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(Regions IV & V)

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Champions I Ballroom
Sheraton Park Centre Hotel
1500 Stadium Drive
Arlington, Texas

Thursday,
November 8, 1990

The above-entitled matter was convened, pursuant to notice, at 1:30 p.m.

NRC Speakers and Panel Members:

Robert D. Martin, Regional Administrator, Region IV
Bobby Faulkenberry, Deputy Regional Administrator, Region V
Johns Jaudon, Deputy Director, DRS, Region IV
Pat Gwynn, Deputy Director, DRP, Region IV
Stu Richards, Chief, Reactor Projects Branch, Region V
Edward Jordan, Director, AEOD/HQ and Chairman, CRGR
Mark Williams, Chief, Trends & Patterns Anal. Br., AEOD/HQ
Jack Crooks, Trends & Patterns Anal. Br., AEOD/HQ
Eric Weiss, Incident Response Branch, AEOD/HQ
Al Chaffee, Chief, Events Assessment Branch, NRR/HQ

I N D E X

P R O C E E D I N G S

MR. WILLIAMS: Good evening. I want to welcome everybody here to the LER event reporting portion of the workshop.

I'm Mark Williams from AEOD, Trends and Patterns Analysis Branch.

Most of the people at the table, or at least half of them, you may recognize from yesterday. I'll introduce the new members.

Jack Crooks is next to Pat Gwynn. Jack is the section leader in charge of the data management section in the Trends and Patterns Analysis functions of AEOD.

Al Chaffee is next to Jack. Al Chaffee is going to be covering the 50.72 requirements on reporting.

Of course, there's Ed and Bob and Bobby.

Eric Weiss is to my left. Eric is in charge of the operations center of NRC. And when the phone calls go into the ops center, it's Eric's people who answer the phones.

The event reporting workshop is really to get a feedback from you. We have a lot of prepared slides and prepared discussion that's really just to stimulate the interaction between us.

We'd like to get to our prepared materials as quickly as possible, get into the panel sessions and get the

feedback from you.

Please raise any issue you'd like to. We want to keep it nonconfrontational and try to get as much feedback as possible. We are considering changes to the reporting requirements in the near term, and in the long term we're considering changes to the guidance that's on the street in NUREG-1022, Supplement 1 and Supplement 2 that you may be familiar with.

So some things will come out of this workshop.

This is the last of four workshops we're having. Within about six months or so, we hope to have a NUREG or some guidance on the street that reflects the lessons that we got out of this workshop that will provide some feedback on the issues that can be straightened out just by clarification; for example, what constitutes an actuation of an ESF and things like that.

We might have some minor rule changes to take care of some other matters. We might look at longer term changes for the LER reporting requirement.

With that, let me introduce Al, who will begin with us on 50.72 reporting.

I'm sorry?

MR. JORDAN: We'd like to have some remarks, both myself and Bob.

MR. WILLIAMS: Okay. Let me change that.

Let me introduce Bob Martin.

MR. MARTIN: We'll take care of that slight oversight in another meeting.

I wanted to share with you briefly some regional perspectives on the use of reports, and when I talk reports, I want to use the term in the broad sense, the verbal reports that come in, the prompt reports that come in within the 24 hours and the 30-day kind of reports, all of those reaching somewhat back to what we talked about earlier in the earlier session, the workshop on backfit, represents communications.

I want to talk a little bit about how we use them. Fundamentally, we use them, one, obviously, for the information to know that it's going on, but also, two, to form an initial perspective on the extent to which the licensee either does now know at that time what is going on, what's happening, what the problem is, or the reasonableness, the completeness, the vigor of the steps they are taking to ascertain what is going on.

Obviously, both of those are critical to determining what kind of response that may be required in terms of follow-up actions by the regions either to get more done or to have sufficient information to be comfortable to wait as more information is accumulated by the licensee through their pursuit.

Those communication channels are extremely important on matters of significance.

The other issue, despite sort of conventional wisdom to the contrary, they are not used in bean counting exercises. They are used for information.

A large number of excellent reports, excellent communications, excellent follow-up, excellent dealing with technical issues are by far superior to three LERs coming in from one licensee, all three of which are lousy and demonstrate comprehensively that the licensee doesn't know what they're doing.

The bean counting is just not a factor in our dealing with this kind of information.

We expect, as a result of reports, dialogues, beneficial exchanges of information between us in order to resolve any safety matter that's outstanding.

The issues of enforcement relative to reporting, enforcement relative to failing to report are really all last resort issues.

Those are after-the-fact matters if they come up at all. The primary focus is on the information, safety significance. Is it being dealt with responsibly, and do we have enough information to be able to pattern intelligent and reasonable agency follow-up action on it?

These reports are extremely critical to us. And

perhaps during the course of the next day, the next two sessions, this afternoon and tomorrow morning, there will be more opportunity to have more dialogue on either specific applications or the kinds of implications that come from this kind of exchange of information, both the verbal and the written part.

Thank you.

MR. JORDAN: Okay. I couldn't let the opportunity pass to make a few comments.

The sorts of things that I hope that you're looking towards in this is why do you report? Not just because there's a rule that requires it, but what's the basic reason that you report information? What should you be reporting? How is the information used by both industry and the NRC? How can the process be improved that we're both participating in?

We're going to try very hard not to be defensive about the process so that we're receptive to indications for change, certainly through the regulatory impact survey we've gotten a loud signal that there is a need to make some changes.

From my viewpoint the licensee event report system provides information in order to extract the lessons of experience, both plant-specific engineering, and that's the basic purpose from my viewpoint for that overall reporting

system.

It provides an opportunity of identifying precursors of more serious events and then the ability then to feed it back to industry, and for industry to extract and feed it back for itself.

And certainly one of the most important TMI lessons that was learned was that at that time there was a need to improve the recognition of precursors and process the feedback experience.

This requires a systematic and a cooperative program with industry and the NRC.

After TMI the reporting system was drastically changed. 50.72, 50.73 were both modified following TMI in order to provide for a better platform, and the emergency notification system was tied directly with those rules, so that there is a continuous spectrum.

That has been one of the strengths, I think, of the U.S. system, having those pieces connected together.

The industry actions that were taken in order to do a better job of extracting lessons of experience were associated with development of INPO and its process, which uses largely licensee event report information for its screening and development of the NPRDS system, which was previously being funded by the NRC.

That system was transferred to INPO and run by

INPO for both the industry and providing an input for the NRC.

I see a shift in emphasis that now we get more information out of the component failure than we did in the past. The data is more accurate, and so there is a continuous spectrum here that goes all the way into the NPRDS system. Perhaps we can talk some about that.

An issue I would raise, are the existing reporting requirements and guidance providing the most cost-effective basis from which NRC and industry can identify precursors to reduce the frequency and severity of operational events?

That's the issue. Where you have recommendations that we can make changes, where we can develop from our own experience changes, we might do that.

The way we're doing it is to review our current programs, identify areas in which reports did not help identify precursors, identify areas that are not reported that should be.

Consider whether revisions to rules or guidance is warranted. We are considering currently -- and we've talked about it at the other workshops -- minor rule change which would, for instance, delete certain ESF actuations, clean up isolations, containment -- I'm sorry -- control room ventilation system isolations that I believe both the NRC and the industry feel are not contributing to identification

of precursors or identification of safety issues and are needless reports.

We feel we can do that through minor rule change.

We'd like to provide guidance -- to extend existing guidance for more uniform reporting. We feel that industry can help in that regard, and there has been some recent effort by the BWR Owners Group to help develop that kind of guidance. We think that's a very healthy initiative.

My way of putting it is to emphasize reporting important stuff. And people have snickered about that, but I think that's the best way I can express it.

These are events that you'd like to know about, that the regulators would like to know about, in order to profit from this experience.

So I'll say it several times in our discussion. Let's focus on whether or not it's important stuff and less on the legalistic side of it.

If we have to develop a much more legalistic rule to try to stop up any gaps or to do away with unnecessary reports with very fine detail, I think we're both going to get bogged down in the legal system, as opposed to understanding the basic reason for the reporting process -- to go back to the fundamentals, because immediately after TMI, if you recall, there were directives put out through

bulletins and orders that said essentially report important stuff; that those transient type events, the component failures, anomalies, those were the things that we were very interested in getting reported.

50.72, 50.73 were the expressions of that important stuff that the staff and industry made at the time. So I hope we keep in mind that it's really that basic information that we're looking for.

Okay. One thing I would mention is there are byproducts of the reporting system, and the consistent manner with which reports have been provided in the past. You may feel they're not valuable byproducts. I think in this particular instance they are.

Performance indicators use for the NRC's purposes data from licensee event reports as the principal source. That system has been recently consistently interpreted by the regulator and reported by the utilities. You may argue the times over the degree of consistency. But, in general, quite consistent.

The existence of that data base has allowed us to trend performance over the past five years and to say that there have been substantial real improvements in performance -- safety performance in plants based on the frequency of occurrence of safety system actuations, safety system failures, plant trips, and further analysis of accident

sequence precursors through the PRA type approach.

That kind of data, through a consistent data base, is really invaluable for industry and the NRC to make a clear statement of progress.

So I think there's a value there that sometimes we fail to recognize that the principal purpose, and the real purpose for licensee event reports, is so that we can in fact extract the lessons of experience and feed them back.

So when you have a question about reporting, I like to put it back to the basics of is this useful on a plant-specific basis for learning a lesson? May it be useful in a generic way for somebody else being able to use your lesson with regards to their facility, or by combining a number of experiences to find that, yeah, there's a problem; several plants have had a similar problem. Therefore, we can all learn and benefit from that.

So those are some little tidbits that I can't resist throwing out. We're going to work hard not to be defensive, as I mentioned earlier, and to try to make it an interchange.

The backfit portion was a very effective interchange, and I hope this one proceeds as effectively.

With that, Al, I'll turn it to you. Thank you.

MR. CHAFFEE: My name is Al Chaffee. I am the chief of the Events Assessment Branch. I've been in this

role for about two months.

My role today is to explain in about half an hour how the agency uses the 50.72 and how we review the 50.72 in the hopes that you'll better understand why we in the NRC feel that these 50.72s are so vitally important to our activities.

Also, at the end of my talk I'll very briefly go over some of the reporting problems that we've seen in the 50.72 area. Eric Weiss will talk about those in more detail.

Could I have the next slide, please?

Okay. First, 50.72 requires holders of operating licenses to make telephone notification using the red phone to the NRC operations center. They require that it be done for certain types of events.

Once this occurs, the 50.72 becomes the primary source of information that is used by the NRC for short-term evaluation of particular events.

In doing that short-term evaluation we focus on two things. We focus on the potential for having the NPDS respond in an emergency mode, as well as looking for potential for a generic implication of the event.

In addition to the 50.72, of course, there's 50.73, which complements the 50.72 process. There are some differences in the reporting requirements.

The 50.73 is recorded about 30 days later; therefore, it's not available to be used as a short-term evaluation.

The 50.73 is a written report that you provide. It ends up being a record that's used by many organizations, for example, INPO, a lot of foreign governments to evaluate events that are going on within this country.

Of course, the 50.73s will be discussed later today by some of the other members of the panel, and tomorrow

May I have the next slide?

This slide shows the NRC organization and those components that are involved in this short-term evaluation and in some cases long-term evaluation of 50.72s and some of the 50.73s.

We have three major organizations. AEOD, on the far left, your left; NRR in the middle; and the regions on the right.

Of course, the 50.72s come originally into the AEOD organization down at the bottom left in the Operations Center.

This Operations Center is staffed 24 hours of the day by trained professionals who are trained to determine the need for notifying high senior NRR managers or other agencies as a result of the type of event that you report.

Their training includes technical training at our Technical Training Center. As a result of that, they're very well versed in generic NSSS design, although, as you probably realize, they don't know the plant-specific designs for the plants.

To the far right, the regions. The regions are very involved in this process in that whenever a 50.72 comes in, they are informed very promptly by the Operations Center, notifying the Regional Duty Officer.

Then the regions have the lead in the following plant-specific aspects of the particular event. They follow those very closely.

Their follow-up is commensurate with the significance of the particular event.

Then in the middle we have NRR, which I'm a part of.

And down in the lower left of that organization, you see the Events Assessment Branch. That's the group that I have a lead in.

And what we do is we screen the events, and we screen them for the need for Headquarters to take follow-up action -- plant-specific type action or follow up on the plant-specific aspects.

We also take a look to see if there's a need for some generic action by the NRC, for example, the issuance of

generic letters or information notices or bulletins.

The more typical type of generic action taken is in the form of an information notice. You probably realize that there are typically 80 to 100 information notices that are generated a year.

Those are generated to help provide licensees with information about problems that are occurring. There's no response required.

The hope is that those letters will help other utilities to learn the problems that have occurred at those plants, to minimize the potential of perhaps the same thing occurring at their plant.

The last group in this organization chart, which is on the right, "Projects," the Projects organization through their project managers, they also follow the status of plants and specific events that occur at plants to provide a project focal point within NRR of events that are occurring. The last thing I want to talk about is the Trends and Patterns Analysis Branch, down in the lower right. They take 50.72s, and really more the 50.73s, and they look at the long-term trends and patterns that have developed on events that have occurred in the past, again focusing on the need to develop generic communication.

So pretty much NRR looks at 50.72s, and AEOD does a lot of evaluation of the 50.73s.

The combination of these is a pretty powerful organization to look at the experiences being gained by the industry.

Would you skip the next slide and go to Slide No. 5.

This slide shows the specific reporting requirements under 50.72. I'm not going to go through these in detail. It's included in the packet so you'd have it.

But what I wanted to mention was the very first item on it, the very first item that's required under 50.72, which is "reporting events that require declaration of an emergency."

This is the highest priority that we have in the 50.72 program. That is assuring that the agency will perform those events that require us to make a determination as to whether or not we want to man our incident response center.

In manning this response center, we man it with senior managers and technical experts; and they follow an event until the plant is safe and in a stable condition.

Again, that's our number one priority for this particular program.

Could I have the next slide, please?

This next slide is to show the flow of information that occurs from the NRC response to the event that has been

reported under 50.72.

As you can see in the upper left, the event first comes into the NRC Operations Center. Then the Operations Center duty officer, he has some criteria that he uses for determining what action he's to take.

One of those decisions he has to make is whether or not he notifies the emergency officer. The emergency officer in NRR is an NRR or SES manager, typically of the AE or division director level. They're on call 24 hours a day. Their assignment rotates every week.

The emergency offices are notified of any unusual event that occurs or higher, and then once they are notified of that, the emergency officer then goes through a decision process as to whether or not it's important or necessary to man the incident response center to deal with the event.

Also, the operations duty officer also notifies the regional duty officer of all the events that are occurring.

In addition, further down in this graph, going into the "Daily Review of Operational Events," there is a link between the receipt of the 50.72 at the operations center and the daily review that occurs of these operational events at NRR.

That link is in the form of the operations center officer. He takes the information he gets verbally from the

licensee, and he changes it into a brief written description that goes into a word processing type system, which then is transmitted over to the Events Assessment Branch, my office.

And then what we do is we take that information and we distribute it throughout NRR, and we then proceed with a review of these events and other information that we receive.

We also receive daily reports from the regions, and we also receive some feedback information, perhaps verbally, from the regions or from the residents.

We evaluate all this information and determine what sort of activities should be done.

This review occurs every day during the first two hours of each working day. The people that do the review is somewhat on the order of about 25 people with a variety of backgrounds, both technical and regulatory backgrounds.

I'll talk more the next couple of slides about some of the details of how this particular activity proceeds.

One of the things I'd like to emphasize, though, is that of the hundred or so events or reports received each week, we typically decide that less than 10 to 15 of them require any kind of follow-up action.

So there's a high percentage of these events that are received that we find don't require any additional

follow-up action.

May I have the next slide, please?

Okay. The daily review of the events is a hundred percent review. We review all the events, both daily reports and 50.72s we receive.

One thing of interest is the dailies we receive from the regions, they provide the regions and us then an opportunity to see the region's perspective on a particular event, which is sometimes very helpful in our evaluation.

And also sometimes we get from the regions information and reports for things that were not reported by the licensee under 50.72s. Some of these are of very much interest to us, because even if we're required to report a 50.72 -- while in other cases the information from the regions is for events that were required to be reported as 50.72.

We find that the daily reports from the regions are very valuable to our review and try and get additional information that we can use in following up these events.

We also find that the preliminary notifications you provide are very valuable.

So every day the first two hours the people in my branch -- about 16 people and various other people throughout the agency -- sit down and review these events.

The first thing we focus on is pulling together

and doing a screening to be able to support an 8:15 phone call that we do.

This 8:15 phone call is done either by myself or my two section chiefs. And what we do is we provide information to high levels of senior NRC management.

The way it's arranged is all the managers or their representatives will call into a bridge, and then we just simply provide -- it takes five or ten minutes.

And typically in any given day, we probably screen 20 to 60 items, usually condense it down to typically four to eight items that we brief senior management on.

The things that we brief them on are the most significant events, including all the reactor trips or unusual events.

In addition to this methodology which is used to inform NRR management -- NRR management -- we also have an informal, but responsive, method for briefing people like the EDO or the ops directors of any events that are of particular significance. That occurs weekends, nights, whenever. That's typically handled by the emergency officer or by the division director for operational events assessment.

Next we have each morning an events assessment branch phone call, which is at 8:50. In preparation for this phone call, we have the events assessment branch chief,

as well as the various other organizations of NRR.

There is a prebriefing session for 50.72s and other dailies and other reports that come in. And then what we do is we have the events assessment branch people -- we usually have a representative from the generic communications branch and from the vendor inspection branch, and usually somebody from the risk assessment branch.

We all come together in a room. We meet and talk about the events that have been reported. Plus we have a phone call which includes people from AEOD, the Ops Center and a couple of the other branches that are involved in evaluating events.

And then what they do in these particular assessments is -- the key thing they look at is whether or not there is any additional follow-up that's required to be done.

Typically, if there is additional follow-up, it's because we need to get more information. Usually, the 50.72s don't contain all the information we need to be able to make a determination as to whether or not there's any kind of a generic communication that might be necessitated out of the particular event.

Also, sometimes in evaluating, we might make a recommendation that perhaps an AIT or an IIT would be needed for the more complicated events.

Again, when we do the 8:50 phone call, typically of the 20 or 30 items we have each day, usually it boils down to four or five of them are of interest, and three or four of them that require some sort of follow-up action.

A lot of times the follow-up action is just taking a particular item and getting it transferred over to one of the technical branch people to look at and decide how big a problem it is.

