NUCLEAR REGULATORY COMMISSION

Exhibits

1031 -
1041

IN THE MATTER OF:

THREE MILE ISLAND
SPECIAL INTERVIEWS

INTERVIEW OF WILLIAM A. RUHLMAN

Place - Bethesda, Maryland

Date - Thursday, 6 September 1979 Pages 1 - 103

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INTERVIEW OF WILLIAM A. RUHLMAN

Room 6211
7735 Old Georgetown Road
Bethesda, Maryland

Thursday, 6 September 1979
1:40 p.m.

BEFORE:

WILLIAM PARLER
WAYNE LANNING

I N D E X

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PROCEEDINGS

Whereupon,

WILLIAM A. RUHLMAN

was called as a witness, and having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. LANNING:

Q Will you please state your full name.

A William Arthur Ruhlman.

MR. LANNING: I'll mark for identification Exhibit No. 31. It's a letter to Mr. Ruhlman from Mr. Mitchell Rogovin, dated August 30, 1979.

(A letter from Mitchell Rogovin to William Ruhlman, dated August 30, 1979, was marked Exhibit 1031 for identification.)

BY MR. LANNING:

Q Mr. Ruhlman, I show you what has been marked for identification as Exhibit 31.

Is this a photocopy of a letter sent to you by the NRC/TMI Special Inquiry Group reporting yar deposition here today under oath?

A Yes, it is.

Q Have you ead this document in full?

A Yes, I have.

dsp4

Q Do you understand the information as set forth in this letter, including the general nature of the NRC/TMI Special Inquiry, your right to have an attorney present here today as your representative, and the fact that the information you provide here may eventually become public?

A Yes, I do.

Q Mr. Ruhlman, is counsel representing you personally here today?

A No.

MR. LANNING: I'd like to note for the record that the witness is not represented by counsel today.

Mr. Ruhlman, if at any time during the course of the interview you feel you'd like to be represented by counsel and have counsel present, please advise me, and we'll adjourn these proceedings to afford you the opportunity to make the necessary arrangements.

THE WITNESS: I will so advise you.

MR. PARLER: The exhibit that was marked for identification as Exhibit 31, the number should be 1031 in accordance with our numbering system for this.

That would be true for each of the exhibits thereafter.

BY MR. LANNING:

Q Mr. Ruhlman, you should be aware that the testimony that you give has the same force and effect as if

dsp5

you were testifying in a court of law.

My questions and your responses are being taken down, and they will be later transcribed. You'll be given the opportunity to look at that transcript and make changes that you deem necessary.

However, to the extent that your subsequent changes are significant, those changes may be viewed as affecting your credibility.

So please be as complete and as accurate as you can in responding to my questions.

A I will be.

Q Did you bring a copy of your resume with you?

A Yes, I did.

Q Okay.

Let's note for the record that we have a two page document entitled "Professional Qualifications of William A. Ruhlman."

MR. LANNING: I guess we'll mark that as Exhibit 1032.

(A document entitled "Professional Qualifications of William A. Ruhlman, NRC Office of Inspection and Enforcement, Region II, Atlanta, Georgia," undated, was marked Exhibit 1032 for identification.

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BY MR. LANNING:

Q What is your current position with the NRC?

A I am currently the acting section chief of nuclear support section number two, US NRC, Region II. However, today is the last day, and then I will then revert back to the lead quality assurance inspector in that same nuclear support section.

Q Would you briefly outline your employment history with the NRC.

A May I refer to the --

Q Yes.

A I became employed with the NRC;at that time, of course, it was the Atomic Energy Commission following my leaving Florida Power and Light Company in 1973.

I began in September of that year. I was assigned as a reactor inspector in the startup and test branch at the Region I offices, those in Philadelphia.

When that branch was reorganized, I began as a lead training inspector in the nuclear support section.

In 1974 I was assigned additional duties of lead quality assurance inspector.

And in 1976 I had assumed the duties of the lead quality assurance inspector while retaining the lead training inspector position.

I acted as section chief for the nuclear support section

dsp7

for a period of about six months in 1977.

And as I just indicated, I am today completing a three month assignment as the acting section chief for nuclear support section number two in Region II.

That particular section -- the nuclear support section number two -- deals with quality assurance, training, procedures, surveillance, and calibration.

Q Has your primary responsibilities been to perform inspections of licensee's QA programs?

A Yes, sir, it has.

Q Approximately how many of these have you completed?

A I have done about 45, according to what I put down on this, but this item was written some time ago. It's probably over 50 now. I haven't kept track.

Q We want to get some background on how the I&E inspection program is performed for QA programs.

Describe how licensees' QA programs are inspected; for example, what are your bases for inspection?

What criteria do you refer to?

What guidance is provided you, in general?

A The licensee starts off with a requirement to submit a quality assurance program to the Office of Nuclear Reactor Regulations, NRR, for approval.

Depending on whether the licensee was at the time an

dsp8

operating license holder or whether he had a construction permit, he either submitted this as part of his FSAR or as part of a separate document.

Following the review and approval of this document, which as of two years ago, I believe it was, I & E was given a module of what we were actually required to comment upon on this document.

Prior to that time we were not required to, but we were always given the opportunity to comment on the licensee's proposed QA plan.

But following approval of the QA plan, we are then to inspect the licensee's implementation of the accepted quality assurance program, which means his program is approved by NRR.

The basis for the inspection, then, becomes the program that licensing has approved.

We are of course also bound internally by our manual chapter 0800, which is inspection and enforcement, and we have a series of modules -- at least for the inspections I've been involved with -- which are preop and operations and modulesin manual chapters 2514 and 2515, which cover what elements of the quality assurance program are supposed to be inspected and how they're supposed to be inspected.

Q Is the -- is the licensee's QA program entirely document in either the FSAR or separate QA report?

dap9

A No. In fact, the largest majority of the licensee's quality assurance program is not documented in any single element that is reviewed by the Commission. The primary implementation is done through implementing procedures, which are subtier documents which are not approved -- neither presented to nor required to be presented to the Commission for approval or review.

But that's the -- that's the documents that actually cover the way he does business.

Q What part of the total QA program would you estimate are covered by the QA formal documentation, as opposed to documentation which are being retained by the licensee?

A That does somewhat vary from program to program; whether it was included in the FSAR; whether it was included in a separate attachment; whether it was prior to or after 1974.

Prior to 1974, the licensee's programs were very, very -- essentially a regurgitation of Appendix B in the FSAR, saying that they would follow Appendix B.

After 1974 -- we issued a letter in December of '74 stating words to the effect that significant new guidance has been developed in quality assurance, and that was issued in the form of what has been known as the orange book, the gray book, and the green book.

dsp10

Licensees were subsequently required to commit to the standards and regulatory guides which were included in the orange book, grey book, and green book.

So as far as the program itself, since the program consists not only of the actual verbiage in the document submitted to NRR, but also all of the standards to which he commits, the document itself, the base document, the quality assurance -- the actual wordage would probably be less than one or two percent of the total actual wordage that's done.

But that document plus the commitments which it references would be the one thatcontrols -- theoretically, it controls all theprocedures which are subsequently written.

Q Now, does this come at a time before or after the standard review plan sections 17.1 and 17.2 were published?

A It was about -- about the same time as the standard review plan was published.

Q But the reason for upgrading the QA program was not because of publication of the standard review plan?

A Not to the best of my knowledge.

The way the letter read -- it was a December 1977 letter -- sorry -- 1974 letter -- read that the industry standards had been developed.

And this refers to the ANSI 45.2 and the daughter

dspll

standards.

MR. PARLER: In the interest of making sure that the record is clarified, perhaps at this point there are a couple of questions that I would like to ask for that purpose.

BY MR. PARLER:

Q You mentioned earlier in your response to one of Mr. Lanning's questions about your background that today is the last day of your assignment as acting chief of the NSS branch number two.

A Section.

Q Section number two.

Are there any particular circumstances involved that you would like to comment on?

Is it normal that it just happens that the day -- the day that you are being deposed is also the last day of that particular assignment?

A There is to my knowledge no relationship between the two.

The problem is that I'm a GS-14. The position which I'm acting in is a GS-15.

Under the rules of the Commission, if you act in a position for more than 90 days, they have to pay you. I have now completed my 90 days of acting, and -- so I'm being relieved of the assignment.

Q You also referred in an earlier response to what I understood to be modules.

What were you referring to?

A Modules is the terminology which is used to refer to a universe of inspection requirements which are included in the NRC manual chapters.

The modules run, theoretically, from 00000 through five nines -- 99,999.

And they have broken these down by various chapters and sections to include all the requirements inspected by NRC inspectors.

You are told, for instance, to go out and inspect module number 92,701 or 92,702, which is just a number referring to an inspection procedure.

The modules are inspection procedures.

Q Inspection procedures which are set forth in the inspection and enforcement manual?

A Yes, sir.

Q There was also reference earlier to an Appendix B; again, for the record, would you state what that is?

A That is the Appendix B to Title X, code of Federal Regulations, Part 50.

Q Which --

A Which is the Code of Federal Regulations, which covers nuclear power.

dspl3

Q Appendix B deals --

A Appendix B deals with quality assurance.

Q There have been several references to a December 1974 letter which presumably changed the requirements in the quality assurance area.

That was a letter --

A Issued --

Q -- from who to whom on what subject?

A It dealt with quality assurance.

It dealt with the issuance of the 45.2 ANSI -- A-N-S-I 45.2 standards and several other subtier standards under the 45.2 group,which deals with quality assurance.

And this December 1974 letter was issued to all licensees, and they were-- it came from the Commission, NRC -- at the time AEC -- to all licensees, and they were told to upgrade their quality assurance program based on the standards which had been issued by the industry.

Q Did it come from, for example, the director of regulatory operations at the time?

Or do you recall?

A I don't recall.

Q All right. There was also reference to -- to this new guide being expressed, maybe, iterated in an orange, grey, green book.

Could you be more specific what you're talking about?

A Those are -- those particular books arethe ones that cover the quality assurance guidance for operations and construction.

And that would be -- wait -- 1283, 1284, and 1309, I think it is.

But I can't remember the first thing that goes in fromt of it. Is it NUREG or --

MR. PARLER: Let's go off the record for a second.

(Discussion off the record.)

MR. PARLER: Go back on the record.

BY MR. PARLER:

Q I gather that while we were off the record you did determine from your notes and further reflection as to a more precise description for these orange, grey, and green documents that you were talking about?

A Yes, sir. They're officially in the records of the NRC as WASH -- W-A-S-H -- 1283, 1284, and 1309.

I don't know if that goes exactly along with orange, grey, and green. I don't know as there in exactly that same order, but that is the three document colors. And that's the three -- the colors refer to the binders on them.

BY MR. LANNING:

Q Concerning the earlier question about what part of the QA program is documented and reviewed by NRR --

dsp15

A Okay.

The physical documentation that is reviewed by NRR, the document is submitted either as a separate plan, known as the quality assurance plan; or that is included, typically, in chapter 17 of the FSAR.

That can run from 10 to 20 pages. When I gave you a percentage of 1 to 10 percent -- or whatever it was -- of what that constituted of the total QA program, I was referring to the fact that the licensee will then convert those principles, if you will, that are included in that plan, that are approved, into the actual program, how business is to be done.

And those can run to several volumes, depending on the licensee, how many tiers or procedures he chooses to use for implementation.

BY MR. PARLER:

Q And those details the NRC does not review, is that --

A That is correct.

BY MR. LANNING:

Q Has there been an attempt by I & E that you are aware of to upgrade QA programs to meet standard review plan 17.2 or 17.1?

Q When you say the "Office of Inspection and Enforcement," specifically we don't look at the QA programs with respect to the standard review plan. That's licensing's

dspl6

function.

But we do look at them with respect to the industry standards, industry practice, and Appendix B, Title X, code of Federal Regulations, Part 50.

And within that we have attempted through communications with NRR when programs are under review to get our concerns incorporated when they're reviewing the new programs against the standard review plan.

When we have a significant problem with the program that has already been improved, we are required by our manual chapter then to refer these problems to licensing, and then they deal with the licensee and try to get them operating.

Q So the documents that you inspect against are those documents which have been reviewed and approved as part of the licensee's QA program by NRR?

A That is correct.

Q How are inadequacies identified during the inspection?

A Well, there's actually two types of inadequacies. There's one where the licensee has failed to convert the principles expressed in his program into implementation.

The second is where he has written the implementing procedure and he's not following it.

And that's the two basic types of inadequacies that

dsp17

are identified.

He is either not doing what he told licensing he would do in following a specific standard or following a specific set of guidelines, or he has written it into his procedures to be done and his people are not implementing it.

Q Are there specific nomenclature for these inadequacies, such as deviations, infractions, unresolved items or whatever?

The -- where he is not -- this gets into manual capter 0800, which is our enforcement manual chapter.

There is a statement in o800 to the effect that the licensee's accepted quality assurance document is not a legally binding requirement.

Because of this -- and there have been a number of questions to whether or not Appendix B is a legally binding requirement -- but at any rate, if the licensee has an accepted quality assurance program and we are inspecting it and we find something that is inadequate, an item of non-compliance is issued.

An item of non-compliance is broken down by severity into violations, which are the most serious; infractions, which are the next most serious; and deficiencies, which are the least serious.

If we find an item of non-compliance, it has to have a

dsp18

path of traceability through the approved QA program back to some requirement in 10 CFR 50, Appendix B, or back to some requirement in the technical specifications.

If that path cannot be established through this non-binding document, then we're not allowed to cite, a cite -- a citation being an item of non-compliance.

If it is against an accepted industry practice or accepted industry standard, we can write a deviation, which there is no basis for writing in the Title X Code of Federal Regulations; it's not mentioned.

But a deviation is sent to the licensee, and he almost must respond -- he also must respond to that.

Unresolveditems are items for which more information is required to determine if the item is acceptable, an item of non-compliance or deviation.

BY MR. PARLER:

Q You mentioned in your response that there are a number of questions, whether the Appendix B to the Part 50 is legally binding.

Now, I realize that -- that in your area you're not responsible for rend ering legal opinions or reaching legal conclusions, but with that understanding, could you give a little bit more background as to apparently why a number of questions have been asked regarding the -- whether an appendix to a regulation, specifically Appendix B to 10 CFR Part 50, is not legally binding?

dsp19

A As you -- with the caveat that you stated that I'm not a lawyer nor am I required to understand such things, I will give the understanding I have of why this matter came into question.

Q That's the question I'm asking.

A Yes, sir.

That's the question I will attempt to answer.

The condition of every operating license that's issued to a power reactor contains as one of its condition 10 CFR 50.54.

10 CFR 50.54 states: "Whether stated therein or not, the following shall be deemed conditionsin every license issued".

Then 10 CFR 50.54 goes (a) through (p) and subparts. Some of the subparts which are included therein are (i)-1, which requires speicifically that the licensee shall have a program for qualification of licensed operators which meets Appendix A of Part 55.

Appendix J is specifically included; Appendix J of Part 55 is specifically included as item (o) under 50.54, where it states: "Primary reactor containments for water cooled power reactors shall be subject to the requirements set forth in Appendix J "

Appendix -- various other appendices are specifically referenced -- or various other parts of the Commission

dsp20

regulations are specifically referenced in Part 55 -- Part 50 54.

Appendix B is not referenced in 50.54.

The only reference to 50 -- to Appendix B in part 50 is over in 50.36 where it requires as part of the FSAR that the licensee submit a quality assurance program which meets appendix B.

And as a result, some people have said, well, since -- I say "some people have said."

I know that's bad terminology to use.

But it's within the Commission, there have been statements made that Appendix B is not enforcible, because if it were enforcible, it should be included under 50.54 as a specific item of inclusion in the license issued.

Q Has the issue that you have been discussing ever been presented, to your knowledge, through the appropriate legal office at NRC headquarters for resolution?

A Not to my knowledge.

Q Has the particular issue that you have been discussing, to your knowledge, led to inadequate application and enforcement of our -- of the NRC's quality assurance principles that are specified in Appendix B to 10 CFR Part 50?

A To draw such -- that would be requiring the drawing of a conclusion which would be conjectural on my

dsp21

part.

Q The question is: to your knowledge, are you --

A To my knowledge --

Q -- aware of such a situation?

A No.

Q No.

A There has never been a civil penalty issued on the basis of failure to have a quality assurance program, regardless of the number of items of non-compliance with quality assurance that were found.

Q I also recall in your earlier testimony in which you responded to -- I guess -- Mr. Lanning's last question that you referred to a situation, as I understood it, in which the applicant's or licensee's quality assurance plan was not enforcible.

Is that -- maybe I misunderstood your testimony.

A I stated the licensee's quality assurance plan as stated in manual chapter 0800 is not being a legally binding requirement.

That was the --

Q Again, with the same understanding of the rules that applied to the rules on tyhe question I asked you about a similar conclusion that was reached regarding Appendix B to part 50, could you elaborate a little bit on your -- your understanding of the background for the

dsp21

statement in the manual chapter about the non-enforcibility of the licensee's quality assurance plan?

A What this deals with -- and I'm quoting now from page 0800 -- 0800-28, October 1, 1975, which says -- and I quote -- "The QA plan for operations which is submitted by a licensee as part of his FSAR is not a legally binding requirement, unless incorporated in the license or unless there are no technical speicifications and according to provisions of 10 CFR 50.36 (d)(1) the entire FSAR becomes technical specification."

That does not mean that it cannot be enforced. It just states that this -- the basic conclusion here is you have to take it back to some point in the law; the point in the law being Appendix B.

Q What you are saying is that the applicant's -- the licensee's quality assurance plan in and of itself according to that manual chapter is not self-executing?

A Thatis what I'm saying.

Q All right.

A And I should like to at this point -- I'd referenced previously that the requirement for a QA plan was contained in 50.36.

It's contained in 50.34.

Q The licensees that you are familiar with have been involved in -- generally speaking, does thelicense or

the technical speicification, which are of course a part of the license, make the applicant's quality assurance plan binding?

A No, sir.

Q I see. So typically on the basis of your experience, we're dealing with a situation where the quality assurance plan is not enforcible?

A It is not enforcible in and of itself.

I guess it would best be explained as a check valve. If I may, when I find a problem in the way the licensee is conducting business and I have a detected problem, looking for a citation, I must be able to -- first, be able to proceed through the check valve, which in this case is his accepted QA program.

If I cannot get through his accepted QA program, if there's not some requirement delineated in his accepted QA program, I cannot cite.

Now, I find a problem; I find a requirement in his accepted QA program; I now must find a requirement in 10CFR 50 which he's violating.

If all three conditions are met -- I find an item which is not desirable. It is a -- contrary to what's written in his accepted QA program, and it is contrary to something that is in Appendix B, then I write an item of non-compliance.

But in and of itself, if I find something that is -- is

dsp23

unacceptable, which is unacceptable according to the accepted QA program but is not something in Appendix B, no citation is issued.

If I find something that is unacceptable which is in Appendix B, but which is not in his accepted QA program, no citation is issued.

So it only prevents citations; it never causes them.

Q All right.

BY MR. LANNING:

Q Have there been citations which are in fact related to QA programs that you are aware of?

A Oh, yes, sir, a number, several.

Q And an infraction is the most severe?

A To give a relative -- manual chapter 0800 currently assigns point values to the three different categories: violations are 100 points; infractions are 10 points; deficiencies are two points.

I have personally never seen a violation against -- that was written against Appendix B.

I have seen a number of infractions and deficiencies.

BY MR. PARLER:

Q I'm left with the impression from the testimony that I have heard that it has been your experience that because -- maybe because of gaps or ambiguities in the regulations, it is very difficult via the enforcement route

dsp24

to ensure that the quality assurance principles in Appendix B to Part 50 are complied with.

Is my understanding of the thrust of your testimony correct?

A That is correct to the point that it is further complicated by memos which have been issued subsequent to the issuance of 0800, which even get more -- make it even more difficult to cite directly against the Appendix because they require basically that any time a licensee has written a procedure you can only cite him for failure to follow the procedure.

You never get back to the basic requirement. I have been told orally that I cannot issue a citation against criterion one of Appendix B.

Q Some of the memos, I assume, will be brought out and discussed later on in the testimony?

MR. LANNING: Later on, yes.

MR. PARLER: Okay.

BY MR. LANNING:

Q What is meant by an unresolved item?

Is that terminology used in the inspection program?

A Yes, sir, and I defined it once. An unresolved item is one for which more information is needed to determine if the item is acceptable, an item of non-compliance or deviation.

dsp25

Q More information needed by whom?

A By the inspector.

Q I see.

How does an inspector go about obtaining additional information?

A It may require additional inspection. It may require the licensee to afford some additional information. There are just virtually any number of ways of obtaining information.

I must add at this point that that definition I gave you is theone out of 0800.

How this applies throughout the regions is without much uniformity.

There are some -- technically, an unresolved item must always be capable of being turned into an item of non-compliance or deviation.

I -- if the additional information proves that the item is unacceptable, then it would be a citation for deviation.

How that is employed from region to region is not necessarily uniform. The manual chapter only gives four possibilities for all things: all things must either be items of non-compliance, deviations, unresolved items, or acceptable.

There are some items which have been created by the

regions without any basis, either in the law, Title X, or manual chapter 0800, inspector followup items, something the inspector is going to come back and look at; an open item has been used to refer to draft procedures. It's been used to reer to an item that the inspector just wants to look at again.

But none of these are defined in manual chapter 0800.

Q On occasion, do I & E inspectors rely upon headquarters for items with respect to resolving these items or with respect to determining positions of inadequacies?

A Yes, sir.

Q What's the procedure that's normally followed to obtain that kind of information?

A It would normally involve my writing a memorandum, as an inspector, to my section chief, to my branch chief, who would then write a cover memorandum, if he agreed with my position or concern, forwarding it to the appropriate area in headquarters, who would then either resolve the issue themselves or refer it to NRR or standards.

Q Under what circumstances can you contact NRR directly?

Have you been provided any guidance as to whether you should or should not?

A I have been provided guidance that I should not.

dsp27

Q Did you understand the reasoning for that kind of guidance or the basis?

A No, sir.

Q Okay.

Once I & E headquarters have passed -- have provided you additional guidance and you differ with the recommendation or position, is there an appeal procedure, or what is your next course of action?

A It is -- there is no appeal procedure, per se. If after reviewing the headquarters' position as an individual inspector you are not convinced, you then must sit down and go through essentially the same process that you went through in the first place.

You again identify it to your section chief, your branch chief, to your director, who if he -- or they -- agree with you, will then provide a cover memo, reference the previous items, refer it back to headquarters.

And some of these have gone back and forth three and four times.

Q Do they normally meet with some resolution?

A In the dictionary definition of "resolution," yes.

But eventually you may get tired of resubmitting it.

