing this letter. The letter is undated but I believe I wrote it in either late June or early July 1977. I wrote the letter to Kunder to make him aware of certain problems with a training curriculum as set forth in letter from Nelson Brown, the Administrator Nuclear Technical Training. In Brown's letter dated June 28, 1977 in which I have reviewed in Mr. Connolly's presence, he listed 5 abnormal procedures and one emergency procedure for reactor operator training. In procedures marked 5 & 6 each with an asterick required auxilary operator participation. The other four procedures did not require auxilary operator training. My concern as addressed in the letter was with procedures 5 & 6. Procedure number 5 as it was written was not adequate to perform the function. The procedure required operator determination of Gross 15 Minute degased Beta Gamma reading. In Procedure #6, operator determination of Boron, the necessary equipment (i.e. burette (phonetic spelling) beakers stirring mechanism & chemicals for tritiation) were not available at the designated area (a cabinet labeled "Equipment for Operation determination of Boron." Since the equipment was not available for training. I would be required to use other equipment in the lab but the problem with that is previous use of this other equipment could lead to false test results since one did not know what tests this equipment was previously used for.

In the letter I was telling Kunder basically that I didn't think it was correct to document that and my crew had completed training as addressed in this memo dated June 28, 1977 since we would have to walk through it. My particular areas of concern with this letter were with procedures 5 & 6 as discussed above. I wanted to point out to Kunder that simulation with two important procedures (5 & 6). I didn't think were adequate. I felt that procedures should actually be performed on the equipment we would have to use if there occurences actually occurred. The equipment was available for procedure #5 but not for procedure #6.



The procedure #5 addressed the equipment that was no longer used. The equipment had been replaced with newer equipment as far as I can remember in the letter. I wrote the phrase "I'm not going to fake it anymore like other shifts do." By this phrase I meant simulate as discussed previously. I recognize that the word "fake" carries the connotation of falsification. However I was not meaning by the phrase that training records were being falsified. To the best of my knowledge the required training was performed with available equipment by the other shifts. I was not aware of any training that was documented as being done but which was not actually performed. I wish to emphasize that in my letter I was not stating or indicating that there was any falsification of training records. In hindsight I should have used the word "simulate" instead of the word "fake".

Since that time procedures #5 & #6 as addressed in letter dated June 28, 1977 are no longer used. During that time period the Health Physics & Chemistry people did both Health Physics and Chemistry jobs. No minimum manning was established which basically meant that one might not have the availability of Health Physicist or Chemist to do the test during the shift and as such the operator would be required to do the test. Since then Health Physics & Chemistry are separate departments and there are minimum manning requirements for each shift which means that in abnormal situations they would perform similar procedures to 5 & 6 without Reactor Operator involvement.

Mr. Connolly has shown me a memo to me & other shift foremen from George Kunder dated 7/8/77. In this letter he discussed the problem areas with procedures 5 & 6 as I had mentioned in my previous letter and also discussed my letter, the need to go back to six shifts. Kunder stated in his letter that we were expected to perform the training. He also stated that procedure 1203-8 (which is procedure #5) was "sorely out of date" and that appropriate changes were being made.

In my letter I was addressing the problem of not having sufficient enough time to personally provide training for procedures 5 & 6 on two or 3 particular occasions (sic), especially after doing research prior to implementation of the training on procedures 5 & 6 which I found to be inadequate as previously discussed in this statement. Again I wish to point out that when I used the phrase in the letter "I'm not going to fake it anymore like other shifts do." I was not referring to any falsification of training records by other shifts. I was not aware of any training that was documented as having occurred that was not actually performed. Unfortunately I was imprecise in the language in my letter. What I should have done and was my intention in the letter was to end the sentence after NRC requirement, meaning that I had a time problem with training along with my other duties on shift. The questioned phrased was added after requirement but what I was referring to was the simulation of procedure #6 as discussed previously in this statement. I was not referring to any falsification of records.

I have read the foregoing statement consisting of 4 handwritten/typed pages. I have made and initialed any necessary corrections and have signed my name in ink in the margin of each page. This statement is the truth to the best of my knowledge and belief. I declare under penalty of perjury that the foregoing is true and correct. Executed on 6-8-83 at 10:51.

INTERVIEWEE: Original signed by Larry G. Noll

Subscribed and sworn to before me this 8th day of June, 1983,  
at Middletown Pa.

INVESTIGATOR: Peter J. Connolly

STATEMENT  
(typed copy of original)

I, George A. Kunder, hereby make the following voluntary statement to Peter J. Connolly who has identified himself to me as an Investigator with the U.S. Nuclear Regulatory Commission. I make this statement freely with no threats or promises of reward having been made to me. Investigator Connolly is writing this statement for me at my request.

I am presently employed at Three Mile Island (TMI) Nuclear Generating Station, Middletown Pa as the Manager Safety Review Group, Unit (2). I have been in my present position since October 1982. I have been employed at TMI since 1972 and with Metropolitan Edison since 1968. My profession is Mechanical Engineer.

I am making this statement in the presence of my attorney, Smith B. Gephart. Mr. Connolly first allowed me to review the following documents: a memo addressed from me to Jim O'Hanlon dated 7/8/77, a memo from Larry Noll to me undated with an attached memorandum dated June 28, 1977 from N.D. Brown; and a memorandum from me to Larry Noll, and other shift foreman, dated 7/8/77. I identified a copy of my memo to Larry Noll and other shift foreman as having been written by me but I do not recall the specific incident. I do recall at the time of my memorandum I was Unit 1 Supervisor of Operations and in that capacity I had to make an unpopular decision to reduce operator shifts from six to five there by eliminating the one week offshift training period. The reason the shifts were reduced from six to five was because the Unit 1 Operations staff level was reduced to supply personnel for Unit 2 startup. My preception of Larry Noll's memo to me is that I sensed frustration on his part in having to do emergency procedure training on shift instead of during a scheduled training week. In response to his memo I wrote a memorandum back to Noll and the other shift foremen and also a memo to my boss, Jim O'Hanlon. The memo to O'Hanlon apparently tried to convey to him a sense of the problem Noll was conveying. I indicated to O'Hanlon the problem I perceived as one of frustration in my memo to Noll and the other shift foremen. I suggested ways that they could use their time more effectively because I perceived they could fit the training in during slack periods on shift and furthermore I believed training on emergency procedures was more effectively accomplished on shift. I also offered to sit down with anyone who had problems.

I do not recall discussing with Larry Noll his memo, but it is possible that I did.

Mr. Connolly has asked me if I was aware of anyone falsifying training records during the time period of Larry Noll's letter, i.e. 1977. I am not aware of any falsification of training records by any individual during that time period.

I have read the foregoing statement consisting of 2 handwritten/typed pages. I have made and initialed any necessary corrections and have signed my name in ink in the margin of each page. This statement is the truth to the best of my knowledge and belief. I declare under penalty of perjury that the foregoing is true and correct. Executed on 7/19/83 at 15:19.

INTERVIEWEE: Original signed by George A. Kunder

Subscribed and sworn to before me this 19th day of July, 1983,  
at Middletown, Pa.

INVESTIGATOR: Original signed by Peter J. Connolly