Again, you have heavy emphasis focusing on looking for generic calls. We're constantly trying to find generic calls or trying to find whether or not a particular item that occurred in a plant is really significant.

So we try to get the experts from the technical side.

Could I have the next slide, please?

In all of this activity, one of the major objectives in screening the events is to determine basic factual information as to what exactly occurred.

In doing that, this slide shows the various methodologies we have for determining the facts.

Probably one of the most critical ones is the 50.72 information that you provide to the ops center. That's the starting point.

Then we augment that by getting information from the regions, either verbally or in written form; from the

residents or from the regional people themselves, the project section chiefs or whatever.

For some events, if it's a particularly complex or extremely safety significant event, we may decide -- the agency may decide to send out an IIT, an incident investigation team, or the regional administrator, in coordination with other of the offices, may decide to send out an augmented inspection team.

I guess what's important to realize is that we do look at each and every event very closely to make sure that we understand the sequence of what happened and make sure we understand the safety significance.

The next slide, please.

In addition to these daily meetings, we also have weekly briefings. The first weekly briefing we have is on Tuesday at 1:15.

This particular meeting is one in which myself and other branch chiefs in NRR, reviewers, project managers who are interested in the event sit down and discuss the most significant events we've had the past week. Typically it's two, and sometimes three, events; sometimes only one, of the hundred or so events that we've looked at and discuss the safety significance; any type of long-term follow-up action that's required; plus we do a dry run of the briefing that we're going to perform on Wednesday.

So then on Wednesday we do a briefing at 11:00. This briefing is geared, focused at the division director and above level. We typically have division directors and office directors, Commissioners' assistants, representatives from the EDO's office, some of the staff from ACRS at these particular briefings in which we go through and talk about the one or two or three events that have risen to the threshold as being particularly significant.

It's important to make sure high-level management is aware and understand what occurred in that particular event.

These particular briefings take typically half an hour to an hour; sometimes they're only five or ten minutes. Sometimes we meet only on one event.

The viewgraphs that are used in the briefings and the people that attend the meetings are then placed in the PDR.

Typically, the briefings are done by people on my staff, engineers in events assessment branch, unless there's somebody outside the branch that has more expertise. For example, if we have an AIT, we typically have the AIT team leader provide the briefing.

Okay. Can I have the last slide?

The last thing I'm going to talk about just real briefly is some of the problems that we've experienced with

50.72 reporting systems.

As Ed has said earlier, we are aware that some of the rules require reporting some events that are minor in safety significance.

For example, we get reports when you have a reactor water clean-up system actuation or reports when you have spurious actuations of control room ventilation. We get reports when you have a reactor trip or plant shutdown and all the rods weren't inserted. Those reports are of value to us, as I alluded to, I guess as to some of the activities going on.

Again, I wasn't involved in the writing of this, but as I understand from talking to some people, the problem they had when they originally wrote these is trying to make sure that they didn't eliminate the reporting of some significant items that they have not yet recognized that occur.

So we came up with the reporting requirements that although they may have captured some things that aren't as significant, hopefully we'll make sure that you are reporting to us things that are significant.

We also recognize that there are some inconsistencies in the report. For example, there are some differences in the plants in what people consider to be ESF actuation. In some plants diesel is considered to be an ESF

system; in others it's not.

And, of course, it would be preferable that the reporting requirements are consistently implemented in all sites.

We also recognize that there are some problems because there's a lot of engineering judgment that goes into determining what's a serious degradation of plant safety or what's an unanalyzed condition or what's outside design basis.

There's a lot of judgment that goes on in that area.

Generally, our preference is if it's a close call in that area and you're trying to decide that, we would prefer that you report it to us. We can take that information and compare it with other information we receive to see if there's a generic problem.

Also, we've developed a lot of sensitivity to events or conditions which could prevent fulfillment of a safety function, for example, equipment problems that could lead to common mode failure.

For example, you might have a check valve, it's in a non-safety related application, it has the wrong type of studs or some wrong materials in it. We'd have interest in that because it might be used in another plant in a safety-related function.

And if that wrong material is there, then it may be used elsewhere. So we're concerned that people have the sensitivity to look for particular plant problems that perhaps affect others in a way that is significant.

Also, for example, degradations in equipment which by chance allow fulfillment of the safety function. For example, heat exchangers. Perhaps one licensee finds that a heat exchanger -- they find it partially degradable. It's not inoperable, but they find something new and unique for how it was being degraded.

Maybe in and of itself, they don't see it as of great significance, whereas as time marched on, and it got worse, the heat exchanger could have become very significant.

And if it's a new type of fouling, perhaps that licensee has gratuitously found it; but perhaps another licensee wouldn't. So we can become aware of items like that that perhaps we can decide whether that information needs to be spread around to others.

So we recognize that there are problems in the 50.72, and we see some of them.

But, again, to the extent you report things that are borderline, you assist and enhance the ability of really a large group of people -- probably on the order of 25 people; and if you include the regions, probably up to 50 or

so that daily take a look at events and try to determine is it a generic problem or how significant it is, if it's a plant problem.

The report of this information does go into the system, which is every day trying to evaluate this stuff and trying to determine what is significant about what is going on in these plants, looking for trends that are developing.

At this point I'll turn it over to Eric.

MR. JORDAN: Are there any questions or comments on the material that has been discussed thus far?

I think one comment, that the 50.72 reports that go into a computer system are transmitted daily to INPO and then redistributed by INPO so that utilities have access to those.

So there's no separate reporting necessary for those particular events. They're also provided to the PDR on a periodic basis, so that information is available to the public.

MR. WEISS: Good afternoon.

Al Chaffee told you how important your 50.72 reports are, and I will try to identify some problem areas.

Specifically, what we're not getting is 50.72 reports that we would have expected to have been reported when we wrote 50.72.

My focus will be on 50.72. But, as you well know,

there are close parallels between it and 50.73, so much of what I say will be applied there.

There are about 3000 calls to the operations center each year. About 2400 of those are calls that are required by 50.72.

I don't want to be misunderstood. As far as I know, there's only a few serious events that go unreported each year. I would guess somewhere on the order of about six. Six out of 2400 isn't bad.

When I get done talking, most people think that I'm complaining that the industry is not reporting everything. And I realize we have a relatively small problem, but, nevertheless, I think it's useful for you to hear what we're surprised about that's not reported.

And before I proceed further, let me caution you by saying nothing I say really changes the rule. I am simply providing one man's perspective on what we're not getting.

The next slide, please.

I would say that consistency is our biggest problem in the 50.72 area. We're not getting consistent reporting from all utilities and the sub-groups that I've outlined here.

It's interesting to note that out of these things that aren't typically reported by some utilities, only one

or two at most are actually mentioned in the rule.

But when we wrote the rule, we thought these things would be reported.

To begin with, let's talk about anticipated emergencies. You know the rule requires the reporting of any declaration of an emergency, or if you're not in an emergency and you upgrade or downgrade from an emergency.

I was sitting in Dr. Rossi's office one day; he was then chief of the events analysis branch. And in came a report that someone had heard that a plant was in an emergency; they had a flood.

We called the plant up. And, sure enough, they had known for a couple of days from detailed hydrographic information that the river on which they were located was flooding and that the crest would arrive at a certain time, but they hadn't called us because the water level hadn't reached the level at which an emergency was to be declared, and the clock hadn't run out on the reporting requirement.

Well, needless to say, we would like to hear about that sort of thing as soon as possible. As a matter of fact, that's what the rule says.

The rule says notification should be made as soon as possible, and in no case later than one hour.

Why do we want to know about it? Well, the NRC staffs its operations center in Washington -- actually in

Bethesda, Maryland -- and the regional incident response center is staffed.

We have a complex set of responsibilities to notify other federal agencies to do a wide variety of things when emergencies are declared.

So we do have a need to know, and especially if you call as soon as possible.

What do we mean by "as soon as possible"? Well, we meant that we expect that the operators of nuclear power plants have as their first obligation to maintain the plant in a safe condition; and we didn't want to have the reporting get in front of safe operations.

But we thought it was appropriate that they call us as soon as possible.

A second category of events that I have listed are the so-called large spills. "Spills" is somewhat of a loaded term and almost applies to something that's insignificant.

But it wasn't all that long ago when one region put out a preliminary notification that a plant had what they called an intersystem LOCA Well, if I had to choose one thing during the past year or so that has gone unreported, the single criteria that would characterize the type of events that should have been reported, it would be these large spills.

Why are we interested in them? Well, they're often much more serious than they would at first seem. They have implications for the environmental qualification of equipment that was flooded or submerged.

There's the intersystem LOCA implications on some of these spills. If you take water out of the reactor coolant system and you dump it outside the containment, you may call that a spill, but there's a good group of people in the NRC that are very much concerned about intersystem LOCA.

And for them this event may show them a new path for an intersystem LOCA or a new set of conditions which would be a precursor to a much more serious event. They're very much interested.

And, of course, another reason for spills being of interest is that there are scenarios in which fuel could become uncovered.

If you have a spill from a fueling canal or fuel bundle in transit, it may become uncovered and that's a very serious accident in which it's very difficult to recover because of the very high radiation fields that can be present inside the containment.

Another category of things that have occasionally gone unreported are the so-called inadvertent criticalities. I know I have good friends that tell me every criticality is inadvertent to some degree, so what do I mean by that?

What I mean by that is where you have a large deviation from the estimated critical position, a one percent K over K or you have somebody who is not properly trained at the controls or a trainee who's not under proper supervision or you inadvertently, without realizing it, go sub-critical and then become critical again on a very fast period without realizing it, so that you went critical without your administrative controls in place, something serious like that.

There have been some very significant follow-up inspections found on such events. I would submit that many of these events were outside the design basis, when they treated criticality without the proper controls in place.

Another category of events that sometimes goes unreported are the small water hammers and small fires. These events are often more wide-spread in terms of their consequences and implications than the first few indications would suggest.

Perhaps the water hammer or fire showed a new mechanism by which it could occur. Perhaps it could have been much worse in another plant.

Perhaps given a different set of circumstances, it could have been much worse than the plant at which it occurred.

Another category are the overpressurizations. You

might have over-temperature events as well.

We have had AITs at plants that have had these unreported overpressurizations, so we regard them very seriously.

What do I mean by overpressurizations? Sometimes I've heard the argument that, well, there was sufficient design margin in the pipe, we learned after studying it that we really didn't exceed the yield strength on the pipe.

Well, that's not what we meant. If you exceeded the design criteria, if you exceeded the value specified in the FSAR, that would be enough to interest us.

For example, if you've got reactor system pressure back in the suction piping of RCIC, we'd be very much interested.

And, again, there's a group of people within the NRC that would be looking at that. Your intersystem LOCA study people would be very interested in that.

Another category of things that sometimes goes unreported are the potential generic events. We really did intend that the rule would cover events with generic implications and hope that you would always report those.

For example, I can think of one event where within a matter of hours, the vendor knew about it -- knew about the particular event, and the vendor issued a rapid communication service information letter to all of the

applicable designs, and the utility management knew about it within a day or so.

Unfortunately, it wasn't until a couple of days later that the NRC became aware of it.

If there's potentially generic implications to an event, you can be sure that the NRC is interested in it.

Al has already covered the thing about ESF actuations. Not only is there some disagreement about what is an ESF, but there is also some disagreement or differing interpretations within the industry as to what constitutes an ESF.

I would submit that any time you have a containment isolation -- a containment isolation valve moving, that's an ESF. There's a group of people within the industry I've heard say that you need to have the sensor, the logic and the component actually change before it's an ESF. I personally don't agree with that.

I might also caution that many of these events have significance in the aggregate even if they don't seem to be significant individually. That's to say groups like Al Chaffee's group and others within the NRC that are looking for various trends -- patterns or generic implications will see things in the fifth or sixth occurrence of a seemingly innocuous event and begin to smell a problem.

I might point out that when we wrote the rule, the Commission was very explicit with us about picking up the generic implications of events. We have in the statement of consideration for our rules, 50.73 in particular, a statement that I'd like to quote to you.

It says, "Finally, it should be noted that licensees are permitted and encouraged to report any event that does not meet the criteria contained in," and then it quotes a paragraph, "if the licensee believes that the event might be of safety significance or generic interest or concern."

And the NUREG-1022 on page 10 encourages the submission of voluntary reports because of the NRC's need to know about events that have either plant-specific or generic implications.

Next slide.

Notifications for NRC response to the media and public, and we might add state and local governments there, is often untimely and the threshold somewhat off.

We need to know in the NRC about any event that the public or media, the state or local governments, the federal government agencies other than our own perceive as safety problems, even if that perception is wrong.

No one's interest is served, not the licensee's, not the public's, not the NRC's, if the NRC is not aware of

events that cause public concern.

The public, the Congress and other federal agencies depend upon the NRC to know what is going on; and we can only hold the public trust when we can address their concerns.

We have in place a very detailed set of procedures in our operations center, and we have many interagency -- in fact, we even have some agreements with other foreign countries to share information about events.

Other federal agencies have complex sets of responsibilities to respond to emergencies, so we need to know about events, even if there's nothing all that safety significant going on.

It's enough that someone else believes that there is.

Just to take a hypothetical example that might illustrate what I'm driving at. How would you perceive it if you happened to be around when a reporter, say, went up to a high-level official in the Commission -- let's say a Commissioner for the sake of argument -- and said, "What about that terrible accident at such-and-such a plant?"

The Commissioner says, "I'm sorry, I don't know anything about that."

That tends to generate mistrust, whether I like it or not, or dislike it. It's just a matter of fact that we

need to know about what's going on at plants in order to hold the public trust.

I'm always struck by the wide disparity in events that we get reported here.

Some licensees won't tell us about the overpressurization of RCIC that generated an AIT even though they notified state and local governments.

Other licensees call up and tell us about a turtle in the traveling screen or a light on the cooling tower that burned up.

There is one licensee that had a steam generator two bleep, and they held two press conferences on it in the morning, separated by several hours. They waited for four hours to notify the NRC, and it happened to be a licensee that had a very sensitive populace around the plant.

They were calling the NRC operations center, among other places, telling us that terrible things were happening at the plant, and as far as we knew, nothing was.

Certainly, this wasn't as soon as practical notification, if they had time to hold two press conferences, but didn't have time to call us.

Next slide, please.

Deficiencies are not always reported when found by NRC personnel, such as inspection teams or residents.

50.72 stands by itself in that it requires that

the NRC operations center be called, regardless of who finds the problem. Why is that?

Well, we'll get calls from other federal agencies asking why we didn't fulfill our responsibility to notify them of certain events. I can remember one instance in which EPA gave us a call. It was many years ago when this happened.

But, nevertheless, if we're not notified in the operations center, then our procedures don't get implemented properly, and not everyone gets notified who should be notified.

So another point that I want to make that's kind of collateral with this, is once an event is reportable, it must be described completely; and that complete description must include the circumstances of the event, even when those circumstances in and of themselves would not be reportable.

If, for example, you're using a non-safety grade pump to mitigate a safety significant event, we need to know about that. We need to know about the status of systems that are being used to mitigate the consequences of the event.

Those status items may not in themselves be reportable, but it helps us understand what the real safety significance is of the event that we're being informed of.

And there is a paragraph under the rule, 50.72(c),

that requires a callback if something more significant happens.

I can think of one event at a plant where the original report did not tell us that an IRN had failed downscale, and an MSIV had stuck open. We should have received a callback to say, "That trip we reported four hours ago, we now realize we had a stuck open MSIV."

Another category of events that are frequently a problem and are not adequately described are the health physics related ones. I suppose that's because the people in the control room tend to be reactor systems engineers of one type or operators, and not health physicists.

But if, for example, a plant calls up and says, "We've had a release offsite. Our events techometer has failed upscale high -- topscale high, and at so many counts per minute," that's not a very meaningful report.

We need to have it put in terms that are meaningful to a health physicist in terms of a particular quantity of release of nuclide or a certain percent of tech spec or something that's meaningful.

Next slide, please.

Required oral reports are sometimes made to other NRC personnel rather than the operations center.

As I alluded to before, the NRC has a complex set of responsibilities, both within our agency and with other

federal government agencies, to keep them informed. We can only implement our procedures, if we get the call in the operations center.

I might point out, too, that 50.10[illegible] is not a substitute for 50.72, something that is a 50.72 reportable item should be called in on the red phone.

There are a couple of collateral things to mention here as well.

I think you've heard already, but just so that it's clear, the number of notifications in themselves are not significant. What is important is the safety significance of the event.

One fellow who did these workshops four years ago used to say, how many setpoint drifts is equal to a LOCA. Well, a crude analogy: how many reactor water cleanup systems are equal to a core melt?

So bean counting is definitely not where it's at. The important thing is the significance of the event.

We realize that, and we hope you do, too.

Another very important point that has been made in prior workshops is the most important thing to keep in mind is the safety significance of the event in terms of its reportability.

Focusing on the nuance of words will sometimes get us the wrong answer. If we can keep in mind what our goal

is, then I think we'll all have better reporting.

Next slide, please

Before leaving the podium, I wanted to address one thing that I had left out of my presentation sometimes in the past, but that keeps coming up.

Potentially generic items are not consistently reported because the intent of 50.72(b)(2)iii is not always understood. The words, "alone could have prevented," need to be explained.

Well, specifically what I'm referring to is that there is a criterion in 50.72 that says any event or condition that alone could have prevented the fulfillment of safety function of structures or systems that are needed to, and then it has a list of things, (a) shut down the reactor and maintain it in a shutdown condition, (b) remove residual heat, (c) control the release of radioactivity, and (d) mitigate the consequences of an accident.

Well, "could have prevented," what do we mean by that? Well, we meant things that were common cause or human factors concerns or generic concerns.

Where does the word "alone" come from? It wasn't in the proposal. It wasn't in the proposed 50.72, but we got lots of public comment on that.

They said, "Gee, anything could have prevented the fulfillment of the safety function. What do you mean, NRC?

I mean, the clock falls off the wall in the control room. It could hit the wrong switch, and you'd be in trouble. Let's get real."

Well, we said "alone," so what we -- in the final rule. So what we meant by "alone" was those things that were significant enough in themselves to cause a safety problem.

Well, with that I want to thank you for listening to me.

Again, I want to emphasize that I think we've got a relatively minor problem on the reporting. But, nevertheless, I wanted you to understand what it is we're not hearing about that we wish we were.

MR. WILLIAMS: What I'd like to do would be to stay ahead of the schedule, if possible. So right now we have a 15-minute break scheduled, and then we'll have a panel discussion when we return.