MR. PARLER: I have several clarifying questions that I would like to ask. My apologies for interruption.

dsp28

BY MR. PARLER:

Q I understood t' t one of your responses, Mr. Ruhlman, to be that the guidance that you have received or the inspectors in the regions -- in the region where you've been employed have received with regard to communicating directly with the Office of Nuclear Reactor Regulation is that an inspector should not.

A That is correct.

Q Now, where did that guidance come from?

A It was issued orally to me on the basis that all of our issues should go through I & E headquarters on the -- the rationale that was given with the instruction was that NRR would be inundated by I & E with requests.

And so I & E headquarters is to act as a quote,"filter," unquote, determining the merit of our request, and if it is meritorious, it will be forwarded to NRR for resolution.

Q That's the guidance that you received in -- you --

A From the --

Q In region II as well as elsewhere in your employment in the NRC?

A Yes, sir. It's the same instructions in Region I and in Region II.

Remember, this is within the context of quality

dsp29

assurance and training.

This doesn't deal with respect to project inspectors dealing with their own project -- with their licensing project manager. They're allowed to deal with him directly. So it was only in the context of a specialist inspector.

Q With regard to the process that is followed to try to get an issue which is in your judgment important considered and resolved, you mentioned that sometimes the process which you have described is followed on two or three occasions with a similar result.

It is my understanding, however, that any NRC employee has available a procedure under which differing views on the part of that employee could be expressed.

I would assume that that procedure is available to inspectors in regional offices; is that correct?

A True, there is a procedure. It is available. I have never availed myself of its use because of the feeling it was to be limited to something that had immediate significance.

Q If something has immediate significance and one would not wish to resort to the differing views procedure, I would assume that the -- that the organizational chain thatyou described earlier would be followed; that is, from the section to the branch to the --to the -- what -- to I & E headquarters? Then either to NRR or to standards,

dsp30

that chain?

A Yes, sir.

MR. LANNING: I'd like to mark for identification as Exhibit 1033 a memorandum from William Ruhlman to Boyce Grier dated October 13, 1977; the subject is "Need to Upgrade QA Programs to Meet Current Standards."

(A memorandum from William A. Ruhlman to Boyce H. Grier, entitled "Need to Upgrade QA Programs to Meet Current Standards," dated October 13, 1977, was marked Exhibit 1033 for identification.)

BY MR. LANNING:

Q On the last page of the memorandum,there is reference made to QA programs "are inadequate from an implemented standpoint; they are only unacceptable from the enforceability standpoint."

Would you elaborate on the differences between implementation and enforceability?

A Let me, if I may, read the paragraph, although this of course will be included in the record, that "I do not feel that the current programs at most of these plants are inadequate from an implemented" -- in capital letters -- "standpoint.

dsp31

"The are only unacceptable" -- capital letters -- "from an enforceability standpoint."

The difference being that if a licensee -- as I've already pointed out, the path for citation is through the acceptable QA program.

If I find that there are certain things not included in the accepted QA program, then, as I pointed out, it is not enforceable.

The fact that I have not found a corresponding problem at the plant as implemented, does not change the fact that the licensee could tomorrow, that same afternoon, decede no longer to follow a certain practice, and there would be nothing that I could do about it from an enforceability standpoint.

As I'm limiting enforceability now, I'm looking at strictly items of non-compliance. The deviation method, as I've mentioned before, is not included in Title X, code of Federal Regulations, and again its availability as a legal means for doing anything has been called into question by several people, including the licensees.

But as far as a civil penalty or an immediate action or something of that nature, the availability for enforcement, if it is not included in the acceptaed QA program, and as far as I'm concerned, as far as 0800 is concerned, and as far as Title X, Code of Federal Regulations is

concerned, it is not available for enforcement.

So, although I found no specific problems -- perhaps a licensee was doing what was right, but if he decided tomorrow to do what was wrong, there would be nothing I could do about it from an enforceability standpoint.

I could of course write him a deviation. I could call him up. I could have my management call him up. But there would be no legal recourse through a citation.

And that's what was meant by the fact that while I did not find them necessarily lacking from what was implemented, I found them lacking from an enforceability standpoint.

Q It's my understanding that you are saying that once the QA program has been approved by NRR that the licensee may make changes to that approved QA program without NRR's review and approval.

A Again, I think you probably covered that better when you asked what does NRR approve.

Q I'm talking about changes to an approved program.

A He's not necessarily making a change to his approved QA program to fall into what I'm talking about. If the QA program does not include a commitment to a certain standard or his approved QA program does not specify how to do business, but in fact the licensee is doing business

dsp33

correctly, then without a change to his program he can change the way he was doing business, since that thing was never included in his QA program to begin with.

That was the issue I was dealing with.

BY MR. PARLER:

Q Is what you're saying is that a -- an approved QA program only amounts to a procedural document with very little substance, and even though the program has been approved, that there can be subsequent substantive changes which are beyond regulatory control?

A Well, that statement is true; it is not the one I was specifically referring to.

Let me see if I can make it clear. The memorandum that was referenced, that was given as the last exhibit, deals with the fact that there is non-uniformity in quality assurance programs.

Some licensees write in their programs, as I said, a 10 to 20 page document which by definition cannot include very detailed procedures on how something is done.

This is usually augmented and virtually required to be augmented by the standard review plan, by the licensee's commitment to various ANSI standards, which are very specific in some cases.

We have ANSI standards which specify you must have three-quarter inch high letters marked in indelible

david34

ink or balck paint on at least two sides of a container.

That type of detail is not included in the approved program by NRR, but is included by commitment to a standard. NOw, what I was dealing with here is that the licensee is not committed to that standard in his accepted QA program. He may indeed be marking his items on two sides as required by the standard, but if he decides not to do that tomorrow, there's nothing I can do about it.

So his practice at the current time may be acceptable, but it's not included in his QA program, and so he can stop.

The main thing he does not include in the QA program is the scope of the program.

Most programs do no include a list of the structures, systems, components, services, consumable items to which the program applies.

And this document, a "Q" list, if you will, that is controlled by the licensee is never reviewed by licensing in most cases, and can be changed at will by the licensee.

So he has an excellent program which applies to nothing. That could be the literal -- and that has been the subject of one memorandum.

We had at least one licensee who continually reduced the scope of his program by some 20 percent. He had not violated any of his programs as approved by NRR. He just

dsp35

made it apply to fewer structures, systems, and components.

BY MR. LANNING:

Q What do you mean by "'Q' list?"

A A "Q"list is the list of items to which the program applies. "Q" list is a generic term, as opposed to a specific -- some licensees call it a "Q" list. Some licensees call it their category one list. Some licensees call it their structure, systems, and components list.

But it is the things to which the program applies.

Q Is it sometimes referre to as the list of safety related equipment?

A Yes, sir.

And so by changing the scope of the safety related equipment, the licensee can change the scope of his program without necessitating the change in the document approved by the NRR.

He just makes it apply to fewer items, which is entirely possible because the Commission has never defined what is safety related.

And it has never published a list of safety related structures, systems, and components.

Q How are these changes normally documented by licensees?

A It varies from licensee to licensee as you -- depending on what he's changing. Let me point out that it

dsp36

is possible also to change the accepted quality assurance program without getting prior Commission approval.

We have never set forth a method for changing accepted quality assurance programs except by inference.

I have a document which I did not make available to you before which you ma- get copies of an introduce into the record.

This is a letter from William O. Miller, the chief of the License Fee Management Branch, Office of Administration, which was issued to all licensees.

The particular document I'm looking at was issuedto Carolina Power and Light for Dockets 325, 324, 261, 400, 401, 402, and 403.

And that's for the Brunswick facility, the Shearon Harris facility, and the Robinson facility.

MR. LANNING: Let me interrupt you a minute. Let's mark that as Exhibit 1034.

(A letter from William O. Miller, Chief, License Fee Management Branch, Office of Administration, to J. A. Jones, Senior Vice President, Carolina Power and Light Company, dated July 12, 1979, was marked Exhibit 1034 for identification.)

dsp37

THE WITNESS: I assume I'll get a copy of that back. It's my only copy.

But on Appendix 5 of -- Enclosure 5 of this deals with plans.

"Submittals by licensees which identify" -- I'm quoting now.

"Submittals by licensees which identify a change to a particular plan sho-ld state the purpose" -- notice the "should" -- "of the submittal for NRR approval or for information."

"Unfortunately, since the different plans -- e.g. quality assurance, emrgency, operator requalification, and those submitted under the requirements of Part 73, such as security, guard training, contingency plans -- do not have the same formalized status. NRC required actions vary."

And specifically it tells the licensee down in the body of this: "If there is nothing explit about how to process the change to a plan,"which is the case in QA plans, "the following should apply."

Quoting again, "changes to a plan which have been judged by the licensee to not reduce the effectiveness" -- and leaving some words out -- are for staff information only.

"The staff may document agreement. If so, a memo

to file is appropriate.

"The memo should contain a revised definition of what constitutes the plan and a clear statement that NRC agrees with the licensee's decision, but not that NRC approved the changes.

"Changes to the plan which may decrease the effectiveness or use a 'different alternative' are for NRC review and approval.

"This requires a formal approval letter to the licensee; the letter should contain a revised definition of what constitutes the plan and a statement that NRC approves the change proposed by the licensee.

"Only those changes submitted by the licensee forour review and approval are subject to a fee pursuant to 170.22.

"All other sho-ld be treated as 'for information only', hence no fee.

"However, should NRC successfully challenge the licensee's decision that the change does not reduce the effectiveness of the plan, ask questions and"-- et cetera, et cetera.

BY MR. PARLER:

Q I haven't mad the Exhibit 1034, but it was my understanding that the reason you referred to that Exhibit was in regard to a view that you expressed, perhaps a conclusion, that a previously approved quality assurance

dsp39

program could be changed by a licensee without any NRC approval.

Is my understanding correct?

A Your understanding is correct.

Q Why would you conclude from a document, the Exhibit 1034, which apparently prescribes the policy regarding the payment of fees, that the -- that a quality assurance program could be subsequently changed at will by a licensee?

In other words, the policy might be one thing for fee purposes and completely a different thing for other purposes.

A The document that I have just read, first of all, let me point out, was never forwarded to the regional office.

I obtained a copy of it from the licensee because the Office of the Executive Legal Department had said since no safety issue was involved, it didn't have to be forwarded to the regions.

This was --

Q Well, that reinforces my question that I asked you: why --

A Because there is no statement of policy elsewhere on how to change an accepted QA program; this being the only policy that exists, and it specifically references

dsp40

quality assurance programs.

It states it in the title. This is how you change a quality assurance program.

Q I'm trying to get to the underlying concerns, and -- and problems that you are dealing with. These are very important issues.

Quality assurance has always been referred to as something that's very essential in the industry and in the regulatory program.

And your position, as I understand it, is that it is your experience and your opinion that a quality assurance program, once approved, can be changed unilaterally by the licensee without a regulatory involvement or approval. And your reference for that is the Exhibit 1034.

Is my understanding correct?

A No, your understanding is incorrect.

There are three idfferent methods by which a licensee can change a quality assurance program that I have experienced.

One: he can change the scope of it by changing the items it applies to by unilaterally changing his "Q" list which is never reviewed by licensing in many cases. This changes the scope of his quality assurance program. We are not notified of this in the annual report, semi-annual report or any other report to the Commission.

dsp41

Were it not for a review by an inspector on tge property, you would never know that a licensee had taken something out of his "Q" list.

The second change is via 10 CFR 50.59. If it is part of the FSAR -- anything in the FSAR can be changed as long as the safety review is conducted by the licensee and he determines that no unresolved safety question exists; who are only then notified ex post facto.

The third method is the one I have just described here where I have had licensee in region II send a note to licensing that this is the way we're proceeding unless directed otherwise.

In other words, they're changing a commitment in their QA program. They have judged it not to reduce the effectiveness of their QA program unilaterally. They send it to licensing.

Yes, we are notified. And we do have theopportunity, as this indicates, to rebut it.

Q I thank you, Mr. Ruhlman, for that clarification.

BY MR. LANNING:

Q I wanted to turn back to Exhibit 1033.

A Let me add one more thing on the changing of the QA programs without NRC approval.

Again, as mentioned in the question by Mr.Lanning

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before, only a very small portion of the actual QA program is ever reviewed by NRC -- the NRR part of NRC. The implementing procedures can be changed by thelicensee without any notification to NRC.

And while that does not allow him to change the accepted QA program, please realize the accepted QA plan deals with principles, not with details of implementation. And so the licensee can change his details of implementation, as long as, in his opinion, he has not changed the principles involved in the accepted QA program.

So that would be a fourth way of changing the program without NRC approval, and by far the most common.

Q I'd like to quote from Exhibit 1033, the first page.

"In Dr. Hanauer's testimony before the Congress some six months later" -- "later" meaning after theBrowns Ferry fire -- he specifically stated that, 'Qualify assurance programs in some operating plants are known not to conform to current standards and should be upgraded promptly.'

"The purpose of this memorandum is to document that NRR and/or IE headquarters have known of certain RI QA programs which do not conform to current standards, and these programs have not been upgraded.

"Of the 20 RI facilities with Ols, seven have QA programs

dsp43

which do not mean current standards."

And it goes on to identify those seven licensees.

Have you followed up on these licensees to determine if they have subsequently met or provided acceptable QA programs?

A Let me state that when you say "acceptable QA program," by the definition of -- in Dr. Hanauer's testimony, as I understood it, "acceptable QA program," as your question would indicate,is one which meets all the current standards.

Is that what you're talking about?

Q Yes, that's right.

A With respect to that, I have not followed up on these because after that memorandum was written -- that was written in October of '77 -- January of 1978 I went on my tour with the International Atomic Energy Agency in the Republic of Korea for three months.

When I returned from that tour, I went down to Region II so I had no reason to follow up, since all these were Region I licensees.

Q I assume that these upgrading of QA programs to current standards took place in '74 as a result of the Commission letter?

A That is correct. Now, I say took place in '74. Some of these licensees did not have a license in '74. All of them had approved QA programs.

dsp44

And so that's why I had to question your definition of "acceptable."

They all had had programs which had been reviewed, accepted and approved by NRR. The reviewed and approved QA programs just did not include all of the issued current standards, which was what Dr. Hanauer's testimony dealt with, i.e., their commitments to those standards.

Q Looking through the exhibit, some of the inadequacies was identified in '74.

Do you recall why it's taken three years to resolve or upgrade the QA programs?

Is there any one particular issue that comes to mind which accounts for delay or reasons for delay in upgrading the QA programs to current standards?

A Well, I can't tell you why. I can only state that it was my -- and it is not included in this particular document, but in dealing with one of the Region I licensees -- this happened to be Con Ed at Indian Point -- I found that the major ability to enforce QA program standards comes, as one would naturally assume, prior to issuance of an operating license.

And all of these facilities have operating licenses. Once they have been granted a license to operate, the NRC has less leverage than before the operating license is issued.

dsp45

And so if the standards are not incorporated in the quality assurance program before the license is issued, it becomes a very difficult job to backfit.

That's hypoethesis.

Q There are a number of references -- a number of recommendations concerning upgrading the FSAR for these various licensees.

Why is it so important to have an updated QA program documented in the FSAR?

A As again I've indicated, there is no enforceability unless we can get to the documented accepted QA program.

BY MR. PARLER:

Q I have a question about the exhibit 1033. The last paragraph of that exhibit, do you have it before you?

A Yes, sir.

Q It suggests to me that NRC officials have made public statements to the Congress of the United States which have not been fulfilled.

As a matter of fact, that is what the language in the last paragraph on page 5 of Exhibit 1033 states.

Now, this Exhibit 1033 is your memorandum; what specifically were you referring to?

A The statements by Dr. Hanauer in his testimony before the Special Review Group on March 2, 1976. He stated that -- in his testimony -- that "quality assurance

dsp46

programs in some operating plants are known not to conform to the current standards and shold be upgraded promptly."

The meaning that I got was they were in the process of being upgraded promptly as of May 2, 1976.

And, in fact, as of 13 October 1977 when this memorandum was issued, they had not all been upgraded.

Q Thank you for that clarification.

BY MR. LANNING:

Q In general, as a result of the '74 Commission letter, in your opinion, is there uniformity in QA programs between licensees which you are familiar with?

A No, sir. There's a great deal of non-uniformity in the programs and in the enforcement of the programs from region to region.

Q Why do you think -- what's the basic reason for not having uniformity?

A That, of course, is very difficult to answer. It would be a subjective appraisal on my part, but with the exception of Region I at the time the memorandum was written, no region had a specialist in quality assurance.

With my transfer to Region II, we then had a specialist in quality assurance in Region I and in Region II.

Subsequently, I have been informed that Region III has now developed a quality assurance specialist. In fact, I have had several discussions with personnel in Region III

in the effort to develop a quality assurance specialist to go out and look at it.

Uniformity comes from two things: first of all, you have to have uniform requirements which are uniformly inspected. And since the first part has not been met, the requirements are not uniform, it is difficult to achieve uniformity; even where the requirements are relatively uniform, where they're inspected by people who have varying degrees of knowledge, then, by definition, their inspection would produce varying degrees of uniformity.

Q Are you familiar with any guidance provided to licensees to implement Appendix B?

A Other than as stated in 10 CFR 34, which requires them to have an FSAR that describes a QA program and the documents, the WASH-1283, 1284, and 1309 that was previously referenced, I know of no particular guidance that's been issued the licensees.

Q Are you aware of any proposed regulatory guide for this purpose?

A I should have included -- there are a number of regulatory guides that deal with quality assurance, and I guess I hadn't taken those to be in the context of your question because the regulatory guides are normally the things that are referenced as endorsing the standards.

The standards that are developed by the ANSI committees are then endorsed by the Commission in regulatory guides. The

dsp48

licensees in their programs either commit to the standards directly, or they commit to the regulatory guide that endorses the standards or some combination thereof. So, yes, agreat deal of guidance has been issued in those areas.

Q But you're not -- you're not familiar with any kind of guidance that broadly addresses implementation of Appendix B under one --

A No, sir.

Q -- cover?

BY MR. PARLER:

Q This Exhibit 1033, which is your memorandum, Mr. Ruhlman, of October 13, 1977, to Mr. Grier, the director of Region I: as a result of the substance of that memcrandum, what action, if any, was taken as a result of the memorandum?

A None thatI know of.

Q Were -- none within the region or headquarters or anyplace that you know of. Is that correct?

A I know that the memorandum was subsequently reviewed by our office of the Executive Legal Department to see whether it met the -- I say OELD -- it may indeed have been reviewed by headquarters to see if it constituted a dissenting opinion.

I was informed that that review was conducted and that it was not considered to be a dissenting opinion.

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Q For purposes of board notification --

A Yes, sir.

Q -- is that what you're talking about?

A Other than that review, I believe the memo was forwarded -- as I stated, I left shortly thereafter for the Republic of Korea and then returned and went to Region II, so I really haven't kept track of it since that time.

MR. PARLER: Off the record.

(Discussion off the record.)

MR. PARLER: Let's take a brief recess.

(Brief recess.)

MR. PARLER: Back onthe record.

BY MR. LANNING:

Q Before we go on to a new subject, do you have any other comments onthe changes to QA programs?

A Yes, sir. As an example, some licensees have indeed tried to come up to speed, so to speak , on the new guidance that was issued. I have, for instance, in mind Carolina Power and Light, since we had referened dockets 50-324 and 325.

In a letter dated September 14, 1977 -- which I don't happen to have a copy with me -- the licensee requested to upgrade his QA program from his commitment to 1807 -- that's ANSI 1807.72 to ANSI 1807.76.

That request has been sitting in licensing since

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September 14, 1977, and the licensee only got approval to upgrade his program to the new standard after the Region II office requested the action again, and the licensee finally got that approval at the end of August 1979, a period of almost two years.

BY MR. PARLER:

Q Now, where did you say the request was sitting?

A In NRR.

Q Okay. You don't have these documents with you, you said?

A No, sir, but --

Q When you get back to your office so that you would have access to these documents, then perhaps, if it's not too much of an inconvenience, then provide the Special Group with a copy of the pertinent records.

A I won't be back until October 1st, but you can obtain them here, I believe, from Mr. Hannon, who is the project manager for Brunswick: John Hannon -- H-a-n-n-o-n.

He is aware of the issue.

MR. PARLER: Okay. I'd like to identify for the record Exhibit 1035, a memorandum from Brunner to Seyfrit, dated August 10, 1976.

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(A memorandum from Eldon J. Brunner, Chief, Reactor Operations and Nuclear Support Branch, to K. Seyfrit, Chief, Reactor Technical Assitance Branch, dated August 10, 1976, was marked Exhibit 1035 for identification.)

BY MR. PARLER:

Q You'd earlier indicated that thelicensee had reduced his scope of his QA program by 20 percent through his definition of equipment which are safety related.

A Yes, sir.

Q Are you aware of any NRC efforts to learn what is meant by "safety related"?

A Yes, sir. I have seen a proposed regulatory guide 1.XYZ, which is the generic definition of an unpublished guide, in various forms since 1974, which deals with the subject.

I have never seen anything that has been issued, however, attempting to identify that.

Q From an inspection standpoint, why is such a definition of safety related required?

A Because Appendix B applies only to those structures, systems, an d compoennts which are safety related.

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And with the lack of NRC definition, the definition is left to the licensee.

Q What guidance or definition is currently employed by I & E, for example?

A Well, again, as we've discussed before, our inspection program deals with the program that has been accepted by NRR, and if that program does not include what is safety related, we then take the licensee's list and inspect it.

Where we find something we feel the licensee should have on his list, but which is not on the list, there's nothing we can do about it except refer it to NRR for resolution, which has been done on a number of occasion.

There are some who have attempted to define it as those structures, systems, and components which mitigate the consequences of an accident -- limit or mitigate the consequences of an accident.

But that has never been officially stated as -- within thatcriteria it has never been officially stated what systems constitute those which are necessary to limit or mitigate the consequences of an accident.

Q Have you identified safety related equipment which you think should be on a "Q" list?

A Yes, sir. As a matter of fact, Appendix B in general deals only with structures, systems, and components.

dsp53

It is also necessary to include from safety standpoints two other categories which I have named consumable items; that would include gaskets, O-rings, diesel oil, boric acid, chemicals, reagents, and services, such as NDE services -- non-destructive examination -- and various other types of services which are provided to the licensee.

These are not currently addressed in Appendix B or in anything that's been issued.

As a result of a rather good interreaction between Region I and the NRR quality assurance branch, we have managed to have consumable items included in a number of programs.

But again the list is incomplete and has been done by a term which I will call,for lack of a better defition, ratcheting.

We go around to the licensee and try to convince him of the need to include such structures, systems, and components in additional to consumable items in his program and try to get him to write these in.

