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1 NUCLEAR REGULATORY COMMISSION

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3 REGION III BACKFITTING WORKSHOP
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6 Ramada Hotel O'Hare

7 6600 North Mannheim Road

8 Rosemont, Illinois 60018

9 Octobert 16, 1990

10 9:00 a.m.

11 PARTICIPANTS:
12

13 Bert Davis, Administrator, Region III

14 Ed Greenman, Director, Division of Reactor Projects

15 Bruce Burgess, Region III

16 Bruce Jorgensen, Sr. Resident Inspector, Region III

17 Denny Ross, Deputy Director, AEOD/HQ

18 Tom Novak, Director, Division of Safety Programs, AEOD

19 Al Chaffee, Chief, Events Assessment Branch, NRR

20 Jack Rosenthal, Chief, Reactor Operations Analysis Branch

21 Jack Crooks, Trends & Patterns Analysis Branch, AEOD

22 Eric Weiss, Incident Response Branch, AEOD

23 Nancy Ervin, Safeguards Branch, NRR

24 Joan Higdon, Domestic Safeguards Branch, NMSS

25 Geary Mizuno, OGC

P R O C E E D I N G S

[9:00 a.m.]

1
2
3 MR. NOVAK: Good morning. My name is Tom Novak.
4 I'm with the Office of Analysis and Evaluation of
5 Operational Data. We have the smallest office in NRC, so we
6 have to say that very slowly and often just so people don't
7 forget about us.

8 It's a pleasure to be in Chicago and to have an
9 opportunity to participate in this workshop. I will be the
10 moderator this morning and this afternoon, which means I try
11 to keep us on schedule, recognize the people in the audience
12 so that your questions can be asked, and hopefully make sure
13 we give you the best answer we can.

14 Before getting started, I'd like to just get
15 through a few little incidentals. One, there will be a
16 transcript of this meeting and all of the other meetings
17 that we've held, so that the record will be clear on that
18 point. Also, we would like everyone that's here to, if you
19 haven't already during the break, please sign in, because
20 that list of attendees will also be part of the record.

21 Before we get started, I will introduce some of
22 the people to you. At least you will recognize some and
23 others will be strange to you, people here on the panel.
24 There are no volunteers on this panel. Let me first start
25 from the right. You do know Bert Davis, Regional

1 Administrator of Region III. To his right is Bruce
2 Jorgensen, who is currently the Senior Resident and
3 Braidwood, and I've been informed, recently promoted and
4 will be working out at Glenn Ellyn. Congratulations, Bruce.

5 To his left is Bruce Burgess, who is a Section
6 Chief in Region III. To his left is Eric Weiss, who you may
7 not recognize. Eric is with the Incident Response Center.
8 He's responsible for the operation of that facility and
9 he'll be talking to you this morning about that activity.

10 To his left is Denny Ross, who many of you know.
11 He is currently the Deputy Director of the AEOD. I'll keep
12 it short. To my left is Al Chaffee. Al is currently the
13 Chief of the Events Analysis Branch in the Office of NRR.
14 Al was formerly in Region V, worked actively in the
15 Vogtle/IIT and, as far as I know, never did get back to
16 California. But we're happy to have him in Bethesda.

17 To Al's right is Jack Crooks. Jack is a Section
18 Chief in our Trends and Patterns Branch and he'll be talking
19 to you about 50.73. To Jack's right is Jack Rosenthal.
20 Jack is the Chief of the Reactor Operations Analysis Branch
21 in AEOD, and he'll be also talking to you about event
22 reporting. To his right, many of you know, I'm sure, Ed
23 Greenman, who is a Division Director in Region III.

24 What we're going to do is pretty much stick to our
25 agenda. We've got, I think, a good agenda. We'll be

1 talking about event reporting, 50.72, 50.73, and then we'll
2 spend some time this afternoon on safeguards, which I think
3 will be of interest to you. So we're hoping you'll stay
4 with us for the entire session.

5 Why I think AEOD is here today is because we're
6 basically the office responsible for the Incident Response
7 Center. We're also responsible for reviewing operating
8 experience. We really are the office that came out of the
9 Kemeny Commission and other commissions, the Rogovin
10 Commission which said you need an independent office to look
11 at operating experience. So our job has been to review
12 operating experience, and you've seen many pieces of our
13 work over the last several years.

14 I would just as soon get started. I'm going to
15 ask Bert Davis to come up and offer a few comments on event
16 reporting and, as well, if he could, to give us some
17 information on the meeting yesterday at the Commission
18 regarding the reg impact study. Bert was a focal point in
19 that effort and I'm sure he'll have some comments.

20 I might mention, though, Bert, when were at
21 Atlanta, we introduced Stu Evenetter and he came up and said
22 welcome to the home of the 1996 Summer Olympics. So you've
23 got a hard act to follow here. I'm sure Chicago has got
24 something to offer. Bert?

25 MR. DAVIS: Well, I can tell you one thing. Every

1 Friday afternoon, the Regional Administrators and the Office
2 Directors in Washington have a telephone call, and Stu
3 Evenetter last weekend was talking about the hurricanes and
4 flooding in Region II and the concerns about the plants, and
5 I told him we had sunny weather in Region . I that day. So
6 it's not all bad.

7 It's a pleasure for me to be here this morning to
8 add my welcome to you to the Region III workshop on event
9 reporting. During the regulatory impact survey, there were
10 many concerns raised with respect to the event reporting.
11 These included the effect of such reports on the shift crew,
12 too low a threshold for reporting, changing NRC
13 interpretations on reporting by regions and by resident
14 inspectors, problems with informal reports requested by
15 resident inspectors, even whenever everybody thought the
16 reporting threshold prescribed by the regulations was
17 already too low, and the effect on the public of a large
18 number of reports being interpreted as another emergency at
19 the nuclear power plants.

20 So reporting came in for a large number of
21 comments, and I think the results of that report are largely
22 responsible for this meeting here today. Tom asked me to
23 day a few words about the Commission meeting yesterday. Jim
24 Taylor, Tom Murley, and I, plus a couple of Tom's key people
25 met with the Commission yesterday to discuss the regulatory

1 impact survey.

2 It's kind of interesting. The Commission was the
3 last one to have a formal presentation given to them. I've
4 given presentation on the regulatory impact survey so many
5 times I can dream it now and not have to worry about
6 preparing anything. But they hard it formally for the first
7 time, and the reason it was delayed was that we wanted to
8 have an action plan on what we intended to do with respect
9 to the comments received.

10 So if you haven't read the Commission paper that
11 was prepared to talk about the NRC's action plan, you may
12 want to get that and take a look at it. You will have the
13 opportunity to comment on it because it is going to go out
14 for public comment before it's fully implemented.

15 There were three key issues that the staff has
16 recommended, not to belittle this effort today, but the
17 backfit workshop yesterday and this reporting workshop today
18 are also actions being taken by the Commission to respond to
19 the comments received. But the three major actions that are
20 being proposed are, first, a scheme by which the NRC would
21 entertain from licensees a schedule for implementing
22 regulatory requirements and regulatory initiatives.

23 This will give you an opportunity to merge into
24 your overall schedule those things that we want done and
25 those things that you want done and hopefully will result in

1 both of us working and implementing those issues that have
2 the biggest safety payoff. So that's the first major
3 initiative that NRR will be working with you on.

4 The second major issue was to control the number
5 of major team inspections that are done at a licensee's
6 facility in a given SALP cycle. The mechanism for
7 controlling that is now in what we call our field policy
8 manual. It will be controlling team inspections, plus major
9 other activities, including visits by NRC folks to your
10 facility. Basically, the way that will work is that we will
11 try to control the team inspections, and by that we mean a
12 team of four or more people being there for a week will be
13 defined as a team inspection, try to control those to be no
14 more than four a year at a licensee's facility.

15 Now, that does not include any IITs or AITs that
16 might come up as a result of events. The mechanism will be
17 that anyone in Headquarters that wants to do either a major
18 visit that will perturb you or a team inspection, they have
19 to coordinate that with the Project Manager. The Project
20 Manager then coordinates it with the region and the region
21 has the overall responsibility to make sure, through our
22 master inspection planning system, that there's not an undue
23 impact on you.

24 So if we see that Tom Novak wants to come out and
25 do a big human factors evaluation or something and there are

1 already three or four major team inspections, we'll have to
2 look then at the three or four that are already scheduled as
3 compared to what Tom wants to do, and somehow determine what
4 is the more important and drop something that is not as
5 important. So that's the second major initiative.

6 The third major initiative that we are going to be
7 taking is to come up with some means of controlling the
8 informal requirements or backfits that you claim, licensees
9 claim are being imposed on you by inspectors and other folks
10 in the NRC. We will be conducting training sessions with
11 our people to enhance their interpersonal skills, enhance
12 how they should look at things, how they should talk to you,
13 what they should expect from you, and we will also be taking
14 steps to make sure that there is more interaction and more
15 oversight by regional managers to assure that we don't have
16 people who are out there unnecessarily ratcheting you into
17 things that you don't think are necessary, but that you do
18 anyway because you don't want to get a bad SALP score.

19 So those are the three major initiatives that
20 we'll be developing ways to implement. The Commission was
21 very interested in this yesterday. We had a meeting that
22 was scheduled to last an hour-and-a-half and it lasted about
23 two hours and a half. They were very interested, had some
24 good comments, had some good suggestions for the staff, and
25 I'm sure they'll be keeping an eye on how we implement all

1 of this.

2 Just a couple more words and then I'll let you get
3 on with the business today. There were, as I said, a large
4 number of comments regarding reporting and, as a result of
5 that, I certainly think that this workshop today is very
6 important and appropriate. This is your chance to give us
7 your views and comments. As Tom said, they are being
8 transcribed so that they can be evaluated.

9 As I'm sure you know, the reports that you do
10 provide to us are carefully evaluated not only by the
11 regions, but by Headquarters, and there is important
12 information obtained. Our goal is to use that information
13 properly and to share it with all of you so that the
14 operation of nuclear power plants will be improved
15 throughout the country.

16 I personally believe that the reporting
17 requirements at this point do need to be reviewed and
18 appropriate changes made. I think there are obviously, in
19 my view, reports that are made that are unnecessary, that
20 take a lot of your time and take a lot of our time, and I
21 think it's appropriate for us all to look at this now, and I
22 think it's timely. It's been a long time since TMI and the
23 reporting requirements that were developed after that. I
24 think it's appropriate at this point to take a look at that
25 and see what we can do to enhance it so that we'll all spend

1 more of our time on things that are significant.

2 I sure hope that out of this session today and the
3 NRC's reaction to it that we will come up with better
4 reporting requirements.

5 Thank you.

6 MR. NOVAK: Thank you, Bert. What we would like
7 to do now is move into the first subject matter in this
8 workshop, and that has to do with 50.72 reporting. We've
9 asked Al Chaffee from the Office of NPR to give you a
10 summary of exactly what is the process involved with the
11 50.72 reporting. Then, after that, we'll have a break, and
12 then we'd like to entertain some questions. So our format
13 is to let the speaker go through his material first, and
14 then have enough time so people can ask the questions of the
15 panel. So we'll try to follow that today. Al?

16 MR. CHAFFEE: Good morning. My name is Al
17 Chaffee, as Tom said, and I've been in the Events Assessment
18 Branch for about a month, so I'm somewhat new to this. I
19 was asked to come here and talk about exactly how we use
20 your 50.72s, what we do with them, and some of the actions
21 that come out of reviewing the 50.72 process.

22 Having come from the region, I didn't have a full
23 appreciation for what goes on both in AEOD and NRR in
24 reviewing the 50.72s. In the month I've been here in
25 Washington participating in this, what I've found and

1 hopefully what you will see is that there is a lot of good
2 effort going on in taking the 50.72s that are provided by
3 the industry and reviewing those and determining which ones
4 are really significant and helping to use that information
5 to try to figure out and correct problems that are being
6 encountered within the industry.

7 So today what I will do is I will attempt to take
8 you through and into the world that I'm now in of reviewing
9 50.72s and talking about how we use that information. I
10 will also touch a little bit on some of the problems we see
11 in event reporting, with Eric Weiss talking in more detail
12 about some of the problems that exist in reporting 50.72
13 information.

14 Before I get into some of the details, let me just
15 briefly review what 50.72 is. 50.72 requires licensees of
16 power facilities to notify the NRC Operations Center using a
17 red phone for specified types of events at operating
18 reactors. These 50.72 reports, they then initiate the
19 beginnings of short-term evaluation of various events that
20 occur in the country. Then, as the slide shows, 50.73 also
21 exists and it requires a report to be written.

22 As you all are familiar, that report comes in some
23 30 days after the event. That ends up being a record of the
24 event, in much more detail, and is used, as I'll talk about
25 later, by various groups to do various types of trends and

1 patterns evaluations.

2 It's also interesting that these 50.73s are also
3 used by both -- besides the NRC, it's also used by INPO and
4 by foreign governments to review the various events that are
5 going on within this country.

6 This next slide shows the organizations that are
7 involved in reviewing 50.72s. On the left, AEOD is very
8 much involved in the review of 50.72s, as well as NRR, and,
9 on the far right, the regions. We all are involved in that
10 process. On the lower left, the Operations Center, that is
11 the location that first receives the 50.72s. The Operations
12 Center is manned 24 hours a day by trained professionals and
13 they basically receive the 50.72s, and they make the first
14 determination, which is how quickly or in what fashion that
15 information that they've received needs to be disseminated
16 to various portions of the agency.

17 They may, for example, make the determination that
18 they need to contact a senior NRR manager immediately; for
19 example, if it was an unusual event or an alert. They also
20 make determinations in regards to what other organizations
21 might need to be contacted outside of the NRC.

22 Next, the regions are also notified about all
23 50.72s. Those reports typically come from the Operations
24 Center. They contact the Regional Duty Officer, and then
25 the regions, as I will talk about a little bit later, they

1 followup all the 50.72s at the plants, mainly focusing on
2 how the licensee is dealing with it and what type of
3 corrective action they're taking relative to the specific
4 event.

5 Then in NRR, in the middle of the slide, down on
6 the lower left, the Events Assessment Branch, this group,
7 which I head up, takes the lead in doing a fairly detailed
8 review, short-term review of the events, focusing on types
9 of followup actions that might be necessary to gather more
10 information or possibly leading to decisions like generating
11 notices or bulletins or generic letters.

12 Also, to the right, in NRR, the projects people,
13 they also followup 50.72s, and in some of the latter slides
14 here I will show how all these groups interact together.
15 Projects follows the 50.72s to keep abreast of problems that
16 are going on in the various plants. All of these groups
17 work together and we'll show how that comes about as I talk
18 through the next couple of slides.

19 This slide, which is not your next one, but the
20 one after that, basically shows what the reporting
21 requirements are. The first item up there, events requiring
22 declaration of an emergency classification, this is the
23 highest priority area of concern for the NRC. Basically,
24 when you make your 50.72, if you tell the Operations officer
25 that you have an unusual event or an alert, at that point,

1 people have to try to make a determination as to whether or
2 not they man the Operations Center or not and how that
3 information is going to flow within the organization.

4 The other items in here which are various other
5 criteria that we report, I'm not going to talk about those
6 in detail because, in cheory, many are very familiar with
7 those and I'd rather spend the time talking about how we use
8 the information and how we evaluate it.

9 The next slide goes through and shows a flowchart
10 of how we actually evaluate 50.72s. In the upper left of
11 the slide, you can see the licensee notifications coming
12 into the Operations Center. Once they come in, the third
13 block down, again, the Ops officer, he has to make a
14 determination as to whether or not he needs to notify the
15 emergency officer immediately or not.

16 The emergency officer in the NRC is a senior
17 executive service manager within NRR. Typically he's at the
18 Assistant Director or higher level. These people are on-
19 call 24 hours a day and the watch rotation rotates every
20 week. What happens is if the Operations Center receives,
21 for example, an unusual event, he would call this emergency
22 officer and the emergency officer would then make a
23 determination as to whether or not he needed to perhaps
24 evaluate the need to man the Operations Center or perhaps
25 needed to call higher levels of management to make them

1 aware of a significant event.

2 In addition to that decision process, the
3 Operations officer also, for every 50.72, fills out a word
4 processing system form which identifies each 50.72 and puts
5 a sequential number on each one. So every 50.72 gets a
6 number attached to it. Then it's these 50.72 little forms
7 that we have that are then the initiator for a review
8 process that the Events Assessment Branch, which I happen to
9 head up, takes the lead in.

10 On the next couple of slides, as I get to them,
11 we'll talk about in detail the type of reviews that we do in
12 the Events Assessment Branch. One thing that is interesting
13 about -- as you're going to see as we talk about this, is
14 that the Events Assessment Branch itself is made up of
15 roughly 15 people. They're all engineers and they have a
16 variety of technical backgrounds.

17 So the 50.72s that you submit are being reviewed
18 by roughly a dozen people in the Events Assessment Branch
19 with a variety of backgrounds. This helps assure that we're
20 better able to detect and weed out the significance of
21 particular 50.72s relative to other occurrences or what it
22 may have in terms of technical merit.

23 It's also interesting that of all the 50.72s that
24 are submitted, a large percentage of them, roughly 90
25 percent of them, after we initially review them, we decide

1 that there's no followup action necessary to be taken. That
2 is they don't result in a notice. There is no need for us
3 to gather additional information. I understand that many of
4 them are stand-alone specific events associated just with
5 the given site.

6 Also, as you can see under the daily review of
7 operational events, we do not only just look at the 50.72s,
8 but we also look at other documents. The regions put out
9 daily morning reports and we review those. They also put
10 out PNs and the project managers put out daily highlights.
11 So all of these different documents are reviewed, and we'll
12 talk about that in detail, by the Events Assessment Branch.

13 What this next slide shows is that, the first
14 bullet, basically 100 percent review of the 50.72s and the
15 dailys and PNs. What we do is we get from the Operations
16 Center, they put together all the 50.72 notifications and
17 those are electronically transmitted to NRR in the morning,
18 about 7:00 Eastern time. We take those, myself and a couple
19 of other individuals, and we sit down and we review these
20 reports, plus the morning report from the day before, and
21 also PNs, with the goal being that by 8:15 each morning we
22 prepare a short briefing for high levels of NRC management,
23 mainly at the Division Director level, and this 8:15 phone
24 call, everybody calls in to a bridge, and for about five or
25 ten minutes we go through and talk about the most

1 significant events that have occurred in the past 24 hours.

2 Typically, we start out with about 15 events and
3 by the time we get ready to make the phone call, we're
4 usually down to two or three or four. Then after we've
5 finished with that phone call, the next thing that occurs is
6 at 8:50 each morning, we have a meeting, which is the next
7 bullet on the slide. At this meeting -- down at the bottom.

8 At this 8:50 meeting, we have an opportunity to
9 provide a synergism effect of a lot of different
10 organizations that are involved in 50.72s. On this call, we
11 have the Events Assessment Branch which heads up the
12 discussion. We also have the Generic Communications Branch
13 represented. We also have AEOD represented in rapport with
14 the Operations Officers, and also the Patterns and Trends
15 Branch. We also have the Vendor Inspection Branch and we
16 also have Projects. We all sit down at this phone call and,
17 again, we talk about -- first we talk about any followup
18 we've had from the previous day's events.

19 We also talk about the events we've received in
20 the past 24 hours. What we try to do in this meeting is
21 focus on the need for additional information, focus on
22 potentially additional followup action, possibly may decide
23 that we need to go out and get a little more information
24 because we believe it may result in a notice or possibly a
25 bulletin or a generic letter going out.

1 We also talk about, in some cases, if it's a
2 particularly complex event, we might talk about the need for
3 possibly having an AIT, an augment inspection team, or
4 possibly an IIT. So, again, this meeting which happens
5 every day provides an opportunity for a lot of different
6 people to participate in a process of evaluating these
7 events and trying to decide what actions would be
8 appropriate.

9 Then, again, by the time we get to the 8:50 phone
10 call, typically we've filtered out 80 to 90 percent of the
11 notifications as not being needed for any further followup
12 and we just focus on those that are of significant interest
13 to us.

14 Again, the primary goal of all this activity or
15 objective is to determine the basic factual information.
16 Again, this slide just reemphasizes the type of information
17 or the type of methodologies that we use to try to determine
18 the facts. Again, we have a 50.72, which is a written
19 document. We may decide that there's a need to call the
20 region or possibly have the resident provide information
21 through the region on a particular event to further
22 determine what the facts are that are associated with a
23 particular event.

24 Again, if it's a complex event, we may decide, the
25 agency may decide to use an augmented inspection team or an

1 incident investigation team to go out and look at a
2 particular event.

3 As this daily process continues, it culminates
4 each week in what's called a Tuesday and a Wednesday
5 briefing. The Tuesday briefing, which is at 1:15, this is
6 essentially a dry run for the Wednesday briefing, but it
7 also serves as a working meeting. Branch Chiefs from the
8 technical side of NRR, as well as Project Managers and other
9 people that are involved in following certain events will
10 meet on Tuesday and will talk about the need for possible
11 long-term followup actions, and we'll also dry run the
12 briefing that's going to occur on Wednesday. So it's more
13 of a working type meeting.

14 Then on Wednesday at 11:00, we have a meeting
15 which is focused at the Division Director and above level.
16 We also have Commissioners' assistants, and we also have all
17 five regions patched in by phone. So here we have a meeting
18 once a week, on Wednesday at 11:00 Eastern time, where the
19 significant events, it's usually two or three, or none if
20 there's nothing to talk about that week, that are discussed.
21 Basically, the entire NRC that's involved in operating
22 reactors is involved and has an opportunity here or
23 participates in the briefing of a significant event that has
24 occurred someplace in the country.

25 What we do in this meeting is besides making

1 people like Tom Murley and others more familiar with the
2 particular event, sometimes coming out of this, people begin
3 to develop plans of action that they might want to take in
4 terms of dealing both with the specific event or perhaps as
5 a generic problem and they may initiate action coming out of
6 the meeting to take a look at perhaps some generic
7 activities that need to be done.

8 These briefings are typically a half-an-hour,
9 sometimes an hour, but more likely half-an-hour in length.
10 The attendance at them varies, again depending on how
11 significant the events are. The one we had last week, we
12 happened to be talking about the results of several AITs, so
13 we had a small room, roughly a quarter of the size of this
14 filled with about 40 different people that were very
15 interested in what was going on. So it depends.

16 The next slide that we have is a slide that just
17 touches on some of the problems that we are aware of that
18 exist in the area of 50.72 reporting. I am sure that you
19 are aware of many of these. The rule requires report of
20 some events that are minor in significance. For example, I
21 think all of us are aware that people make reports when they
22 have inadvertant ESF actuations of ventilation systems due
23 to spurious types of conditions, like reactor water cleanup
24 may start and, for no legitimate reason, but just perhaps a
25 spurious signal of some sort.

1 We also have reports that are made for scrams that
2 occur while plants are shut down with the rods fully
3 inserted. So we recognize that there are some reports that
4 we receive that are not of significant interest to us.
5 Also, we're aware that the definition of what is an ESF
6 system differs from plant to plant. I'm told at some plants
7 the diesels are not considered ESF systems. So how those
8 problems with those components are reported can differ from
9 other plants.

10 Also, what constitutes -- for example, what is an
11 ESF actuation. Different people have different
12 interpretations of what is considered an ESF actuation. Do
13 you have to have the actual sensor that's detecting the
14 condition cause the actuation or could you have it actuated
15 somewhere intermittently in the electronic circuitry? Do
16 the components have to operate or not? There are different
17 interpretations that exist.

18 Also, serious degradation events, safety -- what
19 does the word serious mean? Different people have different
20 interpretations on that. What's an unanalyzed condition?
21 Again, different people have different thresholds as to what
22 they think is an unanalyzed condition. Some people make
23 those determinations more quickly than others.

24 Also, different licensees have different
25 sensitivity to events or conditions that could prevent the

1 fulfillment of a safety function. All these types of things
2 are different types of problems that we're aware of. Eric
3 Weiss later today will talk about, I guess after I'm done,
4 will talk a little bit about some examples of some of these.

5 Some of those reports that we get are not as
6 helpful to us as we would like. Also, in the handouts here,
7 there are a couple more handouts on the next slide here, but
8 I'm not going to talk about all of these in much detail. It
9 focuses on -- in fact, the next slide, eleven, it talks
10 about event assessment and it talks about some of the
11 criteria we use in terms of what things we will followup on.
12 For example, if we have a safety-significant event, there's
13 some criteria included in here what we consider to be
14 safety-significant, and we'll follow up on those.