Let's try to return about a quarter of three, if possible; and then we'll start the panel session.

[Recess from 2:35 p.m. to 2:50 p.m.]

MR. WILLIAMS: We are very concerned that we are not going to get a lot of excitement and good questions out of the audience, so I'm trying to think up something to start us off on a good line of questioning.

The main concern for the workshop really was for

us to get your feedback on ways that we can improve the reporting. We'd like to hear as much from you as possible.

So, please, take a microphone; don't hold anything back and provide us the feedback.

There are some impressions I've heard about the discussion so far, that you hear a mixed story. Some of us are saying only report the important things, and yet you see detailed discussions of what constitutes compliance with the reporting requirements and what we're missing.

We were talking about this outside. It's hard to decide what's important. What's important for a significant event and what's important for the analysis of equipment problems or trends and patterns varies all over the map.

We have reporting requirements and rules -- in my discussion in a little while I'll show you that the goal was to get the important events, the significant information. It's very hard to codify that, if not impossible.

We want to try to improve it, but we'd like to get your ideas on the implementation of the rules that we've had for the last six years or so, and how we can get closer to that target.

So with that, let's just have the first question.

MR. HORIN: My name is Bill Horin. I'm with Winston & Strawn.

I guess just to start out, I'd like to thank

everybody. I was up at the one in King of Prussia. I think that this workshop here has started off with some caveats that perhaps weren't there in the early workshops about these discussions here not being intended to establish new requirements, et cetera, but intended instead to get a dialogue going.

I won't go into that. We've discussed that before.

But let me throw out a couple of other things, and I think it's something that Ed pointed out at the beginning, two particular points that I think licensees, perhaps if there was some explicit communication from the staff on these points, may be in a better position to feel that there's less of a burden on them in the reporting process.

The first concerns the bean counting. Ed explicitly pointed out that there's no intent that there be bean counting.

Let me throw out and get your feedback. I'll give you this one and then the other and just sit down.

As to whether or not the staff would be willing to put in some policy or some explicit guidance to the licensees that there is no intent, and that the event reporting data would not be used for bean counting at all. Now that's number one.

Number two, with respect to enforcement, Ed also

pointed out that enforcement in this area is probably as a last resort. I think that is something that many licensees would welcome, also some explicit direction in that regard.

There was a concern about this whole process being too legalistic. And I think that the licensees are subject to an enforcement action for, in some cases, more detailed disagreements than what they may feel is warranted.

It puts a lot of pressure on licensees. And perhaps again if there was something explicit that the Commission could state that in this area that enforcement will not be a priority and it will be a matter of last resort, perhaps egregious violations only.

I think that would go a long way to help licensees get a -- take some of the burden off them that they feel is placed on them because of potential enforcement.

MR. JORDAN: Okay. I think I can comment on that, as related to the performance indicators Based on concerns that both industry and NRC have about performance indicators becoming truly a monster and being used to gauge the utilities, the staff, at the Commission's direction, came up with a set of policy statements that would communicate with each of the quarterly reports, limiting the use of the performance indicators by the staff and the public by putting them in context.

I think I'm quite willing and interested in doing

that for both the guidance side of it and the enforcement related to event reporting.

So, yes, I have an interest. I'll promise to try. I won't promise to accomplish.

But I've been fairly successful in the past. The staff has been advised informally that we're not to bean count total numbers of licensee event reports.

Now, there is really a bean count in terms of, let's say, significant events when a particular utility has a large number of what we class as significant events.

We set our own criteria for what constitutes a significant event.

Then we get concerned about that utility. You may consider that bean counting, but that's based on the significance -- the true significance, the safety significance, when you take the data and do an analysis as an accident sequence precursor, and you determine the conditional core melt probability for an event, and you have one plant that has two events or three events in a year whose conditional core melt probability is on the order of ten to the minus three.

Yeah, we get concerned about it and we might consider that a bean count. I don't.

To me the bean count is if we simply take the broad number of licensee event reports and compare that this

year you had 30, and last year you had 25, that's a bean count. It's irrelevant, in terms of safety significance; and that's what we'd like to, I think, do away with. It's a not a useful value.

So, yeah, I will personally endeavor to make a policy that's clearly articulated to say that we won't do that.

MR. WILLIAMS: Let me add one item. The performance indicators for each individual plant, within the last six months there have been a couple of reports sent out to each vice president, our standard mailing list for the utilities.

They receive as front matter to the plant's performance indicators a letter signed by one of the section leaders in the NRC. But attached to it is the policy on the use of the indicators and how they should not be used.

A lot of the concerns that you bring up are addressed in that policy, which is our policy on the use of performance indicators. But it has been sent to the utilities individually with their own indicators a couple of times so far.

The second thing is in the matter of the enforcement, it seems as though we always have a tradeoff -- and we'll get into it in some of the slides that I have -- of engineering judgment versus compliance and safety culture

developed in the reporting of events.

I think the more we can resolve that issue on the use of engineering judgment and getting the most significant information reporting, whether it's an individual event that's significant or not, but the information that's relevant to our mission, if we can get the information we need, I think a lot of the enforcement aspects of it will fade into the background.

I think we need to develop more of a safety culture because in the recent years with the emphasis on bean counting, which is probably the single biggest problem we have in the reports today, bean counting by others other than the staff or the industry maybe.

But if we can deal with that issue, I think we'll be further down the track.

MR. JORDAN: Maybe I can ask Bobby Faulkenberry a question. We'll interact ourselves if you guys don't.

In terms of self-evaluations of plants, does your region, and the other regions to your knowledge, now use numbers of LERs as a comparison value alone?

MR. FAULKENBERRY: No, I don't think so. And I think we would tend to de-emphasize that aspect with numbers. And again I would reemphasize what we've talked about here with regard to the safety significance and the quality of the report itself.

While I'm on this, I'd like to get back with regard to the enforcement aspect of it. I'm not sure that I fully understand your concerns.

But certainly from the regional standpoint, we want to encourage -- and we try to encourage -- self-identification and prompt corrective actions and prompt reporting.

We have tried -- and certainly we've revised our enforcement policy and program to give you credit and to reduce enforcement significance when this happens.

So we're certainly interested in that and interested in encouraging people to do this. So I think we'll try any way that we can to continue this encouragement.

MR. GWYNN: I'd like to make a comment concerning the use of LERs in the SALP process. In Region IV we don't use gross numbers at all. As a matter of fact, we don't even compile the numbers as a part of our process.

But we do focus on safety significant licensee event reports, and those can be reflected in a number of ways, either very positively in the SALP process, when in fact the licensee has done an excellent job of identification and correction of a problem; and it can be taken in a negative fashion when in fact licensee performance has been less than adequate.

So the LERs are used in the SALP process, but numbers not at all. They can be positive or negative factors in the SALP process, depending upon how the licensees perform.

That's what our focus is.

MR. MARTIN: Bob Martin from Region IV.

I'd like to make two observations relative to the enforcement element of -- relative to reportable events.

One I think is historical in nature and really doesn't exist anymore. There was a concern for a period of time that licensees would report things in LERs, and they'd take the corrective actions; and then when we did the followup and review and captured it in an inspection report, we would cite them for any violations that were contained within the LERs. That was a period.

There was a period of time where the licensees were at jeopardy from that. I think that period of time has now passed.

The discretion involved within the enforcement policy allows us to execute discretion relative to those kinds of events. And so there isn't, if you will, a quasi double jeopardy. It wasn't really double jeopardy, but it was sort of getting beat up for reporting on yourself.

I don't think that really occurs unless it's a particularly egregious problem.

If you report as required that through a violation of regulatory requirements by people on your staff, that resulted in a severity level one problem that actually threatened public health and safety, I can assure you that you will suffer a violation and a citing of regulatory requirements for that.

And if you didn't report it, it would be escalated even further.

So depending on the significance of it. But at the present time we can execute discretion up through severity level three violations, which are normally civil penalty violations.

So I think there is a certain historical element to the role of enforcement of LERs.

There is another aspect of enforcement, which I think is more frustrating. I think Mark was trying to reach to that to some extent.

When we use the principles of "Tell us what's important" as a principle to guide LER production, from a technical perspective we can look at those elements of the agency which look only at technical aspects.

We'll look at it and say, "Gee, we don't agree with you on the way you made that call on that issue. And from now on let's understand in the future that you really are supposed to report those kinds of things." That's sort

of like a technical dialogue.

If you look at it from the enforcement side of the house, once we've made the decision as the agency that you should have reported that, from the legal enforcement side of the house, we say, "Wait a minute. They were required to report. They failed to report. That's a violation of regulatory requirements."

What we do not have is a gray zone in between. The gray zone is only one side, from the technical side of the house.

The gray zone is less clear and is perceived to be a very sharp boundary from the enforcement side of the house under those conditions.

I think that's again with the enforcement policy allowing us discretion where there is reason to believe that there could have been confusion about the requirement to report, that we are able to execute discretion in that regard.

So I think those occur much less frequently.

I think, however, some of the issues that are being discussed here will be those items that aren't being reported. The rule is not overly specific, but the general principle of "Let us know important stuff" should have captured that.

Meeting with the capturing of that should have

resulted in the reporting.

The other issue I can't stress strongly enough. What we talked about during the backfit portion of the workshop, there is a difference between informing and reporting.

Now, we view reporting as the requirement to report. It's the legal obligation you have.

But if you talk to us and inform that something is going on, we may be able to tell you, "That is reportable" and thresh that out through dialogue before we get into enforcement space and preclude us from getting into that enforcement space.

So again the question of if something happens of substance, let us know. Then we can discuss the difference in perspective about whether or not it's reportable, in the reportable sense.

MR. REEVES: My name is Don Reeves. I'm from Nebraska Public Power, the Coopers Station.

I have a question for Ed Jordan. Ed, you mentioned today and then I think I've seen it in several summaries of these meetings from Regions I, II and II probably, that this 50.73 reporting provides an opportunity to identify precursors to more serious events, even those events for which notification is currently being provided -- or reports being provided, may not in themselves be serious,

they may identify precursors of more serious events.

Can you provide some feedback to the industry as to what kinds of things have been identified as a result of the reporting of nonsignificant LERs?

MR. JORDAN: Sure. The list is as long almost as the list of generic letters and bulletins and even information notices where multiple events are involved. I guess the first example I would pick would be air system problems.

We've had air system problems ever since any of us have been involved. Individually we've said, "Well, that didn't really constitute a challenge to the plant in many cases."

However, because of the common mode aspect and because of the sheer numbers, you can boot it into a plant-specific or generic PRA; and it sure as hell does.

And so the air system study that was done by the NRC and subsequent risk analyses using those rates of failure said, "Hey, we've got a problem that really has to be fixed industry-wide."

I would pick also the service water system as being a system that's the ultimate heat sink. And the NRC and industry have not treated it nearly with the respect that it's due.

Only by looking at large numbers of events across

all of the plants do you really recognize that there's a gross problem and then go about getting it fixed.

So those are the kinds of things that come out through accumulating experience.

And I'd like to make a point that when you've submitted an LER and we want to do screening, it doesn't end there because the next time that related event comes up, then the relationship between those events is examined. And it may take a year or years to accumulate the basis for understanding a problem that really ought to be fixed.

So I think that's one of the more beneficial things that has happened, and I would give INPO kudos for doing a similar thing, that INPO also accumulates experience and then feeds it back, based on "Here are a set of circumstances that happened to different plants, that combined cause concern industry-wide that needs to be fixed."

MR. WILLIAMS: I can give you other examples, but I think a big point is, you only see the things that break through the ice.

We do an awful lot of work that you really don't see. I just commented on a report this morning and phoned back comments on Terry turbines. Terry turbines are used in a lot of safety-related applications in the industry at Cooper and other places.

The study is based on a lot of events which are not significant. The turbine trips and there's not any significance at all really to the event in and of itself.

But when we look through literally hundreds of these events, we find out that there's a lack of coordinated application of that equipment in a given function.

The AE's design and the equipment manufacturer's intended uses and a lot of the application problems roll up into generic situations with those turbines that were raising some questions internally.

Now, that may raise a safety issue, and it may not. It might turn into just one or two particular problems.

But we do a lot of work using the lower level information that's not significant as a significant event.

50.72 and .73 have different purposes. .72 is really an events notification kind of system. .73 is part of a Three Mile Island action plan of remedial action to feed back the operating experience.

The requirements are the same. I think that has helped people understand the work on requirements so that we can at least have a common basis for dialogue.

But there's a lot of work that's not seen and used in this low level stuff constantly. Ed raised the ones that you probably have seen.

How many people in here have seen those reports, the air system reports, the service water system reports? Do you get feedback from any AEOD reports at all?

That's better than average.

MR. JORDAN: I want to also mention the ones that didn't work as well as industry and NRC would have expected. Trip breaker problems I would say is one. When the Salem breaker failure occurred, we really had precursors -- we, the industry and NRC -- that didn't get into the system in a fashion that we could in fact see that there was a problem before we had that trip breaker failure.

So we do still have failures. That was several years ago But I think those kinds of problems still occur, where we -- as a system we haven't really fully exploited it, and we're trying through NPRDS to piece together one failure with individual component failures to see if there is a better way of understanding component performance, for instance, that may lead to system failures.

I feel particularly bad about the Salem trip breaker failure because I think it was an unnecessary failure. There was notification by the breaker manufacturer. There were individual failures that hadn't been reported, and there were component failures that didn't in NPRDS when we started examining in detail at various plants.

So that's a case where, if we had all done a better job, maybe that particular failure at the plant wouldn't have occurred.

MR. REEVES: I had another question for Eric Weiss.

On your slide, the slide that talked about items that are not consistently reported, I think you said sometime during the conversation that there were maybe six critical events per year not reported.

Are these characteristic -- these items that were on the slide --

MR. WEISS: Yes.

MR. REEVES: -- of those items that weren't reported?

So we're talking about a relatively minor number of events per year then percentagewise?

MR. WEISS: Yes. That's why I tried to preface my remarks by saying I didn't think there was a big problem.

In Region III, one of the regional personnel got up and said he had a different opinion, that there were a lot.

But of the ones that have come to my attention, I think there's only about half a dozen a year that are very serious and go unreported.

MR. REEVES: Thank you.

MR. WALKER: A comment to Mark.

We know that those who get the reports read them and use them.

A second. With respect to information notices, bulletins, I get a list of ones that you guys put out that you're proposing. Do I get a list anywhere in the world where a study of A or B is going to start?

It would be useful sometimes to understand what you're going to go off and study, and maybe we've got some input that you could use.

MR. WILLIAMS: That's a very good suggestion, Roger. I think we can try to do that.

I know we do have a list of ongoing EOD studies, and we publish it internally. We could make that available to you somehow. The mechanism I'm not sure of.

One thing that comes to mind is maybe to resurrect "Power Reactor Events," which was a periodical that was issued by the NRC that just had discussions of different kinds of events. Maybe we could attach to that.

We also have the INPO studies that are ongoing. We may or may not -- we'll have to discuss that with Dan. But that's a very good suggestion, and I think that we may have a vehicle to get that out.

MR. KING: This is Rick King with ENTERGY, Arkansas Nuclear One.

This question is more directed at Eric Weiss. You mentioned earlier that some items are not being consistently reported.

I guess the question I have is what communications does the NRC have between AEOD and INPO regarding generic issues and other conditions reported on the network? For example, OE entries and all that.

MR. WEISS: I don't think I'm the best one at this table to talk about INPO/NRC relations. I used to do events analysis, but maybe someone else....

MR. CHAFFEE: We have a weekly phone call to INPO. The purpose of the call is to try to compare what sort of generic communications we or they are working on to minimize any duplicative information.

In those phone calls we just do that, decide what kind of information each group is working on to come out with generic communications and be sure we don't duplicate each other.

I don't think that's a complete answer to your question.

MR. JORDAN: There are also periodic meetings with INPO and NRC staff to go over the activities and results, to try to fit together a little better.

And we recognize clearly that we have differences. INPO is an industry organization. NRC is a regulatory

organization.

We both have certainly some of the same goals in terms of safety. There are occasions in which the NRC, despite the fact that there is an INPO document that has been communicated to utilities, feels it necessary to communicate -- to get actions that will assure that there is feedback on the status of a particular problem.

And those are, in particular, bulletins and generic letters.

So there is redundancy there with some of the INPO communications that I think we'd like to have a way of avoiding, but we can't, with the need to maintain our regulatory role.

MR. KING: I guess my comment was more pointed towards the generic communications and whether -- It seems that there's a lot of valuable information there with regard to AEOD's assessment of events and whether that would be a valuable tool for some of the information that you're indicating that you may need.

It's already out there being provided. Whether it's being assessed or not I guess is the question.

MR. WILLIAMS: Is your question whether we have access to the network or not?

MR. KING: Not specifically AEOD. But some of the comments I guess with regard to the generic reporting and

some of the information needs that AEOD has in those areas, whether that would be available to Eric and whether his department actually assessed that.

I'm not sure if that communication exists or whether he thinks it would be of value to him. But it does appear that that does have some valuable information to be gained.

MR. JORDAN: I guess I would want to make the point clearly that we are integrated in terms of AEOD/regional/NRR research in terms of our goals and objectives. We have clear lines of authority and responsibility.

So if information exists in one office, it automatically exists in the other. There are reporting communications every morning to try to make sure there's not duplication.

If utilities see evidence within the NRC of separate information searches on the same topic, please advise whoever it is that's the second contact, that there was a previous contact; and then that will help reduce it.

So when we're talking, we should be talking as NRC as opposed to a given program office. We all have the same goal and slightly different responsibilities for different parts of it.

But if we're not coordinating, tell us where we're

not, and we'll straighten it out.

MR. REEVES: Don Reeves again with Cooper Station.

Al, I think you spoke about the problems experienced with 50.72 reporting. And, by and large, most of our 50.72 reports are turned in by the shift supervisors and relate to specific events or conditions that have occurred at the plant, primarily events.

Occasionally, we get into conditions, engineering situations and so on. It seems like a number of the problems that you've identified here with the 50.72 reporting are in that area; is that correct?

MR. CHAFFEE: That's correct.

MR. REEVES: Is there something that can be modified with 50.72 such that those reports can be provided through some other means into this -- into the events assessment group, other than through the operations center?

And the reason I'm asking is that we'll come upon a potential deficiency possibly in the engineering area, and it may take two weeks or it may take two months to go ahead and try to figure out whether it really is a problem or isn't a problem.

We'll define what the nature of the problem is and what the extent of it may be. Then we'll go ahead and attempt to make additional reports. But at some junction, it would not be unexpected that the region would be advised

that we are looking at thus and so and we certainly advise our resident inspector that something is going on in that particular area.