And the lack of NRC definition is what has to be included.

Q Have you in the past made a recommendation to I & E headquarters or NRR to formulate a formal definition of safety related or safety grade?

dsp54

A Yes, sir.

Q Do you recall under -- under what mechanism that recommendation was made?

A It was done in the same basic mechanism I described to you before where we identify a problem, we refer it to our section chief, the branch chief, and it is then referred to I & E headquarters.

Q Are you familiar with a memorandum -- I'll mark it Exhibit 1034 -- from R. T. Carlson to -- excuse me -- this is Exhibit 1035 -- 36. 36.

(A memorandum from R. T. Carlson, Chief, Reactor Construction and Engineering Support Branch, to J. H. Sniezek, Chief, Light Water Reactor Branch, OIE, dated October 15, 1976 was marked Exhibit 1036 for identification.)

BY MR. PARLER:

Q It's from Carlson to Sniezek -- S-n-i-e-z-e-k --

A It's Sniezek.

Q Sniezek, okay.

It evidently provided comments on standard review plan 17.2 and .2.

A Yes, sir.

Q Would you look at that?

A Yes, sir. I did indeed provide some of the input to this. It was a review of 17, which includes 17.1 and 17.2, and I did provide the comments on section 17.2.

Q Is there reference there to "safety related"?

A Yes, sir. I had the point down here, "Add the following to the current item: define 'safety related' or other definitions used to determine which items are controlled by the QA program."

Q In Exhibit 1035, there has been reference made to practices with respect to locked valves.

A Yes, sir.

Q Would you review that exhibit and provide some background information on --

A The technical specification of this particular licensee -- it happens to be Calvert Cliffs, Docket No. 50-317 -- was to use a Pelican clip.

That is not a lock as I had interpreted lock, meaning something that you physically inserted a key.

The licensee used this Pelican clip to secure a chain, but all you had to do to operate the valve was remove the Pelican clip. There was no external security method, such as a key would be required.

That was reviewed by licensing and found to be an acceptable definition of lock because the licensee had put

dsp56

that in his report, that that's what a locked valve was, in his FSAR.

Q Have you quesitoned theprocedures that have been used by licensees to control these locked valves?

A Yes, sir. There's been a number of cases where -- this particular licensee, the reason I questioned this particular practice for locking valves was the fact there had been a number of items where valves had been found misaligned, due to the fact that they were malpositioned when they were supposed to be locked.

Q Referring back to Exhibit 1036, item 27, is that an example of a recommendation to provide written procedures for controlling locked valves?

A It was more than just locked valves; it dealt with return from locked out status, which was when you have something locked out, what does that mean?

Does that mean the breaker is just racked out, or does it mean it's simply impossible to replace it?

The terminology "locked out" means various things to various licensees. Some people consider it locked out if you hang a tag on it.

Some people consider it locked out if the breaker is racked up. Some people consider it locked out only when the breaker is physically removed from making contact and has a locking device like one would have on a door, a padlock, to prevent it being reinserted.

dsp57

Q As I read that recommendation, it was to provide a requirement in the standard review plan to provide written procedures for performing inspection of equipment- including the development of criteria for developing -- determining when and if inspections are required following each of the listed evolutions, where returning from a locked out status is one of those.

A Yes, sir. This particular -- the context in which that was written, though, is not necessarily just for valves. It applies to valves, breakers, and anything else that has been removed from service for a safety reason, such as while people were working on the system.

Q Do you know if any of these comments were ever incorporated in thestandard review plan?

A I do not know, sir.

Q Do you know if that memorandum was ever transmitted to NRR for consideration?

A No, sir, I do not.

MR. PARLER: That's the memorandum which contains the coments on the standard review plan.

Is that what you're talking about?

MR. LANNING: That's correct.

BY MR. LANNING:

Q One of the procedures listed in the item number 27 is preventive and corrective maintenance.

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A Yes, sir.

Q Are there requirements set forth in Appendix B addressing preventive and corrective maintenance?

A NO, sir, not by name, title; perhaps by implication.

THat is not the only thing, if we may open that subject, that is not included in Appendix B. The licensees also perform activities which they label surveillances. These are perfcrmed by the on-site QA group, and they deal with inspection of the activities at -- at the facility.

Operations is not mentioned specifically in Appendix B, nor, as you pointed out, is maintenance or preventive maintenance.

Q Does that mean that the licensees' QA programs do not address maintenance?

A No necessarily; again, we refer to a series of standards which have been incorporated; this is the upgrading of standards, upgrading QA programs to include standards.

There are a number of standards which address maintenance: the primary one is 18.7. That's ANSI N 18.7. Both the '72 version and the '76 version address -- have a section which addresses maintenance.

And most licensees are committed to one or the other of these two versions. It's also included in regulatory

1.33.

There's a requirement in the regulatory guide 1.33 that deals with QA programs.

BY MR. PARLER:

Q When you say that the licensees are committed, I gather that you use the word "committed" particularly to point it out that a commitment in contrast to a regulatory requirement is not necessarily enforceable.

Is that correct?

A That is correct. The commitment to ANSI 18.7 is usually a commitment via the accepted QA program. Regulatory guide 1.33, which mainly deals with the requirements for procedures, has been included in virtually all of the technical specifications, and is therefore a condition of the license via the technical specifications.

MR. LANNING: I'd like to identify as Exhibit 1037 --

MR. PARLER: Yes.

MR. LANNING:--a memorandum from Dudley Thompson to multiple addressees who are the directors of regional offices, the subject of which is "Citations Against Criteria of Appendix B, Part 50.

(A memorandum from Dudley Thompson, Acting Director, Division of Field Operations, entitled "Citations Against Criteria of Appendix B,

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Part 50," to J. P. O'Reilly, et al., dated April 14, 1977, was marked Exhibit 1037 for identification.)

BY MR. LANNING:

Q Earlier in your testimony you made some reference to guidance being provided for inspection against Appendix B. requirements.

Could you review that memorandum and --

MR. PARLER: While he is reviewing it, could you indicate the date of the memorandum. Maybe you gave it, but I don't --

MR. LANNING: April 14. 1977.

THE WITNESS: It is titled, as you mentioned, "Citations Against Criteria of Appendix B, Part 50." It basically emplifies chapter -- manual chapter 0800, which was previously talked about, and this is indeed the issue I referred to previously.

The primary thrust of this is if the licensee has written a procedure and he is not following the procedure, a citation is made for failure to follow procedures. And it is because of that there are a number of places where you're forced to cite the licensee for failure to follow procedure, when really the issue was failure to establish measures.

Let me digress for a moment. Many of the 18 criteria

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specifically deal with the requirement to establish measures. For instance, criterion six, criterion seven, criterion eight, criterion nine, criterion three, criterion 12, criterion 13, criterion 14, criterion 15, criterion 16, which isthe majorityof the criteria of Appendix B, all require measures to be established to do something.

In the main, the licensee has written a procedure. The thrust of this letter and the subsequent interpretations of it as applied by the regional enforcement coordinators -- specifically the regional enforcement coordinator in region II, Mr. Charley Upright -- U-p-r-i-g-h-t -- that the license is required only to write procedures; whereas, the criteria are somewhat more broad in establishing measures.

Establishing measures, in my estimation, is more than writing a procedure or may be more than writing a procedure. But the thrust of this memorandum that you mentioned here -- Exhibit 1037 -- is that you cite the licensee for failure to follow procedures.

And my objectionto that is two-fold. If you've already identified his problem, his failure to follow procedures, he will write back and respond to you -- and I have a numberof cases where this is exactly what has happened.

And he says that in the future he will follow procedures, where in fact if you cited him against the criteria of

dsp62

Appendix B of failure to establish the measure without telling him it was necessarily failure to follow the procedure, you then force him to do some sort of an investigation to find out why the activity was not accomplished as desired.

And this was one of the problems I've identified with enforcement of Appendix B.

And it's what you end up with -- is -- and I have a number of cases that I could cite in recent QA inspections. You end up with one citation for failure to follow procedures. You call it an infraction. You end up with as many as five, six, seven, eight, nine, 10 examples.

BY MR. PARLER:

Q Do you have any docuemnts with you that relate to those cases which you could cite on the point that you're talking about?

A I did not bring any with me. I can certainly reference you to an inspection report number, and you could obtain the documents from the central files.

Q Thatwill be fine.

A Okay. It was the quality assurance inspection conducted at Florida Power and Light, the Turkey Point plant, docket 50-250, 50-251, and I believe the report number is 79-11.

Q So that would be a report that was issued some

dsp63

time this year. Is that correct?

A Oh, yes, sir. It was issued within four months ago.

BY MR. LANNING:

Q Earlier you had made reference to safety related consumables not appearing on the "Q" list. Can you identify Exhibit 1037?

A 38.

Q 38.

MR. PARLER: It's a memorandum from Boyce Grier to H. D. Thornburg, dated October 5, 1977. The subject is "Applicability of Appendix B to Safety Related Consumables."

(A memorandum from B. H. Grier, Director, RI, to H. D. Thornburg, Director, ROI, entitled "Applicability of Appendix B to Safety Related Consumables, " dated October 5, 1977, was marked Exhibit 1038 for identification.

BY MR. LANNING:

Q Could you review that.

A Yes, sir. I -- I prepared that. In fact, the memorandum that you quoted includes therein my memorandum of October 5, and it was basically an identification of the fact that there are a number of chemicals and reagents which

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affect the safety related function, the safety related systems and components, which are not defined. I mention specifically chemical resins, lubricants, seals and gaskets, packing material.

We could go on to include -- and I have elsewhere -- snubber fluid, diesel oil.

Q The exhibit recommended an I & E/NRR interface meeting to be establish to extract clear definitions. Are you aware of any subsequent actions that had taken place to -- about a clearer definitions for including non -- for including consumables in the "Q" list?

A No, sir.

Let me add just one comment for the record, that in my inspections, even without, quote,"backing," unquote from NRR, I had to carry this as an unresolved item or an open item with a number of licensees, and we are getting the licensees themselves to go back and identify the consumable on a rational approach basis, convincing the licensee it is necessary, even though there is no real NRC guidance in the area.

And every licensee that I have personally inspected has had that as an item where he has had to r[illegible] and come up with a list of consumables, or else he's been forced to tell us that he's not going to do it.

MR. PARLER: Could we go off the record for a

dsp65

second, please.

(Discussion off the record.)

MR. PARLER: On the record.

BY MR. PARLER:

Q With regard to the Exhibit 1038 that we've been discussing, Mr. Ruhlman, it's my understanding from your testimony that you are not aware of any action that has been taken on the exhibit, which is Exhibit 1038, which is Mr. Grier's memorandum of October 5, 1977 to Mr. Thornburg.

And I also understand that in your inspections you have been carrying a number of theitems relating to safety related consumables as unresolved items.

Is my understanding thus far correct?

A Yes, sir.

Q Now, with regard to Exhibit 1038, I take it the record at this point should reflect language in paragraph two of Mr. Grier's memorandum of October 5, 1977 to Mr. Thornburg --

A Let me state that the copy of 1038 that I have is missing page 1 of the attachment -- enclosure. But the paragraph that you refer to is on the front page, which I do have.

And it says, "Examples of LER" -- licensee event reports -- "which resulted from failures in controls to consumables are provided with the enclosed memorandum," page 1 of which

dsp66

was missing.

It then goes on -- Mr. Grier states in here that "We regard this area as one which we have precursors of significant problems."

And that was the thrust of the memorandum. I don't have the first page of that document, but getting into the interior of the memorandum, it goes through and lists all of the various consumable items which "whose loss could degrade critical components."

Q Well, as I was saying, it is important for the letter of transmittal to Mr. Grier -- at least a part of it -- to be quoted at this point in the record.

And I will proceed to do so.

I quote from Mr. Grier's memorandum of October 5, 1977 to Mr. Thornburg: "We recommend that IE-NRR interface meetings be used to expedite clearer definitions of the need for application of QA measures to assure that consumable items are known to be acceptable when used."

I will eliminate the references in the quote and will continue: "We are currently unable to enforce this portion of the Code of Federal Regulations because of the non-specificity of approved QA plans.

"Examples of LERs which resulted from failures in controls for consumables are provided with the enclosed memorandum.

dsp67

"We regard this area as one in which we have precursors of significant problems and one in which NRC should promptly take action." End of quote.

Now, again, for the record, are you aware of any action which the NRC has taken in response to Mr. Grier's memorandum of October 5, 1977 to Mr. Thornburg?

A No, sir, I am not. But again, let me state that shortly thereafter I left for Korea and subsequently went down to Region II.

Q I also understand in your inspections which you have conducted as a part of your assignments -- what --since your return from Korea that you are continuing to carry issues such as the ones we've been talking about -- that is, safety related consumables -- as unresolved issues.

A That is correct.

Q It would appear that if there has been further guidance in the area that you would have been -- or should have been -- should have been in a position to be aware of such data --

A Yes, sir.

Q Is that correct?

A But your specific question, was the answer in Mr. Grier's memo, and it's not. It's a different region. Let me add one point of clarification, if I may. There is a quality assurance branch position which unfortunately I

dsp68

don't have a copy of it with me, that deals with the applicability of Appendix B to safety related chemicals and reagents, a very, very narrow definition, chemicals and reagents.

And that was issued in January, I believe, of '76. HOwever, that has never been put out to the licensees as such, you know, to be included. It is not included, to my knowledge, in the standard review plan.

And it resulted primarily as a result of the memorandum which was previously mentioned, 1035, Exhibit 1035, the Calvert Cliffs.

The QA branch position has been made available to the inspectors, and this deals primarily, as I said, with the chemicals and reagents which are used to verify limited conditions for operations and technical specifications.

Q Well, if such a QA branch position is just put out for the inspectors and was not put out for any of the licensees, what purpose does it serve?

A I'm sorry --

Q It's a puzzle to me.

A That particular issue is another one which opens up an entire wide range of things; there are a number of positions which are furnished to the inspectors which are not furnished to the licensees, including interpretations of the federal regulations, which the licensees do not

dsp69

get unless they come in PDR and look for them.

I do understand they're made available if they come in and ask under FOIA, Freedom of Information Act, or if they go to the PDR.

Q That's the public document room?

A That is the public document room, yes, sir.

Q That would be the public document room in Washington or some local -- do you have public document rooms in the regional offices?

A We have public document rooms in the regional offices. I don't know if this information that we're speaking about here is availaable there. And the QA branch position would not be available in the public document room in either case. It's an internal position paper.

BY MR. LANNING:

Q In the Exhibit 1037, do you recall responding to that memorandum or commenting on that memorandum?

A Yes, sir, I commented to our enforcement coordinator in our region, Mr. Gary Snyder.

MR. LANNING: I'd like to mark as Exhibit 1039 a memorandum from W. Ruhlman to G. Snyder, dated June 27, 1977. The subject is citations against criteria of Appendix, Part 50.

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(A memorandum from W. A. Ruhlman to G. L. Snyder, entitled "Citations Against Criteria of Appendix B, Part 50," dated June 27, 1977, was marked Exhibit 1039 for identification.

BY MR. LANNING:

Q In your memorandum you discuss concerns concerning apparent conflicts between I & E manual chapters 1005 and 0800. Could you elaborate on what your concerns were and how they relate to implementation criteria provided by Exhibit 1037?

A Yes, sir. Let me just take a few moments to read this, but it's stating because it's finally and absolutely a failure to follow procedures. It's something I mentioned before.

And to give an example of procedure, one requires that all melding -- welding meet ASME requiements. If the ASME requirements are not met, the procedure was not followed. But this is not the cause of theimproper welds.

It's an oversimplification, but the requirement to cite everything against failure to follow procedures is in fact, I believe, inappropriate, where you have a criteria that deals with the issue.

And that was again the conflict that I mentioned previously.

dsp71

I think that there is a qualitative as well as a quantitative difference if the licensee has a valid procedure in which you'll find one example that he's failed to follow, I believe, that an appropriate citation is failure to follow procedures.

If you find that a licensee has a procedure to cover it, and he never follows it, or follows it very rarely, I think he's failed to establish the measures.

That particular latitude is not currently allowed to me in citations.

What I've used with the enforcement coordinators in both regions with no effect, is if a licensee writes a procedure, that I will follow all of my technical specifications. And then he fails to follow a technical specification, we do not cite him for failing to follow the procedure, we cite him for failing to follow the technical specification.

And I see the same logic would apply in Appendix B, where they take an entirely different approach.

Another one is the conflict with Manual chapter 0800 and we're again referring to this memo that you referenced before.

The fact that the procedure developed under the plan are followed in this implementation. When the statement says -- also, it would seem to indicate that other criterion speak to procedures.

dsp72

A last statement in Manual chapter 0850.02.B.2C states that failure of the licensee to follow QA procedures is hence an item of noncompliance of technical specifications over the appropriate criterion.

The reference memorandum states, in fact, that the appropriate criterion is either 5 or 6 which, again, is what I've is what we're following in the regions now.

Rather than citing for failure to establish measures we always cite for either failure to write a procedure since they have established a equivalency between establishing measures and writing procedures, and/or failure to follow the procedures.

That's basically the only two citations in anything in Appendix B, is either your failure to add a procedure or failure to follow it.

BY MR. PARLER:

Q In the statement you just finished, you referred to a memorandum that you just referred to or words of the effect, I suppose; I wasn't able to track what memorandum you were referring to.

And I do think that the record should be clarified on that point if you can.

A Yes, sir. What we were referring to is this, both memorandums have the same title. "Citations against the Criteria, of Appendix B, part 50." The firs.. one was this

dsp73

memorandum, which is Exhibit 1037.

Q All right.

A From Dudley Thompson to the Regional Directors stating how the citation should be made. The second one is Exhibit 1039 from which I was quoting, which deals with my response.

Q That clarifies it very nicely.

BY MR. LANNING:

Q Is your point Manual Chapter 0800 should be revised to change the types of citations that can be issued?

A I think that's --

Q What's your bottom line?

A The bottom line is, I believe, that the -- some wider range in latitude other than failure to follow procedure should be given to the licensee-- given to the inspectors of the licensees. Specifically, if we feel that there is no problem with the procedures, there's no problem with the intent; there is just a few isolated cases where a licensee has failed to implement it, then the citation failure to follow procedures would seem appropriate.

But where there is not just one or two isolated incidents the failure to establish measures, which may go beyond the writing of a procedure; the training of personnel, the management attitude that deals with the fact that these procedures must be enforced, that establishing measures is

a wider statement than writing procedures. And they include more items than those we should be able to cite directly against the criterion of Appendix B that deal with the problem as opposed to having to cite them for failure to follow procedures.

Yes, the bottom line in 0800 needs to be grossly revised in the area of Appendix B citations.

Q Are the requirements -- NRC requirements for publication of personnel to perform maintenance or surveillance testing or in serving inspections --

A You say NRC requirements; there are NRC requirements by the fact that licensees, again with the definition of cimmitment; the licensees commit to various standards.

Again, the standard which is most widely committed to, in fact in most cases, is the part of the requirements of the technical specifications; ANSI N18.1-1971, which is the qualifications of personnel for the power plants.

This document gives some rather general criteria for maintenance personnel and technicians.

A subsequent document was issued which is ANSI N45.2.6, which deals with the qualification and certification of inspection, examination and testing personnel.

And most licensees, as a result of this 1974 letter, did upgrade their QA program to a commitment to follow ANSI N45.2.6 or the Reg guide that endorsed it.

However, as a result of the citation issued to Oyster Creek, the docket number which escapes me at the moment -- but at Oyster Creek they were cited for failure to qualify persons performing inspection, examination and testing to ANSI N45.2.6 as they had committed.

While the citation stood, the licensee was subsequently granted relief in that the NRC has stated that people could be qualified either to 18.1 or 45.2.6.

18.1 deals primarily with how long a person has been alive as opposed to any definitive guidance for what he has to do for qualifications, having to work in the nuclear field for so long. It's mainly an experience document.

Whereas, 45.2.6 dealt more with definitive criteria for what he had to have to perform inspection, examination and tests.

Q Is it your concern that these criteria for personnel qualifications should be included as part of Appendix B, or is the present system adequate to be referenced in energy standards?

A The present system would be adequate if all licensees were made to follow it in a uniform manner.

There is a whole -- which I don't know if we want to get into now -- but the whole training and qualification question of personnel is an entirely different issue which, again, I have many memoranda which have been submitted at

dsp76

various times on various subjects.

But to give you an examination -- an example, there was a licensee in Region 1 that had storekeepers performing receipt inspections.

These storekeepers were not qualified or certified as required by ANSI N45.2.6. A citation was issued.

The licensee came back and stated that he was meeting this letter which had been issued to all -- it was issued to Oyster Creek and widely picked up by other licensees that they could qualify to either 18.1 or 45.2.6.

As a result, this licensee claimed that his storekeepers were qualified to 18.1. However, 18.1 does not mention storekeepers, so the licensee wrote an equivalency statement stating that his storekeeper was a technician, and that he, therefore, met the technical requirements which requires that he has at least two years of experience in the field.

And he had been a storekeeper for two years.

MR. LANNING: Let's identify Exhibit 1040.

(A memorandum from Mr. Brunner to Mr. Sniezek, entitled "Definition of Non-routine Maintenance with Respect to Qualifying Plant Personnel who Perform Inspection, Examination, and Testing," dated October 21, 1976, was marked Exhibit 1040 for identification.)

BY MR. LANNING:

dsp77

Q Are you aware of any efforts to define what is meant by that?

A No, sir.

Q Are you aware of any transmittal of this memorandum or it's substance to NRR for consideration?

A No, sir.

Q Are you familiar with the I & E review and approval and certification of acceptance of the QA program before issuance of a CP or OL to licnesee or applicant?

A Before issuance of an OL, I have never dealt specifically with before agents of a CP.

Q Would you describe that process or what that entails?

A Okay, this was described earlier, but, basically the licensee submits a program to NRR for approval --

Q Specifically address the I & E function with respect to certifying that the QA program as in place of -- is acceptable to I & E and how that notification is made to headquarters.

A I'm sorry I misunderstood your question as a part of manual check for 2514.

The regional offices of I & E have a total of 11 modules which deal with the quality issuance program. Modules 37,540 through 37,550, I believe are the numbers.

But anyway, in these 11 modules, we go out before the

dsp78

issuance of the operating license and verify approximately 120days prior to issuance of the OL that the operating Quality Assurance plan as approved by licensing is in place and, in fact, ready to go.

And then, anything that we have left over that is not found acceptable is then carried as an open item and, then is listed as serious enough as license condition or something and has to be cleared up before the OL is issued.

Q Does that include review and approval of the operating procedures of emergency procedures or is it an inspection to verify that they exist?