15 Events that are not understood, if we don't have
16 enough information, we'll follow up on those as well to get
17 additional information. So, again, what our branch is doing
18 and what AEOD is doing is basically taking these 50.72s and
19 trying to glean from them problems that are being reported
20 by the industry in the hopes that we can better detect the
21 early indications of a problem, maybe generic. Sometimes
22 50.72s give us information for a Part 21 type form. The
23 other thing we do with this information is try to determine
24 quickly if, for example, we ought to have a notice put out.

25 So that's all I have. Thank you.

1 MR. NOVAK: Thank you, Al. Eric Weiss is going to
2 follow up now, giving you a little bit more information on
3 some of the things that we see and do not see, in a sense,
4 in terms of 50.72 reporting.

5 MR. WEISS: Good morning. Al Chaffee told you how
6 important your 50.72 reports are and what they're used for.
7 I'm going to try and identify some problem areas,
8 specifically what we're getting reported versus what we
9 expect to get reported when we wrote 50.72. My focus will
10 be on 50.72, but since, as you know, many of the words are
11 very similar or the same in 50.73, there will be some
12 validity for 50.73, as well.

13 There are about 3,000 calls made to the Operations
14 Center each year, about 2,400 under 50.72. Out of that
15 many, I would say only a few events go reported each year.
16 So I don't want to leave you with a wrong impression. When
17 I get done, you may have the impression that I'm describing
18 a huge problem, but I'm not. I'm going to give you my
19 recollection over the past eight years of those types of
20 things that have gone unreported that should have been
21 reported, but that doesn't mean that we have an enormous
22 problem.

23 Six out of 2,400 is not a big percentage. I might
24 also caution you by whatever I say really doesn't change the
25 rule. Sometimes I am misinterpreted. But what you hear

1 here will be one man's opinion of what I expected to have
2 reported when we wrote 50.72. I'm not speaking to change
3 the rule.

4 Consistency, I would say, is our biggest problem
5 with 50.72. As Al alluded to earlier, there are different
6 thresholds and we get different licensees with different
7 sensitivities, because we intentionally wrote the rule with
8 engineering judgment in mind. We didn't intend to be
9 terribly prescriptive. We intended to rely on your
10 judgment.

11 But notwithstanding that, you'll forgive us if
12 we're somewhat surprised when certain things aren't
13 reported. This first slide shows a number of those things
14 that have gone unreported over the past eight years, and
15 it's interesting to note that with the exception of the ESF
16 actuations and arguably the emergencies, none of these
17 things are explicitly mentioned. We thought that they'd be
18 captured or covered by the reporting criteria that we wrote
19 at the time.

20 Let me begin by addressing the anticipated
21 emergencies. It was some years ago, I was sitting in Dr.
22 Rossi's office when someone ran in and said that there was a
23 plant that was in an unusual event or an alert, I forget
24 which, and the Executive Director for Operations, our top
25 executive officer, was very much interested in it. We knew

1 nothing about it and we called the plant and, indeed, they
2 were about to declare an emergency or had, and the time
3 clock had not run out.

4 As a matter of fact, the plant knew for some days
5 that they were going to be in an emergency. They had
6 detailed hydrographic information that indicated that the
7 water level from the river would overtop portions of their
8 facility. So they knew when they would be in an unusual
9 event and they knew when they'd be in alert, but they hadn't
10 reached that water level yet or, if they had, the clock
11 hadn't run out, and so they hadn't told us.

12 We would have expected the licensee to call us
13 ahead of time on that. Why? Because the NRC needs time to
14 get prepared. We have responsibilities to notify other
15 Federal agencies. We have people that we call into the
16 Operations Center and Headquarters, and the region, I'm
17 sure, brings people into the Incident Response Branch, and
18 all of these things take time.

19 So we would have anticipated that licensees would
20 tell us about such things ahead of time, but it doesn't
21 always work. Now, what would cause you to report such a
22 thing? Well, the regulations prescribe that notification
23 should be made as soon as possible and in no case later than
24 one hour after the occurrence of the event. We thought that
25 those words would have caused licensees to call us not when

1 the one-hour or four-hour clock ran out, but as soon as
2 possible.

3 What did we have in mind when we said as soon as
4 possible? Well, we had in mind that your first
5 responsibility, of course, is to keep the plant safe, and we
6 didn't want the notification process to interfere with the
7 safe operation of the plant. So we used the words as soon
8 as possible meaning that as soon as you got the plant
9 stable, as soon as you could spare the hands at the control
10 panel, you'd pick up the red phone and tell us about it.

11 The second category of things that surprises us is
12 large spills. If I had to pick one thing over the past year
13 or so that has surprised us, this would be the category.
14 Well, spills, to begin with, is somewhat of a loaded term.
15 It sounds almost insignificant to say spill. But spills,
16 large spills in particular are often more serious than they
17 first appear, particularly to people in the plant.

18 Why? Well, because there may be EQ questions for
19 equipment that was wetted or submerged. It may not be
20 totally known the extent to which equipment was wetted or
21 submerged. A second reason is that there's tremendous
22 interest right now in NRR on intersystem LOCA implications,
23 and many of these spills have implications for intersystem
24 LOCA.

25 To give you a perspective on that, I would say

1 that anytime you get water from the primary system, from the
2 reactor vessel and its associated piping, outside of
3 containment and on the floor of the turbine building or the
4 aux building, you'll have some people in NRR looking at that
5 event for its intersystem LOCA implications, which is to say
6 I'm driving at the same thing Al Chaffee was.

7 It's not necessary that the event be significant
8 for your plant. Your plant may be perfectly safe. The
9 spill may have been inconsequential for your plant, but
10 there are a large body of people in Headquarters that study
11 events for their generic implications.

12 The third reason that spills are somewhat
13 interesting to people in Headquarters is because that
14 occasionally they have implications for fuel uncovering. Very
15 rarely, of course, am I thinking of something in the vessel
16 or pool. That is very remote, as we all know, but sometimes
17 there's at least the hypothetical possibility that a bundle
18 transient being manipulated in the pool could become
19 uncovered. If that were the case, you'd have a very
20 difficult situation. It would be very difficult to recover
21 from an irradiated fuel element exposed inside containment.

22 The next category of things that have gone
23 unreported over the years and have generated intense
24 interest on some occasions, some very special inspections,
25 have been the so-called inadvertent criticalities. What do

1 I mean by that? I've heard some people, both within and
2 outside the Commission, say, well, gee, every criticality is
3 inadvertant to some degree, we never hit our estimated
4 critical position exactly, what do you mean.

5 What we mean by that is those instances in which a
6 non-licensed operator has manipulated the control or a
7 trainee has manipulated the controls under improper
8 supervision, inadequate supervision, or where rods have been
9 pulled out of sequence, or there has been a substantial
10 difference between the estimated critical position and what
11 was achieved.

12 The next category are the small water hammers and
13 small fires. Again, I would say that these are events that
14 often have more widespread implications and consequences
15 than the first few indications would suggest. Sometimes as
16 a result of a water hammer or a fire, you find a new
17 mechanism for producing a water hammer hasn't occurred
18 before, or at least not to our knowledge.

19 Perhaps it would have been more serious under a
20 different set of circumstances, either at your plant or
21 maybe it's impossible that it could have been more serious
22 at your plant. Perhaps these circumstances would have
23 occurred at another plant and would have caused severe
24 damage at another plant. So when there is a fire or a water
25 hammer, we're somewhat surprised when we're not called.

1 The next category, overpressurization, and you
2 might add the words over-temperature, have also caused
3 intense interest on occasion. We've had a number of AITs
4 for such events. I might say what do we mean by
5 overpressurization? Well, I would say that once you've
6 exceeded the value in the FSAR, you've got our interest. It
7 sometimes happens that licensees point to engineering
8 studies after the fact which show design margin in piping
9 that would have accommodated the overpressurization.

10 But if, for example, you get reactor pressure out
11 in the suction side of RCSI, then that would certainly peak
12 our interest. Again, you might suspect and be correct that
13 the reason is it has intersystem LOCA implications and even
14 if it's not significant for that plant, perhaps there's
15 another plant that doesn't have the design conservatism in
16 the RCSI suction pipe, just to mention a specific example.

17 Also, another category of things that go
18 unreported are the potential generic events. Let me give
19 you a specific example. There was a plant that had an event
20 where they notified the vendor within a day or so. They
21 notified the plant management within a day or so. The
22 vendor issued a rapid communication service information
23 letter very rapidly and it took three or four days for the
24 NRC to learn about the event.

25 We would expect that if you see generic

1 implications to an event, that we would be called. That is
2 one of the underlying themes of 50.72 and 50.73. I think
3 after having heard Al talk and some of our later speakers
4 speak, you understand why, because we're writing notices and
5 we're writing bulletins and generic letters in an attempt to
6 head off events at other plants or perhaps even more serious
7 events at other plants by informing them of their
8 vulnerability and hopefully getting them to address the
9 situation before it becomes serious.

10 I might also mention that ESF actuations, which Al
11 has addressed to some extent, have been a problem. The
12 definition of what is an ESF, and what is an ESF, as Al
13 alluded to, is also a category. I might point out, too,
14 that voluntary reports are encouraged, as outlined in NUREG-
15 1022 on Page 10. If, for some reason, you find a
16 potentially generic situation that you don't think is
17 strictly reportable, we would encourage you to report it.
18 We think that that enhances the safety of the nuclear
19 industry by us being able to inform other licensees of
20 potentially serious situations before they occur.

21 And when we wrote the rule, the Commission
22 directed us to include language in the rule that says -- in
23 the statements of consideration in the rule, finally it
24 should be noted that licensees are permitted and encouraged
25 to report any event that does not meet the criteria

1 contained -- and here they're quoting the LER rule --
2 50.73(a), if the licensee believes that the event might be
3 of safety significance or of generic interest or concern.

4 Before leaving this slide, I'd like to make one
5 other point, and that is that events may be significant in
6 the aggregate even if they're not apparently significant
7 individually. Al's group and Jack Rosenthal's group, who
8 you will hear from later, look at events in the aggregate.
9 When they see a number of events occurring of a particular
10 type, it's very often a clue to them that something is
11 wrong.

12 The event in itself may not mean a lot, but if you
13 see all of the solenoid valves, we'll say, of a particular
14 type failing, well, it doesn't take a lot of insight to see
15 that there may be a problem there. It might be worth
16 looking into to see if there's a manufacturing defect or
17 installation problem or whatever.

18 So it would be too far to say just because you
19 don't immediately see the safety significance of what is
20 reported, to say that, ipso facto, it's insignificant.
21 Notifications of NRC response of groups and you might add
22 states, locals, are often untimely or have an incorrect
23 threshold. Let me try and give you what I think is the
24 correct threshold.

25 We need to know about any event where the public,

1 the media, the state or local government, or another Federal
2 agency perceives a safety problem, even if that perception
3 is wrong. No one's interest is served, not the licensee's,
4 not the public's, not the NRC's, if the NRC is not aware of
5 events that cause public concern. The public, the Congress,
6 and other Federal agencies depend upon the NRC to know what
7 is going on, and we can only hold the public's trust when we
8 can address their concerns.

9 So I'm struck by the irony of what we have in the
10 way of reporting. Some plants will report a sea turtle in
11 the traveling screen and there's another plant that not too
12 long ago had a steam generator tube leak in which they held
13 not one, but two press conferences. The locals around that
14 plant were notorious for their concern about nuclear power
15 and were calling the NRC Operations Center and painting the
16 worst possible picture, and we were telling them, no, we
17 have no such report.

18 We quickly lost credibility with the locals.
19 Other Federal agencies wanted to know what's going on. We
20 have memoranda of understanding and agreements with other
21 Federal agencies to keep them informed, and we weren't
22 telling them anything. A few days later, the licensee said,
23 well, we see now that it was reportable because we really
24 did exceed our tech spec limit. We didn't think we had
25 steam generator tube leakage at the time it exceeded tech

1 specs, but now we see that it did.

2 Well, that's too late. I would submit that as
3 soon as you have a press release, you really should have had
4 time to call the NRC under the "as soon as practical"
5 phrase. We need to know about these things so that we can
6 hold the public trust and address their concerns. The
7 Commissioners, the Commissioners' assistants and other high
8 level officials of the agency must be able to, say, for
9 example, speak to ABC News if they contend that Plant X is
10 melting. Even if it's a totally trivial event and the most
11 trivial occurrence happened there, we have to be able to
12 address those situations.

13 Deficiencies are not always reported when found by
14 NRC personnel, such as by inspection teams or residents.
15 You still need a red phone call when you have a reportable
16 event. 50.72 requires that the NRC Operations Center be
17 called even if NRC personnel discover a reportable
18 condition. Now, why is that? Because we have an obligation
19 to inform the other Federal agencies and people within the
20 Commission. We have a complex set of procedures. It takes
21 people about two weeks to learn everybody who needs to be
22 notified and how to do it.

23 I sometimes get called by an office within the NRC
24 and occasionally I get complaints even from outside the
25 Commission, why weren't we informed. You have a memorandum

1 of understanding with us. You have a procedure that says
2 that my office, which is a very important office, has very
3 important functions, was not informed on this. Then I have
4 to report, well, we weren't informed.

5 So it's important that that red phone call get
6 made so that the procedures that are laid out that have
7 evolved over the years get properly implemented. I might
8 also point out that once an event is reportable, it must be
9 described completely, even if the description of the
10 circumstances of that event would not otherwise have been
11 reportable.

12 There was a plant some years ago that had a scram
13 and said it was a normal scram, and then when the resident
14 came to work the next day, he found that a large fraction of
15 the rods had stuck all the way out of the core. Al
16 Chaffee's boss, Dr. Rossi, has told the Operations officers
17 to ask on every scram did all the rods go in, did aux
18 feedwater start. We used to tell Ernie that, well, they
19 said the scram was normal, but over the years, we've become
20 skeptical and some of the more serious events have not been
21 adequately described.

22 So if you have, for example, a non-safety grade
23 pump that's helping mitigating the consequences of an event,
24 you should tell us that you're using that non-safety grade
25 pump, even though the start of that non-safety grade pump

1 wouldn't have been reportable in itself. If you have a
2 number of systems that are unavailable that otherwise would
3 have been available to deal with a serious event, you should
4 tell us about that sort of thing, because it helps us draw a
5 complete picture and understanding what's really going on in
6 connection with the reportable event.

7 I might say that one category of things that
8 frequently is a problem are the health physics type events
9 because the people in the control room are very good
10 experts at reactor systems, but sometimes we have a problem
11 with the event where they say that we have a release off-
12 site of the vent stack monitors pegged off-scale high or
13 there are so many counts per minute.

14 That isn't an adequate description. We need to
15 have it put in the context of, for example, what percent of
16 tech spec limit that is or what does count per minutes mean.
17 I mean, it varies on the efficiency of the detector. So the
18 health physicists aren't too happy with us when we call them
19 the next morning and we tell them that there was a release
20 that exceeded the limits and we don't know what it was,
21 other than it was pegged off-scale high.

22 I might also mention that 50.72, Paragraph C,
23 requires a followup report to give us additional information
24 should it be particularly relevant. For example, if you had
25 a scram and then three or four hours later you discover,

1 oops, the MSIVs didn't close and they should have; and,
2 oops, we have a release off-site, but we didn't know about
3 it at the time. We need the complete description of the
4 event. So 50.72(c) requires that you give us a call back
5 and tell us about these additional details.

6 Required oral reports are sometimes made to other
7 NRC personnel rather than the Operations Center. As I
8 outlined before, we have a complex set of responsibilities,
9 both within the agency and with other Federal government
10 agencies to keep them informed. If these procedures at to
11 work, we just have to be notified.

12 I might make an additional comment here. We've
13 been told that on occasion some licensees have used 50.9 in
14 lieu of 50.72. 50.9 is not really a substitute for 50.72.
15 50.9 says if you find something that's not otherwise
16 reportable, tell the region about it; and, by all means, do,
17 but don't report something under 50.9 that is really
18 reportable under 50.72 and forget to make the 50.72 call.

19 There was an important point made by another
20 speaker at one of the previous workshops that I think bears
21 reporting. That is that we can get bogged down into the
22 exact nuances of the meaning of certain words in 50.72 and
23 that may be counterproductive. The important point to keep
24 in mind is what we're after. The events of safety
25 significance; safety significance for your plant or for

1 other plants.

2 If you think about what we're interested in in
3 terms of plant-specific and generic significance, I think
4 you will go a long way towards understanding the wording of
5 50.72.

6 This whole presentation is a condensation of one
7 that ordinarily takes about 40 minutes and 30 slides, and I
8 had deleted this slide, but it keeps coming back to haunt
9 me. So I'm including it. The potentially generic problems
10 are not consistently reported because the intent of
11 50.72(b)(2)(iii) is not always understood. The words "alone
12 could have been prevented" need to be explained.

13 Specifically, you'll recall these come out of a
14 reporting criteria that says "any event or condition that
15 alone could have prevented the fulfillment of a safety
16 function of structures of systems that are needed to," and
17 then it lists a bunch of things, A, B, C, D. The words
18 "could have prevented" refer to three things.

19 They refer to common cause problems, human factors
20 problems, and generic problems. When we wrote the proposed
21 rule, we didn't have the word "alone" next to it and we got
22 public comment that said what do you mean by that; gee,
23 hypothetically, any event could be reportable if you just
24 say "could have prevented." All I've got to do is imagine
25 the additional failure. I mean, the clock falling off the

1 wall; gee, what if it hit this switch and that caused the
2 MSIVs to close at full power. That clock falling off the
3 wall would be reportable. It's serious.

4 So we included the word "alone" to refer to those
5 things that alone by themselves were enough to give you a
6 common cause problem. Now, the specific example that we
7 mentioned in the statement of consideration was you go out
8 and you find a pump with a wrong lubricant in it, and that's
9 why the pump failed. Well, one single failure, as you know,
10 is not reportable under the LER rule or 10.72. You've got
11 to have loss of a safety function, loss of a whole system.
12 Probably two pumps in most cases, unless it happens to be a
13 single-train system like HPSI or HPSIS.

14 Well, you go out and you find the other pump that
15 is still working also has the wrong lubricant in it, and
16 maybe you put that wrong lubricant in there because it was
17 supplied by a vendor who made a mistake, or you were
18 following an incomplete set of instructions or a vague set
19 of instructions. There you go. There you've got something
20 that alone could have prevented the fulfillment of the
21 safety function. You might have lost all low pressure
22 safety injection because you got this wrong lubricant in all
23 of your low pressure safety injection pumps.

24 That's what we mean by "alone could have
25 prevented." I get asked that question frequently, so I

1 threw it in. Anyway, I thank you for your attention and I
2 will look forward to your questions during the panel
3 session.

4 Mr. NOVAK: Thank you, Eric. We're going to take
5 a break in a couple of minutes. Let me just mention two
6 points. What we would like to do in the next session is
7 have a panel discussion. We'd like audience participation.
8 The whole idea of this event workshop is to get your input.

9 If you have a comment you want to make, please
10 make it. It doesn't have to be a question. If you have
11 some operating experience regarding 50.72 reporting and you
12 think we should focus on that point more, bring it up.
13 That's the whole point of the discussion. What we're going
14 to do when these four workshops are complete is we're going
15 to put out some additional guidance in the area of 50.72 and
16 .73.

17 We're also going to look hard at some minor rule
18 changes that we can make to remove the need to report
19 certain things that we have judged to be not of safety
20 significance. So we do need your input. We'll also be
21 mentioning things that aren't being reported today that we
22 think have safety significance.

23 I think if you've got some ideas in this area, I
24 know it sounds like, well, why would I want you to report
25 something you don't currently have to report. But, really,

1 I think we've seen a maturity in this area of reporting
2 because what we do collect and review is of interest to you.
3 The whole concept of event reporting is to be able to
4 provide feedback.

5 I think from this morning's session you see that
6 we don't take 50.72 lightly. There is a lot of work that
7 goes on each and every day with 50.72 reporting. The people
8 that man the Operations Center are thoroughly screened to be
9 sure that we put very good people in there. They are
10 trained in Chattanooga so that they understand to a certain
11 degree the kind of plant that you're operating, and their
12 intent is to be responsive.e.

13 So we take this effort very seriously and I'm sure
14 you do. So what we'll do is we'll take about a 15 minute
15 break. We'll try to get back here at 20 minutes after the
16 hour. We'll pick up with audience participation. If you
17 don't want to give a question, if you're prepared to write
18 one out, give it to me and I'll be glad to read it and we'll
19 carry on that way. So it's your choice. Thank you.

20 [Brief recess.]

21 MR. NOVAK: Now, if anyone has some questions or
22 would like just to start off by making a general comment
23 with regard to 50.72 reporting, or even as to 50.73, have at
24 it, because this is why we're here.

25 MR. HARRIS: I've got a couple of questions. Ray

1 Harris from Pennsylvania Power and Light. I'll start now
2 and give other people a chance and come back up later.

3 The first question I have has to do with the part
4 of 50.72 that talks about unanalyzed conditions that
5 significantly compromise plant safety and conditions outside
6 the design basis. The reason I'm asking that is our
7 resident has taken -- outside the design basis, does not
8 have a qualifier of significance, and has told us anything
9 for any reason outside the design basis is an LER and a
10 50.72 report regardless of significance. And we've taken
11 the position that's not the case, and I'd like to know
12 specifically what the panel thinks.

13 Maybe I can give you an example. You gave an
14 overpressure event where you -- let's say you have an
15 overpressure event where you exceed your design pressure by
16 five pounds. That's reportable. Let's say you have an
17 analysis that's done inside a house where you conclude that
18 under unusual circumstances, under an unusual event, you
19 could possibly exceed your design basis by five pounds.

20 Now, there's a test of significance and judgment
21 and the rule says use judgment.

22 MR. WEISS: That's right. The rule does say to
23 use judgment. We intentionally put judgment into the rule
24 instead of a set of prescriptive criteria so that we could
25 get at things that we as engineers could agree had safety

1 significance. There are some things in the rule that are
2 more or less prescriptive. If you have a scram, you're
3 going to call that in.

4 We fundamentally made that philosophical choice
5 when we wrote the rule. Now, to help you out specifically,
6 what I find difficult to do is to take words in the abstract
7 and to give you a flat out statement that all such things
8 that fit a particular category or categorically reportable
9 are not reportable.

10 What I do as a practical matter and what Jack
11 Crooks does on a day-to-day basis is when we're called by a
12 licensee or a region, we say let's discuss the specific
13 issue at hand. And when Jack or I listen to this
14 description, it will typically take maybe 15 minutes, 30
15 minutes, what we're looking for is the safety implications,
16 three types of safety implications.

17 We're looking at did it make your plant unsafe;
18 did it -- in other words, the second category is was there
19 an emergency involved. The third category is the hard one,
20 that's the generic one. That's the one that Al Chaffee's
21 group makes a living out of, and Jack Rosenthal's group,
22 too. I tried to include that in my speech where the way we
23 resolved this question in another region was to say if you
24 think as engineers about whether the particular event or
25 condition had safety significance either for your plant or

1 for another plant, then you'll know whether it was
2 reportable or not.

3 Now, as engineers, over the years we have more or
4 less concluded that certain things aren't all that
5 significant, like the spurious reactor water cleanup
6 isolations. Despite having looked at eight years of data on
7 that, nobody sees any tremendous safety significance to
8 those. It's difficult to say that a reactor water cleanup
9 isolation is out of hand, not reportable or insignificant
10 from a safety point of view because what about the case
11 where they really have the LOCA that's occurring out of the
12 reactor water cleanup system, and you get the isolation
13 signal and the thing fails to isolate.

14 Well, okay, that's one reactor water cleanup
15 isolation signal we'd want to hear about, even though it
16 didn't go to completion. Also, the control room ventilation
17 isolation is another category most people can concede are
18 not that reportable. But I'm not dancing around the issue.
19 What I'm trying to tell you is that given any category of
20 event, no matter how trivial or how significant, I can turn
21 it the other way around just by adding additional details.

22 So whenever I take these calls, I say let's hear
23 the whole story rather than part of the story, and we look
24 for the safety implications of it. If we can agree as
25 engineers that it's insignificant from a safety standpoint,

1 then I think we can agree as engineers that we don't want to
2 hear about it, it's not reportable.

3 The example I heard in the lobby that bothers some
4 utilities is all rods are inserted and you get a scram
5 signal. Most of those we don't want to hear about. They
6 don't have any implications. But what about the plant that
7 found that their DB-50s hung up a little bit, they looked at
8 the alarm printer and found that the DB-50 breakers had bad
9 maintenance procedures, wrong lubricants being applied.

10 Well, the NRC turned around in a hurry and put out
11 generic correspondence to tell other licensees that there
12 may be a generic problem with that particular breaker. What
13 about the one -- the one that is my favorite is the BWR that
14 said that they were doing scram time testing. That's not a
15 big deal. The plant is safe, it's shut down, why are you
16 interested in this.