But if the situation hasn't been broached in front of the NRC and the NRC is not aware of what's going on at the plant, it seems somewhat inconsistent with the rule that once you decide you have a problem, you've got an hour to call into the operations center when you may have been looking at this problem for three or four months.

MR. CHAFFEE: I guess what you're saying is the time frame of the 50.72 gives you a problem in this type of event.

MR. REEVES: Well, I don't know that the time frame gives us a problem. The interpretation would be -- I guess my perception would be if you've got a problem that's reportable within an hour, and it's a serious problem, you're going to need to know about it right away.

But in reality, when you get into some of these engineering areas, that's not the way it is at all. You've identified the type of deficiency, and then from that you've got to do some evaluation to determine whether or not you have a problem, and then if you do have a problem, the extent of that problem.

To think that you've got a six-month time frame and then somebody says, "Okay. We've got a problem," now

we've got an hour to report it seems to be wholly illogical to me.

I'm wondering if there is a different route to get that information into the events assessment group.

MR. JORDAN: There isn't one at this time. It's a problem in terms of logic thought, I agree.

But in terms of cost and data management for the NRC at least, it's simpler to have one data base to put prompt reports in, and one method of communicating so that everybody learns about it very quickly.

And so without sounding defensive, I don't see a value in setting up a separate reporting scheme when I don't think the burden is large on industry.

There is certainly some logic that I can see -- you know, I accept and agree with. If you spent -- If it took six months to decide whether that was a problem, to have to report it an hour after you decide seems a little silly. Okay, I agree.

But once you decide, the cost to you of reporting in that fashion is pretty small. There aren't that many a year that fit into that category.

And so for us to establish a separate reporting scheme would seem an unnecessary expenditure.

MR. REEVES: Okay. Let me just ask a follow-on to that question.

That is, associated with reporting these situations, some people that I've talked with report the onset of the problem, the potential deficiency prior to or just soon after getting into the evaluation of it.

There are others that allow that whole process to continue on to its logical conclusion to make a determination as to whether or not a problem in fact did exist and make a report at that stage.

What is the NRC's perspective as to when reports -- or when those notifications need to be made?

MR. JORDAN: You could probably ask for a secret ballot across the panel, and it would come out like some of our recent elections.

MR. WILLIAMS: The things that you're raising questions about, first of all, we have different opinions among the staff about taking the CHIPI report under 50.72 throughout these workshops and things that shouldn't be reported under 50.72. You can come up with good examples of things that shouldn't be reported under 50.72 that were the subject of study.

But one thing that I've got written down on my pad that was in my mind responsive to your question is justification for continued operation, JCO and operability determinations, and what risk that that particular condition presents to the plant, given the mode of operation that the

plant is in, if they're not in the middle of a refueling outage or whatever way it's found.

And, really, the things that bear on a JCO are the operability determination. The same thing would dictate why it was turned over for a 50.72 consideration, or why all of a sudden you had a deal with this particular condition.

So while we haven't hammered it out yet, I think that the direction that we are thinking in is along the direction of the design basis guidelines that NUMARC was working on when we looked at it.

That gives guidance for how you look at a condition that was discovered during a design basis reconstitution effort and operability determinations and reportability determinations.

So I think as we work along those lines, we'll find some clarification that we might be able to issue to take on what should be reported under .72 and what shouldn't.

But the overpowering thing is the justification for continued operation, once given that condition, whether it's at the onset of the study or was just discovered or whether it has been analyzed. Generally, there's time requirements. We've got 30 days to make up our minds for an LER. We've got less than that when it comes to a JCO or that condition.

But I know Johns has got a response to your question, too.

MR. JAUDON: I was just going to say, the kind of things that cause concern in the region are not whether a one-hour report got made or the same day or the same week.

It's when we have found instances in which something has been known for years and not reported and not resolved, and no effort made to bring it to resolution, other than posing the question and filing it away under some kind of a trouble report form.

We have viewed that as not being responsible in trying to get to an answer. If that helps to answer your question.

It's the potential safety significance of what the outcome of your question may be. It depends how fast you -- when you report it, what you have to do with it.

MR FAULKENBERRY: I would just like to add to that also. From a regional perspective, I think we would much prefer you to report something early on, when you first get in an indication that it is a problem. I think it's just strictly the communication aspect of it, when you become aware of it. We can work with you people, either through our resident inspector or what have you, to explore it and see how significant it is and go from there.

MR. REEVES: Well, I may be speaking out of turn

from the standpoint of a direct representative of a utility. I'm speaking for myself when I say that.

I think when we identify potential problems, we would at some juncture be in contact with the regional office, Region IV in our case or with the resident inspector for the regional office and advise them accordingly and let them know what's going on and where we think we're headed.

But, by and large, I think our philosophy has been that we'll go ahead and initiate formal reporting through -- formal notification, the 50.72 and 50.73, when we have figured out just where it is that we've gone, where are we, do we in fact have a problem.

I guess my perception is that you would agree with that approach.

MR. WILLIAMS: In the design basis documentation guidelines that NUMARC has put together, I think things are really -- in our view things are turning on discovery.

And the time line starts in discovery.

MR. REEVES: Discovery of the problem?

MR. WILLIAMS: Of the condition, yes. It's not when the analysis is completed.

If you find out that you don't have gratings, but you have solid deck plates and you have a flooding condition of certain equipment, and you haven't analyzed it to figure out whether the water can flow out of the gratings in the

bottom of the doors, which is a plant in Region II I'm thinking of right now, you should report that.

If you get all of that done within a certain time frame, great. But if you're not, you'll have to report it promptly.

So it's hard to make it black and white, you know. If we have to make decisions as to what is the answer to the question, we have to agree to disagree with something, like the guidelines that the industry is putting together in the area, then we can kind of base it on as clear a guidance as we can provide. I think it's going on discovery right now.

MR. WEISS: When they wrote the rule, we knew that we were going to have to write some criteria that would involve judgment. In the statements of consideration, we explicitly say so, that some of the reporting requirements involve judgment.

If we can all agree that a particular event or condition has safety significance, then we're a long way towards deciding whether it's reportable.

Sure, some things are going to be more or less vague at a particular time and presumably get clearer as they're studied. And at some point your judgment will tell you, "Well, this is bad enough I think we ought to tell the NRC. They're probably going to be interested in this. This is not idle conjecture any more. We've got enough evidence

here that my judgment as a professional engineer is we should be telling the NRC about it."

Some things in the rule are just hard and fast. If you have a reactor trip, pretty much most of those are reportable with very few exceptions.

MR. FAULKENBERRY: I kind of think there are two things here that come into play. One, I think we're talking about kind of the legalistic aspects of reporting, when you come down by regulation and it should be reported; and the other aspect of it is more, I think, our concern or one of the big concerns of the region is with regard to communication and joint knowledge with regard to problems and identification of problems as they arise.

Maybe there's kinds of dual mechanisms that you can use here. Of course, certainly when it's very vague with regard to whether it's actually reportable or not, good communication and prompt communication with the resident inspector or through the regional office in a telephone call could be helpful, because I think we at the regional office can become very disturbed if you've known about a potential problem for some weeks or months, and we don't know about it and then all of a sudden at some point in time you really get the firm facts to say yes, it is reportable, then you can bounce it off of us.

So I think there's a communications aspect of

this, as well as a legal reporting aspect.

MR. REEVES: I was going to say, I agree with the communications aspect. I separate them in my mind, the legal requirement is 50.72 and 50.73; and the more technical and formal -- I guess my characterization anyway would be communication between the licensee and the resident and the region and so on and so forth.

Just to get -- to bounce this idea off you. I recently saw a communication from a plant in Region I where it was their perception that in order to communicate -- communications regarding design problems, it appeared that they needed to do it on a more formal basis. They found that in lieu of putting it in accordance with 50.72 and 50.73, the situation that the condition did not meet those criteria, they reported they were going to report in accordance with 50.9.

MR. WILLIAMS: And we disagree with that.

MR. REEVES: I had something else on my mind, but I can't remember what it is right now.

MR CHERNOFF: Harold Chernoff from Wolf Creek.

I'd like to get back to Eric Weiss' list a little bit here. I have a couple of comments I'd like you guys to consider with respect to that.

One, most of the things on that list, if not all of them, are not truly required for the existing regulation,

nor for the existing guidance in NUREG-1022.

If there's an intent by the staff that those things do need to be captured, I'd recommend that you consider rulemaking or that you consider revising those NUREGs in order to capture those things.

All the utilities here today have a limited number of resources to apply to these things.

As we talked about in the backfitting seminar that started yesterday, when we apply those resources to things that are of lesser importance, it takes away from -- detracts from the amount of time and resources we can apply to those that are really safety significant.

So even though it may be important from AEOD's perspective that some of these small fires in buildings, maybe not necessarily right in the power block, or small water hammers in secondary sites, be captured, it should be recognized that that's drawing some resources away from doing thorough and very good evaluations of events that clearly meet the criteria.

The other comment that I'd like to make was with regard to the statement that sometimes notifications are not made to the right office and that an operations center is not made aware of events.

We all, I think, have pretty good communications with NRC residents. And one thing I'd like to recommend is

that if there is a problem with that, we typically always notify our residents when we think something is significant.

And nine times out of ten, if we didn't notify them about it, they certainly picked it up from the controller blocks, at least in this region anyway.

If there was a way that a mechanism could be put in place such that the regional telephone calls, at least in our region that go on, could input to the operations center, I think the operations center might find that their procedures were getting fed, and that the things that they were interested in, but maybe didn't meet the criteria, were getting identified to them.

I think those are some things that maybe would satisfy some of the needs without placing additional burdens on the licensees.

MR. GULDEMOND: Bill Guldemond, Comanche Peak.

I'd like to echo what Harold says. We share a lot of information, not only with our resident inspectors, but with people in the region, section chief level, project inspector level, and project management in the NRR.

In many cases those are situations which fall toward the bottom end of the grade on reportability, recognizing NRC's need for information, AEOD's need for information and what it needs to do.

But my question to you is: Are you comfortable

with that information which comes to the NRC in other forums is channeled to satisfy the needs of AEOD where there may be a question regarding reportability?

MR. JORDAN: Yeah. And I'm going to once again say, we're not trying to satisfy AEOD's needs. I'm the office director for it and I can say it with authority.

We're really trying to make sure that the NRC's needs are satisfied, and that in fact the public's understanding of events is adequate.

I'll make one point that reporting to the NRC an item that is clearly reportable to the resident inspector, the regional administrator or the licensing project manager does not satisfy the rule.

Those fuzzy things you ought to discuss. If you have -- If it's fuzzy in your mind as well, discuss it with the region, with the project manager, whoever, and help clear up the fuzziness.

So I have no problem with that. But you haven't satisfied the reporting requirement through that manner if in fact it is reportable.

And I think in many cases you get advice from the project manager or the region that "Yeah, it's reportable, send it in," or "No, it's in the fuzzy region. We don't see that it's clearly reportable; it's not necessary."

The NRC does have -- and it was mentioned

earlier -- a pretty close communication between the offices in the regions so that each day those things that have come to the project managers and the regions -- the inspectors' attention that are relevant with regard to events are put into a daily reporting file and are communicated electronically and are examined in that daily meeting.

So that stuff all does come together every 24 hours and is reviewed. So we have our own checks and balances. And in some cases we come back to a particular plant and say, "Hey, that strange criticality that you had that you hadn't expected really should have been reported."

Those are done informally in some cases. In other cases where we think it's egregious, an enforcement action is taken.

We'd like to minimize the enforcement action side of it by having the close communication with you.

But as far as replacing the existing reporting requirements with a different system or an informal system of communicating with the resident or the project manager, I don't have an interest in it right now.

I think that that would be creating a problem.

MR. CHERNOFF: Yeah, Ed, that wasn't the focus of the comment.

The comment was not related to the things that are clearly reportable or even fairly clearly reportable. I

think we all use quite a bit the resident inspectors, the regional people, to help us decide things in the gray zone.

What I was referring to are some of the items that were on the list that was presented. I think even if we sat down with our resident inspector and said, "We had a wastepaper can that caught on fire in the turbine building. Do you think that should be reported or not?"

I think even our resident inspector would probably say, "No, that doesn't seem to meet any of the criteria."

MR. JORDAN: And we'd say no.

MR CHERNOFF: Those are the kind of -- I'm saying we're sure that they show up in your daily reports and such. If those get fed over to the operations center people, if they want that information, make it available to them, then they won't come to presentations like this and say, "Well, we feel like we're getting almost all the reporting, but we've got half a dozen items that we feel like should be getting reported that aren't getting reported."

I think there's a line there that should be handled informally --

MR. WEISS: Let me assure you that no wastepaper fires in turbine buildings prompted or inspired me to develop that list. Everything on that list was something that was very serious.

We've had AITs for most of those things on that list. In some cases multiple AITs.

The thing about the inadvertent criticalities, we had a licensee that had their APRMs swinging up and down over a large power range and didn't call it in.

I think -- Was it last week that we had a licensee that went sub-critical without realizing it and was trying to control reactor pressure with the rods and brought the reactor back critical on a short period?

I mean, we're not talking about things like every wastepaper basket fire is reportable or every criticality is an inadvertent criticality.

We're talking about things where licensees did something very serious. Like, for example, the steam generator two bleep. The licensee says that's not reportable; it's below tech spec.

But they held two press conferences. The locals were all upset.

Then they called back a couple of days later and they said, "Well, it turns out that it was really greater than tech spec. It really was reportable." Well, it's a little late then. It's a little late.

Believe me, when I say six events, I mean six serious events. I don't mean six trivial events a year or the licensee that had six of twenty-seven rod pairs stuck

out of the core and failed to mention that.

I mean, it took them almost six months or a year to get them back in. I'm talking about serious things.

I might mention, since we are on the subject, we are going to do something in the way of additional guidance. Last night we discussed it again at dinner. I don't know exactly what we're going to do, whether it will be a supplement to a NUREG or a reg guide or what it will be, but we are going to put out additional guidance.

MR. FEIST: I'm Chuck Feist from Comanche Peak.

I want to change the subject back a little bit to something that came up earlier on engineering. In the rule it has conditions which are outside the design basis.

We kind of knew that, when we were under 55E and Part 21, you'd have a safety significance that pretty much brings out things in that area that are taken care of on a daily basis.

But under 50.72 there doesn't appear to be any safety significance criteria or even the allowance. But I'm hearing here that there is some interpretation given to safety significance.

But, you know, plant conditions are conditions outside of design basis. You have the conditions one through four that you design for, and then the conditions of individual systems, conditions of individual components and

design bases.

You can get down to a fuse built to a certain IEEE standard that you're outside of -- outside of the design basis for that fuse. Is there any kind of guidance on where the cut criteria is?

MR. WILLIAMS: I think right now the only guidance that exists is in -- Well, I'm not sure it's the only guidance. It's not the only -- The only thing in the regulation, Part 50, is 50.2 that says what the design basis is defined to be.

Now, there's other NRC definitions of the way the design basis is, the INPO guidelines. I've got a set in my briefcase here that I can give you that has the definition of the design basis of the plant and what it is.

If there are operability determinations that are raised or needed as a result of that fuse, whether that system -- say, it's a single train system -- that system wouldn't fulfill its safety function, then it's a design basis -- outside design basis issue.

But -- That would be a safety failure. Excuse me.

But there could be similar situations that would be outside the design basis.

I think -- you know, we get into unanalyzed conditions and outside design basis, and we've got lots of

examples and I've got lots of LERs that I could show you.

But these are the most interesting LERs in the many, many cases that we analyze, and we look at them because they are actually situations not originally anticipated in designing a new plant.

So although it's a very tough area that you're talking about to determine what constitutes a reportable condition outside the design basis, it's probably one of the most studied, one of the most interesting areas for us to look at.

We've had a lot of feedback in those situations. So I'm not sure how to answer your question except it turns on operability determinations and whether the plant is in an unanalyzed condition outside the design basis.

MR. FEIST: I guess what you're saying is there is a safety significance if it affects operability is what you should look at.

MR. WILLIAMS: Well, it's certainly significant --

MR. FEIST: Or it could affect it.

MR. WILLIAMS: -- and it bears on it. But it bears at the component level, the system level and the plant level.

One of the things that came up -- I think there was a BWR Owners Group question that had outside the design

basis of the plant.

The regulation is worded the same way, but I think where we have some confusion sometime is of the plant. Does that mean if there's not a release at the site boundary, or does it mean if this component doesn't work according to inspection, exactly what is the design basis of the plant? The component, the system or the plant with multi-train systems, with some trains not working and others working or AVS okay and IPSI not available?

So I think we have to issue some guidance in this reg guide or supplement, whatever it is -- it might be a revision of NUREG-1022 -- that clarifies to some extent what we mean by outside the design basis of the plant.

I think we have to take on the question a little better than it exists right now.

If you have any better ideas, we can talk about them separately, if you'd like. But I think we've got to take on an answer to that question.

MR. FEIST: It seems like what you're saying is that it's the plant conditions one through four, if you're out of condition, that will put you outside that with the operability question.

MR. WILLIAMS: I'm not sure that's the whole answer.

MR. JORDAN: I certainly hear the question and the

suggestion that better guidance is needed. We'll examine and see if we can provide better guidance without changing the intent of the rule, because from the last session that would be a backfit if we now notch the thing down here some way.

We have to wear both hats when we do those things.

So, yeah, we'll take that on in our review to see if we can provide additional guidance that clarifies what the existing intent is, and if there is a need to extend the rule or modify the rule some way, we will look at that as well.

MR. FEIST: Okay. Thank you.

MR. REEVES: Mark Williams, I was -- Don Reeves again, Cooper's Station.

I have been involved with PWR -- or this LSAR committee since its exception. In fact, I've been part of the sub-group working on this design basis, reporting and so on and so forth.

The concept was that the plant is comprised of a myriad of building blocks. When you get down to one or several crumble, but the overall plant response will not be affected.

We use that concept to say, "Okay. What that portion of the rule, 50.72 and 50.73, is talking about is do we have a serious enough problem that the overall response

of the plant is going to degrade beyond that which is analyzed? If so, then it's reportable in accordance with .72, .73. If not -- And the A.2.2 criteria. If not, it may be reportable under A.2.5 along with that."

That was our shot anyway as to what the meaning was and what the requirements were, and it seemed to fit from the standpoint of timing and so on and so forth for reporting.