A We actually don't get into operating in emergency procedures under the Quality Assurance program. It is done under other modules, but it is prior to OL issuance.

Q So those procedures are reviewed by I & E?

A Yes, sir, or at least sampling review.

Q Sampling review? You don't review them all?

A No, sir.

Q Did you perform any QA inspections with Three Mile Island units 1 and 2?

A Yes, sir.

Q In general, comparing those licensees to other licensees in region 1, how would you compare their QA program to the others as far as depth uniformity?

A Perhaps a bit of history is in order.

dap79

Three Mile Island 1 was licensed at about the time that this significant new guidance was issued. As a result, many of the standards that they committed to were committed to with the understanding that when Three Mile Island 2 was licensed, they would upgrade the more recent standards.

Q What is the reason for that?

A There was a need to get the plant licensed and the conditions were just imposed on the licensees part issuance of the OL.

BY MR. PARLER:

Q Which plant are you talking about, Three Mile Island 1?

A Right, sir. But within the conext of the program. Their program was up to current standards at the time that the license was issued for Three Mile Island unit 1.

Pre-op inspection, pre-operating license inspection was performed. They were found, you know -- and of the number of items were found that they were not excessive.

I would have to classify that their program that was implemented was equal to or better than other licensees in the region.

Q Do you feel that there is an adequate number of QA inspectors in the regions which you have been a part of; one and two to perform an adequate QA inspection program?

A At the time I was a part of them, I can say yes,

dsp80

in region one I usually had as a lead Quality Assurance inspector, I had two other people working with me.

Most times, we had a three-man team that went out.

In region two I have had excellent support by my regional director, and as a result, we have four men on a QA team.

However since Three Mile Island, you are aware of course, that NRC personnel are very scarce and the team has been rather decimated.

But in general, in the regions I have been I've always had the same regional director. I followed him from region one to region two, and Mr. O'Reilly is very much interested in Quality Assurance and as a result, I have always had the manpower and resources.

You asked the regions that I was associated with, so I would have to answer, yes.

Q Do you have any other information related to QA programs or the licensing process which may be of interest to the special inquiry?

A Well, there's a whole series of things I believe we could deal with.

With respect -- I guess the first things with respect to what has to be included in the QA programs: we've already mentioned that surveillance which is a process, which is performed with the licensees own site, does not come under the aegis of the Quality Assurance program or Appendix B,

dsp81

because it's not addressed.

The surveillance of activities by the on site QC people is not an audit function as described by section 18 or the 18th criterion.

It is also not under the aegis of ANSI N45-212, which is dealing with audits, so there are no controls, per se, on the qualifications of the personnel that perform it, the documentation of the items which were found, or the escalation of those items when significant problems were identified.

This has produced known inadequacies at some plants where we have gone in to find the QC people are finding significant problems.

They're documenting them, but there's no escalation that would normally be required by an audit function, in an audit function that formal escalation program that is required.

The surveillance, in fact, the entire monitoring of operational activities is somewhat lacking.

In the maintenance areas, you've already mentioned and we've already discussed, it's not specifically required by Appendix B, although it is required by some of the standards which have been written to implement Appendix B.

The lack of definition of safety related and what's included under the program, we've already mentioned.

What is not included, I think that has caused a lot of

the problem for the licensees, is the fact that we have always attempted to apply Appendix B either all or nothing. What is really needed is a graded QA program.

It is unnecessary to do a source inspection of Mobil Oil to qualify as a lubricant on your program but they have attempted to apply all of the controls of Appendix B to all of the items that are covered by the licensees QA program.

Thus the licensees are naturally recalcitrant because of the expense involved, where some cases in fact, Appendix B does not require that.

Appendix B says in the introduction -- shall be applied consistent with its impact on safety, but that particular aspect has never been widely used by the licensees.

I guess, in general, that Appendix B should be broadened in scope to include surveillance, operation and maintenance and to make the safety related program which can be graduated and graded, depending on the importance of the items of safety.

BY MR. PARLER:

Q You earlier had, in connection with testimony about training, suggested that there was a broad area that, perhaps, need not be opened up for the purpose of this record.

What were you talking about?

A Well, I have submitted a number of suggestion and memoranda and other items to headquarters dealing with the

fact that we currently do not really adequately address the training of licensed operators.

And also that we do not apply many controls at all, or have not really established any criteria at all, for nonlicensed operators.

Q So it was operators you were talking about, not training in other areas?

A No, it would include training other operators; it would also be craftsmen and technician personnel.

Q We'll get to the operator part in a moment, but what we've been talking about, generally thus far, as I understand it, would come under the category of Quality Assurance matters.

Now I think that if there is anything that you believe to be significant in the training area other than operators that you would like to talk about, that you should proceed to do so.

A With respect to that other area, other than operators, the mechanics that I have proposed -- again, I don't have the memoranda right with me -- I have proposed the licensing, or rather the certification of mechanics is an idea similar to the certification of airline mechanics; where a person is certified as a mechanic and can, then, operate at any nuclear power plant with, perhaps, some additonal requirements on them.

But the certification could be done in one of two ways.

Either directly by the NRC, which I do not advocate, or by schools of training which have been approved by the NRC as acceptable for certification.

I would propose to see a case where the NRC has approved certain trade schools, union schools, programs such as may need a nuclear power program.

And say that a person who had completed that training could be certified as a nuclear mechanic. In the event that that mechanic then performs some untoward action at a nuclear power plant, his certification could be removed.

This is similar to removing an operator license, suspending and revoking, in whole or in part, such that that mechanic could not, then, operate at another nuclear power plant.

I believe that this would add the additional levels that are necessary to the training programs. Right now, ANSI 18.1 requires that you have a program, but it doesn;t give any specifics for the program; for the mechanics and technicians.

So as long as the licensee has some program, we have to find that it's acceptable, because all that's required is a program.

And this generally consists of on the job training, although some licensees have gone much further than this. I think that the licensees need to be given specific guidance, something similar to an Appendix A to Part 55.

dsp85

We could come out with an Appendix B for craft personnel or something to tell what the program must include.

And without that, I don't think you're going to be developing any uniformity in the qualifications for mechanics and electricians and other personnel.

Q Do you have anything else under the broad category of Quality Assurance?

A Yes, sir. The enforcement. Again, I have had this stated to me orally that you could not ever have more than 18 citations, because there are only 18 criteria.

And even within that, I'd stated that really it boils down to you can't have more than 2.

One for failure to have procedures and one for failure to follow procedures. Although, it is not my document, the American Society for Quality Control, ASQC has published a rather nationally recognized breakdown of Quality Assurance elements, included in the 18 criteria into 71 quality elements.

And I believe that there are, in fact, more than that. And I believe that we need to address Quality Assurance on a quality element basis. And neither Manual chapter 0535, which deals with the coding of items of noncompliance, not Manual chapter 0800, itself, deal that the concept that it is more than a specific criterion.

In other words, breaking the criterion down into subparts

dsp86

which would, then, have to be inspected on an individual basis and cited on an individual basis.

Our program of citation does not allow for it, and citation of as many elements, although there is some breakdown beyond the 18 criteria.

Again, under the current lumping, for lack of a better terminology, requirements of 0800 which says that you have to lump similar items together.

Essentially, all citations for failure to follow procedure; if it's a failure to follow procedure welding, or if it's a failure to follow procedure in document control, or failure to follow procedure in auditing, it's all considered failure to follow procedures.

And rather than citations under criteria 9 for welding, and 18 for audit, and under 6 for document control, we have one ditation under criterion 5 for failure to follow procedures and you list all the others as examples.

Q All right, the publication you have there, I assume that that is your copy. Is that correct?

A Well, no sir. It's not quite correct. It was purchased for the Commission at the last ASQC meeting I attended.

Q My point is, it's not an extra copy that you'd like to leave here for purposes of the record.

A That is correct, but I have no objection to your

duplicating it.

Q I would, for purposes of the record, indicate that the document that you are talking about is titled "Matrix of Nuclear Quality Assurance Program Requirements," second edition, a document that is published by the American Society for Quality Control, whose address is 161 West Wisconsin Avenue, Milwaukee, Wisconsin, 53203.

The document carries a date of June 1976.

A And I might point out, sir, in addidion to breaking the 18 criteria down into 71 quality elements; this document also references all the ANSI standards and shows how they break down, with respect to the same 71 quality elements.

BY MR. LANNING:

Q That goes back to the I & E 0800 manual concerning what --

A Yes, sir. It all deals, well, it deals with two things.

Not only what can be cited, but what should be inspected because this would have you inspecting the elements across all of the various standards that implement them.

In other words, you would take an element such as the one that they mention here, maintenance of nonconforming data, that would come under criterion 15 and then it would come under criterion, again, 15 all welding repairs necessitated by nondestructive examinations shall be documented, which is

dsp88

45-25. And you would find all these -- you would look at it horitontally instead of vertically, if that has any connotation to the Board.

BY MR. PARLER:

Q Do you have anything else on the Quality Assurance area that you want to talk about?

A Yes, sir. You may wish to introduce this into the record as exhibit 1041, and I'll let him put that in.

(A letter from J. O'Reilly to Dudley Thompson, dated November 24, 1976, was marked Wxhibit 1041 for identification.

THE WITNESS: While I did not author this particular document, it was done -- I did have some input input into it.

It was done by Mr. McCabe who was my section chief at the time. And it deals with a couple of things which we've indicated and, I believe, the legal department has indicated some interest in. And that is the interpretation.

Interpretations are provided to the field by I & E manual sections, and by letters. These interpretations, in the words of this document, quote:

"Seem to confound guidance."

BY MR. PARLER:

Q Interpretations of what? Interpretations -- again, for the record.

dsp89

A Interpretations are things that are issued by I & E headquarters.

The specific regulation is to be applied in the field, and is again, mentioned in this 1041 document.

The legal status of such interpretations is not defined and so we make some recommendations that the interpretations should -- and as I pointed out before, they are not issued to the licensees.

We should know the legal status of them, since the tendency of our 50.3 states that any interpretations of rules and regulations in this part by any officer or employee of the Commission, except in writing by the office of the General Counsel is not binding upon the Commission.

I'm doing that from memory, not from reading.

Q Your memory is substantially in accord with mine.

A Okay, so because of that, when we get to these interpretations, we don't know what legal status they have, but they're issued on several subjests.

Q Where do they come from? Where do the interpretation come from? Do you have any idea?

A Yes, sir. They're issued by the headquarters office of inspection enforcement.

Q You indicated that a legal department had expressed some interest, I guess, on the subject matter. Do you --

dsp90

A I was speaking of yourself, you know, when you questioned these interpretations when I mentioned them earlier why they weren't given to the licensees.

And again, I don't have an answer why they're not, but there are a substantive number of them that are available in the Manual chapters which are available to you.

Q Oh, you were referring to me?

A Yes, sir.

Q The record should be clear, then, that the subject matter that you were talking about is a matter of current interest by the legal officials of the Nuclear Regulatory Commission, at least, as far as you are aware.

Is that correct?

A That is correct, sir. I was referring to the legal department in the person of yourself.

Q All right.

A At any rate, this memorandum which has been referenced again, 1041, Exhibit 1041 -- goes on to talk about cross pollination -- being complement cross regional inspections, report review comparisons -- report review comparisons and all of these things would get back to what would lend to greater uniformity in the inspection and enforcement program.

And I believe should be made -- and I have, indeed, suggested that on a number of occassions that these types of

inspections be made if we want uniformity in the Quality \ssurance area.

We must use these types of systems cross pollination.

Q What action, if any, are you aware of thac was taken on the memorandum you are talking about, Exhibit 1041?

A None, sir.

MR. PARLER: Off the record.

(Discussion off the record.)

MR. PARLER: Back on the record.

During the time we were off the record, we reviewed the various documents which have been the subject of this deposition and testimony.

We are trying to assure that we have covered all of the significant points on Quality Assurance that Mr. Ruhlman wished to talk about, and should be covered.

There is a document marked earlier for identification as Exhibit 1039.

On page 4, which has certain marks on it; I ask you, Mr. Ruhlman, are the pencilled changes on page 4 of Exhibit 1039 the changes that you made, sir?

A Yes, sir. I believe they are. It appears to be my handwriting.

Q And they do appear to be legible for our record purposes.

A Yes, sir.

Q With regard to your activities as a Quality Assurance inspector for TMI 1 and 2, I believe, your earlier testimony this afternoon was to the effect that that organization in the Quality Assurance area was the equal or better than others you had inspected in region one.

Is that correct?

A That is correct, sir.

Q My question that I would like to ask you is whether you do recall any significant Quality Assurance deficiencies that you encountered in your Quality Assurance inspection of either TMI 2 or TMI 1?

A The most significant one that sticks in my memory, not necessarily because it was most significant but the one I happen to remember, we had a number of issues with them on housekeeping and cleanliness.

But other than that and documentation, I don't -- I haven't reviewed any of the reports for Three Mile Island.

But those are the two issued I recall we had the largest amount of discussion with was housekeeping, cleanliness and documentation of items that were found.

Q Your Quality Assurance inspection, was it limited to Metropolitan Edison or did it extend to the GPU organization?

A It's part of our Quality Assurance inspection those parts which are handled by the corporate organization were handled at the Met Ed level.

dsp93

The GPU was only inspected by myself, with respect to the off site review committee, which was a GPU function.

Q Did you get involved at all into any of the internal organizational matters, such as the plant operating review committee that you recall?

A No, sir, that was a project inspector function.

I did once cite them on an item of noncompliance on an organizational issue where they had promoted Mr. Herbein without changing their technical specifications and thus not complying with their organizational requirements.

Q I don't believe you've been asked this afternoon, but if my recollection is wrong please correct me; about the contacts and communications between a Quality Assurance person, such as yourself in the regional offices, and the Quality Assurance people in NRR.

Have you been asked that question today?

A No, sir.

Q Do you care to comment on that, please?

A Yes, sir. The comment would have to be that I have felt personally that a very fine communication with all the people in the QA branch, as a matter of fact I have on at least three occasions tahken member of the Quality Assurance branch on inspections with me.

I believe that that was done because -- and I have to mention the fact it was strictly on the behalf of the

dsp94

General Director that such communications were established.

But Mr. O'Reilly has always been much behind Quality Assurance and helped forge those types of links and encourage those types of links.

He allowed me to come down whenever our region one licensees were in headquarters with their Quality Assurance program.

The Quality Assurance branch gave me the opporitunity to come down and be present when they were discussing this with them. In fact, in this very room we had the meeting with consolidated Edison.

So I would have to say that while I was in region one, and this was the time when the programs were being approved, that we had a very fine relationship with the Quality Assurance branch of NRR.

BY MR. LANNING:

Q Do you have any personal relationship between I & E headquarters and NRR?

A No, sir.

BY MR. PARLER:

Q In particular the Quality Assurance branch?

A No, sir.

Q Perhaps this is an over simplification of parts of your testimony here today, but my understanding of your testimony in Quality Assurance area is this, that the

dsp95

Appendix B to part 50 should be broadened to count for the various things that you testified to and that the record will reflect, I don't want to repeat them at this point.

Also, even for the things that are clearly covered by the Appendix B part 50, there may be a significant questions regarding the -- what -- inspectability and enforceability of those things.

Now, again, this is a summary and perhaps an over simplification, but would you agree that those two points as well as other -- several other points that you've made are the highlights that you have been conveying in your testimony this afternoon?

If you would agree, please indicate. If not, would you please expland my understanding to the extent that you think it's necessary.

A I would like to -- I agree with your statement, but I would like to expand it slightly.

In fact, I would like to introduce, perhaps, three new items which fit into the general category of things not covered by Appendix B which, I believe, for various licensees that they are currently included, but I believe need to be included as a matter of law.

The first would be emergency planning and the auditing of emergency planning and the emergency kits and their maintenance of meterial in the emergency kits and things of that nature.

dsp96

Another area that is --

Q Excuse me, but on that point, are you aware of other inspectors that share your views in that regard?

A Yes, sir. I also did emergency planning when I was in region one.

Q Oh, I see.

A I got involved and I introduced Appendix B to emergency planning when I was assigned that job. Again, Mr. O'Reilly assigned me to emergency planning for a period of time in Region I.

Q Your recommendations on that point were also made or not?

A At the time we felt that Appendix B could be made to apply in the fact that it did tend to limit or mitigate the consequences of an accident.

And so under that -- since it was not defined, we used that to our advantage.

And a number o licensees routinely monitor emergency drills now as part of their audit program. But I believe it needs to be -- as I say, we've done it by ratcheting, which is a poor way of regulation, in my estimation.

Q Why don't you continue with your point?

A Okay. The other point that I believe -- the whole area of chemistry and health physics is not covered by Appendix B; it is not considered to be safety related.

dsp97

The plant computer, which makes all the decisions on the core thermal limits, the APLHGR and MAPLHGR. These are specific technical specification limits for boiling water reactors.

These values are calculated, since they cannot be measured directly, and they're calc-lated by the plant computer,which is not safety related.

This again gets back to the somewhat broader thing, the thing -- you know -- we haven't defined what is and what is not safety related.

The -- most licensees in their definition do not include this; they don't include the program which run this, and we found a significant number of errors in computer programs which have been involved in thecomputers. And because they're not safety related, they don't fall under the aegis of the quality assurance program.

The health physics practices, the chemistry practices, all of these are outside of the scope of what is safety related. And the waste processing system is always considered not safety related.

So it's one of those things -- while I've covered it in general with my statement, that we haven't defined what is safety related, I can now include to you a number of licensees who have defined things that are not safety related.

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And those are uniform among licensees as far as the waste systems. Health physics and chemistry, we have managed to get the chemicals in in most cases to verify limited conditions for operations, again, by ratchet, by personal -- again, this varies widely from region to region where you have not had a specialist that deals with quality assurance who can carry this message out. You don't find it included in the programs.

Q So, your point is that these things that, at least to some extent, you've been successful in dealing with by ratcheting; you think that Appendix B to Part 50 should be expanded so that it clearly deals with these things.

A Yes, sir. In fact --

Q Are there any other things?

A No, sir. But -- well, as I said, I thought I'd covered them by saying "not safety related." Perhaps you didn't get the implication of some of the significance of the item.

Q NOw, is there anything else you wish to talk about regarding quality assurance?

A No, sir. The only -- the last comment that I think should be investigated as part of this has been alluded to earlier, and that is the status of regulatory guides and ANSI standards.

We have attempted to regulate by regulatory guide as

dsp99

opposed to by regulation. And I'm not a lawyer, but that seems to leave, at least from a citation standpoint, a whole different basis for the citation. One has deviation as opposed to an item of non-compliance.

If it's significant enough to make the licensee do it, it should be done by regulation, as opposed to by regulatory guide.

That's a personal opinion.

Q My understanding is that each of these regulatory guides is supposed to have someregulatory basis, broad and general though it may be. But I gather that nonetheless there are problems that have been encountered in citing people if indeed the violation that is involved comes up under a regulatory guide?

A Yes, sir. We're not allowed to cite them. We have to give them a deviation, which again has no basis in the code of federal regulations.

Q The point that I was trying to get to, though, is that the connection between a regulatory guide and a regulation is, if I understand what you're saying, at least in the area where you've been involved, is so tenuous that you cannot cite them for violation of whatever the regulation is that is the basis for the regulatory guide.

Is that correct?

A The problem -- yes, sir, that is correct. The

problem is the regulations deal with what to do. The regulatory guides deal with how to do it.

So as long as thelicensee is doing it, he handles the "what. He's not handling the "why" or "how."

BY MR. LANNING:

Q One more thing. In a previous telephone conversation with myself, you indicated a lot of frustration with respect to sending issues to headquarters for resolution and -- and they seemed to fall, as you put it, into a black hole, with never any response or guidance provided to the region.

How would you characterize -- is that true -- is that a true statement -- characterization of --

A That would be an accurate characterization, yes, sir.

Q How would you characterize the relationship between the regional offices and I & E headquarters with regard to resolving issues and communication and interfacing?

A There is communication. It is not very satisfying.

Q Well, can you explain.

A I could, but I really don't care to.

BY MR. PARLER:

Q Just with regard to substantive matters, leaving individuals, personalities, et cetera out, if that can be done.

A I guess that I would have to characterize that many of the concerns we dealt with to date deal with

probabilistic type studies.

I've identified problems with enforcement in hypothetical situations. I can honestly state that I have had no problem -- if I find something that causes a problem of safety, I have never encountered any problem in getting that problem solved.

When I am dealing with problems which could -- could -- now we're talking hypothetical -- which could involve safety, I find a great deal more difficulty. And I'm sure that has to do with the assignment of priorities internally.

We deal -- the question becomes whether or not we are reactive or preventive enforcers. And I -- I have no problems being a reactive enforcer. When something is an accomplished fact and is inappropriate, I have had absolutely no problem with either the regional offices or in headquarters in getting appropriate action.

But when we're dealing with a situation which could have -- in other words, preventive enforcement -- I have a great deal of difficulty with headquarters and in the regional offices.

Q A question, though, in regard to the preventative matters, and the difficulties that people may experience is the difficulty in not getting attention, in not getting a decision made one way or the other, or is the difficulty with regard to the decision that is reached?

In other words, it's one thing for the process that

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you described earlier to be followed, and somebody would come up with a decision, a decision which has reasoning to support it.

It's another thing if a decision is reached without any reasoning to support it, and it's still another thing if no decision is reached; if what happens to a concern which is not reactive, but is preventative in nature, that typically such matters fall into the black hole.

Now, could you comment on what I just tried to --

A I agree with all three of your possibilities. That -- I had problems in all three areas. I would suppose that I have the least amount of trouble with decisions which are reached that I don't agree with, but I understand the bases.

Next, I have a problem with decisions which are reached which I do not understand the bases of.

And the ones that are the most frustrating are the ones on which no decisions is reached.

But I have had all three types. And I really have no problem -- there's no problem -- I don't questionthe judgments that are rendered, in general. They're made by qualified people with a basis; but when they're made arbitrarily or when they're not made, that gives me a problem.

Q My recollection of the issues that were raised in a number of the exhibits that have been identified for the

dsp103

purpose of the record of this deposition is taht the issues that were raised were never resolved in a decision.

A That is correct. And that is the ones that have produced the most frustration.

MR. PARLER: I have no further questions.

MR. LANNING: I have no further questions.

But in conclusion, let me say that this is an ongoing investigation. And although we have completed our questions for you here today, we may need to bring you back for further deposition.

We will, however, make every effort to avoid having to do so.

I will now recess this deposition rather than to terminate it, and I wish to thank you for your time and being here with us.

Thank you.

THE WITNESS: Yes, sir.

(Whereupon, at 4:42 p.m., the deposition was recessed.)