17 Well, probing questions by the Ops officer found
18 out that ultimately it was due to bad parts kits. Well,
19 that plant was still safe. It doesn't matter that their
20 whole warehouse is full of bad parts kits for the scram
21 solenoids. It doesn't matter, right? That plant is safe.
22 But what about the plant, the BWR that's operating on 100
23 percent power? There's a plant out there with bad scram
24 solenoid parts and they're operating at 100 percent power.
25 Are they going to have an ATWS?

1 So I would say the short answer to your question
2 is call us, talk to us in detail, either with us in
3 Headquarters or in the region, and if we can agree as
4 engineers that there is no safety significance to a certain
5 type of event, then it's not reportable. If you feel that
6 your resident is being overzealous, that's a matter to
7 address with the regional management.

8 MR. NOVAK: I would like to -- again, Ray, I
9 thought you were from Region I. Is that right?

10 MR. HARRIS: Yes.

11 MR. NOVAK: Or have we had a change that I didn't
12 know about?

13 MR. HARRIS: Yes, Region I.

14 MR. NOVAK: I would like to add, and anyone else
15 from Region III, if you've got some kind of procedures that
16 you people do follow within the region in terms of
17 discussing potentially reportable events between the
18 resident and the Regional Headquarters, that's the first
19 step. It does eventually -- and we certainly -- we do ask
20 the regions if there's a question as to the reportability to
21 talk to NRR or AEOD.

22 So I'd like, Ed and Bruce, if you guys have any
23 specific comments, this might be a point to discuss it.

24 MR. JORGENSEN: I want to make one comment. The
25 Commission recognizes in certain cases; as a for instance,

1 pipe supports and restraints. We in Region III and most of
2 the licensees in Region III have pursued interim operating
3 criteria. That's one condition where you're outside your
4 design basis where we were recognized because of the
5 significance involved. In certain cases it might not be
6 significant and we allow utilities to operate with the
7 condition outside their design basis.

8 So certainly it's a circumstance or case-by-case
9 basis that we evaluate when we look at outside design basis.
10 If it happens to be a safety system at a plant, however,
11 typically it's reportable.

12 MR. DAVIS: I'd make a comment, too. You heard
13 earlier that the events that we would take a special
14 interest in following up include the really safety
15 significant ones, but also those which are not understood.
16 I understand. I think we can be sympathetic to the
17 reluctance to call in an event that you don't understand
18 yet, but it's mostly our business to be sure it's safe.

19 If the information isn't there to understand it
20 yet, how can we be sure it's safe? In the specific example
21 you gave, in the one hour that you get to try and make a
22 decision and an evaluation or the four hours that you get to
23 try and make an evaluation and a telephone call, I guess it
24 wouldn't be perfectly clear to me that if you're talking
25 about an unanalyzed condition, something you really haven't

1 had an opportunity to sit down and calculate out yet, how
2 you know.

3 You don't understand it yet necessarily; how do
4 you know it's not significant? There may be cases where an
5 early seat-of-the-pants judgment will tell you, well, it's
6 outside the FSAR perhaps; we haven't analyzed it yet, but I
7 can clearly see it's trivial. But oftentimes I think it
8 would be difficult to say that right up front. Don't
9 understand it, it's not analyzed yet, but I don't want to
10 report it because I don't have the answers to the questions.
11 That's a tough one.

12 MR. NOVAK: Ed?

13 MR. GREENMAN: Let me talk a little bit more
14 philosophy, particularly for Region III utilities. The
15 region doesn't make policy. Individuals don't make policy.
16 The rule exists. We've maintained all along that we do, in
17 fact, strive for uniformity. Bert Davis, myself and every
18 regional manager has emphasized that if you have a question,
19 whether it's a simple reportability question, and you're not
20 satisfied with the answer that you get, to please contact
21 the region, contact the project section chief.

22 If you're unhappy with that answer, go to the
23 branch chief. If you're unhappy with that, go to either
24 Bill Forney or myself. And if you're unhappy with us, go to
25 Bert Davis. We want to get uniformity. If we can't resolve

1 the question, we'll do exactly what Eric talked about. We
2 have frequent conversations to try to resolve it and try to
3 get it back to you and also to try to get the information
4 out to all regions.

5 I agree with what Eric said. It's difficult to
6 zero in on one single case and say, well, this is reportable
7 or it's not reportable, without dwelling on the five percent
8 and without dwelling on your analysis. As Eric said, you
9 can come up with all sorts of hypotheses. You can have an
10 analysis, if you're a boiling water reactor, that says it's
11 okay to have a certain amount of foreign material in the
12 vessel. That may or may not be significant. It may be of a
13 size that we're concerned in a BWR about it hanging up a jet
14 pump.

15 Again, we'd encourage you on a voluntary basis to
16 let us know those things. The message I'd like to leave you
17 with is don't let it just sit out there. Don't say, well,
18 I'm going to report it because the resident tells me to, but
19 contact any of us and we'll try to get you the right answer
20 and using the best engineering judgment.

21 MR. CHAFFEE: I have one thing to add. In the
22 month I've been in the Events Assessment Branch, we have
23 seen probably half-a-dozen to a dozen cases where people
24 have made reports and then a couple days later they've
25 basically taken the report back. We don't have any problem

1 with that. It's not a black mark against anybody for making
2 a report that they decide that they later on decide didn't
3 need to be made.

4 For those that were made, I could tell when the
5 initial report was made that it was sort of a judgment call.
6 So even then it's helpful, even if it turns out to be not be
7 a valid report, to convey the information to us. It
8 stimulates us thinking about a particular item and sometimes
9 we can, as a result of being aware of other things, see
10 where it may have some generic implication.

11 MR. WEISS: I'd like to make two additional
12 points. One is we're sensitive to your concerns. If you
13 have specific issues that you'd like us to address, raise
14 them orally here or submit them on a piece of note paper or
15 whatever, a card, and it's our intent to put out a NUREG --
16 I believe that's still our planning -- that would be another
17 supplement to 1022 to help further clarify the regulation on
18 specific points and achieve a degree of uniformity in
19 reporting.

20 Another point I'd like to make that I should have
21 made in my talk was that we're sensitive to the abuse of
22 reports. Specifically what I mean is the number of reports
23 in themselves are meaningless. It's the significance of
24 what's being said. What Fred Hebdon used to say many years
25 ago was how many setpoint drifts equal the LOCA. Another

1 way of putting it, how many reactor water cleanup isolations
2 are equal to a core melt.

3 A plant that has 200 reactor water cleanup
4 isolations is not less safe than a plant that melts their
5 core. I mean, it goes without saying. There are so many
6 organizations that blindly count the number of reports, and
7 it's wrong. There are nuclear insurers, public interest
8 groups, even public rate commissions are getting into the
9 act and plugging the number of LERs into formulas. It's
10 just not an accurate indication of plant safety.

11 You have to read the reports and know what they
12 mean and categorize them based upon their significance, not
13 just the numbers. So we're sensitive to that.

14 MR. NOVAK: Any other questions?

15 MR. SHARKEY: Tom Sharkey, Union Electric. You
16 mentioned the Supplement 3 to a NUREG and I just had some
17 comments, just to get them into the record. First of all,
18 the current NUREG and its supplements focus on 50.73. We
19 would like to see more guidance on 50.72 in any supplement
20 that's added. Along with that, we talked about ESF
21 actuations, or you did. We include as part of preplanned
22 actuations those HVAC ESF actuations that are manually
23 initiated to comply with tech specs. I don't know what your
24 feelings are on that. The supplement could get into that
25 specific area.

1 I think you recognize that under (b)(1)(5) that
2 for a major loss of emergency notification system, that
3 should not be reported if you have a backup, especially if
4 the licensee is not responsible, and we know that the staff
5 is aware of the problem. Then I noted in some meeting
6 minutes from the Region II workshop, there was a comment
7 made that on Mr. Weiss' list of things that would be nice to
8 be reported, but are not specifically mentioned in 50.72,
9 and there are a number of people at our plant that break
10 that out and look at the words given an event and try to fit
11 the words to the event.

12 In the case where that doesn't occur, the rule is
13 silent on voluntary reports. If we could have some guidance
14 on when to make voluntary reports and specific examples,
15 that would be helpful. There was a comment made in the
16 Region II meeting minutes that 50.9 could be used. Well,
17 that's a report to the Regional Administrator. It also does
18 not, in most cases, get you an LER as would 50.72,
19 eventually get you an LER.

20 We could use a voluntary LER. Again, we have
21 concerns about bean counting. We need some guidance in that
22 area. Those are just some of my comments.

23 MR. NOVAK: Thank you. Question in the back?

24 MR. REPKA: Yes. My name is David Repka, with
25 Winston and Strawn. Two comments. My first is really a

1 followup, I think, to the previous discussion. I think the
2 first question was very representative of what a lot of
3 folks in the industry are experiencing. They have a rule,
4 two rules really, 50.72 and .73, that are highly
5 prescriptive. It's itemized as a number of different kinds
6 of events and some very specific terms.

7 As I think Mr. Chaffee pointed out in his talk, a
8 lot of those terms are susceptible to different
9 interpretations and are often difficult to apply in real
10 specific circumstances. So I think on the one hand you have
11 industry out here reading those rules very carefully and
12 looking at whatever guidance exists and trying to apply them
13 in specific situations, and then, on the other hand, what I
14 think we're hearing today is think more cosmically, think in
15 terms of significance to your plant, think in terms of
16 significance for other plants and generically.

17 It's just a fundamental disconnect. On the one
18 hand, a more prescriptive approach; on the other, one that's
19 much more judgmental and much more -- I'm sympathetic to
20 that approach, that you think, as reasonable engineers, and
21 try to arrive at something that's a reasonable result.

22 The problem is that's not really what the rule
23 says and I just think maybe we're two ships passing in the
24 night on that point.

25 MR. WEISS: Can I address that?

1 MR. REPKA: Maybe a clean rewrite of the rule
2 would be helpful.

3 MR. WEISS: I'd like to address the two ships in
4 the night. When we're telling you to think cosmically, as
5 you put it, what we're really saying is think of the goal,
6 think of where you're trying to arrive at. Then, to use
7 your analogy, we put down specific markers on each side of
8 the channel, as it were, with our examples in NUREG-1022 and
9 its supplements. So that as you're traversing towards your
10 goal, you have these specific signposts along the way.

11 But what we ask is if you're ever lost, don't lose
12 sight of the goal. And the goal is to identify those things
13 that Al Chaffee described this morning; the generic events
14 analysis; to know when we as your regulatory agency need to
15 notify all of the licensed plants of a potentially generic
16 safety item or to respond to your plant in particular
17 because of an event safety-significant.

18 So they're not contradictory. What we're saying
19 is keep in mind the goal and we'll help you along the way by
20 giving you specific markers in the channel. You tell us
21 what questions you'd like to have answers specifically and
22 we'll try and include them in the supplement.

23 I should also comment that there is already an
24 effort underway under the BWR Owners' Group auspices to
25 develop a new scheme, some additional guidance. I believe

1 at least in concept we're receptive to that idea. We
2 haven't seen the product yet, so it's a little bit hard to
3 say whether we would accept or not.

4 But there are a number of efforts along the way to
5 help you get additional guidance. But just keep in mind the
6 goal and even if you don't have a specific marker in the
7 channel, you'll probably get there. Call us when it doubt,
8 and then, if you need three or four days to figure out the
9 event wasn't reportable, call us back and say it wasn't
10 reportable and that should take it off the bean count list.

11 MR. REPKA: I think that's helpful because I think
12 a great deal of effort is spent on looking very closely at
13 those standards and the relevant guidance, and keeping in
14 mind the goal is always something I recommend that you think
15 about in making a determination under a standard.

16 However, I guess the flipside of that is something
17 that after a good faith determination that it doesn't meet
18 the standard, then you don't want to later end up in an
19 enforcement context because somebody can read the goals and
20 create, in a sense, a wider reporting kind of criterion. So
21 it seems like one of those inevitable debates that maybe it
22 will just constantly arise under the rule the way it is.
23 But I appreciate where you're coming from.

24 My second point is really, I think, related to
25 this also. I think what I'm hearing and what I see in the

1 workshops and the presentations is really a fundamental
2 merger of 50.72 and .73. I started with the assumption that
3 bean count is a problem and that there are groups out there
4 counting LERs and 50.72s and making something out of which
5 they're really not.

6 But having said that, I also think that there's a
7 fundamental different purpose between .72 and .73: .72 was
8 something that requires immediate NRC involvement or
9 response, whereas .73 is something more susceptible to
10 longer-term reasoned analysis, the NRC can issue a trending
11 and other kinds of generic kinds of considerations.

12 But what I think I'm seeing is that .72s and .73s
13 are really handled very much the same way. From what I
14 hear, it seems to force a lot of things into .72 that maybe
15 don't belong. So in terms of long-term reform, one of the
16 suggestions I think I would have is to try to cross out
17 those things that really require a one-hour or a four-hour
18 report in which you call for an immediate response kind of
19 notification.

20 I noticed in the flowchart what happens at the
21 NRC, that kind of screening is done for .72s and I would
22 just make a comment that maybe all those things that are
23 going into the generic box for longer term consideration
24 really shouldn't have been 50.72s in the first place. I
25 know they may fit the current criteria, but as you think

1 about maybe reforming the criteria, maybe a structured
2 approach that designates out those things to report
3 immediately, it keeps them separate from things that are
4 .73s. It might help the bean count drop.

5 Another comment along those lines is we hear that
6 if the media or the public is concerned, the NRC wants to
7 know. Well, that's fine and I think that's a valid concern,
8 but 50.72 doesn't have that standard and there are other
9 ways to notify the NRC. You can tell your resident
10 inspector, a press conference that I would assume the
11 resident inspector would probably know anyway.

12 So there are plenty of different ways of notifying
13 the NRC; voluntary LERs, etcetera; 50.9s. I don't think the
14 solution is to force them all into 50.72s because I think
15 that exacerbates the bean count problem. At any rate, I
16 draw that out for your --

17 MR. WEISS: I'd like to comment on that last
18 point. 50.72 does require you to notify us of any event or
19 situation related to the health and safety of the public or
20 on-site personnel or protection of the environment for which
21 a news release is planned or notification to other
22 government agencies have been or will be made.

23 Then it gives an example. It says such an event
24 may include an on-site fatality or an inadvertant release of
25 radioactively contaminated materials. When I spoke to the

1 issue of notifying us when other agencies are notified, I
2 was specifically referring to that criterion. I was trying
3 to clarify that as to what we were looking for. A burned
4 out light on your cooling tower or a sea turtle on a
5 traveling screen isn't. But if you're holding press
6 conferences on steam generator tube leaks, we definitely
7 need to know about that.

8 MR. REPKA: I don't disagree with that. I think
9 that this -- if the public is concerned, state and local
10 agencies are concerned, the NRC should know and I'm not sure
11 that 50.72 is the proper avenue for all of those kinds of
12 things that would fall into that --

13 MR. WEISS: Well, it is because we may not have
14 the luxury of waiting 30 days before that reporter comes to
15 the Commissioners' assistant and says what about this plant
16 melting. We didn't have the luxury the day that steam
17 generator tube leak occurred. People were hysterical and
18 were calling us about an event and we lost all credibility
19 with the locals because we were telling them we hadn't heard
20 of any such thing. Here the plant is melting in my front
21 yard and you don't know about it. What kind of regulatory
22 agency are you? We don't have the luxury of waiting 30 days
23 to find out that the locals are upset.

24 MR. REPKA: There are a range of things that the
25 locals are upset about. An example, it's a serious concern,

1 and I think I'm thinking more when a public citizen decides
2 that something is happening at the plant that may not be
3 happening. That's a concern. It may not exist and,
4 therefore, there may be no basis to report anything.

5 MR. NOVAK: I would like to continue this
6 conversation. Let me just point out, and I think this
7 question has been brought up in different ways. For
8 example, I think it was in Atlanta where people were saying
9 could we at least wait till the day shift comes on to report
10 something. On the back shift, some tests might have
11 revealed that the plant was "outside of its design basis"
12 and it's been that way for ten years, and once the urgency
13 and the one-hour versus four-hour versus a one-day
14 reporting.

15 I think we are going to be looking at the
16 practicality of these kinds of reporting requirements. I
17 think what we're hearing is obviously there's a spectrum and
18 we all want to be sensitive to that spectrum of what needs
19 to be reported in a timely manner. So I think the point is
20 a good point and I think that's part of the reason we're
21 here for the workshop. But I would like to get a few more
22 questions out so that we get as much of a cross-section on
23 50.72s as we can.

24 We've only entertained two questions thus far.

25 Yes?

1 MS. GOODMAN: Lynne Goodman, Detroit Edison. I
2 have a question and a comment. Regarding the comment,
3 sometimes 50.9 can serve a better purpose for doing
4 voluntary calls. For example, we need to notify our county
5 whenever we pick up the red phone. So if there's something
6 that maybe we feel the NRC would like to know about that
7 doesn't meet the rule, it would be a lot easier for us to
8 have someone in another department, licensing or whatever,
9 pick up the phone and call the region, let the NRC know
10 about it, rather than picking up the red phone and having to
11 make a whole bunch of other notifications.

12 Second, a question or suggestion. I think the
13 criteria that needs the most amplification in the guidance
14 issue is the outside the design basis. I think that one,
15 partly based on questions we've heard already, gets very
16 misunderstood and very misused. I really think the failures
17 are more supposed to be considered under the system not
18 being able to do its safety function.

19 Outside of design basis is really looking at the
20 plant, a plant outside of its design basis, not to the plant
21 no longer can fulfill its design function.

22 MR. ROSS: I'd like to find out, as an example,
23 what do you do, what does your company do. It's Saturday
24 noon, you're starting a three-day weekend and General
25 Electric calls up and said, oops, we had a plus instead of a

1 minus and your ECCS limits are wrong, we've had to
2 recalculate your linear heat generation rates. If you're
3 running the way you have been running, you'll exceed 2200
4 given design basis LOCA.

5 What do you do? With respect to the NRC, what is
6 your first step?

7 MS. GOODMAN: Well, the first step is to try to
8 get a feel for what the problem is.

9 MR. ROSS: Yes.

10 MS. GOODMAN: If it's a problem that we're going
11 to shut down our plant --

12 MR. ROSS: The problem is that they goofed, made
13 the wrong sign. This is not hypothetical. I don't know
14 about GE or your plant, but vendors have been doing this for
15 some years. It's just a calculational error and it went
16 over 2200 if you keep running that way.

17 MS. GOODMAN: I think our first responsibility is
18 to decide whether or not we're running our plant safely;
19 then decide what does this phone call mean; are you telling
20 us it's not safe to run our plant, are you telling us you
21 made an error that you don't know what the effect is, it's
22 actually not safe to run this plant. Then basically we'd be
23 starting to shut down and calling the NRC.

24 It's a very -- type of situation, found an error
25 in our computer code, we don't know what it means, we want

1 to do some evaluations and figure out what does it mean.
2 There will be all sorts of spectrums as far as when an
3 engineering type problem comes up as far as we would jump on
4 it right away and we know what it means or do we need some
5 time to evaluate it.

6 MR. ROSS: But is this the outside-the-design-
7 basis example that you were talking about?

8 MS. GOODMAN: That was not the particular example,
9 but it would consider being in that situation and reportable
10 under that situation. If we're in a situation where we
11 can't safely shut down or safely operate the plant, that's
12 outside the design basis.

13 MR. ROSS: Okay. Thank you.

14 MR. NOVAK: We've had several comments regarding a
15 more workable definition of what constitutes outside the
16 design basis and on what timeframe need to be reported.
17 We've seen a lot with plants beginning reconstitution
18 reviews in the sense that they've identified things, and
19 certainly we want to encourage that kind of work.

20 So we're looking at how we can best accomplish
21 obtaining the information that we think we need, as well as
22 encouraging you to look hard at the design of your plant and
23 when you do identify something that is different than what
24 was in the safety analysis report, that it needs to be -- we
25 need to know about it. Not necessarily just for your plant

1 alone, but, again, as potentially a generic issue that needs
2 to be disseminated within the industry.

3 We still can take a few more questions.

4 MR. PETERMAN: Kirk Peterman from Dresden. I have
5 hopefully a relatively simple question on inadvertent
6 criticality. We do local shutdown margins at the beginning
7 of the cycle. These shutdown margins are supposed to be
8 subcritical checks. However, we realize that the margin to
9 criticality is slim and occasionally you could get the
10 critical.

11 It's something that we realize could happen
12 easily. We consider that anticipated, but the calculation
13 would show marginally we should not go critical. Should
14 that criticality be reported under an inadvertent
15 criticality?

16 MR. NOVAK: Any volunteers?

17 MR. ROSENTHAL: As somebody who used to do
18 criticality calculations, the industry gets pretty good at
19 this point about predicting criticality. You expect to pull
20 to within just a few notches of predicted value. If you're
21 way off, yes, and you didn't have a prompt excursion, but if
22 you're surprised because you're off and let's say the notch
23 is polled relative projected or critical boron
24 concentration, there's no reason why this industry should be
25 off by one percent reactivity any longer.

1 So if you are surprised at the difference between
2 what you got in your plant and the engineering analysis that
3 made that prediction, then I think we'd want to hear about
4 it.

5 MR. SHARKEY: Tom Sharkey, Union Electric. Along
6 with that, let's say that I get to the point where I
7 anticipated criticality and I'm way off, but I hadn't
8 reached criticality, so I back down, stop the shutdown, and
9 I recalculate. Is that in the same category or is this not
10 a reporting concern?

11 MR. ROSENTHAL: Well, yes. It's been reported.
12 Do you discover that there's a basic flaw in the way you're
13 doing the engineering calculations? Do you discover that
14 there's a systematic problem in the quality assurance, that
15 the error was made and that you're way off, you never reach
16 criticality because your engineering groups weren't speaking
17 to each other?

18 What was the underlying reason for the problem.
19 That's what has to be assessed almost on a case-by-case
20 basis. Similarly, with the question on, well, gee, I'm off
21 by five pounds in my design basis, value of the pressure
22 allowed in a piece of pipe, was it a round-off error in a
23 calculation that you were re-reviewing under a design basis
24 reconstitution effort, or did you find out that there's a
25 new scenario that nobody had thought of before, but it only

1 brings you to five psi greater than some other thing that
2 you knew about.

3 Is there some system interaction that you have now
4 discovered might take place that you hadn't anticipated
5 before even though you're only five psi greater than that
6 piping pressure? I mean, those things are going to affect
7 whether it should be reported or not.

8 MR. NOVAK: If you had made that report -- since
9 I'm aware of exactly what you're talking about, having
10 occurred in another plant in Region V, that would have
11 stimulated me to ask the question we've had a lot of these
12 occurring in the past several years, is this something we
13 need to take a look at.

14 So if you make that kind of a report, you're going
15 to get that type of a review to try to decide if it's
16 something that's unique or does it have a generic
17 implication, maybe we need to focus on it a little bit more.
18 I don't know if the rule requires you to make it, but if you
19 make it, you may be helping us try to discover something
20 that has some generic implications.

21 MR. HARRIS: Ray Harris, Pennsylvania Power &
22 Light, again. The discussions I've heard talking about 50.9
23 use, first let me preface this by saying I concur; 50.9 is
24 not a substitute for 50.72 or 50.73. It does not
25 substitute. We have lowered our threshold for 50.9 based on

1 discussions with region and NRR and we are making a lot of
2 50.9 reports today.

3 Based on our belief that some of these things do
4 not reach the level of 50.72 or 50.73, but that, in fact,
5 they do meet the goal, that cosmic goal of keeping NRC
6 informed of something that may have generic significance
7 somewhere else. We believe that's appropriate. We do in
8 some cases again report this as 50.72/50.73 as these design
9 basis reconstitution type things reach a better
10 understanding.

11 I guess this is more a comment than a question.
12 Because we do put all our 50.9 reports in writing, I think
13 it alleviates some of the concerns you might have about 50.9
14 reports being made just to the region. We've made a
15 decision internally to start sending these things to AEOD
16 because we're not sure they're getting there promptly.

17 Well, 50.9 obviously is a lower threshold than
18 50.72 and 50.73. Therefore, a lot of these things that are
19 tough calls we are meeting the obligation of keeping you
20 informed by using 50.9.

21 MR. NOVAK: Question?

22 MR. GALLINA: Charles Gallina, Illinois Department
23 of Nuclear Safety. First, just a statement to calibrate my
24 question. An LER concerning inadvertant criticality to the
25 NRC and to the utility may mean one thing, but when the bean

1 counters start counting up their LERs and the public is told
2 that a utility has experienced an inadvertant criticality,
3 it means something else altogether. Basically, the bottom
4 line of our threshold is 50.72, maybe a little lower, 50.9,
5 but we stop there.