MR. WILLIAMS: That seemed to be the way the question was set out. We haven't converged on it. We don't have a consensus, an agreement on that answer.

But -- And we have looked at the PWR Owners Group position at least in two offices of the NRR. So I think we're working on it, but I don't know whether we're going to converge on public plant means if a system is outside the design basis or a certain condition that has been discovered that that would be reportable, if there's another mitigating system that would do the job.

We just haven't gotten to the answer you've adopted at this point.

MR. REEVES: The situation, as you've described --

MR. WILLIAMS: We'll answer that in NUREG --

MR. REEVES: The situation, as you've just described, would be reportable under A.2.5, I think, for example -- The safety system is lost, but yet another one

could take its place.

I think that specific question was asked at a workshop, was specifically addressed in Supplement 1 where it says it's reportable.

And I think there may well be some of these -- I want to get up and ask about -- talk more about the business of the design basis reconstitution of NUMARC. I was going to save that for 50.73, and we can go on, if you like, and pick it up at that point.

But I want to -- Tell me that you're kind of leaning towards that kind of philosophy of reporting or that kind of philosophy of presumed operability until factors are determined to be otherwise; is that correct?

MR. WILLIAMS: What I'm personally convinced of is we're going to have to work on it. We look forward to working with the BWR Owners Group where one or two people -- whoever is working on that particular issue -- has got enough time to actually devote to it.

But right now we don't have a consensus on that particular end of it. It might not be that opinion that we ultimately arrive at.

But we certainly need to work on it. We need to clarify it.

And where one thing is not reportable under a safety system failure and it is reportable under that, I can

think of conditions now where it would be reportable under outside design basis, if not under some other criteria, for some reconstitution efforts.

So I guess I just don't have a good answer to your question now.

But it's something we will have to work on. If I take the most conservative position, which in a very safety significant situation we would, you know, it wouldn't be good for the generic answer.

If you ask a generic question, we'll give you a generic answer. But we're going to have to work on it.

MR. REEVES: I wanted to ask Eric what the thinking was at the time that those words were put in 50.72, as to whether each and every fuse that's beyond -- not up to the design standards, would that be reportable according to 50.72?

I guess my response would be, the presumption would be no.

MR. WEISS: Not every fuse.

What we had in mind, as I recall, was when the rule was written, we cut a deal, so to speak, where -- Originally we put out an advance notice of proposed rulemaking that Mark will talk more about later.

It was called "Integrated Operational Experience Reporting System," and it was going to give us all kinds of

data component failure data, system failure data, and when a plant is outside the design basis.

We have this arrangement with INPO where INPO will manage the NPRDS, and that will pick up the component failures. So component failures in and of themselves are not reportable unless they do things like fail a system, of a multi-train system or if it's a single-train system.

In other words, if a fuse takes out both trains of a safety system that's reportable, a single fuse, the single fuse takes out a train of a single train safety system like IPSI, it's reportable.

If the fuse represents a generic problem -- this fuse is bad and all that fuses with that brand name are bad; they're rated at 30 amps, but they'll blow at 40 -- that's reportable.

But component failures in and of themselves weren't to be covered by LER rule or 50.72. Component failure data was to be reported under NPRDS.

So what we had in mind when we wrote the rule was we were going to capture system failures, things that took the plant outside the design basis or any of the other reporting criteria.

I don't want to list them all. But the idea was that single random failures would not be captured by the system. It would have to be something more significant.

Now, in recent years there has been a question raised on the staff whether we didn't go too far. We're missing train data, and Mark will talk more about that later. Maybe we left a gap in there.

But I don't want to cover his speech. He'll talk more about that later. That's basically where the division was made.

MR. JORDAN: I want to make a point that's related to one I made a few minutes ago about the NRC, that the NRC arbitrarily changed its guidance on you, like we revised 1022 and issued it, that either toughened or weakened present reporting requirements, that would be a backfit. We can't do it without reviewing it in that fashion.

Similarly, industry can't gin up its own guidance and begin using it industry-wide without assuring that it's consistent with the existing NRC guidance.

So both parties have an obligation to submit any change in guidance to scrutiny and make sure that it hangs together.

MR. REEVES: Well, as I said, I was a charter member of that LAR group. It had never been our intention -- It had never ever been our intention to attempt to come up with a guidance document and present it to the NRC and say, "Here, this is what we want."

Now, I don't know if anyone has given you that

impression or not, but our efforts were directed at trying to come up with, trying to identify improvements in the guidance that were consistent with the current rulemaking and trying to get a consensus amongst ourselves as to how the -- what the current guidance meant, what the current rule meant, can we improve the guidance, can we suggest improvements, can we live with -- can all of us agree with those improvements?

At that point or at some point -- prior to that point getting the NRC involved and saying, "Okay. We have looked at this kind of a situation, and this is our perception of the guidance that currently exists. We think it's weak in this particular area. We have some suggested improvements for it and try and gain your endorsement of that guidance," or negotiate an improved position.

And I guess I'm encouraged by your statement here saying that the NRC just can't slap another supplement down on us as far as approved guidance, and also recognition that the industry is trying to move in that direction to provide some -- a more unified position that we all can endorse and understand. And, hopefully, that the NRC and this LAR group or some group that has been at work on the problem in the industry can get together and work together to come up an approved guidance.

MR. JORDAN: And the mode of adoption would be

through a topical report, through a proposed rulemaking. Several different methods could be used to adopt -- or to find that it is within the existing guidance and it simply is a clarification.

But be cautious not to jump to something that would be a radical departure from what we presently have.

I give the example of an -- I think an excellent industry initiative that many of you may be involved in, the emergency action levels that NUMARC has coordinated.

There was an initial -- I think action for some utilities to begin adopting emergency action levels that were different from what is in the existing NUREG.

And you just can't do that. So we all have to make sure that we're not changing the existing requirements by guidance, because we've then gone out of the public process, as it were.

MR. REEVES: Okay. Well, I was just concerned you were going off the deep end and thought this LAR group had become a band of resurgents and developed their own --

MR. JORDAN: No, no. In fact, we've had interactions with members of the group. Sidney Tulley was a very active participant in the other workshops, and I think specifically that you have some excellent ideas and proposals.

So I support it. But don't make the mistake of

jumping to it until it's -- we've all had a chance to r
it.

MR. WILLIAMS: I have two things. One is here the statement of consideration from the rule on outside design basis and unanalyzed conditions.

I can give that to you while I start this other talk here.

One of the big problems is that the rule was written by engineers, and it's an engineer's rule, and it requires engineering judgment. And when you try to put all that into black and white, absent engineering judgment and flexibility in the words, often there's positions arrived at that are not acceptable from one point of view or the other.

So I'll give you this statement of consideration from the rule on that particular area. It does speak directly to it.

It says if you have one component that's trivial, that's not outside the design basis. If you have two -- And then it goes on.

Voids in the core would be outside the design basis. It gives examples.

But, really, the problem that we have with a lot of the positions we try to arrive at is there's enough room for using engineering judgments in the articulated judgment.

So we're going to have to arrive at a position

where we can rely on the engineering judgment of the licensees or we're going to have to try to go to the most conservative position on the words of the rule.

I think we're trying to move up towards the engineering judgment end of the spectrum a little bit because in the last few years in some cases we may have moved down.

But that has also some significant information that we're not getting at all that we need to look at.

So these workshops are designed to help us focus and you as to where we should put our energies in this rulemaking activities on LERs.

Are there any other questions? Shall we start?

This portion of the workshop is on 50.73. Again, 50.73 and .72 really are different. One is an event notification, and the other is really a remedial action from the events at Three Mile Island.

So with that in mind, there are fundamental differences.

Could we have the first slide, please?

Again in May of 1980 the action plan was issued following Three Mile Island.

Item 186 of the action plan talks to the analysis and dissemination of operating experience.

AEOD was chartered, really, out of the remedial

action from Three Mile Island, the feedback operating experience.

Both the Golden Commission and the Kennedy Commission Reports emphasize the need to collect and analyze and feed back events-related data to the operating utilities.

In this view, we try to point out in the workshops that you're a part of a team and we're part of a team. Our real mission, our job is to avoid a serious reactor accident in this country.

50.73's whole intent, the entire mission of 50.73 is to avoid a reactor accident in this country. To that end we've seen information notices, bulletins, reports. There's just a flood of information from the NRC and from INPO and others on feeding back operational experience.

And since Three Mile Island, it's important to keep in mind that the information flow has improved dramatically. There may have been very many events that we've avoided in this country because of the changes that have been made from the feedback of operating experience.

Their basic obligations are the same as ours, to enhance reactor safety; and this is to enhance reactor safety at the other guy's facility and not only your own facility. It's our job to help that happen.

I wanted to read the original goals for the 1984

rule. We've had this rule in place for six years now, 50.73. But its original goals were to upgrade the reporting to include all events of public health and safety significance, to eliminate the reporting of insignificant events, to achieve reporting consistency across licensees, to include reporting on systems and components that may have safety significance, but were not then safety related or safety graded systems.

In looking back at these goals from the original rule which was being put together in 1981 and '82, and at the time period with the Three Mile Island still hanging over the industry and the NRC, those were our goals.

I think we have the same goals today, to try to put a rule in place that really helped things quite a bit. It superseded the requirements in Section 6 of the tech specs and added more consistent reporting.

But it still has some problems associated with it. We got some improvement, and we have some inefficiency in the rule that we're living with. And we're still focused on trying to improve that.

Our goals for rule improvement haven't changed from those issued way back then.

Just for the background, we have had some turnover in the industry. And for the background of some of the people who may not remember or may not have been involved

back in 1980, at that time the NRC was trying to put forth an integrated operating experience reporting system, an IOERS.

As Eric explained earlier, that system had provisions for reporting component failures in a table. It was just a tabular format. It was very little information about the component failures, and events that were safety significant, where systems failed and other things happened or events happened were reported with an engineering evaluation.

And the IOERS was a very big system, and it was originally envisioned by AEOD. And what happened at that point in time was that there were various elements of the staff and the industry that wanted higher level rulemaking, higher threshold.

And INPO also at that time -- Milton Cannon volunteered to take over the NPRDS system. The NPRDS system was being supported by the industry. The NRC contributed to that, too.

It was being managed by a technical committee of -- I think Edison Electric was involved back then.

But it was really faltering, and in order to make the component level reporting meet the NRC's needs and the industry's needs, INPO took over the NPRDS and poured millions and millions of dollars and staff into it over the

years and built it into a fairly reasonable system for components of reporting.

They committed to do that back when we put the rule together. And as a result, the ILDRS was broken down into the NPRDS components of it was being run and managed by the industry, by you and INPO; and the engineering evaluation kinds of events were then cut off and put in 50.73, which wasn't the regulations right now that you see.

That's why 50.73 is a system level, events level oriented kind of a reporting system that has content requirements, where you send in what is required by Part B of the regulation, everything that happened through the event and how long a condition could have existed, all the engineering information, the cause and corrective action information.

So that's the genesis of the current system that we have.

One of the things that has happened as a result of it is that the number of LERs -- If you look back through history, you'll see the number of LERs got cut in half. Now we're running about twenty-five, twenty-six hundred LERs a year. Back then it was double that. It was over -- double that number per plant.

Next slide, please.

Right now 50.73 is our primary source for events

data. We use 50.73 for analysis, the AEOD, the NRC staff, research and its contractors. There's thousands of people out there using 50.73 events, even the universities to some extent, for event analysis in the nuclear industry.

Its mission is different than 50.72, although the requirements are the same.

So when you're writing 50.73 reports, you're really writing for us. You're writing for -- in AEOD we have 43 people that look at this stuff day in and day out, and I'll tell you in a little while how we code it and capture it and what's available to you.

But we're capturing a much lower level of information, things that are not significant on their own merits as events, are trended. We look over time. We look at frequencies. We look at the nature of things. We look in the design, the detail, the application, the installation problems that we see, and we feed that data and reports

Ed had talked about some of the reports. We also have different kinds of reports, like reports about start-up problems at new plants. And I think they even used that one on South Texas where it talks about the kinds of things that some new plants have experienced during start-up that seem to happen again and again whenever new plants start up. That's valuable feedback corroborations.

So we use 50.73s supplemented by NPRDS, and that

information has a very wide dissemination. The NRC uses it; INPO uses it; contractors to research; and the industry uses it and the academic environment -- universities use it.

It was used nationally and internationally. One of the things that we do in AEOD -- Jack Crooks does it in fact -- is he issues about 55 reports to the Nuclear Energy Agency in Paris every year.

These reports are based on your LERs, not necessarily one LER, but maybe five grouped in a generic study.

We do a lot of work that you don't see. We do technical reviews, for example, which are studies based on half a dozen or ten LERs. An engineer will take a couple of weeks to put together a technical review that won't have any regulatory overtones, but it might have some good information in it.

We do engineering evaluations that may have good engineering information in them that are not normally sent out to the industry.

And a lot of the information that we generate is fed back to the regulatory community. That's done through NEA in Paris.

And just recently NEA and IAEA have started to exchange information one for one. So now that information is also going to the International Atomic Energy Agency.

In turn, we receive a lot of information from them. If you had a question on foreign events, if you had an event and you wanted to know were there any foreign events that occurred similar to an event at your plant, or a condition at your plant on a particular material or particular installation problem, we have a foreign events data base.

We get information on bilateral agreements with other countries. We get information from the IRS system, which we maintain for the Nuclear Energy Agency.

Just this year we took over the NEA reporting system. We maintain it at the Oak Ridge National Laboratory.

So we have events-related information available to us from all the countries in the world, even including Russia.

So if you have any questions on particular kinds of events, you can call us up and we may be able to do a search, or you may be able to do it directly.

A lot of the information is proprietary. So for our foreign events, there are certain conditions that we have to maintain.

But we use 50.73 data nationally, internationally. We use foreign data with it, and we feed back the results of our work to you.

We do individual and combined events analysis. To do the combined events analysis, we created a system called Seamen's Encoding Search System, SESS.

And it's a Joshua-based, a Fortan-based code at the Oak Ridge National Laboratory. And every LER that you send in is coded into that data base. There's a matrix in that data base that codes everything: the cause, the corrective action, the sequence of events, the cause for each step that occurred during the event.

There's 33,000 LERs in that data base right now And if we want to find out whether there was a scram, an initiation of lost feed water on a failure of a particular system, we can do that in an automated way and within an hour.

That's also available to you. You can do it with Oak Ridge, and the search cost is peanuts. You can contact them directly, or you can contact us and we can -- maybe we'll do it; maybe we'll steer it to them. It depends on how big an effort it is.

One of the things is that the rule threshold is set very low to capture all the sequences and all the events that might be relevant to trend analysis for the kinds of studies that we're doing.

Now, we're complaining about the threshold of the rule being too low, but then that threshold is trying to

meet different purposes.

It's trying to meet the event reporting purposes for significant events. It's trying to meet the trend analysis purposes for information analysis by people like me.

And we're trying to meet a lot of needs in a codified rule, and that has presented a problem for us.

And, really, what we're trying to offset that with is engineering judgment. I don't know how much more we can say, but engineering judgment, the implementation of this rule is very, very important because, again, the goal of 50.73 is to avoid a reactor accident.

Anything in the day-to-day discoveries of a licensee that could possibly have a beneficial effect to another plant really should be reported on a 50.73.

To try to capture that and to codify that, we had to set a threshold. So we're missing some things; we're getting some things we don't want, and we're working on trying to improve that.

We use the combined events analysis for another program that Ed talked about earlier, called the accident sequence precursor program.

We've been taking events during one period of time and an event during another period of time, combining them together, putting them on a fault tree or an event tree and

find out what the combined events present as a risk to core damage; given that event, the conditional probability of core damage for that event or events combined at a given plant.

And every year -- almost every year, we issue a report called "Accident Sequence Precursors." We're a little behind because it takes about six months or so to get the analysis done from a year.

But there's about sixty precursors a year that we publish. That's events themselves that were significant from a core damage standpoint, or in some cases we have some combined events.

So we use the LERs that you send in for that again, too.

You've seen a lot of products from LERs and information notices, bulletins, generic letters. AEOD also issues an annual report that's available to you, and you'll see more information about the LERs in there.

One of the things that we have noticed over the years is that the licensee's perspective over the years has really changed to minimize LERs.

This is kind of a product of the way things have been going, with people using the counts of LERs.

It's something that we can deal with to a very limited extent. It's really -- We don't want to be very

compliance oriented, enforcement oriented. We don't think that's the right way to do.

We really want to be oriented toward the idea of feeding back information to avoid the accident at another plant.

And the safety culture in reporting events is something that we're really pushing -- pushing hard for.

I think you've heard people here say that we have discretion on things like enforcement. And as long as we understand our primary mission is being served and our intent is correct and we're really doing the right thing at the right time, we're not going to have as many problems as people perceive.

But when it comes to minimizing the number of LERs, we're against that. We're against just minimizing the number of LERs for the sake of doing that, trying to find other ways to report.

50.9 was an example where the particular utility that was using 50.9 had three or four example events reported under 50.9. We determined that every one of those examples was reportable under 50.73.

And under 50.73 they would have to provide the causes, a lot of the associated information that came from those conditions that were discovered that would be of interest to us.

And the use of 50.9 there, to some extent, stops the feedback of information. It's against the intent of the rulemaking.

So we were supportive of using 50.9 for reporting conditions that should have been reported under 50.73.

So, really, what we're always after is forwarding or making clear the intent of 50.73 so that we avoid a serious reactor accident, and it takes our best efforts to do that.

The misuse of LERs and the bean counting of LERs is something that we don't promote and try not to promote it. We try to discourage it.

We try to keep good control over ourselves. But to some extent we're just going to have to live with a lot of that stuff that goes on in other places and do our job to promote safety in the country.

Next slide, please.

I think you're familiar with a lot of these documents. NUREG-1022 and Supplement 1 provide questions and answers. That was the first round of questions and answers after the -- when the rulemaking just had its birth, a series of workshops.

I think Eric participated in those workshops, didn't you?

So that was a very good effort. One of the things

about Supplement 1 was that it answered questions, and in many cases it gave the exact answer to the exact question; and that could not be used generically.

So, to some extent, there's some confusion in Supplement 1. It clarifies some things, but on other things it makes them more confused because people try to use the answer that was provided to a question on a particular component or a particular system generically, and it's not capable of being used like that.

So if you have any questions on Supplement 1, just call us up. You can call up Jack Crooks. I'll leave his number on the bulletin board. But you can call Jack up or call me up.

People have called up, at least two or three times a week, and gotten answers to their questions.