Exhibit # 1033

13 OCT 1977

MEMORANDUM FOR: Boyce H. Grier, Director, Region I

THRU: Eldon J. Brunner, Chief, Reactor Operations and Nuclear Support Branch, Region I

Donald F. Johnson, Acting Chief, NSSS2, Reactor Operation and Nuclear Support Branch

FROM: William A. Ruhlman, Lead QA Inspector, NSSS2, Reactor Operations and Nuclear Support Branch

SUBJECT: NEED TO UPGRADE QA PROGRAMS TO MEET CURRENT STANDARDS

During the congressional hearings in the aftermath of the Browns Ferry fire, representatives of the Commission made statements to Congress that have not been carried out. In answer to questions by Senator Montoya, then Chairman Anders specifically stated that the results of Dr. Hanauer's investigation and his recommendations would be given to both NRR and IE. He further stated that it was of essence to expedite recommended corrective action. In Dr. Hanauer's testimony before the Congress some 6 months later[1], he specifically stated that: "Quality assurance programs in some operating plants are known not to conform to current standards and should be upgraded promptly." The purpose of this memorandum is to document that NRR and/or IE:HQ have known of certain RI QA programs which do not conform to current standards and these programs have not been upgraded. Of the 20 RI facilities with OLs, 7 have QA programs which do not meet current standards. These facilities and the current status of their programs are described below.

1. Peach Bottom 2 & 3

1.1 Reference: .1 Memo, Brunner to Thornburg, dated July 16, 1974, FSAR-QA PROGRAM INADEQUACIES.

This facility has not yet been upgraded to either the Standard Review Plan (17.2) or to the current ANSI Standards. QAB:NRR currently has an upgraded QA Program for these facilities under review. Based on the most recent series of questions to the licensee, this Program will soon be acceptable. Reference 1.1.1 identified this inadequate program in 1974.

No specific additional action is requested for these facilities at this time.

[1]Testimony of Dr Hanauer on Report of Special Review Group, March 2, 1976

2. Salem 1

2.1 References:

.1 Memo, Brunner to Thornburg, dated July 16, 1974, FSAR-QA PROGRAM INADEQUACIES
.2 AITS F14021H1, Memo, Brunner to Seyfrit, dated November 5, 1974 requesting revision of FSAR Appendix D.5 to meet current QA requirements. (Closed by memo, Sniezek to Brunner, forwarding a copy of a DL:QAB schedule for completing QA program review.)
.3 Letter, PSE&G to Vassallo, dated January 30, 1975
.4 Memo, Vollmer to Vassallo, dated November 5, 1975, QA PROGRAM FOR OPERATIONS - SALEM
.5 Telecon, Hannon to Villalva on February 3, 1977, PSE&G's commitment to ANSI Standards in their FSAR
.6 Telecon, Hannon to Verrelli on September 29, 1977, PSE&G's commitment to ANSI Standards in their FSAR

This facility has an approved QA Program in Appendix D.5 of their FSAR; this program does not meet current (or those current at the time of FSAR approval) SRP 17.2 requirements. This inadequacy was identified to IE:HQ twice in 1974 (2.1.1 and 2.1.2). In both cases, the RI concern was not forwarded to NRR. Although 2.1.3 stated that PSE&G would change D.5 of their FSAR to indicate commitments to WASH 1283, 1284 and 1309, no such change was ever incorporated and, under MC 0850.02 b.2(2), these standards are not subject to enforcement action. The fact that the Salem FSAR's QA Program was inadequate by the then current SRP is indicated in 2.1.4 which identified 47 specific inadequacies in FSAR Appendix D. These inadequacies remain today. The unenforceability of the licensee's commitment to the WASH documents has not been tracked to IE:HQ since the former RI Project Inspector had chosen to try and deal directly with the NRR Licensing Project Manager (LPM). While 2.1.5 and 2.1.6 both contained the LPM's assurance that action would be taken, the situation remains unchanged as of the date of this memo.

I recommend that steps be taken to (1) upgrade the Salem FSAR to current SRP requirements and (2) that the licensee's commitment to the WASH documents be included in that accepted, upgraded program.

3. Connecticut Yankee (Haddam Neck)

3.1 References:

.1 Memo, Brunner to Thornburg, dated July 16, 1974, FSAR-QA PROGRAM INADEQUACIES
.2 Letter, CYAPC to Purple, dated February 28, 1975, Haddam Neck Plant Quality Assurance Program
.3 AITS F14423H1, Memo, Brunner to Sniezek, dated November 11, 1976, ITEMS FOR INCLUSION IN CONNECTICUT YANKEE'S DOCKETED QUALITY ASSURANCE PROGRAM
.4 Memo, Sniezek to Goller, dated December 22, 1976, CONNECTICUT YANKEE (DN 50-213) - QA PROGRAM FOR OPERATIONS
.5 Memo, Goller to Sniezek, dated March 21, 1977, subject same as 3.1.4

The accepted QA Program for this facility was upgraded to meet the SRP which satisfied the RI concerns expressed in 3.1.1. However, the licensee's commitment to current ANSI Standards, as contained in 3.1.2, is not enforceable because of MC 0850.02 b.2(2). This inadequacy was identified in 3.1.3 and promptly and adequately forwarded to NRR in 3.1.4. While 3.1.2 specifically states that: "At a future date, a FDSA changes will be submitted incorporating reference to the WASH documents," this change has not been submitted in the intervening 2-1/2 years since the statement was made. Yet NRR told IE:HQ (3.1.5) that no action would be taken on the RI/IE:HQ concern since the licensee" reaffirmed the commitment to make an FDSA change" incorporating the reference to the WASH documents.

I recommend that steps be taken to have the change to the FDSA submitted so that these commitments may be enforced.

4. Millstone Point 1 & 2

4.1 References:

.1 Memo, Brunner to Thornburg, dated July 16, 1974, FSAR-QA PROGRAM INADEQUACIES
.2 AITS F14059H0, Memo, Brunner to Thornburg, dated February 14, 1975, MILLSTONE POINT QA PROGRAM
.3 Letter, NNECO to Lear, dated May 3, 1976, NNECO Commitments to WASH Documents 1283, 1284 and 1309

The accepted QA Programs for these facilities were upgraded to meet the SRP which satisfied the RI concerns expressed in 4.1.1 and 4.1.2 following a series of meetings NRR/NNECO/RI. The RI involvement was requested by NRR. However, as with Connecticut Yankee, these commitments were never made part of the FSAR docketed/accepted QA Programs and are, therefore, unenforceable under MC 0850.02 b.2(b). This concern has not been tracked to IE:HQ because the licensee had told RI that both FSARs would be updated. This has not occurred.

I recommend that steps be taken to have changes to both FSARs submitted so that these commitments may be enforced. It should be noted that, in a case where the licensee was not complying with his commitments, a Deviation was written (50-245/77-03, item 245/77-03-08) since these commitments could be cited under MC 0850 rules.

5. Pilgrim 1

5.1 References:

.1 Memo, Brunner to Thornburg, dated July 16, 1974, FSAR-QA PROGRAM INADEQUACIES
.2 AITS F14069H1, Memo, Brunner to Thornburg, dated March 6, 1975, forwarding Report 50-293/75-03
.3 AITS F14492H1, Memo, Brunner to Sniezek, dated February 18, 1977, ITEMS FOR INCLUSION IN PILGRIM'S DOCKETED QUALITY ASSURANCE PROGRAM
.4 Memo, Ruhlman to Brunner, dated September 12, 1977, IMPROPER IE:HQ ACTION TO CLOSEOUT TRACKS (F14069H1 of March 6, 1975, F14492H1 of February 18, 1977) WITH RESPECT TO PILGRIM'S DOCKETED QUALITY ASSURANCE PROGRAM

Although IE:HQ never adequately referred the RI concerns of 5.1.1, 5.1.2 and 5.1.3 to NRR, with the one major exception noted in 5.1.4, the docketed QA program complies with current SRP and ANSI Standards (the lack of control of consumables is addressed in a separate memo). There are 10 references noted in 5.1.3 if you desire a complete background on the issues.

I recommend that the ANSI Standards currently remaining unenforceable in this Program be made enforceable by having the licensee define the phrases "major maintenance" and "major modification."

Sir, although my degree of concern varies with each licensee, I do not feel that the current Programs at most of these plants are inadequate from an IMPLEMENTED standpoint; they are only unacceptable from the ENFORCEABILITY standpoint. However, as noted in the opening paragraph, we (NRC) have made public statements to the Congress of the United States which have not been fulfilled. It is this liability and the unenforceability of the Programs which I wished to bring to your attention for whatever action(s) you deem appropriate.

William A. Ruhlman
William A. Ruhlman
Lead QA Inspector

bcc:
W. A. Ruhlman
D. F. Johnson
R. R. Keimig
G. Napuda
RO&NS File

Boyce McCabe

1034

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

July 12, 1979

NLU-79-297

DOCKET NOS. 50-325/324/261/400/401/402/403

Carolina Power & Light Company
ATTN: Mr. J. A. Jones
Senior Vice President
336 Fayetteville Street
Raleigh, North Carolina 27602

Gentlemen:

On February 28, 1978, we provided your company a copy of a revision to 10 CFR Part 170 (Fees for Facilities and Materials Licenses and Other Regulatory Services...) of the Commission's regulations that became effective on March 23, 1978. In our letter to you, we discussed a number of changes relating to fees for nuclear power facilities and other activities. Experience since the implementation of the revised rule has shown the desirability of providing further guidance concerning the assessment of fees. Accordingly, we are providing you with the enclosed document entitled "Guidance for Assessing the Proper License Fee - License Amendments and Approvals".

This document was prepared by staff of the Office of Nuclear Reactor Regulation, the Office of the Executive Legal Director, and the License Fee Management Branch for the use of the licensing staff, but we also believe it can be of use to you in determining the appropriate fee to be submitted to NRC. It is not, however, to be used as a substitute for the regulation itself. If we can be of assistance to you, please contact us.

Sincerely,

W. O. Miller

William O. Miller, Chief
License Fee Management Branch
Office of Administration

Enclosure:
Guidance

MAY 2 4 1979

GUIDANCE FOR ASSESSING THE PROPER LICENSING FEE

LICENSE AMENDMENTS AND APPROVALS

On February 21, 1978, the U. S. Nuclear Regulatory Commission published in the FEDERAL REGISTER (43 F.R. 7210-7227) final notification concerning amendments to its regulations in 10 CFR Part 170 which revise its schedule of fees for facilities and materials applications and licenses. It includes those licensed pursuant to 10 CFR 50 and in part establishes for the first time fees for providing services such as processing and issuing license amendments, and evaluating and/or approving reports, plans or other items. Published regulations determine whether or not a charge may be imposed for a particular service and what the maximum fee may be. In keeping with the sense of Congress expressed in the Independent Offices Appropriation Act of 1952 that agency activities performed on behalf of persons the agency serves "shall be self-sustaining to the full extent possible," the Commission is generally obliged to impose the fees allowed by these guidelines where it is fair and equitable to do so. Any fair fee structure must accord equal treatment to similarly situated recipients of agency services. Because of the newness of the rule it is desirable for the NRC to develop positions and guidance for the staff to use in assessing the proper fee. This document amplifies the words of regulation and will be useful in assessing the more frequent types of requests for license amendments and approvals. In this guidance "license amendment", "approval", and "request" may be used interchangeably.

For license amendment fee purposes, there are six classes of requests, ranging from the simplest to the most complex. These different classes were established to permit a reasonable fixed fee to be paid in advance of NRC staff review. The fixed fee for each class is an average for all requests in that class; the review effort may be more or less than the average but generally is consistent with that of 170.22. A copy of the fee schedule (§170.22) is provided as Enclosure 1. Note that the fee schedule contains a definition of each class of request.

The definitions for the six classes have been expanded to amplify and clarify the intent, and to provide specific examples in each class. The expanded definitions are consistent with those of the regulations and may be found in Enclosure 2. These definitions should be useful in assessing the proper class for most requests. Even with the expanded definitions, additional guidance and rationale may, on occasion, be useful for evaluating deletions of license conditions, reload submittals, various plans or reports, or letters discussing prior commitments. Discussions dealing with these items may be found in Enclosures 3 through 8.

All licensee requests received by NRC on or after March 23, 1978, are subject to a fee and, therefore, should be accompanied by the proper fee; those requests received before that date are exempt from fees. Requests must be complete and acceptable, to the extent that the request describes what is to be reviewed and approved and that NRR can perform a meaningful review, or they may be rejected. Requests that are rejected do not have the fee refunded.

Occasionally NRC will, at its convenience, divide the request into two or more actions, perhaps to simplify the overall review or to enable a portion of the request to be approved without waiting for approval of the entire request. When this occurs, the initial approval letter is considered to be part of the final action and, therefore, not subject to a separate or additional fee. This approval letter should state that another NRR action is necessary (and identify it if possible) before the NRR review of the licensee request is complete.

SCHEDULE OF AMENDMENT FEES FOR REACTOR FACILITY PERMITS, LICENSES, AND OTHER APPROVALS REQUIRED BY THE LICENSE OR COMMISSION REGULATIONS

Class of Amendment[1]	Fee[2] Power Reactors	Test and Research Reactors
Class I: Amendments that are a duplicate of an amendment for a second essentially identical unit at the same site, where both proposed amendments are received, processed, and issued at the same time.	$ 400	$ -
Class II: Amendments that are pro forma, administrative in nature, or have no safety or environmental significance.	$ 1,200	$ 600
Class III: Amendments, exemptions, or required approvals that involve a single environmental, safety, or other issue, have acceptability for the issue clearly identified by an NRC position, or are deemed not to involve a significant hazards consideration.	$ 4,000	$ 2,000
Class IV: Amendments, exemptions, or required approvals that involve a complex issue or more than one environmental, safety, or other issue, or several changes of the Class III type incorporated into the proposed amendment, or involve a significant hazards consideration, or require an extensive environmental impact appraisal, or result from dismantling or license termination orders.	$12,300	$ 6,000
Class V: Amendments, exemptions, or required approvals that require evaluation of several complex issues, or involve review by the ACRS, or require an environmental impact statement.	$25,800	$12,000
Class VI: Amendments, exemptions, or required approvals that require evaluation of a new Safety Analysis Report and rewrite of the facility license (including technical specifications), such as may be required for a license renewal.	$45,900	$20,000

Footnotes:

1. At the time the application is filed, the licensee or applicant shall provide a proposed determination of amendment class and state the basis therefor as part of the amendment or modification request and shall remit the fee corresponding to this determination. The Commission will evaluate the proposed amendment class determination and inform the licensee or applicant if reclassification is required. Reclassification that changes the class of amendment will result in the refund of over-charges to the licensee or applicant or billing the licensee or applicant for additional fees.
2. License amendments or approvals resulting from Commission Orders issued pursuant to 10 CFR § 2.204, and amendments resulting in an initial increase in power to 100 percent of the initial design power level are not subject to these fees, except as provided in Footnote 1 to §170.21. Class I, II, or III amendments which result from a written Commission request for the application may be exempt from fees when the amendment is to simplify or clarify license or technical specifications; the amendment has only minor safety significance, and is issued for the convenience of the Commission.

ENCLOSURE NO. 2

FURTHER DESCRIPTION AND EXAMPLES OF FEE CLASSES

Fee Class	Description and Examples
Class I Amendments	This class covers and is limited to those changes that are duplicates of a change in one of the other classes. Changes in this class involve one or more units at the same site that are essentially identical, or are known to be so similar that an action taken on behalf of one could be utilized by the others with minimal staff review. This is true regardless of the number of units involved or the complexity of the base technical effort. Examples of such facilities are Turkey Point 3 and 4, Dresden 2 and 3 and Oconee 1, 2 and 3. In addition, duplicate actions involving plans or programs or common technical specifications, which are applicable to a site (hence possibly to more than one unit) could be within Class I. For example, Millstone 1 and 2 are clearly not identical units, but if a plan, such as a security plan which applies to the Station, were submitted for review on either Millstone docket, the amendment could be incorporated into the other docket for a Class I fee. However, proposed amendments which are intended to apply to only one unit (or some of the units at that site) but are issued to all other units at the same site simply because NRC maintains common technical specifications are not subject to any fee other than for the one unit.
Class II Amendments	This class covers the simplest changes other than the duplicate changes of Class I. Several changes of the Class II type may be reviewed and approved for the charge of one Class II change. To be within this class a decision must be made that the change requires minor staff review and that it does not have safety or environmental significance. Normally such changes are primarily administrative in nature or pro forma in that they are necessary to describe actual conditions which are pertinent to the license. Examples of such changes are: (1) a different name for the licensee review committee (but not a different function); (2) relocating a road that may be shown on a map used to identify the LPZ; (3) incorporation into the Technical Specification of any

Fee Class	Description and Examples
	information or data that was reviewed and/or approved as part of a prior action; and (4) modification of a technical specification format only to conform to that of the Standard Technical Specifications.
Class III Amendment	This class covers the simplest of the approval actions that have safety or environmental significance. It includes those actions that involve a single issue, where a regulatory position (as identified in a Regulatory Guide, the SRP, or other NRC issuance) has been or could have been applied. For example, an extension of time before surveillance is required, or deletion of specifications for a hydrogen recombiner. These issues are of such a nature that we find that they do not involve a significant hazards consideration. Examples of such changes are (1) extending the time interval between containment integrated leak rate testing (ILRT); (2) a different duration for the ILRT; (3) a different safety relief valve set point; (4) establishing protection limits and monitoring requirements for solids and pH in effluents; and (5) a reload utilizing an NRC approved report and/or involving only one consideration which requires a technical specification change (e.g., control rod patterns).
Class IV Amendment	This class applies when any one of the following is involved: (1) a single complex issue, involving more than one consideration, (2) several Class III type of considerations; [1/] (3) a significant hazards consideration; or (4) an extensive EIA. Examples of such changes are: (1) a reload that does not rely upon an approved topical report; or (2) a spent

[1/] When a single application for a facility contains no more than three Class III safety, environmental or other issues which do not otherwise fall under the criteria of Class IV (e.g., complex issue, significant hazards consideration, etc.) they will be assessed as separate Class III fee types and not as a Class IV fee. In this manner, the billing will be for $8,000 if two Class III issues are involved and $12,000 if there are three Class III issues.

Fee Class	Description and Examples
	fuel storage pool modification which involves a rack of a different design or a major structural change. Similar actions or methodology approved on another docket are not equivalent to an approved topical report; however, an application which specifically and clearly references a specific action on other docket may qualify as Class III.
Class V Amendment	This class covers evaluations of either (1) several issues involving facility operation which are determined to involve significant hazards consideration; (2) an environmental impact statement; or (3) review by the ACRS. Such actions may deal with major construction involving seismic Category I structures and/or the development of a new regulatory position. Examples are: (1) a design bases analysis not previously required; historic examples are high energy pipe line break and fire protection; and (2) stretch power when the FSAR and SER issued in support of the initial operating license addressed site acceptability with bounding analyses.
Class VI Amendment	This class covers the most complex review/approval. It involves an SAR by the licensee that re-evaluates major accidents and transients. New or substantial revisions to the technical specifications are likely. Examples of this type of action are a power increase beyond that considered in the original plant design and analyzed in the FSAR, or renewal of the operating license thereby extending operation beyond the time period considered in the original evaluation.

ENCLOSURE NO. 3

OPERATING LICENSE CONDITIONS

The fee prescribed by Section 170.21 for an operating license is to be paid prior to issuance of the license. Licenses frequently are issued with conditional items which must be resolved through additional filings and review. Some conditions must be resolved prior to NRC authorizing 100% power operation; other conditions are not related to reactor power. When an application or amendment is associated with a condition in the license that must be resolved prior to NRR authorizing full power operation, the cost is considered to be included in the facility operating license costs; no fee need accompany the application. The staff effort is considered to be that associated with a full power license. However, if the application is associated with a condition that does not have to be resolved before 100% power operation is authorized, a fee would be charged as prescribed by Section 170.22.

After full power operating authority is approved by NRR, all subsequent amendments to the license and letters of approval relating to any remaining conditions in the license will be subject to the license amendment fees prescribed by Section 170.22 irrespective of whether the request for the amendment or approval was before or after actually operating at 100% power.

ENCLOSURE NO. 1

FEE CLASSIFICATION FOR RELOAD APPLICATIONS

Licensees refuel their reactors periodically every 12 to 18 months. Prior to operation with the new core, the licensee must analyze the proposed new core to determine if either a change to the technical specifications or an unreviewed safety question is involved (10 CFR 50.59). When the proposed new core is judged by the licensee to require NRC review and approval, the licensee submits an application for amendment to the license which describes the change desired and provides a basis for determining that the proposed change is acceptable. Such applications are most likely to involve either (1) a single issue of an isolated nature that requires a technical specification change to accommodate a different operating parameter(s) hence margin, or (2) a complex issue which, for example, could involve fuel made by a different fabricator, new or revised computer codes and/or extensive reanalyses of several transients or accidents to accommodate changes in operating conditions.

The NRC review scope for the above two examples is most likely to be either that associated with a Class III type of action or that associated with a Class IV type of action. The actual review scope for the above Class IV type of action may be reduced if the licensee demonstrates acceptability of the proposed new core by referencing either an approved topical or another reload application that is applicable and already has been reviewed and approved by the staff. The approved topical or application reduces the scope of the review that must be performed by the staff before reaching a conclusion, i.e., the number of issues being reviewed. This thereby may also reduce the actual review. For the actual review to be reduced, a clear and precise reference to an already reviewed and approved submittal must be made; the fact that an earlier review may have been done for another reload of the same scope and content is not adequate.

PLANS

Submittals by licensees which identify a change to a particular plan should state the purpose of the submittal, e.g., for NRC review and approval or for information. Unfortunately, since the different plans (e.g., Quality Assurance, Emergency, Operator Requalification and those submitted under the requirements of Part 73 such as security, guard training, and contingency planning) do not have the same formalized status, NRC required actions vary. The following establishes a reference framework for consistent responses to the many such submittals received.

All such plans must be defined, i.e., the documents which contain the information that makes up the plan must be identified. This is mandatory if there is to be a common understanding of what constitutes the plan. Such a definition may be found in a SE issued in support of either an OL or a specific action that initially approved the plan. The definition also may be found in the license (including technical specifications). Subsequent to the initial staff review and approval of the plan, changes to the plan may be made. These changes may require staff approval or may be made at the discretion of the licensee. If the licensee is legally bound to the content of the defined plan, such as would be the case if the specific plan (document) is identified in the license, any and all changes to the plan except for those authorized by regulation such as 10 CFR Part 50.54(p), require staff review and approval. In addition, if the licensee has a plan that is not legally binding or is only identified in a submittal, and if certain changes to the plan are required by regulation, license or the plan itself, such submittals will be for staff review and approval.