6 There have been recent efforts to adopt the
7 nuclear events scale on an international level, which I
8 personally believe a lot of the NRC's reporting requirements
9 could be integrated into it, and would take us below the
10 50.9 threshold all the way down to the "anomaly," maybe as
11 low as the burned out light in the cooling tower.

12 The NRC has decided not to cooperate, not to
13 integrate, not to use the international nuclear events
14 scale, and I was just going to ask what type . . . thinking
15 went on before that decision was made and do you feel that
16 had we done that, would it have given the public a more
17 realistic idea of what actually goes on in nuclear
18 operations?

19 MR. ROSS: The scale, if you what you meant, is
20 sometimes called a severity scale. It's one that's being
21 issued as a trial basis by the International Atomic Energy
22 Agency. Recently, Mr. Jordan sent out an information
23 package to all the licensees on this topic and it should
24 have filtered down to many of you by now.

25 It's not strictly, too, that we're not cooperating

1 because we have gone to several meetings and explored with
2 people the various facets. It's certainly true we're not
3 participating in the trial use, as are some other countries.

4 We felt that the present four-tier system of
5 emergency notification from unusual event up to general
6 emergency and how deeply it's embedded into the utilities,
7 into the state and locals, into the other government
8 agencies, was a sufficient basis to handle the various
9 classes of emergency events. And going to another scale
10 would mean having, at least for a long period of time, two
11 sets of scales.

12 The one-to-seven system that's in the severity
13 scale under the IAEA, it's real ; zero-to-seven because
14 we're seeing a lot of classifications from the countries
15 using it as a type zero, which is obviously less than one.
16 It would be -- it's more than the light bulb falling off the
17 cooling tower, but it's events below a Level 1.

18 As I recall, roughly speaking, one, two, three is
19 the stuff that's on-site, and then you start, as you're
20 making the transition into four, five, six and seven,
21 increasing severity. I forget whether Chernobyl was a six
22 or a seven. Do you remember, Eric?

23 MR. WEISS: It was a seven.

24 MR. ROSS: It was a seven. And I think TMI was a
25 five, tentatively. Mainly the reason that we didn't want to

1 switch over, we didn't want to upset what we thought was a
2 deeply rooted system now where everybody understood event
3 classification. Obviously, we're following it. We continue
4 to go to meetings, exchange correspondence.

5 As far as the decision process, this went up to
6 the Commission and the Commission fully understands the
7 purposes I just gave you, so it is not a unilateral office
8 decision. Did I get all the questions? I didn't write down
9 everything.

10 MR. GALLINA: Just one more followup question,
11 then. If we accept and keep the present system, is there
12 any way of adapting the system further down to include the
13 equivalent of the one, two, three types of notification
14 levels or problem levels that that nuclear event scale does
15 address?

16 In other words, go down through your general site,
17 alert, unusual, your 50.72s, your 50.9s, and maybe create
18 another area where the public and the media can get more
19 involved and understand that simple problems do occur and
20 the first thing that the utility reports is not an
21 inadvertant criticality.

22 In other words, if you don't want to confuse
23 anybody, how about adapting the system that we have and
24 extend the bottom threshold to cover events that the media
25 and the public can understand. And then when the bean

1 counters start counting them, the absurdity becomes obvious.
2 That sort of takes a little bit of steam out of their
3 impact.

4 MR. ROSS: I understand your point. We were doing
5 a little noodling. As a matter of fact, I think it was on
6 the back of a menu at night in Region I, about the relative
7 probabilities of the four scales that we have and the
8 relative probability that the site emergency is -- I don't
9 have much data -- it's about .1 per year. The alerts could
10 be eight or ten per year, but maybe with some changes
11 it might be less. But even so, there may be a decade or so
12 more likely, maybe two decades more likely.

13 The unusual events, we get a couple hundred a
14 year, something like that. The general emergency, there's
15 not too much experience. but there seems to be on the order
16 of one or two powers of ten between the scales. In other
17 words, the four event scales seem to be roughly separated by
18 about the same amount. So we don't have two crowded
19 together and then the other two crowded together.

20 The unusual events, the 200 or so a year, is there
21 something more frequent, but less worrisome than those 200.
22 I don't know what they would be, if that's your point. The
23 criteria for an unusual event, maybe we have too many of
24 them per year. I don't know. That's roughly one or two per
25 plant per year.

1 Just as an example, last Saturday, three days ago,
2 at Crystal River, there was unfortunately a fatality. A
3 person fell in the reactor building and somewhere in the
4 process was contaminated, was taken to the local hospital,
5 whereupon he was pronounced dead. That's an unusual event.
6 Should it be? I don't know. We can talk about it all day.
7 I don't know -- certainly the NRC wants to know about it.
8 Certainly there will be press attention.

9 Depending on the press, you can imagine all sorts
10 of headlines. But is that really a severity item? Is that
11 an item that could be called an emergency? In and of
12 itself, it's a really borderline case. Was that your point?

13 MR. GALLINA: Well, I think the point in that case
14 is what professional educated people would consider a
15 severity level or a significant event, and what is perceived
16 by the general public as a significant event are two
17 different things. If educated regulators come up with a
18 system, it has to be able to be understood and perceived by
19 the general public, or else the NRC or anybody else who is
20 involved in regulation or support loses their credibility.

21 When a person dies at a nuclear power plant, we
22 may see it as having absolutely nothing to do with reactor
23 safety or reactor operations. But it is a radiation worker
24 was killed at the Crystal River Nuclear Plant. That takes
25 on a whole different meaning and importance to Mr. and Mrs.

1 Joe Smith who live in Miami, Florida.

2 I think that we should have criteria that at least
3 we are alerted about everything, if it's on a voluntary
4 basis or not. I just think we stack our notification
5 criteria a little bit too high. It's all right for the NRC
6 and those educated regulators, operators, and people of
7 certain communities, but it does not get down to a level
8 where it really courts, and that's the level of the general
9 public understanding what's going on.

10 MR. ROSS: At the risk of prolonging it, let me
11 finish it. I did discuss this very topic with some key
12 regulators in Europe as to why they liked and wanted the
13 severity scale from the IAEA, and their main desire in
14 accepting it was to get proper attention from the media, not
15 too much and not too little. Just like Goldilocks eating
16 the oatmeal.

17 I hope we never do that. I think the four-tier
18 emergency system is to properly assist the utility, to
19 properly advise and inform the local and state people, the
20 other Federal agencies that we deal with, to cope with
21 whatever level the emergency is. If we pander to the media,
22 then I think we're making a gross mistake. Sure they've got
23 to be informed, but to let the media interest dictate
24 emergency classification, I think, would be a gross mistake
25 and I hope we never do it.

1 MR. NOVAK: Okay. We have a question.

2 MR. MARROW: Mike Marrow from the D.C. Cook Plant.

3 A question about the design basis issue. Could I use tech
4 specs to give me an indication of the significance being
5 outside of design basis? For example, post-accident
6 instrumentation tech spec says I can live without an
7 instrument for 30 days. Does that mean I -- could I -- does
8 that imply that I could say I really don't need to make a
9 one or a four-hour phone call if I've got 30 days by tech
10 specs? Can I use that as kind of a guidance for people on a
11 back shift to make those notification calls?

12 MR. ROSS: Do you have an answer? I don't have an
13 answer. Do you want to answer it, Novak?

14 MR. NOVAK: I considered that a good comment.
15 These are the kinds of things we want to know about. These
16 are good ideas. Our immediate reaction is we don't want to
17 be speaking out of both sides of our mouth. If we've
18 thought long and hard about what needs to be reported, on
19 what timeframe, and what systems have to be operable, and
20 you know as well as I do that tech specs take you well over
21 a year to get through as part of the licensing process.

22 So we've done a lot of thinking about it. We
23 would tend to lean on that kind of judgment in terms of
24 making a decision as to whether or not it could fall under
25 it. But we need to have that opportunity to talk about it.

1 So I think you've got a good point there.

2 Before we entertain one more question, I'd like to
3 let Ed Greenman have a chance to just add a comment on this
4 inadvertant criticality issue. Ed?

5 MR. GREENMAN: From the number of questions, I
6 want to make sure that I understand your question and I will
7 also give you a response.

8 The word "inadvertant criticality" and "premature
9 criticality" does not mean the same. There are those who
10 have tried to use them interchangeably. They are not
11 interchangeable. If I understand the comment from Dresden
12 with respect to shutdown margin testing and the action that
13 resulted from shutdown testing or is anticipated to result
14 from shutdown margin testing, if evaluated by reactor
15 engineering, if anticipated, if controlled, that is not an
16 inadvertant criticality, it is not a premature criticality.

17 On the other hand, if that action, whatever it is,
18 involves a reactor trip, unanticipated thing, then I believe
19 you're obligated to report. With respect to Callaway's
20 question and missing ECPs, if, in fact, it's a significant
21 deviation, you may have a hot core, your reload analysis was
22 wrong, historically all Region III plants have reported that
23 with a departure from, major departure from estimated
24 critical positions, and you've already taken the action to
25 take your plant back down to analyze yourself.

1 So we would anticipate a report to the Commission
2 in that event. Does that answer the question, both sides?

3 MR. SHARKEY: Let's say I'm a shift supervisor in
4 your case for Callaway and I call the gentleman on the
5 emergency notification system and he's doing his checkoff
6 and he says, oh, by the way, what paragraph are you
7 reporting this under, and I say I don't know, let me call
8 the day shift guy in licensing and find out.

9 Is it voluntary or what? I'm looking for some
10 help here.

11 MR. WEISS: Frankly, it's not important. Our goal
12 is to know about it. And if you don't know the paragraph
13 that it's reportable under, nobody is going to make an issue
14 out of that. I don't know if Ed Greenman agrees with me
15 or not, but I'd bet my bottom dollar that you'll never ever
16 get a civil penalty or a cross word out of the region or
17 Headquarters if you don't know the paragraph that something
18 is reportable under and you report it. Right, Ed?

19 MR. GREENMAN: I will fully agree with that.

20 MR. NOVAK: I'm going to propose that we have one
21 more question and then we get back on our agenda. Go ahead.

22 MR. NALEPKA: Dave Nalepka, Wisconsin Public
23 Service. One of the questions and answers in the NUREG has
24 to do with reporting of ESF actuations, inadvertant ESF
25 actuations. The answer to that question says if a system is

1 not required to be operable by tech specs and it's been
2 properly removed from service such that it cannot perform
3 its function, it need not be reported.

4 I guess I'd like to have you consider the
5 situation of a utility that conservatively keeps a system in
6 service below the requirements of tech specs and for some
7 unknown reason has an inadvertant actuation, that utility is
8 forced by the regulation to report it, where the utility
9 that non-conservatively or is allowed by tech specs, takes
10 it out of service below those requirements, would not have
11 to report it.

12 I think some of the utilities are unfairly being
13 required to report it for taking conservative actions. I'd
14 like you to consider that in the supplement. Thanks.

15 MR. NOVAK: Thank you. I'm going to get us back
16 on our agenda. The next discussion has to do with 50.73 and
17 Jack Rosenthal is going to make that presentation.

18 MR. ROSENTHAL: We are well aware of what I call
19 external influences on the utilities which make one question
20 the need to report things that happen in your plant. And
21 that may well be true. We have to revise our -- we're
22 considering how we can revise 50.73, but we also need to
23 have a reporting system.

24 Everyone in this room clearly knows about Three
25 Mile Island and everyone probably knows about the Davis-

1 Besse precursor to Three Mile Island. But there was another
2 event in June 1975 at Oconee which involved steam voiding in
3 the candy canes following a reactor trip and it opened PORV,
4 and the block valves were rapidly closed by the licensees --
5 by the operators.

6 Those valves at one point were reopened and then
7 reclosed again because the operators didn't understand that
8 they had started to pull a bubble in the upper candy cane
9 and that the pressurizer level instruments weren't giving
10 them proper indication. Of course, we know about the 1979
11 TMI event, but there was another event at TMI involving
12 problems with their condensate polisher.

13 Now, fortunately, here there wasn't fuel in the
14 reactor. It was pre-op hot functional testing. But they
15 ended up with a condensate polisher problem, resins all over
16 the place, lost their nuclear closed cooling water system.
17 When they lost that CCW system, they lost reactor coolant
18 pumps and high head injection, and they ended up with a
19 steam bubble in the candy cane and erroneous pressurizer
20 level indications.

21 It took them several days until they finally
22 pressurized the pressurizer with nitrogen, pushing cold
23 water through the system back up and condensing the voids.
24 I don't know that we would have avoided the Three Mile
25 Island accident if we had known throughout the industry of

1 these two prior events.

2 I am not saying that we're so smart that we would
3 have recognized the implications, but it sure would have
4 helped if that information was disseminated. So as we talk
5 about how to change the reporting requirements and perhaps
6 make them less onerous, less burdensome, let's not forget
7 about why they're there.

8 That's the kind of information that drives the TMI
9 action plan of May 1980, which establishes an analysis and
10 dissemination of operating experience. That's Item 1(e)(6)
11 of the action plan. Every licensee here, I believe, is
12 bound by that. We have embodied in the AEOD charter the
13 mission of collecting and disseminating operating
14 experience, the Rogovin committees, Kemeny committees have
15 all recommended collecting and evaluating operating
16 experience, providing means of disseminating that
17 experience.

18 Before 1984, which is the current rule we're
19 dealing with, reports were provided to us via tech specs,
20 Section 6, Reg Guide 1.16, LCO entries. We got a lot of LCO
21 entries, setpoint drift, a lot of reporting noise. So the
22 current rule does set a higher threshold, but I think a
23 better threshold.

24 In 1980, we had an advanced notice of rulemaking
25 in which we proposed an integrated operational experience

1 reporting system. I think it's interesting to revisit that.
2 That was to be a system which would get system level data,
3 train level data, and component level data somehow reported.
4 Well, what happened to that? On the component level, we
5 went to NPRDS, which, as you know, is now managed by INPO,
6 and that system has improved over the years. I know we're
7 users of it and I trust you are.

8 System level data really ended up in 50.73. So
9 that sets a high threshold of system failures. But notice
10 in the shuffle here we lost train level data. All train
11 level is not the same, of not equal safety significance.
12 But in our consideration to change the rule, to get rid of
13 onerous and perhaps unneeded information, I submit that now
14 is a good time to also at least be thinking about what we do
15 want to collect and what form we might best collect that
16 information. So it goes both ways.

17 The LERs are a primary source of event data for
18 the NRC, for AEOD. We supplement that information with
19 NPRDS. Be aware that operational experience in the form of
20 LERs is broadly circulated within the NRC. INPO gets it,
21 the public gets it on request, contractors to us use that
22 information in the course of our studies, academicians have
23 asked us for that information.

24 So it's nationally used. It's also
25 internationally used, although not directly as LERs. We

1 will send into the incident reporting system, the
2 international system, we tend to send them evaluated
3 products, INs, bulletins, generic letters, AITs, IITs,
4 rather than raw LERs. AEOD studies clearly go into that
5 system, which is a summary of many LERs. We believe that
6 that's more useful than a raw LER. But those LERs make up
7 the database for those studies.

8 We read every LER and we try to grade or classify
9 every LER in terms of what action we have to take. The
10 action may be, from an AEOD perspective, well, the region is
11 all on top of it and we perceive it as plant-specific, so
12 we'll let the region take care of it; or, my gosh, we've
13 just issued to INs this year on that very same topic and it
14 looks like we're getting this LER because the licensee was
15 looking at his plant, perhaps, but not necessarily spurred
16 on by that IN, and now he's finding the same problem, too;
17 well, we don't have to take any more action now because the
18 feedback process appears, in fact, to be working.

19 Then we find new issues that we choose to look at
20 it. In fact, we probably -- ten to 20 percent of the LERs
21 that we read get direct further followup action of some
22 sort, and the others go into a database. That database is
23 useful. We have a system called sequence coding and search
24 system. It's a causal and temporal database. I think it's
25 the best one that I know of. We seem to be able to find

1 records that industry can't or INPO can't either.

2 It's the one database that I know of that allows
3 you to ask questions like I want to know about aux feedwater
4 failure following the reactor trip, or I want to know about
5 a control room isolation leading to something else
6 happening, or did HPCI go on first or after diesels, all the
7 key work systems. Sure you could search on give me all the
8 records with HPCI and trip, and you get a dump of them.
9 Maybe that -- rather than this causal and temporal system.

10 That's government property. You're helping pay
11 for it. You can get access to it, too. Just give us a
12 call. I have another bullet there called licensee
13 perspective, and I think it's really the wrong bullet. It
14 probably is my perspective of your perspective.

15 That is that from my perspective, and I think we
16 understand some of the pressures that you're under, there's
17 a drive to reduce reporting that doesn't meet the strict
18 letter of the reporting criteria. We're concerned because
19 we're worried about system interactions, about steam in
20 candy canes, about intersystem LOCAs, about new and novel
21 sequences, and are worried that those external pressures
22 will drive down that reporting system, and that is not in
23 your interest and it's not in our interest. It's not in our
24 joint goals.

25 So I, too, say let's not let what somebody in

1 Region I called causestrade drive our what I tend to call
2 medieval scholasticism, drive our looking at do you have to
3 report this event and not that event, but let's let our
4 engineering judgment guide those reports.

5 As you know, now there's guidance in NUREG-1022,
6 Supplement 1. We clearly have to put out new guidance for
7 50.73 and I think that the point on 50.72 is well made.
8 When that guidance is insufficient, and we do this all the
9 time, your first step is your own resident inspector and the
10 region for feedback.

11 If that doesn't work, case-by-case, AEOD and NRR
12 field questions. A lot of them are on the telephone and
13 verbal. From time to time, we issue written guidance to
14 specific licensees. We're perfectly willing to do that. A
15 while ago we tried to evaluate LERs and, in fact, we did a
16 study from 1985 to the end of Fiscal Year 1987 where we were
17 looking at the quality of those LERs. We had a scale of one
18 to ten, several fields. We were looking at did you have an
19 abstract and was the abstract representative of the LER,
20 what did you report in the LER, etcetera.

21 What we saw over time was that in terms of LER
22 quality, in terms of the facts, they were really pretty
23 good. The majority of them were eight or nine on a scale of
24 one to ten. So we're satisfied with the technical quality
25 of those LERs. So I commend you for that.

1 We're now interested in -- we've always been
2 interested, but I think we're more interested than ever in
3 human factor aspects. I do know that in the LER Rule 50.73,
4 Part B, where it describes how to report, given Part A says
5 what to report, that we do ask for information on operator
6 response, on cognitive error, on procedures, perceptions,
7 etcetera.

8 Let me just remind you it's in the current rule.
9 I think that that's an area where there is some weakness and
10 I would encourage you to report more in that area.

11 How do we use LERs? Our research group uses event
12 reports in generic issue evaluation. For example, pump
13 seals or diesel generator reliability. NRR, you've already
14 heard discussion, generates generic communications such as
15 INs, bulletins and generic letters, often spurred by those
16 LERs.

17 We have a large OE feedback program and we also
18 use them for performance indicators. Since we all got PCs
19 on our desks, it's fun to make up little drawings. So I'll
20 talk from the slides while you can look at the little
21 pictures. I wanted to talk about how we do a study, and
22 that is that we find an event, it's either a 50.72 or a
23 50.73 that gets us interested. We'll promptly search -- so
24 we've read that LER and we've decided that it warrants some
25 study.

1 The first thing that we'll do is hit our own PCs
2 which connect us up to a bridge and we'll do searches where
3 there are like events of interest, where those events -- so
4 is this an isolated case or is this a global case. Let me
5 stop right here.

6 The service water study which comes out of my
7 branch is based on a lot of data. So it's a data-driven
8 type study. On the other end of the spectrum, LaSalle power
9 oscillations, our branch led off on that issue. One event.
10 So it will either be the safety significance or the richness
11 of the data that drives us to study further.

12 One thing we'll do very early on is look at
13 indices that we have of generic communications and say, gee,
14 did we already provide feedback on that issue and if we did
15 provide feedback, can we tell from data whether things are
16 getting better or worse. We'll look at -- we'll use NPRDS.
17 We use the sequence coding and search system to pull out
18 LERs we want. We try very hard to integrate our work with
19 INPO such that we're not duplicating SERs, SOERs, and other
20 databases; do plant visits; go to vendors; look at the
21 foreign event database; talk to people.

22 Let me give you an example of the importance of
23 the foreign event database. In the LaSalle power
24 oscillation, we had one event and we found no other domestic
25 events, but we did find some foreign events. That tends to

1 be a database of higher threshold issues. We didn't find a
2 lot, we just found a few more, but at least, in my mind, the
3 decision to pursue that issue very much hinged on a was this
4 a one-in-a-thousand reactor year thing or had there been
5 others. And when we found other similar oscillations, we
6 said, wait a minute, we really do have an issue here.

7 So even though it's a small database, it's a very
8 important database. Then depending on what we decide to do
9 with an issue, we may send it out for peer review, we may
10 not. Engineering evaluations that lead to INs. We write,
11 receive a lot of management review. They're reviewed both
12 by AEOD and NRR. On the other hand, we just completed a
13 draft study on solenoid operated valve problems. That went
14 out to peer review, to INEC, NUMARC, EPRI, ASCO, AVCO, lots
15 of licensees to get review comments.

16 And we briefed the ACRS once on that issue. I'm
17 not sure how that issue will go, but if it goes in the form
18 of a bulletin or a generic letter, which it may or may not,
19 but if it does, then it will go through CRGR, and you heard
20 yesterday's presentations. May I have the backup slide,
21 please, the triangle? I have two backup slides.

22 This is a typical product. At the time we did the
23 study, we had about 30,000 LERs in our database. Remember
24 just a little bit earlier I said ten to 20 percent of those
25 LERs we consider important enough to immediately pursue and

1 the rest go into a database, and you heard similar comment
2 about 50.72. They are not forgotten. When we decided to do
3 the service water study, we found about 1,000 events in that
4 database which related to service water.

5 Now, maybe it was a reactor trip and incidental to
6 that reactor trip was a discussion of, oh, and, by the way,
7 one of my two trains of service water didn't work, but all
8 that had been captured in those databases. So what may have
9 been a seemingly insignificant event at that time was
10 properly stored and then ultimately retrieved.

11 The first thing that we found was that of the
12 1,000 events, it was spread over about 80 plants. Now,
13 that's a few years ago, that study, 1988 study, that was
14 almost every plant. We carved out 276 events that we
15 thought were more significant at 60 plants, broad industry
16 problem, and those are discussed at least in the appendices
17 of that report, and then there's 29 actual events starting
18 from the 30,000 that are described one-by-one in the report
19 as being representative and the ones that we thought the
20 most significant.

21 What happened to that? We wrote C-801 which is an
22 AEOD case study in 1988, went out for peer review. We went
23 through a peer review process, a reconciliation process,
24 issued it in final form, ultimately went to CRGR. There had
25 been parallel efforts in research on generic issue

1 resolution related to cooling water systems and between the
2 RES efforts and the AEOD efforts, Generic Letter 89-13 was
3 issued, and everybody in the room, I'm sure, has had to
4 respond to that generic letter.

5 So that's a typical data-driven study where it's
6 the preponderance of the data that drives the effort. The
7 next one on Rancho, just to give you the other end of the
8 spectrum, it's good to talk about Rancho since they shut
9 down. They had an overpressure -- they oversped their
10 auxiliary feedwater system, steam-driven aux feedwater, and,
11 in fact, the governor had been modified and it used to spin
12 two ways and then was modified till it only spun one way,
13 and had been mounted wrong so that the governor no longer
14 functioned.

15 We ended up writing a small engineering evaluation
16 of that particular event in which the steam-driven auxiliary
17 feedwater turbine had oversped because we saw that the
18 resultant overpressurization of the piping, the discharge
19 piping, could, in fact, represent a potential system failure
20 and we saw that there were some ways, operational ways of
21 typically opening and closing valves such that one train of
22 that -- single trains could be tested one at a time without
23 endangering the whole system.

24 An IN came out of that work, IN-9045. Just
25 representative of products which are single-point or a few

1 number-driven and, of course, in this case you could see
2 that there's an IN to alert industry to do something, in
3 this case resulted in a generic letter. I can't make that
4 universal rule because clearly LaSalle, very few events also
5 resulted in requirements.

6 Next slide, current issues. I think I've covered
7 the material. Let me just harp on just the point that we're
8 here to collectively share operating experience and to have
9 an operating experience feedback program, and that program
10 is embedded in safety. And as we look at ways to change
11 the rule, let's not forget what that goal is.