And on a case-specific condition or event, it's a lot easier to deal with than generically. And, in general, we'll give you an answer that you can quote to your resident inspector. Usually we work through the resident inspector for the region.

So if you have any clarifications on an event or Supplement 1, feel free to contact us.

The normal way that people are working -- and we think it's the best way to work -- is if you have a question, you ask the resident; you ask the region and then

you can ask us.

But, of course, you know, you can always call us if your clock has run out and you can't find any of them.

We have provided case-by-case verbal feedback. In many cases or a few cases we've provided written interpretations of the requirements.

AEOD has done that. NRR has done that. Recently, one owners group -- I won't say which one it is -- wrote in a question on ESF actuation. Actually it was a utility.

It was a utility on ESF actuations, what constituted the actuation of an ESF. And NRR answered that.

That's this question about whether an actuation of an ESF requires an actuating of the transmitter and then the logic and then the components, and everything has to function in order to have a full actuation of the set.

And the staff sent back an answer on that particular question, a generic answer to a generic question, which was probably about as far away as the -- from the answer that the utility wanted that it could get.

But it's important that we work on these things. And I think with the guidance that we're going to put together and defining the case-specific examples will help us close in on some of these issues.

Again, the use of engineering judgment is going to be something that we're going to have to use more of

regarding the reporting than less of.

We have an evaluation program. I have to say that the people in the compliance -- the people reporting and doing the compliance and reporting activities have been doing a very, very good job.

The quality of LERs has improved dramatically. The information coming in the agency under this rule is much higher quality than the stuff we used to get prior to 1984.

And the agency really does -- really has earned congratulations on the quality of the reporting.

We used to evaluate the quality of reporting. We had a program back for a couple of years after the rule went into effect, from 1985 to 1987. We had a little program out at Idaho National Engineering Laboratory where we actually quantified the quality of the reporting.

We took each of the elements of 50.73(b) and we rated them with numbers.

May I have the next slide, please?

We had a distribution of quality scores like this, with the number of plants that scored a certain value on the Y axis, and the overall score that they got on the X axis.

There you can see that there were ten units with a score of about 8.4 or something. I can't read it from here, based on a scale of 10.

What we found is over a two-cycle period that the

quality of the LERs had improved. There was about a ten percent lag in population, as you can see on that curve.

But, in general, the quality improved. And it improved to the point where we stopped evaluating the quality of LERs quantitatively.

But you may have had some of these reports attached to your old SALP reports. If you're new on the job and you haven't seen one of these reports, if you go back in time you might find one of these quality evaluations attached to a SALP report.

You may have received it in some other way. These are sent to the regions, and the regions get them back to the utilities.

The only other point to cover here is that you may get questions on LERs. If there are questions on LERs and nobody has a hundred percent quality all the time, you may get questions from us. You might have a contractor ask you a question on a particular event.

So don't be surprised if you do get questions on LERs from the NRC.

Next slide, please.

We use LERs across the agency. As the plans are in an operational phase, as we look at license renewals, I think that the historical nature of the LERs -- writing down the data base and putting it in history, the

institutionalization of that data is very important, using it for aging studies in the NRC.

We'll be looking at a lot of issues that come from that data base in future licensing activities, renewal activities and a lot of our generic studies. We'll be looking at the information that's being created today.

So what you're creating today with your LERs is the institutionalization of the operating phase of these plants. It's all being codified. It's in data bases, and there's going to be various people using it.

It's getting more important as time goes by. The operating record of the industry is being created right now. For life extension and other issues, it will be there.

So that's one of our major uses for it.

We've talked quite a bit about the generic communications from the staff you will receive. Ed has also talked about operating experience feedback. We'll talk about that a little bit on the next slide.

But you've seen case studies; you have seen other reports from the NRC and others, based on LERs.

LERs are used for performance assessment and monitoring.

We read LERs for things like SALP. We're really looking at the causes. We're looking at the corrective actions. We're looking at what happened, what was the cause

of it, the nature of the event. Will it be avoided by the things that have been put into place as corrective actions?

When we look at the performance indicators, some of the things that we're counting as performance indicators, which is as close to a bean count as you can get probably, are things like reactor scrams.

We do count automatic reactor scrams. But some of those things are just so ... obviously that they do have some impact, they should be counted. Reactor scrams are one of them. I think we have a consensus that we count it.

On the other hand, things like that have shown improvement. In the last three or four years, we have shown a dramatic improvement in this country in reactor scrams. Both the industry and the NRC have used that improvement, characterized by that and other indicators as testimony to the improved safety in this country compared to other countries.

Our industry has been served very well by the performance indicator program. It helps us to check outlying conditions or outliers in certain kinds of events.

But it also overall serves the industry very well. So there's beneficial effects to a performance monitoring. It provides goals for people to meet, and it provides improved safety overall when certain goals are met.

So it has beneficial aspects also.

Next slide, please.

This is a little bit about the AEOD operating experience feedback program. Again I think our goal is to get the operating experience back to the plants in our country so that they can avoid serious events, or there's remedial actions put in place to avoid serious events.

In order to do that, we do events screening, events analysis and events feedback.

Events screening is done in a variety of ways. We have at least three places that screen events. One place is within AEOD. We screen events, and I'll show you that on the next slide.

We also -- AEOD, in particular, has two contractors, two national laboratories that screen and code events also. The Oak Ridge National Laboratory that I mentioned earlier codes all events in the sequencing, coding and search system, among other things that they use the events for.

Idaho National Engineering Laboratory codes the events into four data bases for scram, PSF, safety system failures and tech specs, unanalyzed conditions and outside design basis, going a different route.

We have data base structures for all those events. If you want to know how many oil problems on turbines, you know, cause a scram and cause an event, we have that all on

a data base structure, we can interrogate it and call up events on it with very little effort.

As events analysis -- I think I've discussed that.

We use SESS; we use NPRDS. There is a generic communications index that the NRC has got. That has in it all the generic communications that have been issued for about fifteen years I think.

It has got all the bulletins, notices, circulars, information notices. It has got an awful lot of information that you can then search on -- we have it on diskette also -- to find out whether there were past information notices or bulletins.

We've all seen those SOERs and SERs from INPO, and then I mentioned the card base file and the international reporting system. We also use that for events analysis.

Our theme in looking through all these events is really to validate the assumptions in the safety analysis for the plants. When we find things that impact or have an increased risk, or really not what was expected in terms of a plant response or a system response, that keys us to do a study.

It keys us to look into it further. So we're looking for off-normal situations. Common mode failure problems are a very big study item.

And the life issues and component failure trends are things that we are looking at today.

And in order to do our analysis, you may have seen AEOD people on site occasionally. We visit the plants; we visit the vendors; we visit small equipment vendors, as well as NSSS vendors.

We conduct peer reviews for our studies. Generally, our major studies don't go out without INPO review and EPRI review, the utilities who are involved to review them. So they've been pretty well scoured by other peers for that kind of a review before they're issued from AEOD.

And then they're fed back -- The big ones are fed back as case studies. The smaller ones, we maintain as engineering evaluations or technical reviews. Sometimes we feed back trends and patterns analysis reports. There have been a few of those lately.

We also feed back the data base for issuing LER compilation, which is just a hard copy of all the LERs issued in the country. That's available direct.

We also feed back information to the Congress. One of the things we do in AEOD is we report the abnormal occurrence facts to Congress quarterly, and we report to IRS which gives it to NEA and IAEA.

The next slide is just a little picture that tries

to describe the AEOD events screening process. When an LER comes in, every LER that comes in is read by an AEOD engineer; and it's reviewed by an AEOD supervisor and then his supervisor looks at it.

So eventually there's a senior executive service manager that signs off on a categorization of an LER. They're categorized on a relative scale of one, two, three, four for safety significance.

And then they're screened, and they're put into a data base locally, and then they also go into the various other data bases that I mentioned to you, some of which are shown by the lower right figure.

If we initiate a study, we interrogate all those data bases on the lower right. We interrogate the NPRDS, the SESS, the international file that we have.

We also check licensing documents. We look at the generic communications, and then we try to characterize the safety issue.

If we identify -- or rather report, the report will go through peer review. Some will have to go through CRGR, and they'll go through ACRS review Sometimes we take our reports to the Commission. We've taken a couple to the Commission that I can recall here in the last couple of years.

So every LER -- I think the biggest thing is

every LER that comes into NRC is read by one of our engineers in AEOD.

So don't feel like they're not going anywhere.

Next slide, please.

A typical study will start looking through, as I mentioned, thirty or thirty-three thousand -- thirty-four thousand LERs in the data base.

This is from the Service Water Study that Pete Lamb did. He started out looking through the whole data base for the service water problems. He wound up with about a thousand events where service water was involved.

Now, he found events where service water was involved. It may not have been the subject of the LER, but it was required to be mentioned under 50.73(b).

So, remember, even though you aren't reporting a service water system event, there might have been something in that LER that Oak Ridge coded that was a particular problem or failure that came up throughout a sequence of events that was coded that Peter Lamb got out of the SESS. That's part of those one thousand events that he included for his study.

He reviews those events individually, comes up with 276 events from 60 plants, and then he starts getting generic conclusions.

And when he tries to put his conclusions and

guidance and recommendations together, he winds up using 29 events that he thinks are significant and bear on the findings of his study and issues a service water study that you might have seen within the last year or so.

So that's generally how events information is used in one way.

Next slide, please.

I want to talk a little bit about what Eric talked about.

Missing reports. I think we've covered a lot of this up to this point. The application of engineering judgment in meeting the requirements is very important.

We see liberal engineering judgments rather than conservative judgments. If you call in to us, we'll tend to agree that -- we'll tend to be more liberal if you call us up with a conservative judgment.

If you make a liberal judgment, we tend to be more conservative. So it's better to call us up and discuss it with us or discuss it with the region or call up the NRC staff and talk to the resident with conservative engineering judgment, saying -- we're really trying to -- Again, the goal is to avoid reactor accidents in this country, any reactor accident. We can't have another one in this country. We should try our best to do everything we can do to avoid it.

So make the judgment conservative, and you'll certainly get cooperation from us with conservative judgments.

We have seen some significant events not reported. We've had events classified by the indicator program, which is a very subjective classification by engineers of event significance.

We've got a lot of significant events in there that are not reported on LERs. They come in from regional daily reports in general.

We've had AITs where they weren't LERs.

One of the things we see is if the plant is in a condition that's permitted by the tech specs, where it's in a mode, a shutdown mode, where the condition doesn't create a safety issue on the plant, sometimes people don't think that's reportable because it doesn't impact plant safety.

But the rule was put in place to feed back the experience to other plants. So it really doesn't recognize whether your plant was in a hundred percent power or whether it was in refueling.

It's a feedback of information so that information has to be reported regardless of the mode of the plant, regardless of the condition that your particular plant is in.

And sometimes we see that the engineering judgment

is on their own plants, whereas the rule is really written for a different purpose.

We see widespread differences on what constitutes an ESF and what constitutes an actuation of an ESF. I think we talked about that.

We see differences on surveillance testing, missed surveillance testing, when it has to be reported. We see differences on who it was reported to, and I think we've covered that three times so far.

"The NRC already knows about that, so why do I have to report it? I reported it to the resident inspector."

Our mechanisms, everything from the manning of the operations center and the other NRC support for events under 50.72, is predicated on a phone call to the ops center.

We also see some conditions -- In order to minimize the number of LERs, we call it bunched reporting. If events are different, they should be in separate LERs, even if they're within 30 days.

If they're very similar actuations of the same system in a short period of time, you can put them in one LER.

But engineering judgment will dictate one LER or multiple LERs.

Reports of low-safety significance. I think there

are some reports that we really don't see a need to get. I think we could get a consensus.

But then when we talk about the RWCU system, just in our latest supplement to the generic letter and MOVs, you see that the RCW lines are stainless steel, that the operability of the valves in the lines is questionable, that the inspection for ITSCC may not be all we want it to be at every utility.

So there are certain things which -- if there were any problem with the isolation in RWCU, we'd certainly want to know about it, or potential problems.

On the other hand, nobody really wants a spurious actuation of RWCU where everything works right and there's no problem.

But the cut back line is very difficult when you have to deal with a rule.

With engineering judgment, it's a little easier. But we have to come up with some kind of guidance to make all that work -- to somehow make it enforceable if it ever came to that.

But I think these are the kinds of problems we have to take on.

Our improvement approach. Jack Crooks -- Tomorrow morning Jack is going to talk about short-term and long-term. We have short-term, I think you've already

heard. There will be some guidance issued. Maybe an administrative rule change or some other short-term guidance.

And then in the long term I think we've got to try to meet the goal that we put in place for the initial rule back in 1984, which was to get the information that we wanted to get to feed back to others to avoid reactor accidents in this country.

So that's the end of this talk right now. We ended fifteen minutes ahead of time.

We can take fifteen minutes of questions, and then tomorrow morning Jack will pick it up with the discussion; and we'll have another opportunity for questions after that.

MR. JORDAN: I just wanted to comment that the backfit group worked until six last night.

MR. REEVES: Don Reeves from Cooper's Station again.

I wanted to ask, Mark, aren't there provisions in 50.73 right now where utilities request exceptions from certain report requirements, and couldn't those requirements be used to eliminate some of these things for RWCU and control the effect?

MR. WILLIAMS: Possibly. There is definitely an exemption clause in 50.73 --

MR. REEVES: Right.

MR. WILLIAMS: -- not .72. There isn't anything in .72.

All the ESF actuations would still be a .72. .73 does have an exemption clause and the conditions under which that was envisioned to be used really work for plant-specific design considerations.

And whether that can be used for generic -- say a BWR generic design problem is something we're looking at right now We've talked to OGC a couple of times. Our lawyers are looking at it, but it certainly is a possibility of one thing we might consider, and we are considering it.

MR. JORDAN: From the initial discussions, I think we would favor an administrative rule change for those rather than try to make a generic exemption. That's the advice we've gotten thus far from our general counsel.

MR. REEVES: Is that something that can be achieved rather quickly?

MR. JORDAN: Yes. This would be within the Executive Director for Operations purview to sign, rather than, for instance, going through the whole review process of going through the Commission, so it can be done more quickly.

MR. REEVES: When I say "rather quickly," I'm talking in terms of just several months.

MR. JORDAN: Yes.

MR. REEVES: I'm trying to get a relative....

MR. WILLIAMS: Any other questions?

MR. WALKER: One of the things that I have is I have a CEO that's always asking me questions that I know you have in your data bases, and I don't have them.

Do your people list your electronic data bases somewhere, (a)? And, (b), is there a way for my licensing engineers to get training on how to access them -- those that are publicly available?

MR. WILLIAMS: The major data base at Oak Ridge, SESS, the answers to both questions are yes.

We can give you the name and phone number of somebody to call on a break.

MR. WALKER: Can he tell me how to --

MR. WILLIAMS: Yeah. They'll provide training as to what it is -- and it will just be one-on-one discussion, although they do have a formal training kind of module. If we have a lot of people interested, we might be able to put on a training session like that, as to what's in that data base.

But, certainly, one on one on the phone, you can get that any time. And also a search run for information.

MR. FAULKENBERRY: Mark, I've got a comment here I might add.

From the regional standpoint, the regions look at

these LERs pretty closely also. I know in our region, the regional administrator reads them; and there's probably four or five different people who read them, from the regional administrator down to the inspectors.

Things that we're concerned about, of course, when we review the LER is, one, do you people have a good understanding of the incident and what happened? Do you really understand the root cause of what happened and do your corrective actions go to the core of the problem?

And from this we look and make judgments with regard to whether we need inspector follow-up in this particular area, again the extent of the inspector follow-up that's needed.

So I wouldn't be at all surprised if we haven't had probably more feedback from the regions with regard to incompleteness of the LER, asking for additional information or questions with regard to actually what happened and really understand it.

MR. WILLIAMS: That brings up a point. My boss constantly tells me that if we don't do anything with that LER, maybe we should never have received it.

And I always tell him, "The major benefit from that LER is what they did with it out at the plant. Because of it, we're pulling together information to answer, not what I do."

And so we talk about the benefits of LERs, but Bobby's point is, principally, you know, are you -- the LER system, really it has a benefit in terms of requiring the utility to pull together the information that it causes and the sequence of events and everything that happens surrounding the event that may not have been pulled together if that rule didn't exist.

And to some extent that's very comforting to us, but that should also be very comforting to you. So we should try to get everything covered under that rule that we think should be covered, as well as eliminate those things that shouldn't be covered.

MR. REEVES: I don't know whether you're going to get tired of seeing me or these folks are.

Missing reports, what's the magnitude of missing reports? Are we talking six in 2400 again, or is it a bigger percentage than that?

MR. WILLIAMS: Well, I don't know the answer as to how many we're missing. But as far as the events that Eric was talking about, he was talking about events that of themselves are significant from an event curve perspective.

From missing reports that would meet the LER rule requirements that are not reported, I think it's probably a lot more.

I wouldn't want to venture a guess. But I have

done counts of what significant events we don't have LERs for and the like.

But I just wouldn't venture a guess on it. I don't think it's a major problem. It's not a major problem.

MR. JORDAN: Maybe the simple answer is: Any missing 50.73s that are outside of judgment, we would require the utility to submit.

I mean, once we decide it's missing, then we request and require it to be submitted. So I don't know of any that are missing, because if I did, I'd ask you to submit it.

In terms of 50.72s, there are some that didn't get called in in a prompt fashion, and we ultimately found out about it in another pathway.

Once we did, then the appropriate 50.73 written report was submitted. So they're sort of different populations in that regard.

MR. REEVES: So if you haven't received a phone call, you're in pretty good shape then; right?

MR. JORDAN: Pretty much.

MR. REEVES: Thank you.

MR. WILLIAMS: Ten more minutes of questions. Otherwise, we have to sit here for ten minutes. Maybe we'll have to sit here until six.

Any questions from the panel?

MR. JORDAN: I had a comment.

When you started your discussion, you indicated there were fundamental differences between 50.72 and 50.73. They're really pretty narrow, in terms of numbers of events that are only notified on 50.73 and don't get a written report, or those that have a written report and not a 50.72.

It's a trivial number. We did purposely and carefully align the requirements so that they were identities, except where we desired it to be different.

And where you have feedback to us that there should be further alignment, we'd like to know that. Sort of like the backfitting, you're looking at some of the people that were responsible at the time under a different role.

I had responsibility related to 50.72, as did Eric Weiss. And Jack Crooks had a responsibility for 50.73.

So we take the blame or credit for the way things are, and we're here to indicate a willingness to try to fix the problem that exists in the most cost-effective way for both of us.