If there is nothing explicit about how to process changes to a plan, the following should apply:

(1) changes to a plan which have been judged by the licensee to not reduce the effectiveness (i.e., changes are substitutions or are equivalent to the approved plan) are for staff information only. The staff may document agreement. If so, a memo to files, PDR, IE, etc., is appropriate; the memo should contain a revised definition of what constitutes the plan, and a clear statement that NRC agrees with the licensee's decision (but not that NRC approved the changes).

(2) changes to the plan which decrease the effectiveness or use a "different alternative" are for NRC review and approval. This requires a formal approval letter to the licensee; the letter should contain a revised definition of what constitutes the plan and a statement that NRC approves the change proposed by the licensee.

Only those changes submitted by the licensee for our review and approval are subject to a fee pursuant to 170.22. (See Item 2 above). All others should be treated as "for information only", hence no fee. However, should NRC successfully challenge the licensee's decision that the change does not reduce the effectiveness of the plan, ask questions and subsequently approve a change to the plan, a fee would be charged for the approved change.

REPORTS

Reports or other written information submitted to the NRC should identify the intended purpose of the report, e.g., response to an NRC request for additional information, compliance with a requirement of regulation or license, or to inform the NRC of something the licensee thought NRC should know.

Unless the report requires staff review and approval, the report is for information only and hence no fee. For example, information, submitted by a licensee in response to an information request by NRC, may be reviewed, a safety evaluation prepared and a regulatory position taken in a subsequent response to the licensee, without a fee being charged. The review of any report may lead to further NRC and/or licensee action with associated fees. Reports that are required by license (including technical specifications) but do not identify a required NRC action are considered to be for information only.

A report that must be approved by the staff will be subject to a fee. If not directly related to an amendment application or other action for a specific facility for which a separate and specific fee is stated in Part 170, the fee will be based on actual professional manpower (under 10 CFR Section 170.21, Item F - Special Projects and Reviews) and the fee collected after the review is completed. The fee for review of a topical report is based on the cost associated with actual staff review and shall not exceed $20,000.

ENCLOSURE NO. 7

LICENSEE SUBMITTALS NECESSITATED BY NRC ACTIONS

Regulations, licenses and orders may contain a provision that requires licensees to submit certain information (e.g., security plans), propose an amendment to the license (e.g., steam generator surveillance) or perform a specific action (e.g., perform an inspection). These provisions that require submittals also may require NRC review and approval. Approval may be in the form of a letter which either states "...reviewed and approved", or issues a license amendment. Occasionally, the submittal alone may satisfy the requirement, i.e., no formal approval of the submittal is required even though a NRC review is implied and/or actually performed.

When a required submittal clearly identifies NRC review and approval, a licensing fee is charged except when the submittal to be reviewed and approved is explicitly required by order. Fees may also be waived, on a discretionary basis, when the submittal meets all of the criteria of the last sentence of Footnote 2 to 10 CFR Section 170.22. NRC should carefully state in orders what is required of the licensee so that any extension beyond the scope of the order by the licensee, however logical it may be, is an issue outside the order and thus subject to a separate fee determination. Requests by licensees to be relieved of an order requirement are subject to fee unless the order explicitly states how the order requirement is to be relieved.

When the regulations impose a requirement that a licensee cannot satisfy, the licensee must make a submittal that requests an exemption pursuant to either 10 CFR Section 50.12 or a specific section of the regulations where relief of the requirement is addressed (e.g., 10 CFR Section 50.55a). No fee is charged for exemptions, if granted, pursuant to 50.12. However, if relief is or could be granted pursuant to a particular section of the regulations, the question of fee charge will be determined on an ad hoc basis. (Fees are likely to be charged whenever an evaluation is made of the basis for relief). Should a license amendment be issued in conjunction with or as a result of the exemption request, review and approval of the amendment is subject to a separate fee determination. Amendment requests submitted to satisfy a regulation or license condition are also subject to fee determination.

ENCLOSURE NO. 8

COMMITMENTS BY LICENSEES

Licensees are required to operate their plants and conduct business in conformance with explicit provisions of their license and applicable regulations. During the frequent communications between the NRC staff and the licensee on matters related to operating the reactor, the licensee may be asked to do (or not do) something. Occasionally, the licensee will in a letter to NRC state that he will do (or not do) something. These statements are considered letter commitments. Such commitments may even result in changes to station operating procedures, or other activities that affect operability of the reactor. These commitments usually augment safety in that a safety margin is increased or greater assurance is provided.

A problem manifests itself when a licensee wants to cancel or change such a written commitment. No NRC approval is required to cancel or change a letter commitment since a written commitment is not binding. Actions by the licensee that NRC wants to make binding should be placed in the Technical Specifications. In practice, however, neither the licensee nor the NRC staff expect a letter commitment to be casually dismissed. As a minimum, written notification that a licensee commitment has been cancelled or changed should be sent to the NRC. No fee will be charged for any review that may be performed. Any NRC review should be documented in the same manner as review of Plans as discussed in enclosure 5. Any review that results in a license amendment would, of course, be considered as part of an amendment request subject to fee and not a licensee commitment. Reliance on commitments should be minimized.

~~Exhibit~~ Exhibit ~~IFE~~

#1035 8/10/76

K. Seyfrit, Chief
Reactor Technical Assistance Branch
IE:Headquarters

IE INSPECTION REPORT 50-317/76-38
CALVERT CLIFFS 1 (TRACK

It is requested that the subject Report be forwarded to NRR for review of the Unresolved Items indicated below.

The licensee has reduced the scope of his accepted QA Program by approximately 20% by the application of his definitions of Safety-Related. The licensee's definitions are documented in Detail 4.b of the subject Report. NRC:1 specifically requested a ruling on the safety-related status of diesel fuel and boric acid for this licensee. While the previous ruling from NRR required the licensee to return these two items to the QA Program, NRC:1 now requests that the more generic question, the applicability of the licensee's definitions, be considered and ruled upon by NRR.

The licensee's current practices with respect to locked valves are described in Detail 10.b of the attached Report. NRC:1 requests that, based on the definition included in the FSAR as quoted in the referenced Detail, NRC:HQ transfer the responsibility for the determination of the adequacy of the licensee's practices to appropriate personnel in NRR.

When actions on these requests have been completed and NRC:1 has been notified, the Unresolved Items will be resolved with the licensee. Should you require further information regarding either of these items, W. A. Rublman (ext. 1232) is the cognizant inspector in this office.

Eldon J. Brunner, Chief
Reactor Operations and
Nuclear Support Branch

cc: F. Bacher
E. Grier

bcc: R. E. Heimig
W. A. Rublman
P. J. Kellogg

RUBLMAN	KELLOGG	HEIMIG	BRUNNER
8/10/76	8/ /76	8/ /76	8/ /76

~~Exhibit 5~~

1036

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

OCT 15 1976

J. H. Sniezek, Chief, Light Water Reactor Branch, OIE

REVIEW OF CHAPTER 17, STANDARD REVIEW PLAN (SRP); YOUR MEMORANDUM DATED AUGUST 5, 1976

We have reviewed the SRP as requested by subject memorandum and have enclosed our comments on Section 17.1 "Quality Assurance During Design and Construction" as Attachment A and Section 17.2, "Quality Assurance During The Operations Phase," as Attachment B.

The review was accomplished by QA specialist inspectors in both the construction and operations branches who have been conducting inspections in this area for some time. Their comments, in general, are specific to those areas where problems have been encountered during inspections due to a licensee failing to address a particular area in the QA Program and/or where inadequate implementating measures were observed.

We welcome and appreciate the opportunity to comment on the SRP's and encourage the continuation of this practice. It is an excellent method of providing feedback from field inspection personnel to the NRC licensing process. Should you have any questions regarding our comments, please contact the undersigned.

R. T. Carlson

R. T. Carlson, Chief
Reactor Construction and
Engineering Support Branch

cc: F. A. Dreher, FC&ES Branch, OIE (w/o enclosure)
E. H. Grier, DRIP, OIE (w/o enclosure)
M. W. Peranich, LWRP Branch, OIE
D. Thompson, DFO, OIE (w/o enclosure)

bcc:
W. A. Buhlman w enclosure
R. R. Keimig w/enclosure
G. Napuda w/enclosure
R. C. Haynes w/enclosure

ATTACHMENT A

NRC:I REVIEW OF CHAPTER 17.1 SRP

"QUALITY ASSURANCE DURING THE DESIGN AND CONSTRUCTION"

Following are suggested additions/modifications to the specified subsection of the SRP, Section 17.1:

Organization (17.1.1)

Add. 15. The individual(s) responsible for establishing and managing the quality assurance program should report to at least the same organizational level as the highest line manager directly responsible for performing the quality affecting activities such as engineering, procurement, construction, and operation.

Add. 16. Construction site personnel performing quality assurance/control functions shall be independent of direct control by site construction organizations.

Quality Assurance Program (17.1.2)

Modify 9. A listing of the QA Manual parts plus a matrix of these parts cross-referenced to each criterion of Appendix B to 10 CFR 50. These manual parts are to include all procedures, instructions, directives, etc. that describe the program and the manner in which it will be implemented.

Add. 13.e It shall involve familiarization of personnel with technical objectives of the project, Codes and Standards to be used, and engineering and quality assurance practices to be employed, with guidance regarding limitations and capabilities.

Modify 8. Strike the last three words in the sentence or rephrase it entirely.

Design Control (17.1.3)

Add. 15. The design review process shall provide for an evaluation of the engineering adequacy of the proposed design.

16. Engineering studies sufficient to establish that the design meets the design criteria shall be conducted and documented.

Add. 17. Interrelationships among those responsible for preparation of designs, co-ordination of interfaces, and the lines of communication shall be defined.

Procurement Document Control (17.1.4)

Add. 3. Subsequent reviews of procurement documents shall also be made to assure that changes made in quality assurance requirements during procurement (contract) negotiations and after award are duly incorporated.

Modify 3. Current No. 3 becomes 4, 4 becomes 5, etc.

Instructions, Procedures, and Drawings (17.1.5)

Add. 6. Work instructions will be reviewed periodically on a systematic basis for accuracy and completeness.

Document Control (17.1.6)

Modify 8.d All the procedures, instructions, directives et al comprising the QA Manual.

Add. 9. These controls provide for the timely revision and updating documents.

Control of Purchased Material, Equipment and Services (17.1.7)

Modify 2.c A physical survey of the supplier's. . .and quality requirements

Add. 6.a Supplier's certificates. . . . they are valid. If the evaluation is by audits, the requirements of ANSI 45.2.12 for annual audits apply.

6.b Supplier furnished material certifications will be validated routinely or periodically by means of independent analysis or overchecks.

Identification and Control of Materials, Parts, and Components (17.1.8)

Add. 7. Material tested and approved must be kept identified until such time as its identity is necessarily obliterated by processing.

Control of Special Processes (17.1.9)

Modify 1. Special processes. . .and cleaning are accomplished under controlled conditions including documented work instruction adequate production equipment and any special working environment.

Inspection (17.1.10)

Add. 3.g Quantitative inspection results will be recorded as such.

Test Control (17.1.11)

Add. 6. Testing shall provide a measure of the overall quality of the completed product and shall be performed so that it simulates, to a sufficient degree, product end use and functioning.

7. The test program shall provide for the verification that appropriate instruments were used and that tests were performed in the proper sequence under suitable environmental conditions.

Control of Measuring and Test Equipment (17.1.12)

Add. 9. Those instruments and devices essential to data acquisition or the protection and control of systems or facilities shall be identified and calibrated.

Add. 10. Measuring and test equipment and measurement standards shall be calibrated and utilized in an environment controlled to the extent necessary to assure continued measurements of required accuracy.

Handling, Storage and Shipping (17.1.13)

Add. 4. Where special precautions are required during the handling or lifting of items, detailed instructions or procedures will be prepared and implemented.

5. Clean areas and controlled access areas shall be established when conditions warrant.

Nonconforming Materials, Parts or Components (17.1.15)

Add. 8. A positive control for the release of items for process, installation, etc. will supplement the identification of nonconforming items.

9. Nonconforming items conditionally released will not be installed or used beyond the point of retrievability.

Corrective Action (17.1.16)

Add. 5. Corrective action procedures will describe the criteria and means for escalation of corrective action requests to higher management levels.

6. Procedures will describe the analysis of quality trends and criteria for initiation of various corrective action.

7. Corrective action must include an evaluation of the possibility of similar or generic deficiencies.

Quality Assurance Records (17.1.17)

Modify 3. Records are identifiable, legible and retrievable.

Add. 5.g The actual value is documented in the case of a quantitative inspection or test result.

Audits (17.1.18)

Add. 12. Audit notes and worksheets will be retained as part of the audit file package.

Add. 13. Audits will be independent efforts regardless of the techniques or methods used for scheduling or conducting said audits.

14. Audits of activities such as designing and procurement shall be conducted in such a manner as to verify these activities were accomplished to program requirements.

15. Product Audits in areas such as inspection should include as a minimum re-inspection of randomly selected material or items previously found acceptable by the auditee.

16. Nondestructive examination audits should include as a minimum the certification process, quality verification of accepted work (random sample) and test data such as film and readouts.

General:

It is not only important to specify what commitments to look for in the applicant's SAR; it is also important to specify how the applicant shall phrase his commitments.

The cloudy words and phrases must be eliminated from the SAR to achieve uniform, enforceable inspections. Such subjective and uninforcible items as illustrated in Column A (below) must be replaced by objective alternatives such as in Column B.

A	B
may	will
should	shall
best possible	to the standards described in ____
generally subscribe to	subscribe to, except for ____
standard practices	specific practices described by ____

ATTACHMENT B

NRC:I REVIEW OF CHAPTER 17.2 SRP
"QUALITY ASSURANCE DURING THE OPERATIONS PHASE"

The following specific comments are the result of NRC:I's review of Chapter 17.2 of the SRP:

Section I

Item 2. Add a new item 2.g - "Documentation of suitable controlled conditions for accomplishing activities affecting qaulity with respect to plant housekeeping and cleanliness."

Section II

1. (17.2.1) 14; add the following to the current items: "Specify or designate which individual(s) have the authority to override stop work orders."

2. (17.2.1) new item 16; add the following after item 15:

   Relationships within an organization operating more than one nuclear power plant are defined for all areas where quality assurance functions interface.

3. (17.2.2) 3; add the following to the current item: "Training/ qualification programs must meet or exceed ANSI N45.2.12 or ANSI N45.2.23 as applicable."

4. (17.2.2) 10; add the following to the current item: "Define 'safety related' or other definition(s) used to determine which items are controlled by the QA Program. The items included must meet, as a minimum, the areas/items defined in Regulatory Guide 1.XYZ."

5. (17.2.2) 19; change current 19 to 20. Add new item 19: "Define the controls, procedures, and responsibilities for plant housekeeping and cleanliness."

6. (17.2.2) 20; old item 19 with the following additions: "Regulatory Guides 1.39, 1.58, and 1.XYZ, ANSI N45.2.12 and ANSI N45.2.23."

7. (17.2.2) 21; add the following after new item 20:

   The schedule for completion of the Quality Assurance Program for Operations is consistent with the schedule for commencement of activities. (applies to a plant prior to start of operations).

8. (17.2.3) 14; change current 14 to 17. Add new item 14: "Measures are established to assure that licensed operators and other plant personnel are made aware of design changes which effect equipment, structures or components under their jurisdiction or control."

9. (17.2.3) new item 15; "Measures are established to assure that applicable procedures are changed/revised as a result of design changes. These measures shall assure that appropriate procedures are approved and available prior to placing new/modified equipment/components into service." (NOTE: This expands on (17.2.6) item 6)

10. (17.2.3) new item 16; "Measures are established to assure that all controlled copies of drawings/prints or devices for making copies of drawings or prints are adequately annotated or otherwise marked to indicate that the drawing/print has been changed by a modification which has not yet been reflected in a revision to the print/drawing."

11. (17.2.3) new item 17; add the following after new item 16:

    The program establishes requirements and assigns responsibilities to assure that all proposed design changes and/or modifications are reviewed to determine if any unreviewed 50.59 type safety questions, changes to the technical specifications or safety analysis report are involved.

12. (17.2.3) new item 18; same as old item 14.

13. (17.2.4) 2; renumber items 2 - 11 as 3 - 12, add new item 2; "Procedures are established which delineate the sequence of actions to be taken prior to placing a vendor on the 'approved vendors' list. These procedures also need to address the policies with respect to purchases from vendors not on the approved list and the restrictions and limitation on such types of purchase."

14. (17.2.4) change new item number 10 to read: "Methods for changes and revisions to procurement documents are delineated and are subject to . . . ."

15. (17.2.5) 2; add after the word delineate "The designated individuals and ...,. Provisions are established to ensure that each instruction, procedure and drawing is approved prior to initial use and periodically thereafter."

16. (17.2.5) 5; insert the works "audit plans/checklists" after "inspection plans."

17. (17.2.6) 2; add the following to the current item: "Procedures which implement the Quality Assurance Plan (program) must be reviewed and approved prior to issuance by the manager functionally responsible for the Quality Assurance Program. The frequency of periodic procedure review must be established.

    The requirements and guidelines of ANSI N45.2.7 and ANSI N18.7 Section 4.3 and 5.2 complied with or acceptable alternatives are provided."

18. (17.2.6) 8; change 8g to read:
    "Surveillance, calibration and test procedures."

    Add new sub-item j as follows:
    "Administrative procedures."

19. (17.2.6) new item 9; add the following after item 8:

    "Administrative controls have been established which require that standing orders, night orders, and other special orders/instructions be periodically reviewed and updated, eliminated, or converted to permanent instructions or procedures."

20. (17.2.7) new item 10; add the following after item 9:

    "Procedures require that procurement documents contain a statement establishing the procuring agency's right of access to supplier's facilities and records for source inspection and audits."

21. (17.2.7) new item 11; add the following after new item 10:

    "The requirements and guidelines of ANSI N45.2.13 (Ref. 19) are complied with or acceptable alternatives are provided."

22. (17.2.8) new item 6; add the following after item 5:

    "The system may provide for the conditional release of items for installation pending subsequent correction of the noncomformance which caused the item to be unaccceptable."

23. (17.2.8) new item 7; add after new item 6:

"Establish procedures to assure that, unless or until nonconforming items are segregated as required by (17.2.15) item 4, nonconforming items are clearly identifiable and easily recognizable as inadequate for use."

24. (17.2.9) new item 5; change old item 5 to item 6, add new item 5:

"A requirement is established to assure that special training needs will be identified and provided, as required, for personnel involved in special processes."

25. (17.219) 6; add to item 6 (old item 5):

"Regulatory Guide 1.71."

26. (17.2.10) 8; insert the following at the end of sentence:

"....in accordance with ANSI N45.2.6, applicable codes....."

27. (17.2.10) new item 10; change old item 10 to item 12, add the following as new item 10:

"Written instructions have been established for performing inspection of equipment, including the developing of criteria for determining when/if such inspections are required, following each of the below listed evolutions:

(1) Surveillance testing
(2) Preventive/corrective maintenance
(3) Modification - Permanent or temporary
(4) Inservice inspections
(5) Return from "locked-out" status."

28. (17.2.10) new item 11; add the following after new item 10:

"The program delineates the criteria and assigns the responsibility for determining when/if independent verification is required during the installation of temporary bypasses and/or jumpers. Hold points shall be specified where such independent verification is required."

29. (17.2.10) 12; insert old item 10.

30. (17.2.11) 1; add after and operational:

"and surveillance tests)...,."

31. (17.2.11) new item 5; change old item 5 to item 7, add the following as new item 5:

"Controls have been established to assure the development of a master schedule reflecting the status, including the frequency, of all planned in-plant surveillance testing and inservice inspections to be performed."

32. (17.2.11) new item 6; add the following after new item 5:

"The program establishes requirements and assigns responsibilities to assure that any proposed tests or experiments will be reviewed to determine if any unreviewed 50.59 type safety questions, changes in technical specifications, or SAR are involved."

33. (17.2.11) 7; insert old item 5.

34. (17.2.12) 1; in the second line, insert: ....control of all "installed and portable" measuring...,. Add the following to item 1:

A formal system has been established to assure that new measurement and test equipment will be added to the equipment inventory list-or other suitable control mechanism - and calibrated prior to being placed in service or issued for use."

35. (17.2.12) 4; add after stability characteristics, "shall be of the proper "range for measurements."

36. (17.2.13) 2; add the following to item 2:

"Responsibilities have been assigned to control the offsite storage and preservation of safety related plant equipment."

37. (17.2.14) add new item 5; "Procedures are established for the control of mechanical and electrical jumpers and bypasses."

38. (17.2.14) add new item 6; "Regulatory Guide 1.47 (Ref. 20) is complied with or acceptable alternatives are provided."

39. (17.2.15) 7; remove the period following "assessment" and add: "including consideration in decisions on maintaining vendors on the approved vendors' list."

40. (17.2.15) new item 8; add the following after item 7:

"The system provides for the conditional release of items for installation pending subsequent correction of the nonconformance which caused the item to be unacceptable. These items shall be controlled to assure that the nonconformance is corrected or resolved before use."

UNITED STATES

WASHINGTON, D.C. 20555

Carlson B. Davis

Ebneter

JPO'R-4/18/77

APR 14 1977

1037

MEMORANDUM FOR: J. P. O'Reilly, Director, Region I
N. C. Moseley, Director, Region II
J. G. Keppler, Director, Region III
E. M. Howard, Director, Region IV
R. H. Engelken, Director, Region V

FROM: Dudley Thompson, Acting Director, Division of Field Operations

SUBJECT: CITATIONS AGAINST CRITERIA OF APPENDIX B, PART 50

During the past six months questions have been raised on several occasions concerning citations against the various criteria of Appendix B, Part 50, which begin with the words "measures shall be established." In this regard, it appears that there are three different understandings of this matter by various individuals as was expressed in a recent counterpart meeting of the Construction Group and a meeting of the Enforcement Coordinators.

These understandings relate to the conditions that exist after issuance of IE's summary SER Position Statement to NRR to indicate our assessment of the readiness of the licensee's QA Program for conduct of activities relating to issuance of the Construction Permit (CP). In this statement under "Conclusions" we state "Based on the above assessment, the Office of Inspection and Enforcement has determined that at this time there are no substantive unresolved issues relating to the implementation of the QA Program which require further identification and followup. We therefore conclude that the implementation of the QA Program as described in the application is consistent with the status of the project." At this point, there are many measures that have not been established and cannot be reviewed prior to the issuance of the CP as they will not be available until a later date.