12 Next slide, current issues. We think that there
13 are missing reports that we ought to be getting or we find
14 out that -- you've heard a fair amount of that this morning.
15 I think that we understand the pressures on you between the
16 external to the NRC entities, as well as things like our own
17 performance indicator program.

18 We also recognize that there were reports of low
19 safety significance and clearly there are, and we'll be
20 discussing those this afternoon. The challenge is how to
21 get rid of the reports of low safety significance which cost
22 us Federal dollars to collect, read, store, archive,
23 etcetera, and you, I think, more money to generate that
24 aren't being used, and yet to capture the TMI event that I
25 described to you at the beginning of my talk which did have

1 safety significance even though it was pre-op and no fuel in
2 the core.

3 It's not a simple task. We clearly need an
4 improved approach. I see two efforts as feasible. Near-
5 term, it's easy for us to refine guidance as a NUREG
6 Supplement 3, Supplement 4, whatever, because that's well
7 within our doing. Longer-term effort going to rulemaking,
8 changing the rule, we're thinking about how to go about
9 that. There is consideration all the way up to just a plain
10 total reassessment of the requirements as the long-term
11 approach.

12 Because of the time it takes to go to rulemaking,
13 the impact of rulemaking, the impact on us, and even more
14 important the impact upon you of changing rulemaking, I
15 don't think that we should do this as a frivolous task, but
16 rather be asking what kind of information do we need to
17 safety in 1995 to the year 2000, and that should be the goal
18 of that reporting system.

19 Thank you.

20 MR. NOVAK: Thank you, Jack. We're about ready to
21 take our lunch break. Can we get back in an hour and
22 fifteen minutes, or maybe even an hour? Let's start at
23 1:00. Thank you very much.

24 [Whereupon, at 11:50 a.m., the workshop was
25 recessed for lunch, to reconvene this same day at 1:00 p.m.]

1 AFTERNOON SESSION

2 [1:05 p.m.]

3 MR. NOVAK: Let's have Jack Crooks, who is in the
4 Trends and Patterns Branch of AEOD, give you a few kinds of
5 insights on what we've been seeing through 50.73 reporting,
6 and some of the short-term plans we have with regard to
7 possible changes in the reporting requirements. Jack?

8 MR. CROOKS: As Tom said, what I'll do is try and
9 give you some background information that will aid in our
10 discussion later on what's been reported in the LERs in
11 1989, in a general quantitative sense, as well as under what
12 criteria things were coming in. I'll also then cover some
13 of the items that staff has considered in the past and that
14 we have under consideration now regarding rule changes to
15 event reporting, guidance, new guidance, a new guidance
16 document and things like that.

17 The information that I'm using, if you are
18 interested in more details, the AEOD Annual Report, NUREG-
19 1272 contains more summary information, as well as detailed
20 information on what's been reported in 1989. What I'm using
21 is coming from the same data sources.

22 The information that will be shown, of course,
23 covers events, as well as conditions that were reported. It
24 represents a broad spectrum of the types of events and
25 conditions. Individually, each report has to be assessed

1 for its safety significance and whether or not there's a
2 generic concern.

3 I've got some pie charts and tables. These things
4 do not represent, again, the results of any analyses. So I
5 think if we can go the first slide with the pie chart. This
6 slide merely represents the distribution of LERs that were
7 received based on the various reporting criterion 50-73. A
8 few items worth noting are that two of these criteria
9 accounted for about 80 percent of what was reported.

10 They are the engineered safety features
11 situations, 39 percent, and the items that were related to
12 technical specifications. Those are completions of plant
13 shutdowns, operations prohibited by the tech specs. The
14 reports related to preventing the fulfillment of a safety
15 function accounted for about ten percent. Reports related
16 to the plant being in a degraded condition or in an
17 unanalyzed condition or outside its design basis represented
18 about nine percent.

19 Reports on common mode failure covered about three
20 percent. Internal and external threats combined were less
21 than one percent. There were no LERs that addressed
22 airborne or liquid releases that exceeded the reporting
23 criteria for 50.73. In 1989, there were about 2,375 LERs.
24 Now, I'm using numbers. We're trying to stay away from the
25 use of numbers, but I think it's important in what we're

1 doing to give you some idea of the overall quantities in the
2 areas we're looking at from a possible rule change
3 standpoint.

4 The next slide shows information on ESF actuation
5 reporting by the system involved. The display is based on
6 the percent of the total actuations reported in the LERs,
7 not in the number of LERs. On average, there was about 1.7
8 actuations per LER, per ESF LER. Some additional points of
9 interest was about half of these events occurred during
10 operations. About 30 percent were occurring during testing.
11 The remainder were predominantly during maintenance.

12 The overall trends in these directions have been
13 such that operational events are decreasing. Diesel starts
14 accounted for about seven percent, but, as has been
15 mentioned previously, we know this is an area where there's
16 inconsistent reporting due to some plants not having their
17 diesels classified as engineered safety features. The
18 original intent of the rule was to bring in emergency power
19 system starts.

20 The other thing I might point out is that the
21 reactor water cleanup system isolations in BWRs and the
22 control room emergency ventilation system isolation
23 actuations are two areas where we focused some attention
24 towards changing the criteria through a minor rule change.

25 To give you a better feel in this area, in 1989,

1 the data for ESF reporting where there was not a reactor
2 protection system associated with the event, there were
3 about 609 LERs and about 1,358 actuations. Of these, 432 of
4 the LERs addressed single events, single system actuations.
5 Of these 325 were invalid or unneeded, and by that I mean
6 that the measured parameter was not reached, the setpoint
7 wasn't reached. They were due to other causes, such as loss
8 of a power supply, personnel errors, some other reason.

9 I also have listed then for HVAC systems, the ones
10 that involved single system, there were 158 LERs, 132 of
11 which were unneeded. In the reactor water cleanup system,
12 there were 48 LERs, 34 of which fell in the unneeded
13 actuations category.

14 This slide shows a further cut of the single HVAC
15 system ESFs by area and by vendor, and it mainly is just to
16 show that the control room and control building -- give you
17 a feel for the control room and control building. Seventy-
18 seven of these LERs were specifically associated with
19 control room vent system isolations. Again, 66 of these
20 were for reasons other than the measured parameter being
21 reached. These are the ones that we are again considering
22 for possible elimination through a minor rule change.

23 This slide just gives you a rough cut of a
24 breakdown of the technical specification violations being
25 reported, which are really things that are prohibited by the

1 tech specs. In a general sense, there have been about 1,000
2 of these LERs in 1989. About three-quarters came in under
3 events that were related to exceeding the action statements
4 in an LCO or some other operational limit. They have been
5 cooling down too fast or something like that.

6 Most of the other events had to do with not being
7 surveillance requirements, not conducting surveillance
8 tests. Now, reporting in this area, I think we all
9 recognize there will be some effects from the technical
10 specification improvement program. Some of the things that
11 are being done in that are surveillance testing that doesn't
12 belong in the tech specs is being removed and some of the
13 existing action statements are going to be changed. I guess
14 some probably may be shortened, but others will be
15 lengthened. So there will be an impact on event reporting
16 as a result of the technical specification improvement
17 program.

18 At this point, I'd just like to mention some of
19 the discussion, and I think Jack mentioned this earlier, was
20 focusing on there are a number of things that are being
21 reported that are individually of low safety significance.
22 Jack mentioned, he gave you examples of where collectively
23 we are collecting the information and these types of events
24 are providing information for broad generic studies and the
25 operational experience database.

1 What we're trying to do is focus on how to draw
2 the fine line that we would all like between what's
3 reportable and what's not reportable. Some of the existing
4 criteria, there is a fine line if you have a reactor trip
5 from power, there's not much question that's reportable.

6 In reality, some of the other criteria, as we've
7 talked about earlier, involve engineering judgment. So
8 there is a band, there is a gray area. What we will be
9 doing is trying to narrow that band through the issuance of
10 guidance, new guidance.

11 What I will do is now address some things that
12 were done in the past. The first item has been mentioned
13 before and you're probably all familiar with it, but the
14 NUREG document, NUREG-1022 documents are the main source for
15 guidance. Those documents, plus the background for the rule
16 in the various associated Federal Register Notices are what
17 we are using for implementation purposes. NUREG-1022, the
18 original document was issued in 1983. It provides the
19 background and the intent of the rulemaking system.

20 It also provides examples for how to interpret the
21 reporting criteria. Supplement 1, as you are aware, was
22 issued in 1984 after a series of workshops similar to this
23 were conducted in the various regions where a number of
24 specific questions were asked from the audience and specific
25 answers were prepared and then provided as feedback for,

1 again, implementation under the rule.

2 NUREG-1022, Supplement 2 was issued in 1985 and
3 that provided the results of a contractor's review of a
4 sizable sampling of the LERs that were received during the
5 first year of operation under Part 50.73. The focus of this
6 document was primarily on the adequacy of the content of the
7 LERs and it does contain some of the original shortcomings
8 that were noted and recommendations for areas that required
9 improvement, and Jack presented a slide that showed we then
10 tracked that content for the next couple of years and
11 noticed sizable improvement.

12 The next thing we did was in the 1987-88
13 timeframe, Jack mentioned earlier that we did not have -- in
14 the rule change, we basically gave up train level, a fair
15 amount of train level information. At that time, there was
16 a considerable effort in the probabilistic risk assessment
17 area. People needed train level information. In fact, they
18 used the pre-1984 information.

19 There was thought given and we had actually
20 proposed rulemaking to, again, gather train level
21 unavailability data on selected safety systems in a tabular
22 monthly form. Data that would have been collected included
23 the system, the subsystem components, the causes for
24 failure, that would have been corrective maintenance,
25 preventive maintenance, any actual downtime on the system,

1 as well as the corrective actions that would have been
2 implemented to improve the availability where it was
3 appropriate.

4 Now, at the same time, we had under consideration
5 the reduction in the event reporting requirements, again
6 focusing on the engineered safety features area to where we
7 considered deleting the requirements for reporting when the
8 system was not required to be operable. For example,
9 individual event reporting of unneeded actuations,
10 particularly ventilation and isolation systems, would have
11 been eliminated.

12 We were anticipating a provision, though, to where
13 we would have captured "a high frequency" of these events.
14 In other words, I don't know what the numbers would have
15 been, but for given situations, if there was a high
16 frequency of unneeded ESF actuations, we would have asked
17 for a quarterly or a semi-annual report that would have
18 focused attention so people could have looked at the
19 aggregate significance of those events.

20 This proposal didn't really get out of the staff
21 level for a number of reasons. This brings us to the
22 current staff initiatives. They have been mentioned several
23 times. We have under consideration deleting the unneeded
24 reactor water cleanup system isolations and the control room
25 vent system ESF actuations.

1 What this amounts to, if you look back at the
2 other slides, is probably in order of 100 to 150 LERs, which
3 is around five percent. Now, what we're doing is we're
4 looking at this from an administrative rule change,
5 something that we think we can do if it doesn't involve any
6 policy matters. In other words, if the Commission wasn't
7 intimately involved in that particular part of the original
8 rule, we think we can do it with a minor rule change and do
9 it in a matter of months as opposed to including it with a
10 longer-term or a major rule change which is going to lead us
11 into at least a couple year effort.

12 The long-term -- I've identified a long-term
13 effort, and Jack fairly well covered that. What that would
14 be is we plan to -- well, short-term is issuance of
15 Supplement 3 to NUREG-1022 where I think we can incorporate
16 some of the things that people want incorporated in new
17 guidance. It may involve superseding Supplement 1 and
18 Supplement 2 to bring in the new perspective using under the
19 existing rule.

20 Long-term is next. In that area, as I said, we
21 really feel we need to set back, take a protracted look over
22 what is it that we've had six years of operations under the
23 existing rule, we've seen the effects of everyone focusing
24 on existing -- on the operating experience, and over that
25 five years have seen scram reduction programs and the

1 effects of those programs, concentrated efforts on reducing
2 system problems and ESFs, identifying other problems related
3 with system failures where there's generic feedback, and I
4 think we're now seeing with the reduced number of LERs in
5 total -- like if you look at the information, the number of
6 plants has increased by 30 percent, the total numbers of
7 LERs from the 1985 timeframe are down about in the range of
8 about 3,000 to 2,400.

9 So they're also down, and the combined effect is
10 that I think the industry has been responsive and we've all
11 learned from operating experience and implemented things
12 that needed to be implemented to correct the problems.

13 I think that's all I had to say.

14 MR. NOVAK: Thank you, Jack. We want to get into
15 questions on 50.73, and if you have anything that's still
16 left over from 50.72, please bring it up. I think what
17 we've tried to do is give you a background of what we tried
18 to do and what we do do with the information that is
19 provided to us under 50.73, what our experience over the
20 last five or six years is showing us in terms of unneeded
21 reporting, and what we can do about it.

22 Those are our near-term plans. We hope that with
23 regard to these minor changes, being the two that Jack
24 mentioned, they could be accomplished within this year, a
25 matter of months, we hope. So I'd like to open up questions

1 on any subject regarding 50.73. Just grab the microphone,
2 please.

3 MR. BAUER: Scott Bauer from Portland General
4 Electric Company, Trojan Nuclear Plant. And, yes, I realize
5 I'm in the wrong region. I'd like to just make three brief
6 comments. One is I really applaud the efforts of the NRC to
7 work cooperatively to clarify reportability. I think the
8 base rule is very good. I think if you could just make some
9 clarifications, we all would be happy with what we have to
10 do.

11 The second comment is -- I don't know whether this
12 is a question or a comment, but when regional inspectors
13 want to cite somebody for not reporting something that they
14 felt should be reported, do they typically come to AEOD and
15 consult the expert, so to speak, on the matter or just kind
16 of go off on their own? You can maybe hold off on answering
17 that.

18 MR. NOVAK: Why don't we get your whole question
19 out.

20 MR. BAUER: The second part of the question is
21 really just drawing from that, but I'd just like to put two
22 things on the record as things that we would like to see
23 considered if a supplement is to be issued, and they both
24 have to do with ESF actuations. One is if you have a non-
25 ESF signal that actuates an ESF component, is that

1 reportable? The second one is if an ESF signal is
2 generated, but no equipment actuates because the equipment
3 is already in its actuated state or in the safety position,
4 is that reportable?

5 We have had a lot of problems with spikes on
6 perms, radiation monitors, electric spikes, and we're trying
7 to figure out the root cause of the problem, but they either
8 actuate containment ventilation isolation or send a signal,
9 but if the valves are already closed -- we report it if they
10 shut the valves and we're not sure what to do if they don't
11 shut the valves. We've been reporting them anyway, but I
12 just wanted clarification.

13 MR. NOVAK: Let me ask Ed Greenman or anyone else
14 from the region if they wanted to first answer the question
15 about reporting.

16 MR. GREENMAN: Of course, there isn't any such
17 thing as a typical region-based inspector anymore than there
18 is a typical plant. I would say that by and large,
19 reporting violations, and they're relatively small number in
20 this region, would not rise to a threshold where we would
21 have a discussion with AEOD.

22 What generally happens if there is a situation
23 that involves a reporting requirement or something that we
24 believe should have been reported, that will be surfaced
25 with the inspectors, immediate management, and up to the

1 branch chief level in the region to sign out that report.
2 If it's clearly a contested type issue, it will probably
3 surface up to my level and we may, in fact, have some
4 dialogue between divisions in the region to determine
5 reportability and, very occasionally, with AID.

6 MR. NOVAK: I'll second that. Occasionally we are
7 called and we get us and the people in NRR that are
8 involved, but it pretty much follows the path that Ed is
9 talking about. Now, we, at the same time, look at the
10 inspection reports where we call out items to where there
11 has been at least they've cited people for violation. We
12 will look at that and we have a collection of that
13 information and we're kind of using it also in this
14 supplement, areas where there appears to be a need for more
15 guidance.

16 MR. CROOKS: Some of the things get into somewhat
17 the original policy area, too. That's usually a call to us
18 or we'll end up -- a few times we've ended up with written
19 guidance.

20 MR. NOVAK: Then we had a couple of questions on
21 whether or not if you had a non-safety grade signal
22 initiated, an engineered safety feature, is that reportable.
23 I think that was the thrust of the first question.

24 MR. CROOKS: Yes, Tom. And I think we've talked.
25 That's come up several times and it will be addressed in the

1 guidance.

2 MS. ARNOLD: Tracy Arnold, Illinois Power. I have
3 two comments and two questions. My first comment is I'm a
4 member of the BWR Owners' Group which is currently working
5 on a guidance LER rule with PWRs and BWRs both involved, and
6 our goal is to bring consistency to reporting which a lot of
7 -- 1395 indicated that there isn't any, and when we were
8 first meeting, we realized there wasn't, and we know plants
9 on the east coast, not our region, that report -- well, that
10 don't report entry in a tech spec 303 if they get out of it
11 within the hour allowable prior to shutdown, which is pretty
12 shocking to us, it was anyway, because we're pretty
13 conservative.

14 Then safety relief valves that are reported under
15 all different criteria, 50.73, 50.9 or special reports. It
16 seems kind of shocking that you guys didn't recognize
17 earlier that there was inconsistency in reporting or taken
18 any action to bring it into consistency. That's one.

19 Two -- well, it was just different. Well, I'll
20 skip to questions. I have specific questions on .57(d)(3)
21 as compared to .57(d)(2). When we determine something is
22 reportable under 50.73, but not reportable under a 50.72
23 criteria like a tech spec violation, and further evaluation
24 reveals it was reportable under a 50.72 call-in criteria,
25 but it's just prior to us initiating the 50.73 report, do we

1 still have to call it in under 50.72?

2 MR. NOVAK: I wish I had the lawyer here.

3 MR. WEISS: At the risk of sticking out my neck,
4 in effect, that I may be reversed later, it sounds to me
5 like what you're asking is you've submitted an LER and now
6 you've discovered that this thing was also reportable under
7 50.72, but you didn't realize that at first.

8 MS. ARNOLD: Right.

9 MR. WEISS: So the NRC has the LER in hand and now
10 you're asking whether you're going to make a red phone call.
11 Just as a common sense thing, I would say no. I'd say we
12 got the document, what do we need the written report for.
13 But I don't know. Maybe there are some keener minds here
14 than --

15 MR. CROOKS: What I was going to say is the
16 gentleman earlier today was talking about the tie between
17 50.72 and 50.73. It's simply that in 1984 the two rules
18 were run together and the criteria, in many cases, are the
19 same because what was envisioned was the telephone
20 notification and then the 30-day report. So where the
21 criteria are the same -- for example, you find a -- it was
22 discussed earlier -- a condition that's outside the design
23 basis of the plant. You'd make a 50.72 call and send in a
24 30-day report.

25 Now, that's an area where many times what's

1 happening is what you're describing. We'll get the LER and
2 there never is -- there wasn't a 50.72 report. Some of that
3 comes from -- we've had discussions where the engineering
4 people think that, well, if it's an engineering problem,
5 it's not event-related, and nothing in particular happened
6 at the plant, that, therefore, throws it outside of the
7 50.72 or 50.73. We will try and address that in the
8 guidance, too.

9 MS. ARNOLD: And the next thing that I'd like to
10 see addressed in the guidance, and I don't know if you will,
11 but we made a 50.73 report of outside design basis, which I
12 didn't agree with, but we made a report and subsequent
13 analysis showed that it wasn't really reportable at all. So
14 we changed our report, our LER, to make it a voluntary LER.
15 Now, I don't know if that was the right approach. Could we
16 have just withdrawn the whole thing?

17 MR. NOVAK: Yes. We appreciate the voluntary LER,
18 but you could have -- the rules permit you to withdraw it if
19 you conclude that it is not a reportable item.

20 MR. WEISS: I kind of regret that we're getting
21 into the bean counting questions. It seems to me we've got
22 to attack the problem fundamentally, both the industry and
23 the LRC, and get away from looking upon these things as
24 negative beans in the bean count. One quick comment on the
25 previous question. That is if between time zero and 30 days

1 you discover that you've got a reportable item under 50.72,
2 make the call then, because you haven't submitted the LER,
3 and just tell us.

4 MS. ARNOLD: But you say we're supposed to get
5 away from bean counting, but you said earlier that if you
6 call something in under 50.72 and later determine it's not
7 reportable, call and get it if your bean count.

8 MR. WEISS: That's your option. That's a tool you
9 can use to minimize the impact of those entities that make
10 the mistake of thinking that numbers are important, when
11 it's not numbers, but the safety significance of the thing
12 that's being reported that is important.

13 If you can use that, fine, go ahead and use it.
14 But it's not for our benefit, it's for yours. I don't like
15 it and you don't like it, but some people count these things
16 blindly. What we insist upon is that you tell us about
17 those things that have safety significance so that we can do
18 our job.

19 MR. CHAFFEE: Also, when you tell us that you've
20 decided that something is not reportable for some reason,
21 that provides an input to the people that are reviewing it
22 as further followup as to how we should react to it. First
23 you told us it was outside your design basis, and now you've
24 looked at it, your not, for example, then -- the more you
25 talk to us through these things, the better the reaction.

1 MS. ARNOLD: I'll quite hogging up the mike after
2 this, but I remember what my other comment was. The Owners'
3 Group, for the gentleman from D.C. Cook, when we're putting
4 together design basis of a plant or we're using as a basis
5 for determining if you're outside design basis of the plant,
6 the Chapter 15 analysis for accidents and if you don't -- if
7 you meet your accident analysis, you're not outside the
8 design basis of the plant.

9 MR. NOVAK: Is that a comment or a question?

10 MS. ARNOLD: That's a comment, for now. We're
11 working with the NRC --

12 MR. NOVAK: Yes. I was just going to --

13 MS. ARNOLD: That's our guidance.

14 MR. NOVAK: -- mention that we have met with the
15 representatives from the BWR Owners' Group before the
16 workshop started and we're also getting input from others.

17 MR. ROSENTHAL: Let me just get to the consistency
18 issue. I think it depends on -- and the safety valve issue,
19 all at one time -- in part, depends where you're sitting in
20 the NRC. We are getting about one report per plant per year
21 of safety valve deficiencies, not necessarily failures.
22 That's safety valves on the steam line, on the pressurizer,
23 failing on a boiler, etcetera.

24 There aren't that many companies that make safety
25 valves. In the report which we're about to issue, we have a

1 histogram, we don't name plants, but showing the
2 distribution, and it was clear some plants had reported no
3 safety valve failures. Other plants had reported 20 LERs,
4 and it was the same valve. There was no reason to believe
5 that one plant had some magical maintenance practice that we
6 didn't know about.

7 From my perspective, we came to the conclusion
8 that, number one, the reporting rate was very high, that the
9 times when it wouldn't perform its tech spec safety function
10 were too high, and that we needed action to fix it, and, if
11 anything, that the reporting was low relative to the actual
12 situation. I stopped there. But, no, we're not so naive as
13 not to recognize that is inconsistent to your reporting.

14 But the fact that some plants weren't reporting, I
15 knew they had to have same problem, really wasn't a driving
16 force for me. Then you get to something like the
17 performance indicator program where we are looking at trips
18 and diesel starts and HPCI injections, etcetera. That's a
19 program in which, effectively, you do lay out one plant
20 against another.

21 Well, that stuff is set at a high enough
22 threshold, I hope, that we do capture all of them. That's
23 the sort of thing where we would worry more about
24 consistency.

25 MR. NOVAK: I think you've got a good point, and I

1 think in our guidance document, and we hope with industry
2 support that we would all more or less report things to the
3 same level. I think it's unfair for plants to be compared
4 at different levels. We see that and I think that's part of
5 the reason that industry, I think, is concerned, because
6 there seems to be a dissimilarity.

7 Those things we have recognized and there's just a
8 priority that we have to given certain kinds of deficiencies
9 in reporting. When we do see them, we do talk to the
10 regions about it and they may sit down and talk to you. We
11 don't usually in AEOD sit down with the licensee directly
12 We will work through the regions because they are the people
13 that you deal with on that issue.

14 Why don't we get some more questions out.

15 MR. SHARKEY: Two comments. Tom Sharkey from
16 Union Electric. Please consider these two comments for
17 addition to Supplement 3, if there is one, to the NUREG.
18 Mr. Jordan and I had a discussion maybe four years ago, a
19 case where we inadvertantly shut a common discharge valve to
20 both safety injection trains. The phone call and an LER,
21 the paragraph would be the one that lists A, B, C, D, in the
22 event or condition alone could have prevented.

23 And if you look below that in the rule, there is a
24 Paragraph 7, any event where a single cause or condition
25 caused at least one independent train or channel to become

1 inoperable. On the IER form, I asked you when did we mark
2 that box, and you said that this paragraph is a subset of
3 the Paragraph 5, and in a specific case like this where one
4 component took out both trains, mark both Paragraph 5 and 7.
5 The only time you mark seven is if you had previously marked
6 five.