MR. WILLIAMS: One of the differences, for example, all of the tech spec violations come in under 50.73. Roughly 39 percent of all the LERs are tech spec violations.

The other thing, under 50.72 is common mode

failure is reportable, one of the conditions of it.

There are differences, and if you have comments on the differences between .72 and .73, that will help.

One of the things I'm really interested in is whether we should try to keep the two in lock step or whether we should try to separate them a little bit more in terms of what's reportable under what.

I think we need feedback. I think that's -- I don't know how much of a problem that is or whether it's worth the resources to try to address. But if it is, just let us know. We had one comment on it.

MR. SMITH: My name is Ward Smith. I'm a resident inspector. I have a little process question for you.

On a couple of occasions I've been asked, how do I turn off an LER if I conservatively make a 50.72 call, and then decide shortly thereafter, "Well, this is not really reportable"?

I think I've given two different answers. Does your process expect a 50.73 report, if you get a 50.72, then there's something saying, "I'm waiting for the written report to come in," and does it need to be formally turned off?

MR. WILLIAMS: We do a physical check for that. In other words, if there's a 50.72 and no 50.73, we will figure it out.

What you should do is send in a revision or a -- What do you call it? A withdrawal?

MR. WEISS: Yeah. You call the operations center on the red phone and you say, "That report we made the other day, we've determined now it's not reportable for the following reason."

The ops officer enters that in the computer, and then when they do this match-up between 50.72s and 50.73s, they pull out the 50.72 and they see, "Ah-ha, it's not reportable. That's why there isn't a 50.73."

MR. SMITH: So all you need is a follow-up phone call?

MR. WEISS: Yeah, I think that works pretty well.

MR. JORDAN: And you don't have to do that within an hour of when you decide it's not.

MR. REEVES: We've talked several times about common mode failure. When I think of common mode failure, I think of .73(A)(2)(7) --

MR. WILLIAMS: It's the one that says one component in multiple systems or single-train systems.

MR. REEVES: There seems to be a real lack of guidance in that area, if I go through the NUREG, both in the NUREG -- at least in my understanding of the NUREG, and particularly in Supplement No. 1.

Apparently, there were not many questions asked

regarding common mode failure -- there doesn't appear to be anyway.

MR. WILLIAMS: One of the big things on that one is, it's not a problem, I think, because in some cases people are reading -- The rule is a little confusing.

It sounds like it has to have occurred. You have to have something that has occurred that has disabled a component in multiple systems -- okay -- or disabled single trains in multiple systems, for example.

And the statement of consideration in the rule, it's pretty clear -- and I should let you have that, it's right over here on the table and you can xerox it -- it says could have prevented.

And it talks about the potential to. So in the statement of consideration in the rule, if it's a potential common mode failure problem, it's reportable.

And the rule -- the considerations for the rule are very more detailed than that.

It goes into things like if there was a human error that could have potentially caused a failure of single train multiple systems, but then the human error was corrected, so nothing ever happened, it's reportable.

So the whole thing is to feed back the potential problem to others. That's the whole idea behind it.

MR. REEVES: Most of that statement in

considerations, isn't that just directly incorporated in NUREG-1022?

MR. WILLIAMS: A lot of it is reproduced in the original 1022.

MR. REEVES: But most of the wording under (A)(2)(7) talks about -- pretty much until you get down to the last sentence or the second-to-last sentence talks about the situation as having occurred.

And it's only in that last -- in that very last gasp of that, that it talks about could have.

MR. WEISS: I know why that happened. You see when the two rules were being written, we decided to write 50.72 in the present tense. Everybody said, "These are immediate notifications. They're going on right now. The LER is written 30 days later."

So somebody -- I forget who -- had the bright idea that, "Well, let's make it consistent. Let's make the words as consistent as possible."

But 50.72 is in the present tense; 50.73 is in the past tense.

And that has currently resulted in this confusion. But, obviously, if we are talking about common mode -- or the potential for common mode failure, you have to have hypothetical words. You have to have it in the hypothetical, "could have."

MR. REEVES: Well --

MR. WILLIAMS: That's something we should provide further guidance on; I think we've decided that.

MR. JORDAN: We do need to do that.

MR. REEVES: There is some -- I don't think 50.72 breaks apart the common mode failure. .73 breaks apart (A)(2)(5) and (2)(7).

That's why .72 doesn't -- That's why you don't have a problem with it.

MR. WILLIAMS: Right.

What time tomorrow morning?

MR. VASSELLO: Jim Vassello from Beaver Valley.

When someone does a Part 21 evaluation and it turns out to contain no significant or substantial safety hazard, is that reportable to the Commission?

MR. WILLIAMS: And there's --

MR. VASSELLO: There's no substantial safety hazard at all, is that reportable to the Commission?

MR. WILLIAMS: My own view would be no.

MR. VASSELLO: Right. y. That's fine.

But wouldn't you think t something at your plant that would warrant -- that was significant enough to warrant a Part 21 evaluation, a look-see, wouldn't you think it's important enough to get enough feedback to you people?

MR. WILLIAMS: I thought you were talking about --

21 from, say, a vendor and you look at your plant --

MR. VASSELLO: Oh, no. It doesn't have to come from a vendor, does it?

I do one myself. Maintenance comes up to me and says, "Hey, Jim, we have a problem. How about looking into this thing?"

So you look into it and, sure enough, you find a defect, and you find maybe a design problem. And when you look through your systems and find out, "Well, yeah, there's a defect. But at my plant there's no substantial safety hazard whatsoever."

So I don't worry about that. You talk to the manufacturer about it, and the manufacturer says, "Hey, no problem."

MR. WILLIAMS: Is that something you would do during a 50.9 review --

MR. VASSELLO: No, Part 21.

MR. JORDAN: I understand your comment.

MR. WILLIAMS: Okay. I'm sorry.

MR. JORDAN: We have Part 21 under, hopefully, a final revision right now, along with 50.55(E). And the judgment was made by the staff that for consistency purposes, we didn't feel there was a need for additional reporting on a 50.72/50.73 with respect to Part 21 considerations, that the requirements are such an overlay

that in very few instances that if you had followed the LER reporting rules, there were not many instances that would come up independently under Part 21.

Where they do, you're obligated to report them. Where you have reported under 50.72 and '3, you don't have to issue a separate report.

And so the short answer is, no, we're not asking for those. We feel they are few enough and far enough between that it would be an unnecessary --

MR. VASSELLO: You have actually looked into it to find out how many there really were out there?

MR. JORDAN: Yeah.

MR. VASSELLO: Because I know I have processed over eighty of them in the past two years.

MR. JORDAN: Eighty?

MR. VASSELLO: Yes. And other plants --

MR. JORDAN: From your facility?

MR. VASSELLO: Sure.

Our people are concerned when there's maybe some additional maintenance failures, some item component failures, so we do a Part 21 evaluation also.

A number of times I've uncovered defects -- manufacturer defects and talked to the manufacturers and they've indicated that "Well, they feel there's no problem."

But I've encouraged them to put a bulletin out to

their people that purchase these components.

However, they're not obligated to do that whatsoever.

MR. JORDAN: That's right.

MR. VASSELLO: They many times tell you, "That's not a defect." They don't think it's a defect, but when in fact you find it is.

So in -- You're missing some information out there. I think it's quite a bit. You'd be surprised how much information you're missing.

MR. JORDAN: From the vendor's side of it, their processing of defects, the rule -- the final rule is likely to say that they must maintain a record of the defect process, and that becomes an auditable record that inspectors go to for major vendors.

MR. VASSELLO: But with commercial grade dedication, you'll lose out on your new Part 21 rule.

MR. JORDAN: That's correct.

MR. VASSELLO: Because then it won't be covered under that.

MR. JORDAN: Yeah.

MR. VASSELLO: You'll still lose that information again.

You're losing it now, and you're going to lose it again once the rule comes out.

MR. WILLIAMS: Do you put it on network or anything?

MR. VASSELLO: NPRDS. But that's component failure.

What good does it do to compile -- to say there's a problem --

MR. JORDAN: I won't be able to sleep tonight.

MR. WILLIAMS: My thought was, if it's up on network and it does apply to another facility, they would send in an LER. Unless I'm missing something --

MR. JORDAN: You raised a good point.

MR. VASSELLO: Let me cite a real quick example here.

There was a torque -- I guess we had valves that had operators on them, and there's this blind shaft adapter between these two. There were some failures of these blind shaft adapters.

I know other plants use them, sometimes not....

The manufacturer indicated that no one else told him there was a problem. We're the only one that reported this to them.

And so as far as they were concerned, there was no problem.

We did our evaluation, and, sure enough, there wasn't a substantial safety hazard, but there definitely was

a defect.

Now, there's an open item in there --

MR. JORDAN: Stop a minute --

MR. VASSELLO: -- on reportability.

MR. JORDAN: Stop a moment.

With respect to your plant, when you found that you had a common mode type problem with motor operated valves --

MR. VASSELLO: Is it a common mode failure, or is it a common failure mode? There's the things you have to look at also.

Everybody dies. All cars rust.

But -- So you have to look at those items also.

MR. JORDAN: If you have a --

MR. VASSELLO: One item is not going to deliberately -- or disable more than one train or more than one component But these things may fail in similar fashion.

And when you look at this in total, you find that "Geez, it's a real fine area. It's gray; it's not reportable." By any means, is it reportable. Not .72, not .73.

MR. JORDAN: I'm surprised that --

MR. VASSELLO: I have component failure of several of them. But the manufacturer indicates that no one else

reported it, so is this just a random failure that's reported to the --

MR. JORDAN: Let me try again. I know it's a specific example, and it's risky for us to talk about it too much.

But when you have found failures in your plant and you have established that there are multiple cases of it, then I guess my personal view would be from that example you gave that it would be reportable under 50.72/50.73.

I'll give you an example of one that did come out that way, and the utilities' reporting of it, I think, led to a resolution.

Rosemount transmitter failures is an example where they had a remarkably high failure rate --

MR. VASSELLO: I'm familiar with that one. I've been following that for four years. It took that long to get that thing out.

MR. JORDAN: But it wasn't getting fixed. And so the recommendation, through reports by utilities, then caused the NRC to take an action that I think --

MR. VASSELLO: That's what we need, possibly some soft reporting area where you can report these gray areas that you know are not reportable under .72/.73, but they may cause a problem somewhere else in some other utility, although your plant is covered.

My application --

MR. WILLIAMS: That is not reportable under .73, by the potential common mode or whatever --

MR. JORDAN: That would fall under Jordan's important stuff. And I would hope that utilities would, in fact, go ahead and make a report on it.

If you don't believe that it falls under 50.73, send it in as an auxiliary report or whatever.

MR. WILLIAMS: See, the only reason you wouldn't send that in --

MR. VASSELLO: If I look at the NRC's programs, I see the performance indicators, and they wouldn't count it because it wasn't a significant event on your plant or a safety system failure on your plant.

MR. WILLIAMS: But if you saw a potential common mode failure problem, that's exactly the information -- If you've done engineering evaluation and decided that it is, I just don't understand why --

MR. JORDAN: You've raised a very interesting problem, and it will cause some loss of sleep. Thank you.

MR. CHERNOFF: Mark, one question. Harold Chernoff from Wolf Creek.

You just got done mentioning about a paragraph that talks about what we commonly refer to as common mode failure. You said that it covers "could haves."

In going back and looking at it, there is no wording there regarding "could have." It states any event where a single cause or condition caused --

MR. WEISS: Right.

MR CHERNOFF: So it would be more appropriate to state that these are things that we've found where that component or piece of equipment caused these things to happen, as opposed to being a predictive one; is that not correct?

MR. WILLIAMS: Well, that's true what the regulation says.

But what was meant by that statement in considerations of the rule --

MR. CHERNOFF: But that's not a part of the regulation, though. It doesn't have any legal standing in our ability to report.

MR. WEISS: I don't agree with that. I think the statements of consideration help explain the rule, and I think it does have some legal standing.

MR CHERNOFF: But not when they directly conflict with the rule, though. The rule has to take precedence over the statements in consideration, when the rule is --

MR. WILLIAMS: You know, the best I can say is that's confusing. It's confusing to you, and it's confusing to anybody who reads it.

That it came out that way is confusing. We can provide some more guidance on it, and we've got to try to answer that.

But right now if you look at the intent of the rule and the final words of the rule, you know....

MR. CHERNOFF: I just wanted to bring out that's a completely different set of things than what the rule is stating for us to report at this time. It is different, at least....

MR. WILLIAMS: But it covers the one that he brought up.

MR. CHERNOFF: Well, his is covered by a voluntary LER also.

MR. WILLIAMS: You could consider it a voluntary LER. But it's still -- That would be another way to do it, and some people do. There's quite a bit of voluntary LER reporting.

But just for your information, we don't treat voluntary LERs any differently than we treat when there's a requirements block checked.

MR CHERNOFF: So is this something we could expect some further guidance on then?

MR. WILLIAMS: I think so. I think we've got to clarify it one way or another.

It has come up before. I think it has been raised

many times.

Now, clearly, the "could have" is meeting the intent of the whole reporting system, you know. So we're going to want to fix that.

Any other questions?

[No response.]

Anything from the panel?

[No response.]

Okay. Nine o'clock. Thank you very much.

[Whereupon, at 5:10 p.m. the workshop was concluded.]

REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of Event Reporting Workshop (Regions IV and V), Volume I, held on November 8, 1990, in Arlington, Texas, were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me, and that the transcript is a true and accurate record of the foregoing proceedings.

Betty Morgan

Betty Morgan, Official Reporter
ANN RILEY & ASSOCIATES, LTD.

ATTENDANCE LIST

REGION IV
PUBLIC AND LICENSEE METTING ON
BACKFIT AND EVENT REPORTING

DATE: November 7-9, 1990

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REGION IV
PUBLIC AND LICENSEE METTING ON
BACKFIT AND EVENT REPORTING

DATE: November 7-9, 1990

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REGION IV
PUBLIC AND LICENSEE METTING ON
BACKFIT AND EVENT REPORTING

DATE: November 7-8, 1990

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REGION IV
PUBLIC AND LICENSEE METTING ON
BACKFIT AND EVENT REPORTING

DATE: November 7-9, 1990

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LESLEY A ENGLAND	DIRECTOR - LICENSING	GSU - RIVER BEND
Kelly Callan	Director DRS	NRC
JAMES LIEVILLE	ACTING DIRECTOR DRS I-2	NRC IRR

Region IV & V - NRC EVENT REPORTING WORKSHOP - Agenda

Time	Topic	Presentation/Discussion
1:30pm (Thurs)	**Opening Remarks** Moderator's Comments Welcome/Introductions Opening Remarks	Moderator (AEOD) NRC Regional Rep. E. Jordan (AEOD)
2:00	**Immediate Notification (10 CFR 50.72)** Overview of purpose and reporting criteria, NRC use and experience with 50.72 reporting	A. Chaffee (NRR) E. Weiss (AEOD)
2:45	Break (15 min)	
3:00	**NRC Panel Discussion - Industry feedback on 50.72 reporting**	
4:00	**LER System (10 CFR 50.73)** Overview of purpose and reporting criteria, NRC use, history and feedback on 50.73 reporting	M. Williams (AEOD)
(Friday) 9:00am	**Current rulemaking/Guidance revision**	J. Crooks (AEOD)
9:30	**NRC Panel Discussion - Industry feedback on 50.73 reporting**	
10:30	Break (15 min)	
10:45	**Safeguards Events (10 CFR 73.71)** Overview of purpose and reporting criteria, NRC use, history and feedback on reporting	N. Ervin (NRR) J. Higdon (NMSS)
11:15	**NRC Panel Discussion - Industry feedback on 73.71 reporting**	
11:45	**Summary Discussion**	Moderator (AEOD)

(1)

50.72 REPORTING

NRC USE AND EXPERIENCE

REGULATORY REPORTING REQUIREMENTS

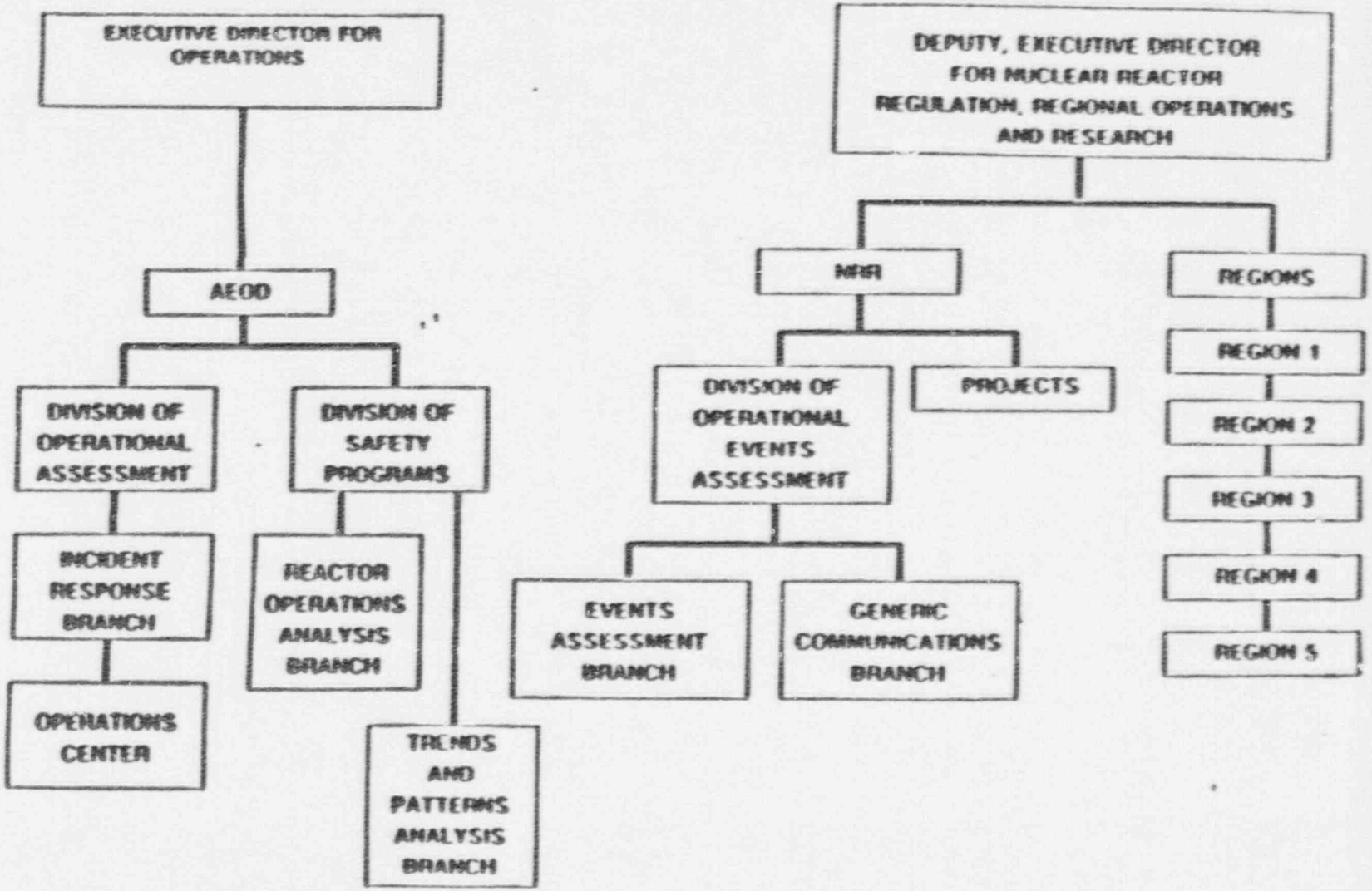
10 CFR 50.72

- APPLIES TO HOLDERS OF OPERATING LICENSES
- TELEPHONE NOTIFICATION TO NRC OPERATIONS CENTER
- 1 HOUR OR 4 HOUR REPORTS
- REVIEWED BY EVENTS ASSESSMENT BRANCH, NRR