After considering all of the three understandings, mentioned in these discussions, we have established the guidance to be employed in making citations against criteria of Appendix B, Part 50:

1. When measures have been established to assure certain QA functions as required by a specific criterion of Appendix B, no citation is made against that criterion. However, if a

licensee fails to implement the measures established to assure quality, the citation is made against the requirements for implementation such as Criterion V. For example, if a licensee has established measures to assure quality welding, including the qualification of welders, and if welding is performed by an individual who is not qualified for a particular type of welding, the citation should not be made against Criterion IX but against Criterion V for failure to implement the procedures which are part of the measures established to assure quality.

2. If the QA Program in the SAR is deficient in establishing measures to assure quality and the Program has been reviewed and approved by Licensing, no citation is issued for deficiencies in the QA Program but such matters are referred to IE Headquarters for resolution with NRR.

3. If there are no deficiencies in the QA Program and if it is found that proper measures have not been established to assure quality as required by certain criteria (such as Criterion IX,) the citation may be made against the specific criterion of Appendix B and reference the appropriate section of the SAR which requires that such measures be established.

We believe these comments and explanations should provide proper guidance for resolving the problems that have been encountered in this area.

Dudley Thompson, Acting Director
Division of Field Operations

cc: E. Volgenau
J. G. Davis
J. H. Sniezek
M. Peranich

1038

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

OCT 5 1977

MEMORANDUM FOR: H. D. Thornburg, Director, ROI, IE:HQ

FROM: B. H. Grier, Director, RI

SUBJECT: APPLICABILITY OF APPENDIX B TO SAFETY-RELATED CONSUMABLES (AITS # F10651H2)

The enclosed memorandum from the RI Lead QA Inspector deals with the need for an NRC position on the applicability of 10 CFR 50, Appendix B to safety-related consumables, in some graded or graduated fashion, to assure that such consumables will perform their safety-related function(s) in service.

We recommend that IE-NRR interface meetings be used to expedite clearer definition of the need for application of QA measures to assure that consumable materials are known to be acceptable when used (10 CFR 50, Appendix B, Criterion VIII). We are currently unable to enforce this portion of the Code of Federal Regulations because of the non-specificity of approved QA plans. Examples of LERs which resulted from failures in controls for consumables are provided with the enclosed memorandum. We regard this area as one in which we have precursors of significant problems, and one in which NRC should promptly take action.

Please feel free to contact any member of my staff with regard to these matters. Eldon Brunner (488-1240) is knowledgeable of the issues involved. Bill Ruhlman (488-1202) is knowledgeable of the technical and site/program specific items.

Boyce H. Grier

Boyce H. Grier
Director

Enclosure: As Stated

cc w/encl:
J. H. Sniezek, AD/FC, IE:HQ

oil, boric acid, lubricating oils whose loss could degrade critical components, demineralizer resins, sodium hydroxide for use in containment spray systems, weld rod, and snubber fluid. The Yankee Atomic Topical QA Plan, approved just prior to the Con Ed plan, contains reactor fuel, diesel fuel, boric acid and weld rod. These five facilities (IP 2, IP-3, MY, VY, and YR) are the only facilities that have docketed, approved QA plans which address safety-related consumables at all. These plans do not provide controls over gaskets, seals, "O" rings, grease and other lubricants (excluding lube oil) which account for the failures noted in Attachment A.

2.2 Non-Docketed "Q" Lists

As a result of a citation at Calvert Cliffs and unresolved items at R. E. Ginna and Salem, these three facilities have included some consumables on a non-docketed "Q" List. Calvert Cliffs has boric acid and diesel fuel, Ginna has bulk boric acid, diesel fuel and CVCS demineralizer resins. Salem has the same items plus all essential chemicals used to control chemistry. However, since the "Q" Lists are not part of the accepted QA program, they can be changed at will without NRC approval or review. All of these plans have the shortcomings mentioned above with respect to the failures identified in Attachment A.

2.3 Non "Q" Listed

Some of the other Region I facilities, notably those with standard Technical Specifications, do apply some controls to diesel fuel. Others apply control to weld rod and/or reactor fuel even though these items are not "Q" listed. While the plants in 2.2 above could change their "Q" lists, the items on these lists could be subject, usually, to enforcement action while they remain on the list. Since the items are not on a "Q" list (docketed or undocketed) for the remainder of the facilities, no direct enforcement action can be taken for failure to control these items. Of the 20 RI facilities, five are as described in 2.1, three as described in 2.2, and the remaining 12 are as described in 2.3.

3. Recommendations

A position should be formed, preferably during an IE-NRR interface meeting, with respect to consumables. This position should be similar to the position "APPLICABILITY OF APPENDIX B TO CHEMICALS AND REAGENTS."

While IE:HQ and NRR must ultimately define the NRC position, based on the experience in the field and discussions with RI licensees, I would recommend that a definition (items whose performance can affect the safety-related performance of identified structures, systems, and components) be given along with a list of examples (those listed in 2.1 plus those listed in the above referenced NRC position, plus lubricants, seals, HEPA filters, gaskets, packing, diaphragms and bellows). The formulated position MUST then be distributed to licensees. IE:HQ evidently is under the impression that IE Manual positions can be enforced (see Memo, Sniezek to Brunner, dated April 11, 1977, Subject - Pilgrim QA). This understanding is contrary to MC 2500 which states on page 2500-2 that: "...detailed inspection requirements include: ...IE interpretations....Any attempt to force inspection program requirements on the licensee constitutes misinterpretation of IE inspection philosophy and misuse of inspection procedures."

The position formed/issued should be clear in specifying that only the portions of the QA program which control the safety-related aspect of the particular consumable need to be applied (a graded/graduated QA philosophy). Thus, a grease compound could be purchased from any commercial vendor without applying any special controls. The grease compound would then have to be stored to prevent deterioration due to heat and/or contamination with foreign material. When issued for use, controls would have to assure that the grease compound was put directly into the required component, returned to storage if not used, subject to storage type controls in the shop, or not be used on safety-related components. The main objection voiced by licensees have been with the concept of applying a "full-blown" QA program to consumables (doing a source inspection at the boric acid mining installation or an evaluation of Mobil Oil to see if they have a QA program for grease). While the licensees' objections are pertinent, controls are necessary so that the requirements of 10 CFR 50, Appendix B, Criteria VIII, XIII, and XV may be enforced.

for D. F. Johnson
W. A. Ruhlman
Lead QA Inspector

Enclosure: Attachment A

ATTACHMENT A

The examples listed below deal with cases where lack of control of a safety-related consumable was either known or believed to have contributed to the noted event or where QA controls would have provided better quality material.

FAILURES TO CONTROL CHEMICALS/RESINS WHEN MIXING/FILLING

Broken bags of boric acid crystals were found contaminated with cement, dust, dirt, and other foreign material. Boric Acid was a "Q" List item. Licensee was cited for failure to apply controls. (Report 50-309/77-17, Detail 10.b, item 309/77-17-08)

During normal operations, secondary water chemistry samples indicated increasing feedwater conductivity due to anionic contamination of a new batch of hydrazine mixed and injected into the feedwater system. (50-317 LER 77-22/3L)

LUBRICANT FAILURES

1A and 1B diesels (plant has only two diesels) inoperable due to binding of fuel rack linkage resulting from lack of lubrication. (50-272 LER 77-59/03L)

A piece of foreign material entered a motor bearing on a boric acid pump and caused overheating condition which seized the pump. (50-213 LER 77-3/3L)

Valve failed to close on remote signal because grease in the spring pack prevented torque switch operation. (50-289 LER 77-03/3L)

SEALS AND GASKETS FAILURES

Failure to maintain required negative pressure in the secondary containment due to a deteriorated seal on an outer door. (50-219 LER 77-8/3L)

Failure of a snubber to lock-up due to leakage out of sealing "O" rings; two cases. (50-220 LERs 77-23 and 77-26)

Vertical (RHR) heat exchanger floating head double jacketed steel clad asbestos gasket failed spilling 3×10^6 gallons of contaminated water. (50-271 LER 77-08/3L)

PACKING MATERIAL FAILURES

"B" Standby Liquid Control pumps' packing leaking excessively due to packing degradation. (50-333 LER 77-32)

Safety Injection Pump inboard seal excessive leakage due to packing failure. (50-29 LER 77-2/3L)

Exhibit #4

1039

JUN 27 1977

MEMORANDUM FOR: G. L. Snyder, Assistant to Director, RI

THRU: E. J. Brunner, Chief, RO&NSB, RI

FROM: W. A. Ruhlman, Acting Chief, NSS2, RO&NSB, RI

SUBJECT: CITATIONS AGAINST CRITERIA OF APPENDIX B, PART 50

Reference: Memorandum, Thompson to O'Reilly, same subject dated 4/14/77

Paragraph 0850.02b states that the methods of citing for failure to meet the requirements of Appendix B, 10 CFR 50, vary depending on whether the facility does or does not have an operating license. The referenced memorandum was developed during counterpart meetings with the Construction Branches. Your recent statement that the guidelines included in the referenced memorandum also apply to Operations has prompted me to write this memorandum.

The referenced memorandum has caused concerns in 4 areas: (1) the apparent conflict with MC 1005; (2) the apparent conflict with MC 0800; (3) the counterproductive results which would result from implementation; and, (4) additional guidance which is required if the contents of the memorandum are to be applied to Operations. These items are addressed below.

Conflict with MC 1005

Paragraph 1005-20, item 202 specifically requires that opinions shall not be included in inspection reports. "Opinion" is defined* as judgement resting on grounds insufficient to produce certainty. When we as regulators observe a condition, we can tell that it does not meet regulatory requirements; that is a demonstrable fact. Why it happened, usually, is not known since we are not there generally. We do not know all of the variables involved. Stating that the cause is finally and absolutely a "failure to follow procedures" is at best only the proximate cause and then, our opinion. To give an example: A procedure requires that all welding meet ASME requirements. ASME requirements are not met. The procedure was not followed, but this was not the cause of the improper welds. While this is an obvious oversimplification, the concept is valid. Another example would be where a specific weld procedure required the use of AJAX weld material and the inspector finds the BRAND X weld material was used. The welder failed to follow the procedure. But it may be that a warehouse attendant issued BRAND X material and called it AJAX. Maybe BRAND X material was stored in an AJAX can. Maybe the welder didn't know the difference. We could, however, unequivocally state that BRAND X, not AJAX, was used. Thus, we can say, also with assurity, that the licensee had not established measures to assure that

*The American College Dictionary (Random House 1969) page 849.

welding is controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria and other special requirements. He has definitely failed to meet Criteria IX (fact). It may or may not be a failure to follow the procedure (opinion). These statements hold even though "Measures" had been established to control weld material. An actual citation/response of this type is included as Example A of Attachment 1.

Conflicts with MC 0800

Paragraph 0840, item 6 references a footnote that states that: "A breakdown in the QA program may be demonstrated by significant items of noncompliance with several of the Appendix B criteria." Under the guidelines of the referenced memorandum, all citations would be against either Criterion V or VI as long as "measures had been established" even though they were not being complied with by the licensee. Under these guidelines then, an order to suspend, modify or revoke a license would not be permissable in the QA area since the criteria of 0840, item 6 could not be met. The Criteria for Determining Enforcement Action ... transmitted to all licensees on December 31, 1974, and currently referenced in all of our enforcement letters, also specifies that a Violation level item of noncompliance (item (j)) could be evidenced by items of noncompliance in several areas of the QA criteria. And 0850.02 b.2. says: "... To establish a breakdown in the QA program, substantive items of noncompliance must be identified with several of the criteria in Appendix B, 10 CFR 50, and the corresponding provisions of the QA plan."

0850.02 b.2(c) also states that:"...The procedures developed under the plan are followed in this implementation. Criterion V and VI ... also speak to procedures ..." When the statement says "also", it would seem to indicate that other criterion also speak to procedures. The last statement in 0850.02.b.2(c) states: "Failure of a licensee to follow QA procedures, hence is an item of noncompliance of the Technical Specifications and/or the appropriate criterion. The referenced memorandum states, in effect, that the appropriate criterion is either V or VI, only.

Counterproductivity

The stated purpose of the enforcement program is, as documented in our December 31, 1974 letter to all licensees, to emphasize corrective action. MC 0800, 0801, additionally states that the sanctions selected should provide licensees with incentive to take timely corrective action and to avoid future noncompliance. The requirement to cite only against Criterion V or VI is counterproductive to both of these stated goals of the regulatory program for the reasons listed below.

(1) Citations against Criterion V and/or VI usually produce a "stock" answer wherein the licensee instructs his personnel to follow the procedures (see Attachment 1, Examples B and C).

(2) Such citations "stiffle" the licensees own investigation. We have, in effect, told him that his procedure is okay. We have defined, therefore, the "problem" that requires correction. We have pre-empted his own investigation requirements for determining the "cause". We are also complicating future citations in a given area. From the case postulated under Conflict with MC 1005 above, suppose this use of BRAND X material later results in another North Anna situation. The composite NRC investigation team finds that the real cause of the bad welds was the warehouse practice which permitted storage of BRAND X material in AJAX cans. The licensee is confronted with this evidence and replies that: "Region I said the problem was failure to follow procedures, they never said anything which would cause me to look for problems in my warehousing techniques." This statement would be accurate.

(3) Even in the case of the "conscientious" licensee, we will be counterproductive. Our enforcement correspondence requires him to answer our citation. The licensee is cited as in (2) above. He finds that the problem is in the warehouse practice. His change in warehousing techniques doesn't assure that welding procedures will be followed (albeit, in this case, it makes it a great deal more probable). He is forced into a no win situation. He can give us an answer to the real problem, essentially ignoring the citation. Or he can give us an inocuous answer to the citation. At Calvert Cliffs we found that a procedure was not being followed. We believed that the procedure was inappropriate. We cited the licensee for failing to take corrective action with respect to an audit finding relative to failure to implement the procedure. The licensee responded as desired by revising the procedure. (see Example D)

(4) In the situation first postulated in (3) above, the licensee would obviously fix the warehousing techniques regardless of how he answered the NRC. However, if the citation is for failure of one department (user) to follow a procedure, and the cause is really in another department within the company or in an outside supplier (supplier), then our citation would be used by the supplier group as justification for lack of corrective action since the NRC would have clearly placed the blame on the user organization.

(5) An example (an many more are available) of citing against the broad requirement of a criterion other than Criterion V (even when established controls are not being followed) is covered in Attachment 1, Example E. The results of this citation (Failure to escalate items for corrective action) should be compared with the response given for the same citation against Criterion V given in Attachment 1, Example B. The differences in the actions produced will demonstrate the counterproductivity associated with Criterion V citations.

Need for Additional Guidance

If the requirements of the referenced memorandum are to be implemented, additional guidance relative to current MC 0840.02 a. states in part that: "...multi-incidents of noncompliance with a specific requirement during a period covered by an inspection are included in one citation." When a licensee can only be cited against Criterion V or VI (when he has established measures), all QA inspections will end up with only one citation with 1 to 14 examples (based on 1976 inspection reports).

Paragraph 0840, item 4 requires that, for a repeated item of noncompliance with the same basic requirement, increase action points successively by a factor of two each time it occurs. Following this doubling criteria, only 4 failures to follow procedures (infractions) are sufficient points for a civil penalty (1st case worth 10 pts; 2nd worth 20 pts; 3rd worth 40 pts; and the 4th worth 80 points for a total of 150 points). The infraction level is mandatory since the coding catalog from MC#0535 assigns this level to all (5) cases of failure to comply with Criterion V or VI.

Although I have been unable to find it in writing, I was orally instructed that my function dealt with identification of problems (noncompliances with requirements) not the identification of the cause (a consultant's function). I see the guidance in the referenced memorandum as a change in the previous instructions; a very unhealthy change.

W. A. Ruhlman

W. A. Ruhlman, Acting Chief
NSS2, RO&NSB

Enclosure: Attachment 1, 7 pages

cc w/encl:
J. P. O'Reilly
All RO&NSB Section Chiefs

JUN 2 7 1977

G. L. Snyder

ATTACHMENT 1

Example A (Taken from Report 50-336/77-03)

Citation

10 CFR 50, Appendix B, Criterion IX, states in part: "Measures shall be established to assure that special processes, including welding...are... accomplished...in accordance with...requirements." The accepted Quality Assurance Plan, FSAR Section 13.12.9, states in part: "The procedure contained in the Northeast Utilities Quality Assurance Manual provides for control of special processes..." The NUSCO Quality Assurance Manual, Volume II, Section IX, Paragraph 9.4.2.1, states in part: "Special processes utilized during operation, maintenance...are performed...in accordance with detailed written procedures."

Contrary to the above, the welding performed for Job Order R-70055, issued March 18, 1977, was not performed in accordance with written instructions in that:

-- Station Order QA-7.02, paragraph 6.4, states in part: "Weld materials shall be requested by presenting a Job Order...Weld materials shall be issued...not to span more than one shift. The storekeeper shall complete the Material Issue Form (MIF)...and attach the MIF to the Job Order." Further, paragraph 6.6 states in part: "Upon completion of the shift, unused weld material shall be returned to the Millstone Storeroom. Uncontaminated... clean bare filler metal shall be downgraded for non-Category I use." Only one MIF, for 5 lbs. of bare filler metal, dated March 21, 1977, was attached to the job order for March 22 through 24, 1977. The welders performing the work stated that the unused portion of the bare filler metal, originally issued to them March 21, was returned to the storeroom at the end of their shifts on March 21, 22 and 23 and withdrawn by them at the start of their shifts the mornings of March 22, 23 and 24. There was no evidence at the storeroom that any MIF's were issued for Category I bare filler metal on March 22, 23 or 24, 1977.

Response

Investigation of the issuance of the weld filler metal determined it had been returned to the Storeroom at the end of the shift, but issued daily with only the original MIF.

Permanent corrective action for the discrepancies identified in the above Job Order includes the following:

1. A summary sheet is in preparation to be attached to all Category 1 Work packages. This summary sheet will provide specific review points for various people involved in the Job Order process, providing assurance that all significant QA review points are satisfactorily completed. The summary sheet will be issued for use prior to 7/1/77. In addition, a training session will be conducted with all job supervisors to cover the requirements of the summary sheet and the deficiencies noted in this inspection. This training session will be completed prior to 7/1/77. QA-7.02 will be followed in the future.

Example B (Taken from Report 50-317/76-08)

Citation

Contrary to 10 CFR 50, Appendix B, Criterion V and Appendix 1C.5 of the FSAR, the licensee had not implemented the established requirement of QADP No. 7, which states in part, "... if a (audit finding) response has not be received on the specified date, the Autit Team Leader must notify the Manager, Quality Assurance ..." in the matter of Audit No. 2-12-76.

Repsonse

All Quality Assurance Specialists have now been instructed to comply with the requirement as stated in QADP-7.

Example C (Taken from Report 50-245/75-07)

Citation

B. Contrary to 10 CFR 50, Appendix B, Criterion V. the Unit 1 Quality Assurance Plan, Section F.4.5 and/or Technical Specification 6.4.A, the following examples of failures to follow procedures were identified:

1. Failure to follow Station Order QA-5.05 during the repair of a conductivity cell circuit in that the repair was conducted without the required Job Order. The improperly wired conductivity cell ultimately resulted in two (2) unmonitored radioactive water releases.

2. Failure to log the usage of instrument QA260 during a safety-related surveillance test on the instrument Custody Control Card as required by Station Order QA12.01.

3. Failure to log the times for obtaining authorization for startup in the Control Operator's Log for Startup No. 3C8 on March 14, 1975, as required by Administrative Control Procedure No. 103.9.

Response

B.1 The Instrument Supervisor has been re-instructed in the proper use of job orders and maintenance requests. All Instrument Department personnel have been instructed to perform only that work stipulated in the job order or maintenance request, and that if during the job the "scope" changes, a new work document must be issued.

B.2 To reinforce the importance of proper custody control of test instruments, a training session was held on April 9, 1975 with all Unit 1 instrument department personnel to review the requirements of QA Station Order 12.01 and instrument department instruction 1/2-I&C-QA-6.01.

B.3 All operations personnel have been required to review the applicable portions of the Administrative Controls and to review their entries with respect to proper content and completeness.

Example D (Taken from Report 50-317/76-08)

Citation

10 CFR 50, Appendix B, Criterion XVI states in part: "Measures shall be established to assure that conditions adverse to quality, such as ... deficiencies, deviations, ... and nonconformances are promptly identified and corrected." The accepted Quality Assurance Plan, FSAR Section 1C. 18 states in part: "the manager and supervisor responsible for the activity audited. They are required to review the audit reports, take necessary action to correct the deficiencies revealed by the audit, ... within a specified time."

Response

1. Corrective Steps Which Have Been Taken and Results Achieved

CCI-606 is being rewritten to require evaluations of maintenance personnel by the immediate supervisor. These evaluations will be further reviewed by the next higher level of supervision (evaluator's supervisor) to provide a uniform approach to any identified training deficiencies and/or requirements.

2. Corrective Steps Which Will Be Taken to Avoid Further Items of Noncompliance

The requirement for the evaluations will be carefully reviewed with each supervisor.

3. Date When Full Compliance Will Be Achieved

Full compliance will be achieved by October 1, 1976.

Example E (Taken from Report 50-333/77-06)

Citation

10 CFR 50, Appendix B, Criterion XVI states in part, "measures shall be established to assure that conditions adverse to quality such as ... deficiencies, deviations ... and nonconformances are promptly identified and corrected." The accepted Quality Assurance Plan, Section D.2.2.1.16.1 states in part: "The Authority Operation Quality Assurance Program ... assures that conditions adverse to or affecting quality are promptly identified, reported, and corrected." Quality Assurance Procedure 16.1, "Corrective Action Control," Section 6, states in part, "When a non-compliance is identified by Authority personnel, an NCA ... shall be initiated ..A reply shall be required prior to thirty days of the date of the NCA. If the corrective action cannot be completed within 30 days of the date of the NCA, the audited organization shall provide a follow-up report stating action taken and date completed. If ... the reply or scheduled corrective action cannot be completed as scheduled, plant management shall notify the SQAE and a new acceptable date agreed upon ... In the event that ... corrective action is not completed as previously scheduled, the following action shall be taken:

A. Within ten (10) working days following the required date, the SQAE shall transmit a letter to the Plant Superintendent with the proper information completed and checked..."