7 I don't believe the industry knows of our
8 discussion and I just wanted to get that as a possible look
9 into clarification. The other comment was on reporting
10 failure to satisfy tech spec 6.12 on radiological protection
11 posting. We need some more clarification on that. The
12 NUREG, Supplement 1, Item 2.9 currently has words to the
13 effect that if it's an administrative requirement and does
14 not involve plant operations, it's not reportable.

15 If I fail to post properly or lock a door properly
16 for a high rad area, that in itself, we believe, is not
17 reportable. If, however, a person, unauthorized or
18 authorized, enters because of that failure, received
19 exposure, etcetera, that that would be something that would
20 be reportable. And I think we're not the only plant that
21 has a problem with this particular tech spec violation.

22 That's all I have to say.

23 MR. NOVAK: Thank you. Other questions? Yes?

24 MR. PROBST: Jim Probst. I'm with Iowa Electric
25 and I'm a member of the BWR Owners' Group Committee. I have

1 specifically been working on ESF actuations. First, I just
2 have a general comment. I think it's become clear in the
3 meeting and I think you folks recognize that some of the
4 rules and regulations out there aren't exceedingly clear on
5 what is reportable and isn't.

6 In fact, I'm confident I could come up with
7 specific questions in areas, give you as much information as
8 you want, and if I polled you all individually, I'd come up
9 with varying answers. What I'd request is when you come up
10 with this Supplement 3 or your new regulations, that you put
11 those to the same test. If you don't know of enough tough
12 questions to ask, I'm sure NUMARC or the BWR Owners' Group
13 would be happy to make some up.

14 But the real point of it is if you've got a tough
15 question and if your new regulation still gives six yes and
16 six no, then we're going to be back here again in two or
17 three years with the same problems. So I'd request you put
18 it to that standard.

19 In specific, on the ESF actuations, in the BWR
20 Owners' Group we did this. We made up some very difficult
21 questions, tough calls people have had to make, asked a
22 number of utilities, and on the tough questions, most of
23 them split right down the middle, 50-50. Fifty were, fifty
24 weren't. We decided at that point what we really needed to
25 do for ESF actuations was define the terms.

1 People were saying actuation, what does it mean.
2 We assumed that if we could define them, then we could take
3 those definitions and answer all of these questions and come
4 up with the same answer every time. And we believe we have
5 done that in our draft document which will be shown to you
6 sometime in the future.

7 But, in particular, we hit one problem I'd ask you
8 to address in Supplement 3. I don't particularly like to
9 read something right out of your regulation to you, but I
10 think I will. We looked for a definitio.. of actuation,
11 looked a lot of places. The only one we found was in 1022,
12 the original, Page 13, it defines actuation, it says
13 "actuatic of multi-channel ESF actuation systems is defined
14 as actuation of enough channels to complete the minimum
15 actuation logic; i.e., activation of sufficient channels to
16 cause activation of the ESF actuation system."

17 In other words, it says actuation is an actuation.
18 I'd request that when you're doing the next supplement that
19 actuation be defined a little clearer, trying to avoid use
20 of words like actuation and activation in the definition.
21 It's an obvious point.

22 Thanks.

23 MR. NOVAK: Thank you. Other questions? Yes?

24 MS. GOODMAN: Lynne Goodman, Detroit Edison. I
25 have a suggestion that might be able to balance our desire

1 not to have more beans to count and your desire to get more
2 volunteer report. That would be if maybe we'd use the same
3 form, but not call them LERs. Call them something else.
4 Either have them not numbered, have a different numbering
5 scheme such as what we have with security LERs, so that we
6 could still be sending you the information, but not have to
7 treat them in our count of LERs to our counties, regulators
8 and whatever.

9 MR. NOVAK: Thank you. Question?

10 MS. ARNOLD: Tracy Arnold, Illinois Power. Mr.
11 Rosenthal specifically. When you look at other similar
12 events, what do you look at versus what are we supposed to
13 look at when we report to you and how far back are we
14 supposed to go? For us, it's easy, we haven't been licensed
15 that long, but for other plants -- when we're writing our
16 50.73 reports, what do we include for other similar events?

17 MR. CROOKS: I think that in Supplement 1 there is
18 an intent to provide some guidance on that. I think, again,
19 that's an area where you use some judgment. I would go back
20 -- I mean, if you go back a couple of years and if it's
21 something that's a very high frequency type thing, I don't
22 know that you need to go back a couple of years. What we're
23 primarily looking for is that; is this something that
24 continues to recur, and then you focus on the corrective
25 action.

1 We're all aware of situations where things do keep
2 occurring and the corrective actions keep changing.
3 Sometimes we find that the corrective action is the same and
4 it's not really addressing the root cause of the problem.
5 So I think originally that's why that was in there. People
6 were saying look at the problem and how recurrent is it. I
7 think you use an element of engineering judgment.

8 I'm not aware that any of the regions have pushed
9 that particular issue to where they've gone back and
10 somebody said, well, gee, you had 25 of these and you only
11 said you had 20 of them or something like that. It's the
12 reasonable man approach, that if -- you're even going to get
13 into in the judgment, what is the event, what's the
14 significance of the event.

15 MR. ROSENTHAL: Why don't I say that's fair game,
16 and I'll be fairly -- and the Court Reporter is going. We
17 don't use that in our analysis and the reason that we don't
18 use it is that I have this gigantic computer database and
19 PCs on everybody's desks, and that's stuff that didn't exist
20 in 1984. So when we're interested in an event, we poll the
21 system and we dump the related events that you've generated,
22 plus the whole industry's related events, if we're doing the
23 search correctly, for the purposes of doing an engineering
24 study.

25 So at least from my -- and remember I'm just one

1 of many users and we don't really use it. Now, Ed, from the
2 regional standpoint? Again, you can post those same
3 databases.

4 MR. GREENMAN: Right. And we don't count specific
5 numbers. We look far enough to see that you have -- to see
6 if there's any generic implication. We're certainly
7 interested if you're saying what is similar. If you had a
8 widget fail in System X and you haven't had any other
9 widgets fail in that system, we certainly would expect you
10 to tell us that you did have that widget fail in System Y.

11 MR. HARRIS: Ray Harris, PP&L. It seems then that
12 you could just take that out of the rule and any revisions
13 you come up with, if you don't want it, clarify it so you
14 make clear what you really do want.

15 MR. NOVAK: Other questions?

16 MR. SHARKEY: I might be a little conservative
17 here. That's a trigger for us to go back and look at it in
18 our corrective action program. That triggers us to say,
19 hey, wait a minute, has this happened five years ago. So I
20 would say that we're going to count, say maybe there is
21 some value to us, the licensee, not the database or
22 whatever.

23 MR. NOVAK: Good point. Other questions?

24 MR. HEGRAT: I'm Henry Hegrat. I work for CCI at
25 the Perry Plant. It became pretty clear during the earlier

1 discussions on 50.72 that the people involved in receiving
2 50.72 notifications would like to see an expansion, and that
3 expansion would be somewhat downward with respect to the
4 number and the types of -- upward with the number, downward
5 with the threshold of types of events reported under 50.72.

6 Those that were identified were large spills,
7 inadvertant criticality, small water hammers, etcetera, the
8 list --

9 MR. WEISS: No, I disagree. We're not looking --
10 I prefaced my remarks by saying we get 2,400 50.72s in a
11 year and out of those, maybe six a year go unreported. I'm
12 not looking for an expansion. My thesis was that when we
13 wrote 50.72, we expected that the existing criteria, those
14 already in place, would have captured those events. I'm
15 prepared to give you some specific examples and discuss the
16 reporting criteria, but, for example, how can you say that
17 you have an overpressurization of a suction of RCSI piping,
18 the NRC launches an AIT, and that's not a degradation of
19 your primary system safety boundary.

20 MR. HEGRAT: If I can interrupt you, I wasn't
21 trying to say that you were trying to expand the criteria.
22 What I'm saying is that you did establish the fact that,
23 from your viewpoint, there were events that were not being
24 reported that should have been and are captured under the
25 existing rules. Is that correct?

1 MR. WEISS: Yes, but I wouldn't say that that's an
2 expansion of the rule.

3 MR. HEGRAT: Expansion of what's being reported,
4 not the rule. I didn't mean to imply that. My real
5 question is does that same philosophy or that same desire
6 exist with 50.73? Is there a feeling with the staff that
7 50.73 reports also are not being captured to the same extent
8 as .72 with the criteria that are now given in the rules?

9 MR. CROOKS: My response would be yes because
10 they're closely tied together with the same criteria, with
11 the exception of common mode failure. I think the criteria
12 in 50.72 and 50.73 are almost the same.

13 MR. NOVAK: I think what Jack is saying, too, I
14 think part of the whole concept of looking at 50.72 and .73
15 in this workshop is to stimulate again what we are really
16 trying to learn from operating experience. Jack Rosenthal,
17 you might just want to take a few minutes --

18 MR. ROSENTHAL: I was just thinking that there was
19 -- you know, the exceptions stick in your head. It was in
20 Region II, a guy had a spill of his spent fuel storage pool,
21 and water runs down into the cable chases and the cable
22 spreading room and drips onto cabinets in his control room,
23 and it only got reported because they decided to make a
24 press release.

25 I said, wait a minute, is this right. Then

1 there's another, also Region II, as a matter of fact -- it's
2 nice to cite Region II examples in Region III -- in which
3 diesel problems weren't being reported because it was an
4 older plant in which the FSAR did not specifically identify
5 diesels as an engineered safety feature.

6 Well, doesn't that plant manager think those
7 diesels are there for safety? That, to me, was a word
8 engineering game. So those examples stick in your head. I
9 think that Eric's point is right, that maybe we're clearly
10 going to diminish some stuff that we mutually don't feel is
11 needed, and that there's probably specific plants and
12 specific issues, a few dozen a year or less that aren't
13 getting reported that I feel ought to be.

14 MR. HEGRAT: Just to amplify the effects from the
15 non-reporting, are these issues, in your opinion, also not
16 being fed through the other communications chain? I'm
17 trying to establish whether or not the information is not
18 getting to the people who really need to look at it and to
19 analyze it and whether that's the problem, or the mechanism
20 which has been established, and that's the 50.72
21 notification, and the LER report. Is it a matter of use of
22 that vehicle to get this information or is that information
23 actually not getting to the departments that have to analyze
24 it, either through the residents or the daily reports or the
25 other devices that were discussed before? That's the extent

1 of the question.

2 MR. GREENMAN: From a regional perspective in that
3 broad category, I think it's a fair assessment to say that,
4 by and large, we, NRC, stumble on it by one means or
5 another. Sitting in on a meeting or in walking throughout
6 the plant or participating in a conference call between the
7 utilities. It is not something that the utilities make a
8 conscious act to notify the region, notify the resident by
9 any of these other mechanisms. Like he has to speak
10 directly to outside agencies.

11 MR. GREEN: I know you had this to get industry
12 viewpoints, but I want to give you one from the staff, too.
13 I'm Mark Green. I'm with the Engineering Branch in Region
14 III. I have some specific familiarity with some of the
15 issues that Henry might have been talking about. First off,
16 I'm not sure you know what goes unreported.

17 In Region III --

18 MR. NOVAK: He only knows what he doesn't know.

19 [Laughter.]

20 MR. GREEN: In Region III alone in the last two-
21 and-a-half years, I guess I'd like to rattle off a few
22 examples of things that either went unreported under 50.72
23 or were incompletely or not properly reported under 50.72.
24 For your benefit, Henry, I think the real concern under
25 50.72 is the promptness of reporting so that the promptness

1 of response can get there.

2 50.73 generally takes care of ensuring that
3 everybody eventually knows. 50.72 is what makes it happen
4 quickly. But the issues that I had in mind involved
5 containment overheating and resultant cable damage; core
6 power oscillations; large movements of water to the wrong
7 places, like 30 and 40,000 gallons worth; significant cracks
8 in the reactor vessel head; multiple small bore pipe cracks
9 or leaks; potential water hammers where supports have been
10 pulled from walls; and, off-gas releases for which the state
11 or other entities are made aware and the NRC isn't.

12 So I guess I would like to see both the BWR
13 Owners' Group and I know there's lots of folks here from
14 those type of industry organizations, or NUMARC or whatever,
15 as well as our panel members and our people that are looking
16 at long-term things, look at expansion of either the rules,
17 if that's the right thing, or the supplements to the NUREG
18 to provide guidance in areas that are -- I think all these
19 areas, you could make a legitimate case, are not required to
20 be reported.

21 In the same vein, they're all areas of obvious
22 regulatory interest. We were greatly interested in each and
23 every one of those. Those have all occurred in Region III
24 plants and it's all been within the last two-and-a-half
25 years. So I'd like to see either the guidance or the rules

1 expanded to envelope those kinds of things.

2 MR. NOVAK: Thank you. We want to entertain some
3 more questions. Let me mention one thing, and it will be
4 the only little speech I have today. One of the things we
5 do in .EOD is we monitor operating experience through what
6 we call the accident sequence precursor program. You may
7 have heard about it. It's been around for a decade. It was
8 developed out of Oak Ridge under a research contract.

9 But what it does, and if you forget about the
10 absolute numbers of the probability of core damage, it kind
11 of ranks the events that we see across the country in terms
12 of safety significance. Now, what I think I was surprised
13 about is what it's telling us. For example, over the last
14 two years, in each of the last two years, if you take a
15 number like five out of the top seven significant events or
16 four out of the top seven were caused due to common mode
17 failure.

18 I think if you've been in this business long
19 enough, you kind of want to downplay the likelihood of
20 common mode failure as something that would get you into
21 trouble. But operating experience is telling us that's just
22 what's happening; that the events that we see today that are
23 most significant are a result of common mode failure.

24 I think that you have to know. So that's the job
25 that we have, to provide this operating experience back to

1 you so that you can recognize this, and it does kind of
2 perhaps recalibrate you to what today's experience is
3 telling us. We just are in the process, as Jack Rosenthal
4 mentioned, of completing a study on solenoid operated
5 valves. If we weren't worried about common mode failure, we
6 would have killed this or stopped this study several years
7 ago.

8 But because of the potential for common mode
9 failure, cross trains in different systems, we said we
10 better look at it. So I think in looking at what we are
11 getting and not getting, I think it's important to recognize
12 what is it telling us; are we using the lessons from
13 operating experience; and that's the point that we're
14 getting at.

15 I think we see some practical applications of
16 operating experience to improve the next ten years of
17 operation in every plant in the country.

18 New questions?

19 MR. CROOKS: Tom, one thing. I don't know tha' we
20 really answered this question regarding whether or not the
21 mechanism was important. All I would say is that the
22 preferred mechanism is the 50.73-50.73 system because that
23 is set up to give the broadest review. You notify the
24 resident, you notify the region, you notify the project
25 manager.

1 On some of the events that Eric was talking about,
2 they just escaped the system. The 50.73 report is what
3 trips the other levers from the industry-wide feedback
4 standpoint, many times not only just from us, but from your
5 own systems and through INPO.

6 MR. HONMA: George Honma from Toledo Edison. I'm
7 aware that NRC issues notices, bulletins and generic letters
8 to identify Part 21s, but is there a means for NRC to merely
9 notify the licensees of any Part 21 issues?

10 MR. ROSENTHAL: That's the most typical thing
11 that, in fact, happens. You get a Part 21 and you've spoken
12 to the vendor and you realize that there's four people
13 involved, and you assure yourself, either by communicating
14 directly or assure yourself that the vendor has communicated
15 with those four people, it's a narrow issue, and you stop.
16 So what you're describing is the most common way that things
17 have been, if I understood you.

18 MR. HONMA: Yes.

19 MR. ROSENTHAL: That is, in fact, the most common
20 way that things are handled, and we typically don't write
21 INs and bulletins on those.

22 MR. HONMA: However, I think the way the system
23 works is the manufacturer probably notifies the NRC first.
24 Is there a way to assure that that information is passed
25 back to the licensees immediately, other than through the

1 manufacturer?

2 MR. ROSENTHAL: Other than through the --

3 MR. HONMA: Manufacturer that provided the
4 product. Like, is there a way that --

5 MR. WEISS: We've done that, Jack. I remember
6 when there were some bad squib valves around the industry
7 and then that night we called all the regional offices,
8 project managers, and through the projects division in each
9 of the regions, all of the affected licensees were known,
10 and then we proceeded to write an information notice just to
11 paper things up. But in a matter of hours we had everybody
12 notified.

13 MR. CHAFFEE: This is Al Chaffee. My
14 understanding from the Part 21 system is that normally the
15 person who submits the Part 21 takes on responsibility to
16 notify these people that may have the same problem. As
17 people have been saying, if it turns out that we have a
18 particular Part 21 that is extremely significant, then the
19 agency may take on the effort of very quickly making sure
20 that everybody is aware of it.

21 One of the things I believe that happens in Carl
22 Berlinger's branch is they check the Part 21 to see if the
23 report itself says that the person providing the report has
24 notified the people that would be interested. My belief is
25 that in most cases they've done that. Many times when we

1 get the Part 21, it's almost after they've already gone
2 through the process of telling other people.

3 MR. HONMA: However, there's some materials that a
4 licensee may get through secondhand through another utility
5 that may not show up as a list. Is there like a listing
6 that's provided by NRC that could be periodically issued to
7 all licensees identify Part 21 notified for the year or
8 month?

9 MR. NOVAK: It's a good point. We'll look at it.

10 MR. CROOKS: We'll look at it.

11 MR. NOVAK: Thank you. Question?

12 MR. KRAUSE: Chuck Krause, Wisconsin Electric.

13 Having had Part 21 just brought up here sort of tickled my
14 memory. It seems to me about two years ago the NRC was
15 proposing a change to the Part 21 rule which, in essence,
16 would have, I guess, relieved 10 CFR Part 50 licensees from
17 reporting under Part 21 given that we already have criteria
18 in 50.72 and .73.

19 I wonder if you perhaps could update us on what's
20 happened with that proposed rule change.

21 MR. NOVAK: You know how to hurt a guy, don't you.
22 I didn't mean to cut anyone off short. I would like to get
23 as many questions on the record as we can. So if we get the
24 essence of your question, even if we don't give you a
25 complete answer, we'd move ahead.

1 Jack, in 30 seconds --

2 MR. ROSENTHAL: In 30 seconds, we're in the final
3 throws of rulemaking and that revised rule will make it
4 very, very clear that if you have a deficiency that's been
5 reported by Part 21, 50.55(e) or .57(e)(3), then you have
6 fulfilled your requirements and you need not do duplicate
7 reporting.

8 MR. NOVAK: Question?

9 MR. DILLICH: My name is Jack Dillich from Toledo
10 Edison. I'd like to reiterate what was brought up
11 previously about Section 6 or the administrative tech specs.
12 I think that's one area that we can really stand to improve
13 in. From the operations section, I find myself on the other
14 side of an argument a lot of times with the licensing people
15 in that the software type of tech specs that I call them are
16 not quite as clearcut as the rest of the tech specs.

17 You'll have programmatic type tech specs in
18 Section 6 associated with Committees, how often they meet,
19 the maximum amount of hours worked by key personnel, that
20 type of thing. It becomes very difficult then to sift out
21 what is actually a violation of a tech spec and what has to
22 be reported as an LER.

23 You get into situations, I like to call them non-
24 events. They're really not events, they're just conditions,
25 and we at Davis-Besse, in general, we usually end up going

1 with the consensus. If the consensus of opinion feels that
2 we need to report this, we normally report conservatively.
3 A couple of examples would be missing an hourly fire watch
4 by two minutes. That was an LER at Davis-Besse. Hours
5 worked, if someone -- we have a program to make sure that
6 hours worked is not exceeded, whether it be for a seven-day
7 period or a 48-hour period.

8 In one particular case, if one guy out of many,
9 many hours, many, many years, happens to work 73 hours in a
10 consecutive seven-day period, that's an LER. These are
11 examples, in my opinion, that we could probably save a lot
12 of paperwork and a lot of time by reporting events and not
13 these types of conditions.

14 In that particular case, my contention is Section
15 6 tech specs makes you have a program to do compensatory
16 fire watches, makes you have a program, for instance, to
17 make sure you track hours worked by key personnel. Those
18 programs are in place, but these are individual exceptions
19 to that program. In my opinion, they're not reportable.

20 If that could be clarified, perhaps we could cut
21 down on the unnecessary reports that are submitted. And I
22 would agree with Mr. Weiss, not on everything, but I agree
23 with his contention that I don't think there are that many
24 conditions or events out there that go unreported. I know -
25 - I can't speak for all the different utilities, but at

1 Davis-Besse, I think we report to excess in some cases. We
2 certainly don't report -- we don't miss that many, in my
3 opinion.

4 MR. JOVAK: Thank you. Other questions?

5 MR. PUTNAM: Ken Putnam, Iowa Electric. With
6 regard to ESF actuations, on any of your studies of cleanup
7 and some of the other high frequency isolations, unnecessary
8 isolations, do you see any evidence that frequent challenges
9 to ESFs did, indeed, lead to degraded performance when
10 called upon to actuate for real, which would seem to be --
11 everybody seemed to think that's not what we want, we don't
12 want to have them failing when they really come in. Was
13 there any correlation there?

14 MR. ROSENTHAL: The only example I can think of is
15 diesels, where we clearly recognize that all these diesel
16 starts were, in fact, damage in the diesels. I don't think
17 we have any -- I do not know of any study that says
18 actuations or RWCU is damaging the isolation capability of
19 the RWCU. Reactor trip breakers, we were doing so much
20 testing of big trip breakers that I think we were damaging
21 them. So you have to look at those devices for which the
22 design life is just a few hundred cycles, and then compare
23 that to what's going on.

24 MR. PUTNAM: And related to that a little bit, I
25 guess, there seemed to be some agreement up here that a

1 certain group of ESF actuations had negligible safety
2 significance. Yet, there is extremely high pressure for any
3 time one of these events occurs that is defined as
4 reportable, that we have to take some sort of corrective
5 actions to preclude recurrence of that event. Now, maybe
6 that's just our own perception and not yours.

7 But for ESF actuations, if they, indeed, have very
8 little safety significance, I'd suggest that perhaps some of
9 the corrective -- it's very easy to fall into a trap in
10 taking corrective actions where you're risking reducing the
11 reliability of the system. Clearly that's not our intent
12 when we're taking them, but given the fact that what you're
13 talking about is unplanned actuations of engineered safety
14 features and you're out there trying to come up with ways to
15 reduce the likelihood that they're going to be asked to
16 work, it's very delicate and easy to get yourself into a box
17 where you've actually reduced the likelihood of them working
18 on a valid demand.

19 So in terms of bean counting and all, well, don't
20 worry about the bean count, that's all well and good, but if
21 the system and the reporting requirements are set up to
22 drive you towards taking actions that are undesirable, then
23 we should be worried about that kind of reporting
24 requirement.

25 I guess along those lines, I'd like to know what

1 you guys' response would be to an LER that said this event
2 occurred, this is why it has very little safety
3 significance, and this is why we're taking no corrective
4 actions to preclude recurrence.

5 MR. NOVAK: Good point. Do we have any other
6 questions? Yes, please.

7 MR. KIRK: My name is Mike Kirk from NUMARC. I'd
8 like to make a couple of general comments, if I may.
9 Earlier on Jack talked about a couple of initiatives that
10 the NRC is taking regarding reporting requirements, and I
11 think later on this afternoon we're going to hear some other
12 things regarding security reporting, and these are all
13 initiatives for which the NRC should be applauded.

14 As in most things, much of this concern, I think,
15 about reporting is tied into the efficient utilization of
16 resources. I don't think this is something that has been
17 articulated as such in the meeting today, but I don't think
18 there's anybody here that would disagree with that
19 statement.

20 Reporting, whether it's under 50.72 or 50.73, is
21 very manpower-intensive. There was an informal poll, I
22 believe it was at the Region II workshop, where it was
23 indicated that a preparation of a "simple LER," one for
24 which the chain of events is understood, the causes known,
25 and has a minimal safety significance, takes a minimum of

1 two man weeks to prepare.

2 More involved LERs may take six to eight man weeks
3 or even more, and this would be exclusive of any subsequent
4 supplements. This obviously is a significant load on
5 operations, licensing and engineering manpower resources.
6 The elimination of reporting requirements such as we've
7 heard about, like the more non-significant ones, the non-
8 significant control room HVAC and reactor water cleanup
9 isolation actuations, will certainly go a long way to reduce
10 this manpower burden.

11 We would urge the NRC to keep this burden in mind
12 when you consider any further modifications to the existing
13 reporting system. Thank you.