10 CFR 50.73

- APPLIES TO HOLDERS OF OPERATING LICENSES
- WRITTEN REPORT ON EVENT
- MUST BE SUBMITTED TO NRC WITHIN 30 DAYS
- REVIEWED BY AEOD

NRC ORGANIZATIONS DEALING WITH EVENTS ASSESSMENT



REACTOR EVENTS EVALUATION

- REPORTING
- PROMPT RESPONSE, WHEN NECESSARY
- CAREFUL EVALUATION FOR GENERIC AND PLANT SPECIFIC SAFETY CONCERNS
- ISSUANCE OF GENERIC COMMUNICATIONS, WHEN APPROPRIATE

DETAILS OF 10 CFR 50.72 REPORTING REQUIREMENTS

EVENTS REQUIRING DECLARATION OF AN EMERGENCY CLASSIFICATION (1 HR)

NON-EMERGENCY EVENTS (1 HR)

TECH SPEC REQUIRED SHUTDOWN

DEVIATIONS FROM THE PLANTS TECH SPECS (50.54(x))

SERIOUS DEGRADATION OF PLANT/SAFETY BARRIERS

- UNANALYZED CONDITION
- OUTSIDE THE DESIGN BASIS
- NOT COVERED BY PLANTS OPERATING & EMERGENCY PROCEDURES

NATURAL PHENOMENA OR EXTERNAL CONDITIONS THAT THREATEN PLANT SAFETY

ECCS ACTUATION AND DISCHARGE TO VESSEL FROM VALID SIGNAL

MAJOR LOSS OF EMERGENCY RESPONSE CAPABILITY

ACTUAL THREAT TO PLANT SAFETY FROM FIRES, TOXIC GAS RELEASE, RADIOACTIVITY

NON-EMERGENCY EVENTS (4 HR)

SERIOUS DEGRADATION TO PLANT SAFETY SYSTEMS FOUND WHILE SHUTDOWN

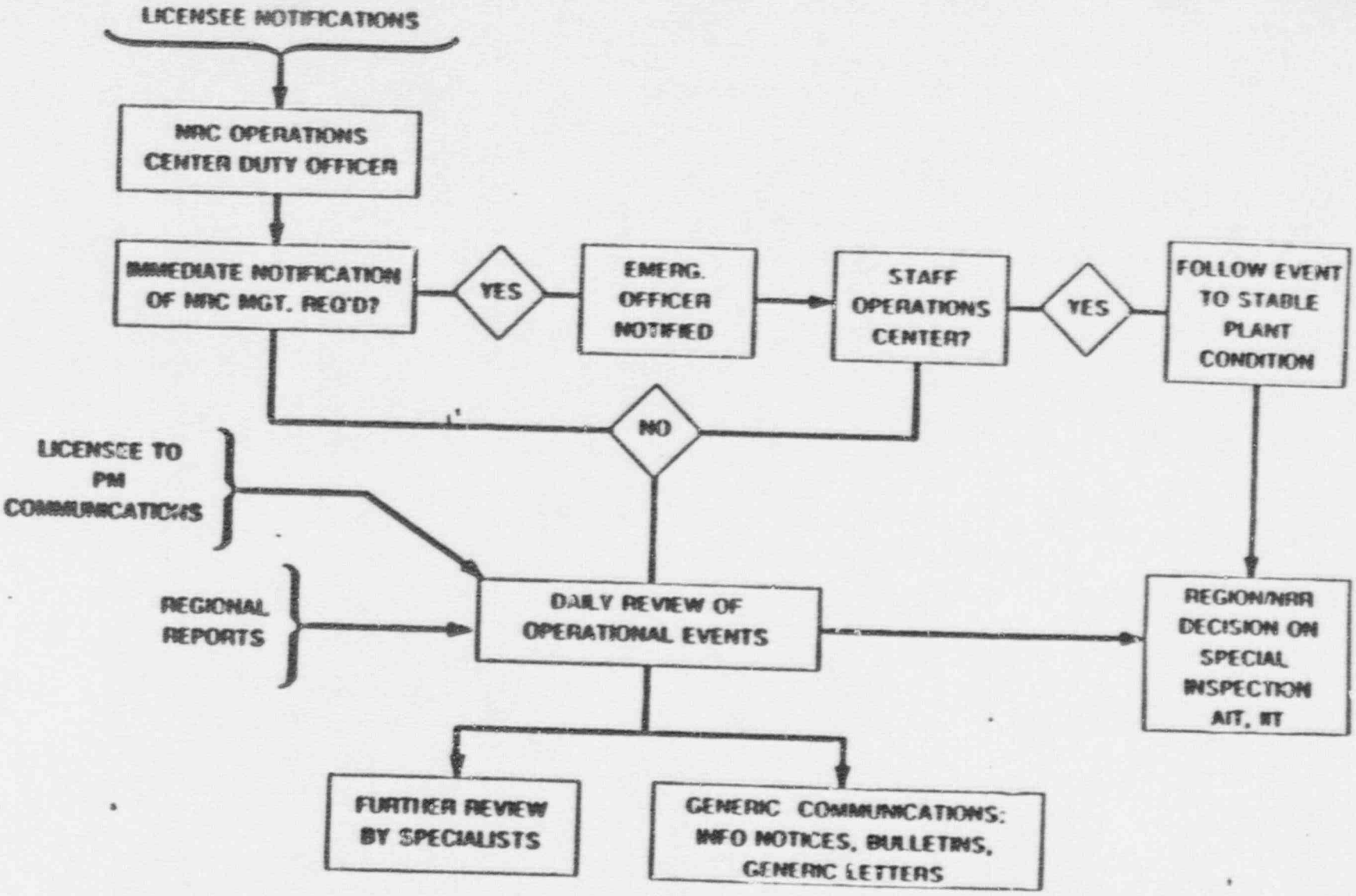
MANUAL OR AUTOMATIC ACTUATION OF ESF INCLUDING RPS-NOT PREPLANNED EVENT OR CONDITION WHICH COULD PREVENT FULFILLMENT OF SAFETY FUNCTION

- REACTOR SHUTDOWN; MAINTAIN SAFE SHUTDOWN CONDITION
- REMOVE RESIDUAL HEAT
- CONTROL RELEASE OF RADIOACTIVE MATERIAL
- MITIGATE CONSEQUENCES OF AN ACCIDENT

RADIOACTIVE RELEASES IN EXCESS OF PART 20

TRANSPORT OF CONTAMINATED INDIVIDUAL TO OFFSITE MEDICAL FACILITY

NRC RESPONSE TO EVENTS



DAILY REVIEW OF AND DISSEMINATION OF INFORMATION ON EVENTS

- SYSTEMATIC, 100% REVIEW BY EVENTS ASSESSMENT BRANCH
  - 50.72 REPORT WRITEUPS FROM OPERATIONS CENTER
  - REGION DAILY REPORTS AND PRELIMINARY NOTIFICATIONS
  - INFORMATION FROM REGIONS AND/OR PROJECT MANAGERS

- NRR DIVISION DIRECTORS AND/OR REPRESENTATIVES BRIEFED BY TELEPHONE AT 8:15 A.M. ON SIGNIFICANT EVENTS, INCLUDING ALL REACTOR TRIPS

- NRR SENIOR MANAGEMENT INFORMED OF HIGHLY SIGNIFICANT EVENTS

- EVENTS ASSESSMENT BRANCH TELEPHONE CONFERENCE CALL TO DISCUSS SIGNIFICANT EVENTS AT 8:50 A.M.
  - INCLUDES REPRESENTATIVES OF EAB, GCB, AEOD, RVIB, RP
  - ACTIONS ASSIGNED TO OBTAIN ADDITIONAL INFORMATION
  - DISCUSSIONS ON NEED FOR AUGMENTED INSPECTION TEAM OR INCIDENT INVESTIGATION TEAM

DETERMINING BASIC FACTUAL INFORMATION

- Information from Utility Telephone Notification Supplemented by Information Obtained by Telephone from Regional Office/ Resident Inspector

- Confirmation and Augmentation from Written Report

- Formal Program for Fact Finding for Complicated Events or Events Causing Significant Degradation in Plant Safety

  - Incident Investigation Team

  - Augmented Inspection Team

WEEKLY BRIEFINGS/DISCUSSIONS

- 1:15 P.M. EVENTS MEETING ON TUESDAY
  - REVIEWERS, PROJECT MANAGERS, SECTION LEADERS BRANCH CHIEFS INTERESTED IN EVENTS TO BE DISCUSSED
  - NEED FOR LONG TERM FOLLOW OF EVENTS
  - ASSIGNMENTS FOR LONG TERM FOLLOW
  - DRY RUN AND CRITIQUE OF WEDNESDAY MORNING EVENTS BRIEFING

- 11:00 A.M. EVENTS BRIEFING ON WEDNESDAY
  - PRIMARILY DIVISION DIRECTORS AND ABOVE AND COMMISSIONER ASSISTANTS
  - ALL NRC PARTICIPATION - REGIONS PARTICIPATE BY PHONE
  - DURATION OF 1/2 HOUR TO 1 HOUR TYPICALLY
  - BRIEFING VUGRAPHS/ATTENDANCE LIST PLACED IN PDR

PROBLEMS EXPERIENCED WITH 50.72 REPORTING

RULE REQUIRES REPORTS ON SOME EVENTS OF MINOR SAFETY SIGNIFICANCE

DIFFERENT DEFINITIONS OF SYSTEMS THAT ARE ESF SYSTEMS

DIFFERENCES OF INTERPRETATION OF RULE

- ESF "ACTUATION"
- "SERIOUS" DEGRADATION OF PLANT SAFETY SYSTEMS
- UNANALYZED CONDITION, OUTSIDE DESIGN BASIS

SENSITIVITY TO EVENTS OR CONDITIONS WHICH COULD PREVENT FULFILLMENT OF A SAFETY FUNCTION

- EQUIPMENT PROBLEMS THAT COULD LEAD TO COMMON MODE FAILURE
- DEGRADATIONS IN EQUIPMENT WHICH BY CHANCE ALLOW FULFILLMENT OF SAFETY FUNCTION

EVENT ASSESSMENT

CRITERIA FOR EVENT FOLLOWUP

- SAFETY-SIGNIFICANT EVENT
- POTENTIALLY SIGNIFICANT EVENT
- EVENT NOT UNDERSTOOD
- NO FOLLOWUP NECESSARY

EVENT FOLLOWUP CRITERIA

SIGNIFICANT EVENTS

- DEGRADATION/LOSS OF IMPORTANT SAFETY EQUIPMENT (MULTIPLE/COMMON MODE FAILURE)
- DEGRADATION OF FUEL INTEGRITY, PRIMARY COOLANT PRESSURE BOUNDARY, CONTAINMENT, AND IMPORTANT SAFETY-RELATED STRUCTURES
- UNEXPECTED PLANT RESPONSE TO A TRANSIENT
- MAJOR TRANSIENT
- SCRAM WITH COMPLICATIONS
- UNPLANNED RELEASE OF RADIOACTIVITY
- OPERATION OUTSIDE THE LIMITS OF TECH SPEC
- OTHER (RECURRING INCIDENTS, PLANT MANAGEMENT OR PROGRAMMATIC BREAKDOWNS)

EVENT FOLLOWUP CRITERIA

POTENTIALLY SIGNIFICANT EVENTS

- SOME BUT NOT ALL ELEMENTS OF SIGNIFICANT EVENT
- NEW OR UNIQUE EVENT (FAILURE MODE, CAUSE, OR SEQUENCE PROGRESSION)
- EVENT WITH POTENTIAL GENERIC IMPLICATIONS (USUALLY INVOLVING A SPECIFIC PIECE OF EQUIPMENT OR PROCEDURE)
- AN EVENT WHICH DOES NOT CONFORM TO KNOWN DESIGN/OPERATION FEATURES
- OTHER (SUPERVISOR'S JUDGMENT, MANAGEMENT INQUIRY, RECURRING SYMPTOMATIC EVENTS)

EVENT FOLLOWUP CRITERIA

EVENT NOT UNDERSTOOD

- MISSING INFORMATION COULD RESULT IN SIGNIFICANT CLASSIFICATION

- DIFFERENCES IN DESIGN, TECHNICAL SPECIFICATIONS, ETC.

(2)

Eric W. Weiss, Chief

Operations Officer Section

Incident Response Branch

Office for Analysis and Evaluation

of Operational Data

U.S. Nuclear Regulatory Commission

Phone (301) 492-9005

NOT CONSISTENTLY REPORTED

- Anticipated Emergencies
- Large Spills
- Inadvertent Criticalities
- Small Water Hammers, Small Fires
- Overpressurization
- Potentially Generic Events
- ESF Actuations

Notifications For NRC Response To Media/Public

- Often Untimely
- Threshold

Deficiencies Not Always Reported

When Found by NRC Personnel.

The Potentially Generic Problems Are Not Consistently Reported Because The Intent of 50.72 (b)(2)iii Is Not Understood. The Words "Alone Could Have Prevented" Need To Be Explained.

Required Oral Reports Are Sometimes Made To Other NRC Personnel Rather Than The Operations Center.

(3)

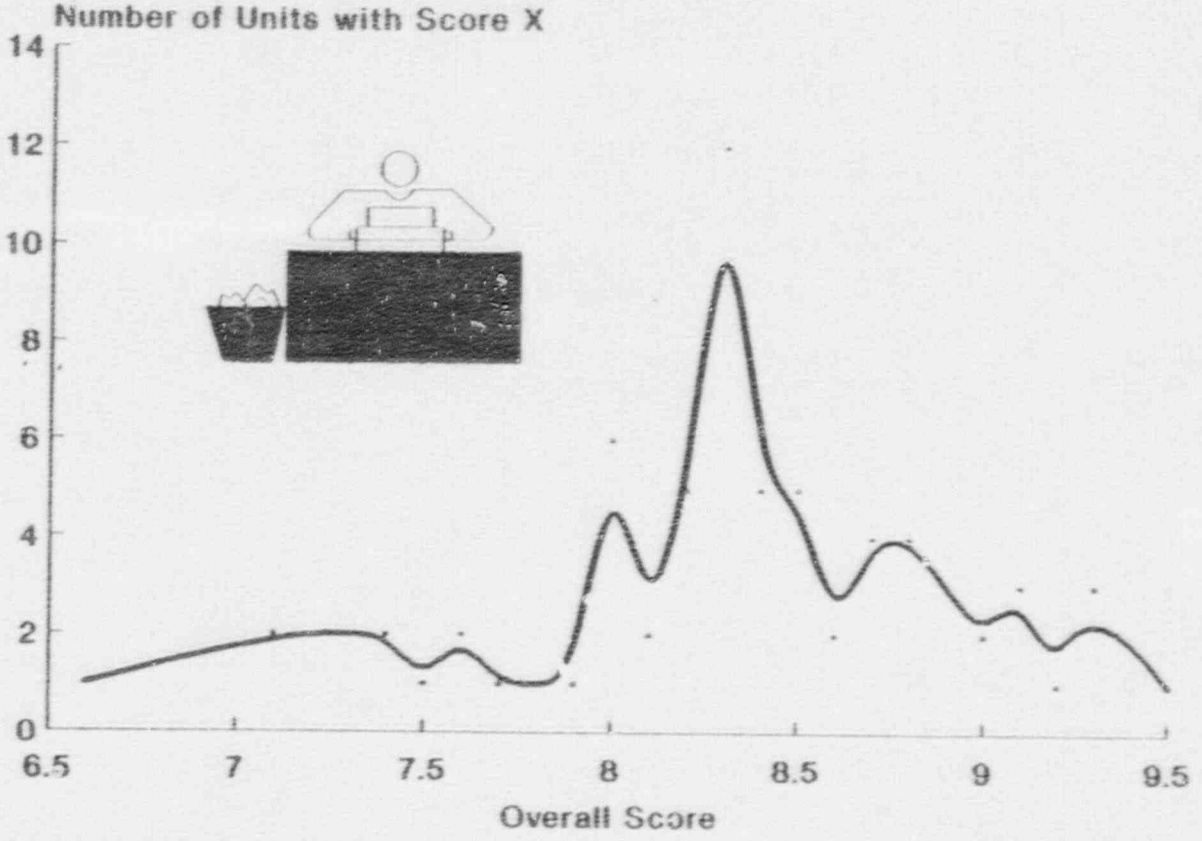
LICENSEE EVENT REPORTING WORKSHOP

LER SYSTEM 10 CFR 50.73

LER - 10CFR 50.73

- PRIMARY SOURCE FOR EVENTS DATA
- NATIONAL AND INTERNATIONAL USE
- INDIVIDUAL & COMBINED EVENT'S ANALYSIS SYSTEMATIC
- LICENSEE PERSPECTIVE

LER Quality Scores



70 Units 1987

AEOD Operating Experience Feedback Program

- Goal - Feedback of Operating Experience
  - Events' Screening and O.E. Database maintenance
  - Events' Analysis
  - Feedback
- Safety Ethic
  - Sharing of Operating Experience - Program Origin

Current Issues

- Missing Reports
- Reports of low safety significance
- Improvement Approach