Contrary to the above, the following NCA's were neither promptly corrected nor were appropriate follow-up and escalation measures taken in that:

-- NCA, 174, issued May 3, 1976 (Audit 170), indicated that data sheets for the calibration of radiochemistry equipment were not being used. The accepted response scheduled completion of corrective action by December 31, 1976. On April 12, 1977, corrective action follow-up identified that the required corrective action had not been accomplished. Plant management had not notified the SQAE that the corrective action would not be accomplished as scheduled nor established a new agreed upon completion date;

-- NCA 182, issued August 27, 1976 (Audit 184), concerned implementation of the Site Welding Program and the NCA was issued to the effect that the program was not implemented and could not be audited. The management response was that the welding program would be revised and implemented by November 1, 1976. Verification of corrective action was conducted by the QA Department on February 16, 1977, and it was identified that corrective action had not been accomplished. An escalation letter was sent on the same day (several months after the agreed upon completion date). The NCA was closed out on April 12, 1977, after verification that the procedure had been revised. Implementation of the site welding program was not verified as required and this area of the licensee's quality program has not been audited within the required timeframe and,

-- NCA 186 issued February 2, 1977 (Audit 208), this NCA discussed the control of quality related records to include lack of indices, checklists, verification of record receipt, and semi-annual surveys. The identical noncompliances were identified previously by NCA 117 issued March 25, 1975. The response to NCA 117 was accepted conditionally pending a subsequent reaudit. The area was reaudited on February 19, 1976, (Audit 156), at which time all areas were still uncorrected. An NCA was not issued as a result of this finding and the previous NCA 117 was closed out based upon a proposed date of compliance of March 1976. When the area was next audited on February 2, 1977, the same four areas were still not corrected. As of April 15, 1977, the NCA was still open, no new scheduled completion date had been established, and no escalation letter had been sent.

Response

1. Corrective Steps Taken

NCA-174 Corrective action re-audits of all open NCA's were scheduled for April 1977. The first portion of the audit which covered NCA #174 was completed on April 12, the first day of the NRC inspection. The completed audit had not been distributed nor had letters to plant management been sent. The second portion of the audit was completed on April 28 and corrective action escalation letters, as required, were sent to plant management on May 3. Responses were received on May 4 and new corrective action dates agreed upon. Acceptable data sheets for radiochemistry equipment calibration were applicable will be in use by June 1, 1977. Completion of corrective action will be audited by PASNY QA within the required time frame.

NCA-182 The procedure for the Site Welding Program was revised and approved on October 27, 1976 to provide for compliance with the Site Quality Assurance Program, however, the manual of welding procedures was not at that time updated and issued to correspond with the requirements of the procedure. Since that time, procedures have been approved and issued as required to implement the program.

The closeout of NCA 182 signified acknowledgement that an acceptable procedure for a welding program was available but verification of implementation of the Site Welding Program was not made because the manual of procedures was not audited. PASNY Quality Assurance will perform audits to assure that the program and procedures are in compliance with the requirements of Appendix B. 10 CFR 50 and other applicable regulations and codes.

NCA-186 As indicated in the inspection report, (Unresolved Item 77-06-02), PASNY has committed to compile a complete records index by June 1, 1977. The completion of this item will satisfy the major nonconformance of NCA #186 and allow closing of NCA #186.

As indicated in a letter dated 3/8/77, signed by the SQAE and attached to the reply to NCA #186, this item will be subject to further audit prior to PASNY accepting records and documentation from NMPC at turnover of operations.

The records indexes and listings at the time of transfer of operating responsibility from Niagara Mohawk to the Power Authority will be in accordance with the progress made toward fulfillment of the June 1, 1977 completion date. An up-to-date indexing and locator catalogue for operating and maintenance records will be included.

2. Corrective Steps to be Taken

All QA and QC NCA's and responses are monitored by the Office of the General Superintendent Nuclear Generation, Niagara Mohawk Powere Corporation. Due and past due responses will be included in a computerized listing similar to that presently used for NMPC-NRC actions. PASNY Site QA has stated that they will institute a detailed system to enable auditors to closely monitor all aspects of NCA's from issuance to closing and assure that:

a. Responses are closely monitored.
b. Implementation of corrective action is verified within the proper time period.
c. Any required escalation letters are transmitted as required.
d. NCA's are closed within the proper time period.

The NMPC computerized listing will not be available to PASNY after transfer of the Operating License.

3. Date for Full Compliance

The corrective action indicated should prevent recurrence of the alleged infraction and full compliance will be achieved by June 15, 1977.

1040

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

OCT 2 1 1976

J. H. Sniezek, Chief
Light Water Reactor Programs Branch, IE:HQ

DEFINITION OF NON-ROUTINE MAINTENANCE WITH RESPECT TO QUALIFYING PLANT PERSONNEL WHO PERFORM INSPECTION, EXAMINATION AND TESTING. (AITS NO. F14413H1)

We are in receipt of a letter dated September 3, 1976 from George Lear, Chief, Operating Reactors Branch #3 to Mr. I. R. Finfrock, Jr., Jersey Central Power and Light Company (JCP&L).

The issue addressed in this letter is the training and qualification of Quality Assur (QA) and other plant personnel engaged in inspection, examinatio testing tasks.

The last paragraph of the letter reads as follows: "The individuals performing inspection, examination and testing functions associated with modifications and non-routine maintenance shall be qualified to ANSI N45.2.6 - 1973 except that the QA experience cited for Levels I, II and III should be interpreted to mean actual experience in carrying out the types of inspection, examination or testing activity being performed." (Underscore added).

The term "non-routine maintenance" in the above paragraph needs definition. Please provide us with a clarification of this term so that the NRC position stated in this letter is clear and capable of being inspected.

A copy of the aforementioned letter is attached for your convenience.

E. J. Brunner, Chief
Reactor Operations and Nuclear Support Branch

Attachment: As stated

cc: F. A. Dreher, HQ
RO&NS Branch Chiefs,
Regions II - V

bcc: W. A. Ruhlman
R. R. Keimig
J. Smith

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

OI&E

September 3, 1976

Docket No. 50-219

Jersey Central Power and Light Company
ATTN: Mr. I. R. Finfrock, Jr.
Vice President - Generation
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Gentlemen:

We have completed our review of (1) NRC letter dated November 26, 1975 from J. P. O'Reilly, Director, Office of Inspection and Enforcement (OI&E), Region I to Dr. S. Bartnoff, Jersey Central Power & Light Company (JCP&L) and (2) JCP&L letter dated June 30, 1976 from I. R. Finfrock, Vice President, to G. Lear, DOR. The issue addressed by these letters is the training and qualification of Quality Assurance (QA) and other operating personnel engaged in inspection, examination and testing tasks. Our conclusion is that the qualification of these two categories should be dependent on their assigned tasks as detailed below.

The November 26, 1975 letter states that although JCP&L's Operational QA Plan committed to utilize the guidance of ANSI N45.2.6, OI&E inspectors found that certain onsite personnel (not assigned to the facility QA organization) engaged in maintenance testing, examination and inspection activities were not qualified and certified to Levels I and II as required by ANSI N45.2.6, Section 3. In response to this cited deficiency, JCP&L letter dated June 30, 1976, provided an interpretation of a commitment in the Operational QA Plan to the qualification requirements of ANSI N45.2.6-1973 and indicated intent to do the following:

(1) Qualify and train plant personnel, who are neither licensed nor within the Quality Assurance organization to the guidance of ANSI N18.1-1971 by implementing the existing Job Description Manual and existing job qualification practices.

(2) Qualify Quality Assurance organizational personnel in accordance with ANSI N45.2.6-1973 as committed in the Operational Quality Assurance Plan.

On the basis of our review of these interpretations, we concur that JCP&L's QA organizational personnel should be qualified in accordance with ANSI N45.2.6-1973 requirements. We also agree that all other personnel who perform inspection, examination and testing may be qualified to the guidance of ANSI N18.1-1971, "Training of Nuclear Power Plant Personnel" provided they are only assigned to tasks associated with routine maintenance and operation.

Our position in regard to qualifying plant personnel who perform inspection, examination and testing is as follows:

(1) The individuals performing inspection, examination and testing functions associated with normal operation of the plant such as surveillance testing, routine maintenance and certain technical reviews routinely assigned to the onsite operating organization shall be qualified to ANSI N18.1-1971 or to ANSI N45.2.6-1973.

(2) The individuals performing inspection, examination and testing functions associated with modifications and non-routine maintenance shall be qualified to ANSI N45.2.6-1973 except that the QA experience cited for Levels I, II and III should be interpreted to mean actual experience in carrying out the types of inspection, examination or testing activity being performed.

Please contact us if there are further questions.

George Lear

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

cc: See next page

ACTION ITEM CONTROL FORM

NRC 5F
2-78

TRACK NUMBER		
SNDNG OFF	SEQUENCE NUMBER	RCVNG OFF
FI	44136	#1

A/I TYPE: 12

PRIORITY: N

FACILITY:

INITIAL ENTRY DATE: 10-21-76

REQUESTED COMPLETION DATE: 12-03-76

REQUESTOR: KEIMIG R.R.

AUTHORIZED BY: E.J. Bruno

ACTION ITEM DESCRIPTION: DEFINITION OF NON-ROUTINE MAINTENANCE WITH RESPECT TO QUALIFYING PLANT PERSONNEL

ACTION REQUESTED: Obtain definition of the term "non-routine maintenance" as used in Co. Lear ltr. to I. Fairfield (JCPNL), dated 9/3/76

REMARKS/REFERENCES: Memo E.J.B. To J.H. Sniezek, dated 10/21/76.

	EXPECTED COMPLETION DATE	PERSON ASSIGNED	MILE-STONE	MAN HOURS EXPENDED
1	- -			
2	- -			
3	- -			
4	- -			
5	- -			
6	- -			
7	- -			
8	- -			
9	- -			

CLOSEOUT METHOD

CLOSEOUT ACTION

ACTION COMPLETE DATE

CODE

POOR ORIGINAL

Distr. to SC's w/o M. McCabe

1041

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

November 24, 1976

Dudley Thompson, Acting Director
Division of Field Operations
Office of Inspection & Enforcement

RECOMMENDATIONS CONCERNING IMPROVING NRC FUNCTIONS

I have attached for your information a copy of a memorandum from Mr. E. C. McCabe, Section Chief, Nuclear Support - Region I, dated August 5, 1976. This memorandum discusses a number of facets of IE operations, many of which interact with other offices. Many of the observations are not new; however, the grouping of the thoughts and the brevity of expression is good and, in my view, worth consideration by the IE Study Group as a "seed" document.

If I picked out a section that seemed to have particular value at this time, I would pick on Section D - Legal Considerations. As previously stated, Region I believes this area needs particular attention. These recommendations are not being "tracked", but they are being reviewed on a continuing basis. Specific recommendations will be made, and tracked, as appropriate.

If you have any further questions on the above, please do not hesitate to contact me or Mr. McCabe (Ext. 1266) of my staff.

Dictated by JPO'R

James P. O'Reilly
James P. O'Reilly
Director

Enclosure:
1. Copy of McCabe's memorandum dated August 5, 1976 - "Improving NRC Effectiveness"

cc: B. H. Grier (w/enclosure)
IE Study Group " "

bcc - Brunner
McCabe

To: James P. O'Reilly, Director AUG 5 1976

Thru: E. J. Brunner, Chief, Reactor Operations and Nuclear Support Branch

IMPROVING NRC EFFECTIVENESS

A. General

Considerable emphasis is being placed, in IE, upon analyzing and improving our organization. This memo recommends consideration of items which could facilitate the analysis or improve the program in other ways.

B. NRC Role

One of the analysis tasks involves determination of what the role of the organization should be. I recommend that this area be broken down into the following specific milestones.

1. Formal transposition of the general and specific laws governing NRC regulation into a set of specific tasks.

2. Verification that each task is covered by regulatory requirements.

3. Verification that each task receives the NRC review and inspection effort necessary to assure compliance.

4. Verification that each other regulatory requirement established receives the NRC review and inspection effort necessary to assure compliance.

5. Identification of tasks which should be deleted from NRC coverage, and recommendation of appropriate changes to the laws and regulations.

6. Identification of tasks which should be added to NRC coverage, and recommendation of appropriate changes to the laws and regulations.

C. Interoffice Coordination

NRR, IE, and Standards are, necessarily, separate divisions. Control of the coordination between those divisions might be improved by a Management Information System which segregates NRC tasks into individual office tasks and also monitors the status of action items referred to one office by another. Consideration of such a system is recommended.

D. Legal Considerations

1. Interpretations

Interpretations are provided to the field by an IE Manual section and by letters. These interpretations seem to confound guidance (what to do, direction) with interpretation (explanation of meaning). Also, the legal status of each interpretation is not defined. To facilitate field use of interpretations, the following are recommended.

a. That each interpretation be broken down into separate interpretation and guidance subsections.

b. That the legal status of each interpretation subsection be specifically defined (IE legal staff concurrence, OELD approval, OGC decision, etc.).

2. Exemptions

The means by which exemptions to requirements are issued is not clearly defined. I recommend that formal rules be established defining what constitutes an exemption from regulatory requirements and license conditions. These rules should prohibit implicit exemptions established by failure (of Technical Specifications, SAR, or license) to address requirements. Exemptions should be explicit and specific.

3. Precedence

The precedence of requirements should be formally defined. If areas of conflict develop between codes, standards, regulatory requirements, SARs, etc., then the precedence of requirements could be used to determine the governing directive. This area can be expected to become more of a problem as the body of governing directives increases in size.

4. Inspector Training

Field Office personnel are not fully aware of the legal considerations involved in enforcement. A training course in this area, established and conducted by the NRC legal staff, is recommended. The course should cover the legal bases, including decisions, which support or prohibit enforcement of 10 CFR, the 10 CFR Appendices, PSARs, FSARs, commitments, etc. (I would like to see such a course explain, for example, why licensee commitments are not legally enforceable, and why license revocation is a valid course of action in cases where a lesser sanction, the civil penalty, is not legally justified.)

E 8. Operating Reactor Program

The current program for operating reactors is constructed much like the preoperational test and construction programs. The basic difference in the activities inspected is that reactor operations are repetitive performances of functions whereas construction and preoperational testing programs involve one time evolutions. This difference permits a much broader sampling coverage of operating activities over the 40 year life of an operating powerplant. It is, therefore, recommended that the operating reactor inspection program be based, in addition to quarterly, annual, and refueling items, upon more comprehensive coverage of specific areas in 5 or 10 year cycles. This could be done by one time inspection or by changing some of the annual inspection items each year. For example, a more comprehensive periodic program could be instituted for the Quality Assurance area. A lengthy inspection plan (over 100 pages) which covers Quality Assurance in considerable detail was developed by Region I. The inspection program modules which are now used provide a more limited sample.

F 8. Cross Pollenation

Mobility is, and has been, stressed as a beneficial input to Uniformity. A significant number of Region I personnel transfers have supported this concept, and more are anticipated. Other means of effecting this result should also be strongly emphasized. These are discussed below.

1. Counterpart Meetings

Counterpart meetings participated in by inspectors and section chiefs have a high potential for fostering Uniformity. An example is the recent QA module meeting conducted at Region III. Its recommendations, when implemented, should improve both the inspection program and Uniformity.

2. Accompaniment

Having inspectors observe inspections in and by other regions can provide beneficial cross pollenation. Region IV is currently planning to have one of their inspectors accompany a Region I inspector on a CILRT inspection. This approach could be a very effective way to foster Uniformity, and should be best suited for smaller regions and for specialist inspections.

3. Cross Region Inspections

Occasional conduct of inspections by inspectors from another region could also be used to cross pollenate. This approach would seem to be best applied using a larger region's personnel to conduct a specialist type inspection in a smaller region.

4. Report Review Comparison

In cases where licensees submit complex reports for NRC review, it could be beneficial to have the cognizant region and another region both provide a documented review of the report and then meet to discuss the findings. CILRT reports, for example, would appear to be well suited to such treatment. In addition to improving Uniformity, this approach seems well suited to pointing out the benefits of specialization.

G.F. System Planning Within IE

There has been considerable Region I time expenditure involved in computerized management information systems. That time expenditure has also included a great deal of effort by higher level regional management. From our regional viewpoint, the results do not yet appear to be cost effective. While I cannot represent my viewpoint as being from someone knowledgeable in the use of computers, I feel that the following considerations should be applied to further computerization of our operations.

1. Definition of each computer output and of its utilization. The time savings and salary and fringe benefit costs involved should be applied to identify present cost of generation of the data. If data not presently available is to be provided, then a determination of the present cost of the data should be provided by actual determination using present facilities.

2. Definition of each computer input cost, to include the true labor cost of all personnel involved at their actual pay rates, including fringes. Estimated values generated should be verified by a pilot program.

3. Limitation of computer output distribution for a specified period. Each output should be available to any NRC office desiring it on a query basis. Historic user data should be generated from the query record, with a standard distribution developed from the query data. Query data analysis could also be used as a management tool for determining where training in computer usage could

be beneficial. Use of touch tone telephone query facilities should be investigated for offices having high speed printer capability, with the printouts requested to be addressed automatically to the individual requestor on the printout forms.

4. Extensive provision should be made for data manipulation by the computer. If the computer programs provide only a very limited output format and content, the computer tends to become an expensive filing cabinet. Thorough testing of proposed systems should permit elimination of redundant data inputs. The present manual organization of data in several formats by field personnel assures that a new system will be more expensive than what was provided before.

E. C. McCabe, Jr.

E. C. McCabe, Chief
Nuclear Support Section
Reactor Operations and Nuclear
Support Branch

#1031

August 30, 1979

In Reply Refer to:
NTFTM 790830-04

Mr. William Ruhlman
Region II
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. Ruhlman:

I am writing to confirm that your deposition under oath in connection with the accident at Three Mile Island is scheduled for September 6, 1979 at 1:30 p.m., in the Arlington Road offices of the TMI Special Inquiry Group. This will also confirm my request for you to bring with you a copy of your resume and any documents in your possession or control regarding TMI-2, the accident or precursor events which you have reason to believe may not be in official NRC files, including any diary or personal working file.

The deposition will be conducted by members of the NRC's Special Inquiry Group on Three Mile Island. This Group is being directed independently of the NRC by the law firm of Rogovin, Stern and Huge. It includes both NRC personnel who have been detailed to the Special Inquiry Staff, and outside staff and attorneys. Through a delegation of authority from the NRC under Section 161(c) of the Atomic Energy Act of 1954, as amended, the Special Inquiry Group has a broad mandate to inquire into the causes of the accident at Three Mile Island, to identify major problem areas and to make recommendations for change. At the conclusion of its investigation, the Group will issue a detailed public report setting forth its findings and recommendations.

Unless you have been served with a subpoena, your participation in the deposition is voluntary and there will be no effect on you if you decline to answer some or all of the questions asked you. However, the Special Inquiry has been given the power to subpoena witnesses to appear and testify under oath, or to appear and produce documents, or both, at any designated place. Any person deposed may have an attorney present or any other person he wishes accompany him at the deposition as his representative. The Office of the General Counsel of NRC has advised us that it is willing to send an NRC attorney to all depositions of NRC employees who will represent you as an individual rather than represent NRC. Since the NRC attorney may attend only at your affirmative request, you should notify Richard Mallory (634-3224) in the Office of the General Counsel as soon as practicable if you wish to have an NRC attorney present.

You should realize that while we will try to respect any requests for confidentiality in connection with the publication of our report, we can make no guarantees. Names of witnesses and the information they provide may eventually become public, inasmuch as the entire record of the Special Inquiry Group's investigation will be made available to the NRC for whatever uses it may deem appropriate. In time, this information may be made available to the public

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voluntarily, or become available to the public through the Freedom of Information Act. Moreover, other departments and agencies of government may request access to this information pursuant to the Privacy Act of 1974. The information may also be made available in whole or in part to committees or subcommittees of the U.S. Congress.

If you have testified previously with respect to the Three Mile Island accident, it would be useful if you could review any transcripts of your previous statement(s) prior to the deposition.

Thank you for your cooperation.

Sincerely,

Mitchell Rogovin, Director
NRC/TMI Special Inquiry Group

DISTRIBUTION
TERA
WLanning
WParler
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PNorry
RDeYoung
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SURNAME ▶	WLanning:kr:mc	WParler	PNorry	RDeYoung	GFrampton	MRogovin
DATE ▶	8/30/79	8/30/79	8/30/79	8/30/79	8/ /79	8/ /79

#1032

PROFESSIONAL QUALIFICATION

OF

WILLIAM A. RUHLMAN

NRC OFFICE OF INSPECTION AND ENFORCEMENT

REGION II, ATLANTA, GEORGIA

My name is William A. Ruhlman. My business address is 101 Marietta Street, Suite 3100, Atlanta, Georgia 30303. I am employed by the United States Nuclear Regulatory Commission, Office of Inspection and Enforcement, as the Lead Quality Assurance Inspector, Nuclear Support Section Number 2.

I have completed accredited college courses from the University of Hawaii, the United States Naval Academy and Miami Dade Junior College. During my present employment with NRC and previous Navy career, I completed several military and civilian courses related to the nuclear field. I am a registered professional nuclear engineer, a member of the American Society of Quality Control, and a member of the Korea Nuclear Society.

My initial experience in the nuclear field (1961-1968) was in the Navy Nuclear Submarine program, where I was responsible for maintenance, operation, and directing the crew of a nuclear submarine as the Leading Petty Officer in the Electrical Division and as the Engineering Watch Supervisor (Senior Enlisted Watchstation) of the Engineering Department. I was a staff instructor at the S1C prototype for a period of 2 years during my Navy assignment.

In 1968 I entered the civilian power industry. I began as a Laboratory Technician for four (4) fossil fueled electrical generating plants for Florida Power and Light Company. During 1969-1971, I followed construction activities and participated in preoperational and startup testing of two 760 MWe nuclear plants. When Unit 3 began startup operations in 1971, I directed the staff as a Nuclear Watch Engineer from that point through and including commercial operation. When Unit 4 began startup testing in 1972, that unit was also under my direction. I held an Operator License and a Senior Operator License on these two units.

In 1973 I began with the Atomic Energy Commission where I was assigned as a Reactor Inspector in the Startup and Test Branch of the Region I offices. When that Branch was reorganized, I began as the Lead Training Inspector in the Nuclear Support Section. In 1974 I was assigned the additional duties of Lead Quality Assurance Inspector. In 1976 I assumed the duties of Lead Quality Assurance Inspector while retaining the Lead Training Inspector position. I was the Acting Section Chief for the Nuclear Support Section for a period of six months in 1977.

In 1978 I was assigned to the International Atomic Energy Commission and completed a three month assignment with the Republic of Korea. I assisted their Atomic Energy Bureau in establishing the Quality Assurance requirements for their nuclear program. Following my return from Korea, I was transferred to my current position.

I am currently assigned as the Lead Quality Assurance Inspector in Region II and four inspectors assist me in carrying out all special and routine quality assurance inspections of licensee's in Region II. I have also inspected one construction QA program. I have participated in forty-five quality assurance inspections in Region I, Region II and Korea.

Since June 1st of this year (1979), I have been appointed as Acting Chief, Nuclear Support Section No. 2. As such, I am in charge of seven inspectors and one Summer Technical Intern.