14 MR. NOVAK: Thank you. Other questions?

15 MR. NALEPKA: Dave Nalepka, Wisconsin Public
16 Service. I guess one consideration that I would like the
17 group to take a look at when evaluating Supplement 3 is,
18 again, the definition of actuation. One specific example to
19 consider would be if a ventilation system has a partial
20 actuation, that one damper within that ventilation system
21 actuates for some reason or other, is that considered an
22 inadvertant actuation of an ESF system?

23 MR. NOVAK: Thank you. Other questions?

24 [No response.]

25 MR. NOVAK: Well, we've had a good showing of

1 questions. We'll wait a few more minutes.

2 MS. ARNOLD: We were recently wrestling with
3 reportability of a given event, which we determined was not
4 reportable. It was kind of connected to -- I'm trying not
5 to be real specific here and hang ourselves, but it was kind
6 of connected to the transmitter bulletin. So we were trying
7 to decide if it was reportable under 50.73 and we determined
8 it wasn't. But my management kept asking, well, isn't it
9 like Part 21. If the NRC has adequate information, why do
10 we have to tell them again. Though it's not in 50.72-.73,
11 if we've responded to the generic letter, if we had
12 determined it was reportable, why should we report it again?

13 MR. NOVAK: I don't know if we got the full intent
14 of the question.

15 MR. CHAFFEE: Correct me if I'm wrong. What
16 you're saying is if you've told the NRC through responding
17 to the generic letter, do you need to tell them again
18 through writing an LER.

19 MS. ARNOLD: Right.

20 MR. CHAFFEE: That's the question.

21 MR. NOVAK: Would you mind providing an answer?

22 [Laughter.]

23 MR. CHAFFEE: If it's reportable, you report it.

24 MR. CROOKS: What I would say is if it's another
25 event and it is reportable, you've determined it isn't

1 reportable, and it is reportable, then I think you would
2 send in and make the notifications. If there are other
3 circumstances -- why don't we just go from there. What
4 you're alluding to, there certainly are a number of things
5 in the database for problems that are known and are
6 continuing to happen and people are focusing on.

7 MR. PETERMAN: I'd like to address that just a
8 second. What we have done in the past, if the event is
9 similar enough, we would handle it with a supplement to the
10 original report.

11 MR. CROOKS: Okay, but don't go too far with that
12 one. There is some guidance, if they're within 30 days and
13 all that kind of thing, fine. We have looked at that. And
14 that, by the way, is not -- I think I looked at that and I
15 found that there were two or three events that had five or
16 six supplements at the most, and four or five of those were
17 really new events. They did have some different information
18 in them. So there was a little bit of gamesmanship in that.

19 But in most cases, the supplements are providing
20 new additional information. That was the intent of the
21 supplements.

22 MR. HARRIS: Ray Harris, PP&L. If you
23 collectively reach an opinion that certain things don't need
24 to be reported, like reactor water cleanup isolations that
25 are inadvertant and are not related to a need for isolation

1 in the way of a leak, or HVAC, it seems to me you'd be free
2 to issue an exemption and not wait two or three years for
3 rulemaking and just stop it. Why not do that?

4 MR. NOVAK: Well, if we thought we had to wait two
5 to three years to do just what we've suggested, we would
6 take a different action. We think that it's very possible
7 that those kinds of changes could be entertained under what
8 we call minor rulemaking.

9 MR. HARRIS: Two years ago I heard an NRC
10 individual say that you were thinking about doing that.

11 MR. NOVAK: We have also looked at the exemption
12 option and that still is open. You've got a good point,
13 though. I'm not minimizing the fact that we promised more
14 than we can deliver sometimes in terms of changes in the
15 rule. But we've got the operating experience now, we've got
16 the reg impact study, we've got pretty much a directive from
17 our agency to move forward in this area, to do what we can
18 and do it quickly.

19 Other questions? Yes?

20 MS. GOODMAN: Lynne Goodman, Detroit Edison.
21 Another thing that would be helpful in the guidance that's
22 going to be coming out, if you could address guidance -- the
23 condition many of us have in our license regarding items
24 that aren't otherwise covered by tech spec reporting
25 requirements, there a violation of a license condition, they

1 still get reported under an LER.

2 Since that uses the LER form, it follows 50.73,
3 even though the criteria of 50.73 isn't met. Some
4 additional guidance on that as far as what kind of detailed
5 items are considered to be reportable under that criteria
6 would help. An example of that might be we're all required
7 to have, or many of us, fire protection programs. If you're
8 an hour late on doing the fire drill, does that make it a
9 violation of your license, and so an LER? Some of those
10 types of questions have come up over time.

11 MR. NOVAK: Thank you. Other questions? Yes, go
12 ahead.

13 MR. PROBST: Jim Probst, Iowa Electric. Will the
14 utilities be given the opportunity to comment on the new
15 NUREG supplement before it goes out so that we can see that
16 all these questions we are asking are being taken care of so
17 we don't have to go through this again in a couple years?

18 MR. NOVAK: We had that question asked of us, I
19 think it was at the Atlanta meeting. I sort of answered it
20 by saying yes, but also as part of the response, I think Ed
21 Jordan mentioned that we don't want to delay this thing. In
22 other words, we'd like to be able to move forward.

23 If we send something out and ask for peer review
24 comments, we're sending it out to the world; not just to
25 you, but to anyone else that wants to comment on the

1 guidance document. And then, in the sense, we lose a
2 certain amount of control over how quickly we can respond.
3 So it's a compromise. If we think we've got the essence of
4 the things that are on the table for clarification or
5 possible change, I think you would want us to go forward
6 with it.

7 In other words, I think we're looking to improve
8 the system. We'll never make it perfect. So I think that
9 would be my response today on reflection. If we can get the
10 essence of what needs to be done, let's go about doing it.

11 MR. PROBST: Will you be using, say, the BWR
12 Owners' Group and some of the other utilities in an informal
13 way to get some -- it just seems like we're doing this --
14 these meetings, you're going to go away and come back with a
15 completed document and we'll have to live with it.

16 MR. NOVAK: We'll take that under consideration.
17 We've had at least one meeting with the BWR Owners' Group.
18 We're not against those kinds of meetings, but we do want to
19 try to move this thing forward. After while, we'd like to
20 see it where it sort of says, okay, we've gone far enough,
21 let's try to wrap this thing up.

22 Other questions? Yes?

23 MR. PENDERGAST: I'm Joe Pendergast from Detroit
24 Edison. When we were talking about exemptions to reporting
25 requirements, I was wondering if there were ever any issued

1 to date. I've talked to several plants and nobody seems to
2 know of any.

3 MR. NOVAK: Let me give you a quick answer. If we
4 had someone from General Counsel here, Marty would give you
5 a very direct answer. The logic that the lawyers always
6 come is if you want an exemption, if it's plant-specific,
7 fine. If the issue is generic, you go to rulemaking. In
8 other words, they don't like to grant generic exemptions
9 because that's not the purpose of the exemption. The
10 purpose of the exemption is that you, as a specific
11 individual, the utility, have a specific problem or some
12 situation that the rule was not intended to cover or it
13 treats you unfairly and you come in and ask for an
14 exemption, that's a legitimate use of the exemption process.

15 All boilers have reactor water cleanup systems.
16 For us to grant an exemption that says you don't have to
17 report reactor water cleanup systems, it could be done, but
18 the lawyers are saying that's not the process that was
19 intended to accomplish that. If you want to change that,
20 get it out of the rule. It's simple enough.

21 So I think that's the kind of thing that we see
22 when we look at exemptions. Other questions?

23 [No response.]

24 MR. NOVAK: Why don't we do the following? Let's
25 take about a five-minute break and then we're going to start

1 up with safeguards. Thank you.

2 [Brief recess.]

3 MR. NOVAK: Before we started, I want Ed Greenman
4 to respond to suppose I decide there's no corrective action
5 required.

6 [Laughter.]

7 MR. NOVAK: You can't -- Bert Davis will be here
8 tomorrow talking to it.

9 MR. GREENMAN: I debated deciding it myself, but I
10 decided that would be out of character for me. So I'm honor
11 bound to respond to that. It's obvious that there's a lot
12 of frustration just upon the amount of time we've spent
13 talking about reactor water cleanup system isolations, and I
14 think it's especially appropriate since we have out-of-
15 region guests from other plants in the different regions.

16 If any utility says in an LER that we don't plan
17 to take corrective action, I guess, first of all, I would
18 find that refreshing since normally what I hear is that
19 you're going to revise procedures and do some training.

20 [Laughter.]

21 MR. GREENMAN: That would obviate some of the
22 discussion that we might usually have about whether or not
23 you were capable of coming up with an engineering fix to a
24 system that you and we normally would expect to operate
25 properly. But seriously. We would look at any evaluation

1 that you sent in that made common sense and had a safety
2 payoff. I think that's the bottom line.

3 I'm aware in Region III that people are capable of
4 designing themselves around what happens to be a real
5 problem with RWCU. That's what, from a regional
6 perspective, that I would expect. What kind of safety
7 payoff? I think you, your plant management, and corporate
8 management have to ask yourselves the question, even on
9 those types of isolations that neither you nor we see have a
10 significant safety impact, what kind of a distraction
11 responding to those types of events over and over again has
12 to do on your operating staff and what it diverts their
13 energies and other more important things they must be able
14 to do.

15 So we entertain any proposals that you might want
16 to send in. Thank you.

17 MR. NOVAK: Thank you, Ed. What we'd like to do
18 now is move over into the safeguards area. We've asked two
19 additional staff people to join us on the panel. To my far
20 left is Joan Higdon, who is in the Domestic Safeguards
21 Branch of NMSS. Then to her right is Nancy Ervin, who is in
22 the Safeguards Branch of NRR. Nancy is going to be our
23 first speaker, and she is the NRR professional responsible
24 for evaluating and developing NRC policy in the safeguards
25 event reporting area.

1 So we'll just move right into that area. Nancy?

2 MS. ERVIN: I'm going to discuss our regulation
3 that deals with reporting of safeguards events. For the
4 benefit of those who aren't in safeguards, I'll give a brief
5 description and history of the regulation. Then I will be
6 discussing some activities that we have going to revise our
7 guidance on reporting of events. It's in an effort to
8 eliminate unnecessary reporting. Also, we're revising it to
9 better clarify our reporting requirements.

10 10 CFR 73.71 requires licensees to report
11 significant safeguards events to the NRC Operations Center
12 within one hour after the discovery of each event. Although
13 the rule covers fuel facilities, transportation of S&M and
14 some non-power reactors, I'm going to limit my discussions
15 to the power reactors because of the audience that's
16 present.

17 Significant events are those that threaten nuclear
18 activities and have the potential to endanger the health and
19 safety of the public. These events include acts, attempts
20 or threats to do significant physical damage to a power
21 reactor, including the interruption of normal operations
22 through tampering. Significant events can also include
23 safeguard system failures if the failure is uncompensated,
24 if it hasn't been compensated, and if it could allow
25 undetected or unauthorized access into a protected or vital

1 area.

2 The rule also requires licensees to record certain
3 less significant safeguards events in a log for quarterly
4 transmittal to the NRC. These events include safeguard
5 system failures that are compensated and that do not
6 immediately endanger the health and safety of the public.

7 73.71 was originally published in 1973. A major
8 revision to the rule was published on June 9, 1987 and it
9 was effective October 8, 1987. The purpose of the revision
10 was to clarify reporting requirements, eliminate unnecessary
11 reporting, and improve NRC's data analysis system. Reg
12 Guide 5.62, entitled Reporting of Safeguards Events, was
13 revised in November 1987 to clarify the rule revisions.

14 NUREG-1304, same title, was published in February
15 1988 to address questions discussed at a September 14, 1987
16 workshop on the revised rule. Prompt notification of
17 significant events is very important. We analyze these
18 events for their immediate impact on the safe operation of
19 the plants and the health and safety of the public.

20 Some of the events may warrant NRC oversight,
21 which can include activation of the NRC Information
22 Assessment Team or the NRC Response Center. In some cases,
23 we may also need to notify other agencies, such as the
24 Federal Bureau of Investigation if sabotage is involved, or
25 the Bureau of Alcohol, Tobacco and Firearms if explosives

1 are involved.

2 If the event affects other licensees or agencies,
3 we may issue an immediate generic communication. More long-
4 term feedback would be rule or guidance revisions, as
5 appropriate. An example of this is a generic letter that
6 we've recently developed in an effort to reduce unnecessary
7 prompt reporting that I'll be discussing shortly.

8 The loggable or less significant events that we
9 receive each quarter are reviewed to determine if generic
10 safeguards system effectiveness problems exist or are
11 developing. Our formal long-term analysis is conducted by
12 NMSS and results are forwarded to the licensees. Ms. Higdon
13 will be discussing this analysis shortly.

14 We issue generic communications and initiate rule
15 or guidance revisions when necessary based on review of
16 these event logs. A recent example of a generic information
17 -- a generic communication is Information Notice 90-13
18 entitled Importance of Review and Analysis of Safeguards
19 Event Logs. This information was issued to remind licensees
20 of the benefits of meaningful reviews and analysis of event
21 logs and reports required by 73.71.

22 It was also issued to remind licensees of the
23 importance of initiating prompt, effective corrective
24 measures to prevent recurrence of the identified problems.
25 The information notice was generated because of a concern

1 that some licensees were not analyzing safeguards system
2 problems and the problems were continuing to recur with no
3 apparent measures taken to correct them long-term, to get to
4 the root of the problems.

5 About a year ago, we initiated a revision to Reg
6 Guide 5.62 and NUREG-1304 to incorporate lessons learned
7 from two years experience with implementation of the revised
8 73.71 rule. The revision is based on our evaluation of the
9 safety significance of all events reported and the immediate
10 actions taken by the licensees and by the NRC. The proposed
11 revision incorporates appropriate parts of NUREG-1304 into
12 Reg Guide 5.62 and will result in additional reduced
13 reporting, primarily in the area of one-hour reports and
14 fitness-for-duty events.

15 It also will provide further clarification of the
16 reporting requirements, which was our intent when we revised
17 the reg guide before. The revision also addresses
18 improvements necessary for event log analyses programs. We
19 intend to issue the revised reg guide for public comment by
20 the end of this year. This may be optimistic because the
21 reg guide has to go through extensive inhouse concurrence,
22 and that includes going through CRGR before we even put it
23 out for public comment.

24 We have also developed a generic letter that, when
25 published, will eliminate unnecessary prompt reporting of

1 certain safeguards events. The generic letter also provides
2 further clarification of our published guidance for some
3 events. It will reduce unnecessary reporting to the NRC
4 Operations Center and reduce the reporting burden on
5 licensees.

6 The generic letter represents an immediate
7 revision to our current published policy, and is responsive
8 to concerns raised in the impact survey. It should be
9 published in the near future. It's in CRGR right now for
10 backfit considerations.

11 We intend the generic letter to be guidance only.
12 When it's published, there is no written response that will
13 be required and any actions taken by licensees in response
14 to it will be strictly voluntary. The generic letter maybe
15 modified in the final revision to Reg Guide 5.62, but that
16 wouldn't be for at least a year. Again, this is because of
17 the lengthy process involved in revising the reg guide.

18 This is why we went with the generic letter,
19 because we knew it was going to take too long and we wanted
20 to get something out to provide some relief from these
21 unnecessary reports that are coming in.

22 The policy changes that I'm going to discuss will
23 not be effective until the generic letter is published, and
24 that's because it's pre-decisional until it gets through
25 CRGR and it actually is published. Until that time, you

1 should continue to follow the published guidance. If you
2 have site-specific concerns, you can contact me, your
3 license reviewer, or your region. We didn't put a handout
4 on the generic letter, and, again, it was because it was
5 pre-decisional.

6 Before I talk about the specific events that are
7 listed in the generic letter, I'll go through some of the
8 more generic policy in the letter. Our current published
9 policies suggest that licensees report safeguards system
10 failures to the Ops Center within one hour of discovery if
11 they're not properly compensated within ten minutes by a
12 licensee employee, contractor, or vendor, or within the time
13 prescribed in the licensee's approved security plan.

14 This is already stated in Reg Guide 5.62. We've
15 revised our policy on this to allow logging the event even
16 if it takes longer than ten minute to comp it, if
17 extenuating circumstances prevent the timely compensation,
18 and this is provided all other aspects of proper
19 compensation as currently described in Reg Guide 5.62 and
20 NUREG-1304 are met; also, provided there was no malevolent
21 intent, nothing adverse resulted from the delay, and that
22 the licensee takes appropriate measures to ensure a more
23 timely response or other necessary action in the future.

24 An example of this type of event is when an
25 individual inadvertantly fails to notify security of a

1 safeguards event in a timely manner. This is what typically
2 causes the delay in the ten-minute window for your
3 compensation of the event. When you do log an event and
4 it's one that you could not comp it within ten minutes, you
5 should note the cause of the delay in the log entry, why you
6 couldn't comp it within ten minutes.

7 Another policy change deals with fitness-for-duty
8 events. Significant fitness-for-duty events are now
9 reportable under 10 CFR 26.73 and not under 73.71. Fitness-
10 for-duty performance data must be submitted under the
11 provisions of 26.71(d). In those rare cases where an event
12 with safeguards significance was caused by a fitness-for-
13 duty event, the fitness-for-duty aspect should be reported
14 to NRC in accordance with Part 26 and the safeguards aspects
15 in accordance with 73.71.

16 When a telephonic report is required by both
17 rules, the licensee need only make one call to the
18 Operations Center, if it's made within one hour, which is
19 the requirement for the safeguards events. That's your
20 choice. If you want to make separate reports, that's fine,
21 but if you do want to make one, it would have to be within
22 the one hour of discovery of the safeguards degradation.

23 In either case, a written report of the safeguards
24 aspects must be submitted within 30 days as required by 10
25 CFR 73.71. Now I will discuss the events listed in the

1 generic letter that can be logged instead of being reported
2 to NRC within one hour of discovery.

3 These events have been coming into the Ops Center
4 during the past three years. You can log them, if you want
5 to, once the generic letter is published. These events can
6 be logged if they're properly compensated in accordance with
7 the guidance provided in Reg Guide 5.62 and NUREG-1304, and
8 the areas of the generic letter that we just discussed.
9 When there are factors that could change the reportability
10 of specific events, I will discuss them with that particular
11 event.

12 The first one is a design flaw or vulnerability in
13 a protected or vital area safeguards barrier. If the flaw
14 or degradation existed for more than ten minutes -- in our
15 guidance that's already out, this was a one-hour report.
16 Now if it's properly compensated and nothing adverse is
17 discovered, now you can log the event.

18 The next example is a failed compensatory measure,
19 such as an inattentive or sleeping security guard, or
20 equipment that fails after being successfully established as
21 an effective compensatory measure for a degraded security
22 system. If security personnel are ineffective because of
23 alcohol or drugs, the security degradation is reportable
24 under 73.71, and the licensee should include the positive
25 results of the for cause test in the data submitted to NRC

1 under 26.71(d).

2 The next example is discovery of contraband inside
3 the PA that is not a significant threat. For example, such
4 a condition could be the discovery of a few bullets or a
5 weapon that was inadvertently left unattended by the
6 security force. If contraband is found in a vehicle located
7 in a parking lot outside of the PA, the event does not have
8 to be reported or logged as long as there is no threat or
9 attempted threat associated with it.

10 The next example is compromise, including loss or
11 theft of safeguards information that could not significantly
12 assist an individual in gaining unauthorized or undetected
13 access to a facility or in an act of radiological sabotage
14 or theft of S&M.

15 The next example is loss of all AC power supply to
16 security system or loss of all computer systems provided
17 adequate compensatory measures can be maintained until the
18 systems are restored. If a power loss or computer failure
19 could not enable the unauthorized or undetected access, no
20 report or log entry is required. For example, a computer
21 failure would not require reporting if it's negated by an
22 automatic switchover to a functioning backup computer
23 without a time delay.

24 Also, momentary loss of lighting caused by a power
25 interruption would not require reporting if the loss could

1 not have allowed undetected or unauthorized access. The lat
2 group of loggable failures deal with partial failures of an
3 otherwise satisfactory access authorization or access
4 control program.

5 The first example is a vendor who has been cleared
6 and authorized to receive a badge permitting unescorted
7 access to protected and vital areas who inadvertantly enters
8 the PA through a vehicle gate before being searched and
9 before being issued a badge. The licensee discovers the
10 event, searches the individual, issues a badge and takes
11 corrective action to prevent recurrence.

12 Again, with all of these, it's based on proper
13 comp measures and that nothing adverse happens. If
14 something is discovered that constitutes a threat or it
15 endangers the health and safety, then from the time it's
16 discovered, your one-hour clock starts for reporting it to
17 the Center.

18 If search equipment fails and the licensee does
19 not detect the failure, thereby allowing unsearched
20 individuals to enter the protected area, you can log the
21 event. If licensee -- and, again, if nothing adverse
22 happens from the event. If the licensee discovers search
23 equipment failure before anyone goes through unsearched and
24 immediately uses other equipment with the same capabilities,
25 such as a hand-held or another detector that is functioning,

1 no report or log entry is required.

2 The next example is an individual who is required
3 to have an escort for a particular area who inadvertantly
4 becomes separated from his or her escort, but the escort or
5 another person authorized unescorted access recognizes the
6 situation and corrects it. If an individual separates from
7 his or her escort to use a restroom which has limited means
8 of egress and the escort remains nearby with full view of
9 the egress area, no report or log entry is required.

10 If an employee of a licensee or contractor or
11 licensee contractor enters the VA improperly without
12 realizing that the card reader is processing a preceding
13 employee's card or the employee walks in behind another
14 employee without using a card, tailgating, the event can be
15 logged, even if the employee was not authorized access to
16 any vital area, if the improper entry was inadvertant and
17 without malevolent intent.

18 If an individual enters a vital area to which he
19 or she is authorized unescorted access by inadvertantly
20 using an access control medium, key card or badge, intended
21 for another individual who is also authorized access to the
22 area, this can be logged. If an individual is authorized
23 only PA access and is incorrectly issued a badge granting
24 vital area access, but does not enter vital areas or does
25 not enter vital areas with malevolent intent, the event can

1 be logged.

2 Further, if an individual is issued an incorrect
3 badge, but cannot reasonably use it because -- for example,
4 if he or she would need to know a four-digit or five-digit
5 PIN in order to get into the protected area and they had
6 been issued the wrong badge, but there they are in the PAP
7 area, they can't key anything in because they don't know the
8 code, then you would not have to report this, you would not
9 have to log it because it's not reasonable to assume that
10 they could have compromised the system, unless there's
11 intent. If intent comes into it, that's different. But if
12 it's just someone that's been given a wrong badge, then no
13 report or log entry on this particular one.

14 The next example is improper control to include
15 loss or off-site removal of access control media, including
16 picture badges, key, key cards or access control computer
17 codes that could be used to gain unauthorized or undetected
18 access. Proper compensation includes preventing successful
19 use of the medium and initiation of measures to determine if
20 the medium was used during the period it was lost or off-
21 site.

22 If the licensee determines that it was used during
23 this period, you should report the event to the NRC from one
24 hour from when you discovered that the medium was used. If
25 the licensee determines that the medium could not have been

1 used to gain unauthorized or undetected access, you do not
2 have to report or log the event. Situations of this type
3 could include the following; if the authorized individual
4 only momentarily takes a badge outside of the PA and the
5 event is immediately discovered and corrected by return of
6 the badge before compromise could occur; if a badge or key
7 is only momentarily misplaced and the event is discovered
8 and corrected before anyone could reasonably use the device
9 for entry; or, if a badge is automatically deleted from the
10 system when taken off-site, a new badge with a different
11 access code is issued to the individual involved upon
12 reentry, and the previous code is not used in another badge.

13 Those are examples of events that would not be
14 reportable and you would not have to log them. Card reader
15 failure that causes vital area doors to unlock in the open
16 position or to lock in the closed position, but with no
17 functioning door alarm can be logged. If card reader
18 failure causes VA doors to lock in the closed position and
19 the door alarm functions properly no report or log entry is
20 required.

21 The last example of a loggable event is incomplete
22 preemployment screening records, to include falsification of
23 a minor nature or inadequate administration control or
24 evaluation of psychological tests. Unescorted access of the
25 individual should be cancelled or suspended until the

1 identified anomaly is corrected. If the licensee determines
2 that unescorted access would have been denied based on
3 developed information, a one-hour report is required after
4 discovery of the new information. This is currently stated
5 in 5.62 and 1304.

6 Those are the examples of events that, although
7 they have been coming in with one hour, can be logged once
8 this generic letter issues. Now Joan Higdon will address
9 the safeguards analysis system that NMSS does for us.

10 MS. HIGDON: Good afternoon. I am Joan Higdon,
11 Manager of the Logs Analysis Program. I'd like to take a
12 few minutes right now, give you some background
13 information on the program, our purpose and goal and
14 objective. The Division of Safeguards and Transportation
15 has responsibility of conducting and implementing the logs
16 programs.

17 Activities associated with this effort are the
18 review and analysis of reported events in the quarterly logs
19 and the feedback to NRC and the licensees of analysis
20 findings and statistical data. The goal of this program is
21 to serve both audiences. The logs is one mechanism to be
22 used for improving safeguards system performance.

23 Emerging from this program are a number of cases
24 where the event logs and feedback data were the bases for a
25 root cause analysis and resulted in improved equipment

1 operation or reduced human error. Additional staff
2 resources have been dedicated to this program at this time,
3 which will enable us to perform a technical analysis of the
4 event data and the results provided as a companion report or
5 on an ad hoc basis on various topics as a companion to the
6 quarterly log report.

7 Each quarter, review and analysis is performed for
8 each quarterly log submittal. Reported events are
9 categorized based on the root cause of the event. We are
10 focusing on specific components that fail, type of human
11 error or environmental factors that impact on this system.
12 The results of this review are distributed to each reporting
13 licensee and appropriate NRC staff. Copies are distributed
14 at the corporate level on an as-requested basis.

15 For anyone who is not on our mailing list and
16 would like to be added, please see me after the meeting.
17 The facilities are listed by random code number and we have
18 done that for two reasons. One is so the report would not
19 be safeguards information and the other is that we did not
20 want to reveal the statistics being reported from each
21 facility by name.

22 The quarterly report presents statistical data
23 from events reported and with regional and industry
24 averages. These numbers, whether they are event totals or
25 average, are to be used as a point of reference only for the

1 licensee and NRC staff. These numbers are not the norm or
2 standards of performance for any facility, event category or
3 any reporting order.

4 These numbers should be evaluated along with an
5 understanding of a facility's design, equipment, population,
6 on-site and other circumstances that impact on reporting for
7 that particular quarter. Although numbers are useful in
8 trend analysis, we find they vary substantially from
9 facility to facility as a result of site-specific
10 characteristics and other factors that impact on reporting.

11 Therefore, emphasis is being placed on identifying
12 and evaluating the root cause of unusual trends and reported
13 events. There is much value in the analysis program for
14 maintaining effective safeguards. The use of the event logs
15 and feedback reports are designed to be a positive approach
16 for improving system performance. The trending of events
17 from quarter to quarter will focus inspection resources to
18 specific areas that merit closer examination.

19 Emphasis is placed not just on the event numbers,
20 but what that number is comprised of, what events went into
21 that number, what circumstances affecting reporting. NRC
22 feedback to industry will give the licensees an opportunity
23 to evaluate equipment performance and security procedures
24 and to take self-correcting action in areas that are in need
25 of improvement.

1 The licensees are using the logs and feedback
2 reports as a tool in evaluating their facility's operation,
3 where new equipment has been installed or modified or a new
4 security procedure implemented. The quarterly trending will
5 afford the licensee an opportunity to chart its progress by
6 comparing their facility's data against industry. This
7 comparison serves as a point of reference in this
8 evaluation.

9 The event data should be reviewed again in
10 conjunction with the previous quarter's data. We do not
11 want to focus on one quarter. We want to focus on a
12 facility's reporting trend and events reported from quarter
13 to quarter. As mentioned earlier, there are cases where the
14 logs and feedback report highlighted, indeed, for certain
15 changes at a facility.

16 The analysis findings have resulted in
17 modifications to equipment or security procedures which
18 improved the reliability of reduced human error. These
19 findings are provided to industry since it may have
20 application at other facilities. We're hoping that the
21 feedback report will be used as a medium to exchange
22 information across industry, to share information of
23 analysis findings, or where changes have improved a
24 facility's operation.

25 Some of these are mentioned very specifically in

1 your handout, but just on a side note some of the
2 information that I've had in talking with the licensees and
3 how they've been using the logs. it's very interesting to
4 see some of the changes that have come out of your analysis,
5 and a lot of them do not involve a lot of additional costs.

6 There was one facility that -- they noticed that
7 their card readers that were located in very high traffic
8 areas did not have the reliability of others. Upon further
9 investigation, it was an insertion type, they found that the
10 tab on the inside was interfering with the card being lined
11 up with the sensor to read the code. They removed the tab
12 and they said it increased reliability significantly.

13 Another facility noticed that their rate of badges
14 taken out of the protected area increased on Fridays than
15 any other days. What they had done is, on Fridays, they
16 have over a loud speaker and at different times, to people
17 leaving the area, a reminder to turn their badge in.

18 So some of these are very simple changes and I've
19 noticed that there is really no medium at all to exchange
20 this information. We're hoping to start that through our
21 quarterly feedback report. We want to include in our report
22 not just numbers, but some worthwhile information.

23 Another facility found out by installing a strobe
24 light that comes on when you exit a security door and stays
25 on until the person has shut the door and it's secured, they

1 found their rate of unsecured door events went down. That
2 strobe light served as a reminder to the individual exiting
3 that door was not shut and secure.

4 As mentioned earlier, we have provided additional
5 resources to the program. We want to have a technical
6 review of the data by our technical staff. We want to
7 review it for different topics. If any of the licensees
8 have suggestions on anything that they would like to see in
9 our analysis, please let us know. We're open to any
10 suggestions.

11 Right now, facilities are being compared on an
12 equal basis. We have a contractor working with us to change
13 our computer program and we want to normalize the data so
14 when we give feedback to the licensees, when we present data
15 for like CCTB events or unsecured doors, that we are
16 comparing like facilities. So over time, the quarterly
17 report will be revamped to group facilities that have like
18 characteristics and hopefully that will take on more meaning
19 with the event numbers.

20 Finally, our staff is very sensitive to industry's
21 concerns and need with regard to this program. We
22 appreciate the opportunity to talk with you and to have your
23 input at the Orlando meeting. This information received was
24 very useful in our effort to improve the program and we want
25 to benefit from our experiences so NRC and industry can take

1 a positive approach for improving their facility's
2 operation.

3 I think now we can take questions from the group.

4 MR. NOVAK: Thank you, Joan. Any question right
5 now? Why don't we start with anything doing with
6 safeguards.

7 MR. SAUNDERS: My name is Barry Saunders and I'm
8 with Commonwealth Edison's nuclear security, and this is for
9 Ms. Ervin. One of the things that you indicated was that
10 logging -- you can log events if extenuating circumstances
11 require measures to take longer than ten minutes. How much
12 longer than ten minutes? I mean, it's going to get down to
13 is 15 minutes too long, is a half-hour too long, how much is
14 acceptable?

15 MS. ERVIN: We were going to allow for licensees
16 for reasonable judgment with that. If you'd like a more
17 specific window, we can consider that. The generic letter
18 isn't out yet. But we had in mind that if a licensee would
19 take appropriate measures immediately within ten minutes
20 after finding out of the event, and there may be some cases
21 where even after you've been notified of an event, even if
22 the notification was timely, that there is something that
23 causes a slight delay, but it's not something that, again,
24 endangers the health and safety of the public or the safe
25 operation of the plant.

1 We were going to leave the window open to
2 reasonable judgment. We would not expect it to take days or
3 weeks or hours, in some cases, and that would be very event-
4 specific. To be able to sit here and give you different
5 timeframes for different types of situations, you'd get into
6 a lot of variables.

7 MR. SAUNDERS: I think for guidance purposes, so
8 we don't get into those various situations, there should be
9 maybe some guidance on what is reasonable, because
10 reasonable to you versus me versus Region III versus Region
11 IV or V could be varied tremendously and we might be still
12 in that same bag of what is reasonable. So I would
13 appreciate consideration for that.

14 MS. ERVIN: Okay.

15 MR. SAUNDERS: Secondly, you talked about barrier
16 degradations, if found within ten minutes, could be logged.
17 Does that apply to longstanding barrier degradations?

18 MS. ERVIN: Yes, it does.

19 MR. SAUNDERS: That may have existed for years and
20 once you find them and comp within ten minutes, that would
21 be a loggable only.

22 MS. ERVIN: Yes. But, again, this is based on
23 your investigation and your determination that nothing
24 adverse happened as a result of it.

25 MR. SAUNDERS: Right.

1 MS. ERVIN: And that the safe operation of the
2 plant is not jeopardized.

3 MR. SAUNDERS: Thank you. Contraband. The
4 definition of contraband, if I'm not mistaken, and maybe you
5 just alluded to this, is firearms, explosives, and
6 incendiaries. You mentioned bullets. Bullets doesn't
7 necessary fall under firearms, explosives or incendiaries.
8 Is that a new interpretation to include in contraband or is
9 that just an accepted -- included in firearms, incendiaries
10 or explosives?

11 MS. ERVIN: Well, bullets are part of firearms.
12 If the person's got the bullets in the weapon, that's where
13 it becomes more dangerous.

14 MR. SAUNDERS: That may be more difficult if you
15 look at more applications of finding a bullet on an ingress
16 search versus a firearm on an ingress search. I don't know
17 if that's possible. I'll just throw that out for --

18 MS. ERVIN: So what you're really getting at is if
19 someone detects a bullet during an entrance search, should
20 you have to log it? Is that what your question is getting
21 toward?

22 MR. SAUNDERS: I guess my question is -- well.
23 Let's leave that one for a second and go on to the next part
24 of contraband. If you find contraband during the ingress
25 search process, is that still a one-hour?

1 MS. ERVIN: By our current guidance, that is a
2 one-hour and that is not something -- one-hour -- that's a
3 loggable event. That's by the current guidance that's
4 already out. If you find something during the search and
5 there is no malevolent intent and you determine that, by the
6 current guidance that's out, you could log that. You do not
7 have to call that in within one hour. But it is loggable.

8 MR. SAUNDERS: During the loss of all -- you said
9 AC power to the security system. What happens if you have
10 DC power that instantaneously switches over?

11 MS. ERVIN: It would be the same concept.

12 MR. SAUNDERS: Okay. Same concept. Good.

13 MS. ERVIN: These are just examples and they're
14 not --

15 MR. SAUNDERS: I realize that.

16 MS. ERVIN: -- all encompassing.

17 MR. SAUNDERS: These conjure up all sorts of
18 questions and what if's and possibilities with regards to
19 how we would be reviewed and evaluated against to those
20 comments. Getting back to the bullet, you're considering
21 bullets to be contraband then.

22 MS. ERVIN: Bullets do fall under contraband.

23 MR. SAUNDERS: Okay. Even in the definition -- I
24 guess --

25 MS. ERVIN: They do explode and they do go with a

1 gun.

2 MR. SAUNDERS: I understand that, but I'm not so
3 sure that everyone looks at bullets as contraband.

4 MS. ERVIN: Are bullets something that licensees
5 allow to come in their sites?

6 MR. SAUNDERS: No, no. That's a prohibited item
7 that we wouldn't allow on-site.

8 MS. ERVIN: So that's contraband that you don't
9 allow on-site.

10 MR. SAUNDERS: No. It's prohibited items which we
11 wouldn't allow on-site, which would not require a one-hour
12 call prior to this time. If you look at firearms,
13 explosives and incendiaries as being what's contraband and
14 would require a one-hour, bullets may fall out of that
15 category. But if you're saying now that bullets by
16 themselves could be contraband and that would require a one-
17 hour, then --

18 MS. ERVIN: No. We're not saying it requires a
19 one-hour. We're saying that if a single bullet is found
20 somewhere and there doesn't appear to be any threat to the
21 plant that you could log the event if you determine there is
22 no threat.

23 MR. SAUNDERS: Fine. Thank you very much.

24 MS. ERVIN: You're welcome.

25 MR. NOVAK: Other questions?

1 MS. ERVIN: By the way, these are reports that
2 have come in within one hour, and that includes finding a
3 bullet somewhere in a protected area. So this is why we
4 wanted to address that specific example, because we felt if
5 it did not represent a threat, then you should not have to
6 call it in within one hour. You could log it.

7 MR. BROWNELL: Jim Brownell, Illinois Power.
8 We're one of the ones that did call it in, so we thank you
9 for that. A couple things. By issuing this generic letter,
10 are we essentially changing the rule?

11 MS. ERVIN: Not the rule. What we're doing is we
12 are revising our position in previous guidance that's been
13 put out, but the changes do not change the rule and they
14 don't change the intent of the rule. After we had
15 experienced -- we had been under the new rule for about two
16 years, we started analyzing all of the events that had been
17 coming into the Operations Center under the one-hour
18 reporting criteria.

19 We also took a look at some of the events that had
20 been coming in as log items. We took into consideration
21 comments, concerns that had been expressed by licensees
22 during this two-year timeframe. This evaluation took us
23 about a year. We're going on three years now since we first
24 had the revision to 73.71. So after analyzing all these
25 events, we determined that we needed to revise our policy,

1 our guidance.

2 It was not that the intent of the rule was being
3 revised, but we found that where the rule wanted significant
4 events coming into the Center, some of the things that we
5 had thought were significant and should be reported, in
6 fact, were not. So this is why you're seeing this policy
7 revision.

8 MR. PULEC: Rick Pulec, Wisconsin Public Service.
9 I don't have a good handle on definitions of safeguards
10 information, but generally I've been under the impression
11 that if it can significantly assist an individual, then it
12 is safeguards information; otherwise, it isn't. That's
13 probably a misconception, but could you clarify to me what
14 the difference is between the new guidance that you're
15 saying if it can't significantly assist an individual, what
16 does that mean?

17 MS. ERVIN: Well, we said compromise of
18 information that could significantly assist. In the
19 guidance that's currently out, if safeguards information
20 that could significantly assist somebody was compromised, it
21 was a one-hour report. What we're saying now is that if you
22 determine that this information could possibly help someone
23 in evaluating or determining whether or not this was a path
24 to get into the site or --

25 MR. PULEC: Maybe the question would be what type

1 of safeguards information cannot significantly assist or
2 compromise. That's the differentiation, I guess. I just
3 don't understand it, but maybe you could clarify that
4 difference. Where is that threshold at?

5 MS. ERVIN: Let me give you an example. We had a
6 licensee call us not too long ago. There were some
7 blueprints that were out and they contained safeguards
8 information. They were rolled up and they were in a pile
9 with some other blueprints that were not safeguards
10 information. These were left unattended overnight. They
11 were left out in the open.

12 The next day, the licensee found them. The
13 building was controlled. They had a guard there to control
14 access, but they had an uncleared cleaning person that came
15 through. The licensee didn't know whether they had to
16 report this type of an event within one hour or if they
17 could log it. The information that was in these rolls and
18 rolls of blueprints was very voluminous. It was a lot of
19 information and the licensee couldn't really make a
20 determination on the spot.

21 It is hard to determine sometimes if the
22 information would significantly assist. I see what you're
23 getting at, but if it wouldn't significantly assist, you
24 don't think it should even be safeguards information.

25 MR. PULEC: I don't understand --

1 MS. ERVIN: But there is a difference between
2 information that if you gather it here, here, here and here
3 and put it all together, then it would significantly assist,
4 or if information is -- if you've got a lot of information
5 that it may or may not. It might be a plan that by 73.21
6 you're allowed to classify safeguards in the total. A plan
7 can be a security plan. The whole plan can be classified
8 safeguards.

9 Now, clearly, every page in that security plan is
10 not safeguards information. But it is safeguards
11 information under the rule. When that rule was developed,
12 this was for the convenience of industry, as well as NRC,
13 because it's so hard to separate every little bit of
14 safeguards information. You'd have to stamp and control
15 each page. That would have been an unreasonable burden.

16 So the NRC said, okay, we'll allow you to just
17 stamp the whole document safeguards and protect the whole
18 thing safeguards. This goes for procedures that are
19 developed. They have allowed you to mark a document in
20 total safeguards or a manual in total even if all of it is
21 not. So sometimes parts of it are found and it's marked
22 safeguards, but they're not sure. They have to look at it
23 and determine.

24 This is where your safeguards significantly would
25 assist or does not. Some of it is, in fact, not even

1 safeguards.

2 MR. PULEC: Certainly that's understandable if
3 it's misclassified.

4 MS. ERVIN: Well, it's not misclassified.

5 MR. PULEC: Classified for convenience, that's
6 understandable. But I still don't understand what real
7 safeguards could be, and I guess the only answer I've gotten
8 is the composite. A composite package of safeguards,
9 different facility features.

10 MS. ERVIN: That's an example. I could -- if
11 you'd like, I could get back to you when I get back to the
12 office. We have been working -- our office has been working
13 on some of these problems that licensees have had in
14 evaluating the significance of safeguards information. So
15 if you'd like, I could get back in touch with you.

16 This is something when the reg guide comes out
17 that maybe we ought to address in more detail. But I don't
18 think you're going to have 100 percent clear answer because
19 of the 73.71 rule allowing you to mark entire documents when
20 there's things in there that are not safeguards information.

21 MR. BROWNELL: Jim Brownell, Illinois Power,
22 a.g.n. Has any consideration been given to how much time is
23 involved with preparing logs? I know at our site we have
24 one person dedicated fulltime. That's all he does is fill
25 out the log. Is that considered in the unnecessary burden

1 thing and by this new guidance we're adding more things to
2 the log?

3 MS. ERVIN: When the new guidance -- by that, you
4 mean the reg guide revisions.

5 MR. BROWNELL: Well, what you're proposing; the
6 generic letters and all that stuff you're saying. These
7 things are going to have to be reported, they should be
8 logged.

9 MS. ERVIN: Well, you may be adding an event or
10 two or however many events to your log, but, yes, we did do
11 a regulatory -- we did a cost analysis on it and you save a
12 substantial amount of money because when you report an event
13 into the Center, a one-hour report, for that single event,
14 you have to file a complete written report within 30 days.
15 Now the tradeoff is all you have to do is log it in your
16 log. There's a substantial savings associated with the
17 reduction of these events from one hour to a logged event.

18 MR. BROWNELL: Side question. Have we seen a
19 significant increase in the number of items logged in a
20 quarter?

21 MS. HIGDON: No. There's been a decrease.

22 MR. BROWNELL: That's interesting.

23 MS. ERVIN: And there should be a further
24 decrease, too, when the generic letter comes out and after
25 we get the reg guide published, because in the generic

1 letter we're already providing examples of events that have
2 been coming in in the logs that you don't have to log. When
3 the reg guide goes out for comment, we're going to be
4 getting your input as far as any events that you feel we
5 haven't covered in the generic letter or in the reg guide
6 that should not have -- that you should not have to log.

7 MS. HIGDON: Let me qualify that. Are you talking
8 about from any particular region or industry-wide?

9 MR. BROWNELL: Well, I'm interested in industry
10 versus region.

11 MS. HIGDON: Industry-wide. Basically, what I
12 have seen is there have been a decrease in the number of
13 events being reported from the logs, especially from the
14 very first reporting quarter. A lot of that is attributed
15 to fine tuning and a better understanding of events to be
16 reported in the quarterly logs.

17 MR. BROWNELL: Is that regions other than this
18 one?

19 MS. HIGDON: Yes, sir.

20 MR. BROWNELL: What about this region?

21 MS. HIGDON: There has been an increase in events
22 being reported from the last two quarters as a result of
23 changing reporting practices from six of your facilities,
24 which I know you're aware of.

25 MR. BROWNELL: That's what I thought.

1 MS. HIGDON: But I will say this. What they are
2 undergoing right now is what I've seen industry-wide from
3 the very beginning of this reporting quarter. There is kind
4 of a settling down period.

5 MR. BROWNELL: I'll follow that up. As a result
6 of your analysis then, are you trying to feed back to the
7 regions that they may have been getting inaccurate guidance?

8 MS. HIGDON: No, sir. It's just a better
9 understanding of events to be reported. I will say this,
10 that there's always been a requirement to have a lot. With
11 the revised requirements that went into effect in October of
12 1987, it's the first time that these logs were to be
13 submitted to Headquarters for review and analysis.

14 MS. ERVIN: Do you have a concern about guidance
15 that needs to be more clearly defined? If you do, we can
16 address it.

17 MR. BROWNELL: I dug myself a hole now. I guess
18 it's more of a gut feeling than anything else. I think that
19 since the new rule has come out, or in 1987, at least at my
20 site, we went from an average of 30 or 40 events being
21 logged each quarter to 250-260 each quarter. I think that's
22 mainly because we've been -- I don't want to use the word
23 ratcheted. We've been asked to include things in our log
24 that we didn't do before and I don't think it's because of
25 what you people are doing, I don't know how we got into it,

1 but that's where I'm headed.

2 MS. HIGDON: What facility are you from? Do you
3 mind?

4 MR. BROWNELL: I work at Illinois Power, Clinton.

5 MS. HIGDON: Yes.

6 MS. ERVIN: If you do have a concern that you may
7 be -- that someone might be asking you to log things that we
8 don't ask to be logged in our guidance, then I would
9 recommend that you touch base either with your region or you
10 can call -- if you have a policy question, I get a lot of
11 calls from licensees all the time with regard to the policy,
12 and I'll be happy to discuss the intent of the policy with
13 you. But your region should be the person that you contact
14 if you're concerned that the guidance that you're getting
15 might be more than what is intended.

16 MR. GREENMAN: Jim Creed is the contact and he's
17 here today.

18 MR. NOVAK: I have a question. Is there any
19 chance -- and I was just trying to understand the log. Is
20 it comparable to NPRDS? Maybe you can help me from the
21 floor. In other words, can you learn about how well your
22 equipment is operating through the log compared to other
23 people using the same kind of equipment? Is there some
24 feedback process that the log provides comparable to what
25 you can get out of NPRDS if you're interested in looking at

1 some equipment performance?

2 MS. ERVIN: I can generally say that, yes, the log
3 does provide you a measure to look at your systems from one
4 quarter to the next and to also compare them with industry
5 norms. I understood from Joan that they are getting a lot
6 more specific and they're going to include, like,
7 environmental causes, different types of equipment that fail
8 because of different types of reasons. So I don't know
9 about this other system that you'r talking about. I don't
10 know much information it provides you.

11 But from Joan's briefing, this one does allow you
12 to trend if the equipment is functioning and if it's caused
13 by environmental conditions versus mechanical problems. Is
14 that correct, Joan?

15 MS. HIGDON: Yes. The feedback we're giving is
16 not just -- we've established categories and subcategories
17 to capture the type of events being reported in the
18 quarterly logs, and they're not to be construed as guidance.
19 You still have to refer to the guidance document and the
20 NUREG. But they are designed to capture all the events
21 being reported in the logs.

22 Like the parameter system, we have broken it down
23 to show those alarms that come in for E fields versus
24 microwave systems versus other systems. For badge events,
25 it shows lost badges, badges taken out of the protected

1 area, those that are out of control within a protected area.
2 For access control and authorization, we'll be breaking
3 those down to show tailgating events and those where a badge
4 is incorrectly issued and other access procedures.

5 For hardware equipment, for door events, we're
6 breaking that down to show that where there is a problem
7 with the balance magnetic switch versus another component on
8 the door. So we're further refining the categories to give
9 you as much definitive information as possible. There are a
10 number of licensees out there that are using the logs and
11 the quarterly feedback report to do their own trending, and
12 there is a document included in the report that shows for
13 each facility the events reported and each category and
14 subcategory back to January of 1988.

15 So you can see, when you get your feedback report,
16 you can see for your facility a number of events reported
17 since January of 1988 for CCTVs, door hardware, unsecured
18 doors. This is why I say we don't want to emphasize just
19 looking at one quarter's data, but you want to look at your
20 history and trend of reporting to show where there have been
21 increases and decreases, and to see what has changed and
22 why.

23 MS. ERVIN: Does this compare to the system that
24 you're talking about, Tom?

25 MR. NOVAK: I think so.

1 MS. ERVIN: Does that answer your question?

2 MR. NOVAK: I think so.

3 MS. ERVIN: Would you like a copy of our quarterly
4 feedback report?

5 MR. NOVAK: I think so.

6 [Laughter.]

7 MS. HIGDON: We'll add you to our mailing list.

8 MR. NOVAK: Just one other question. I don't know
9 if you gave a schedule for the generic letter and the
10 revision to the reg guide.

11 MS. ERVIN: I mentioned that we hope that the
12 generic letter comes out soon. It is in CRGR for review
13 right now for backfit considerations. The reg guide we hope
14 to publish within the next year for public comment. Before
15 it goes out for public comment, it also goes through CRGR
16 for backfit review. So hopefully generic letter soon, and
17 hopefully on the reg guide within a year out for public
18 comment.

19 MR. NOVAK: Does that mean you can operate, one,
20 under the generic letter in the interim until the reg guide
21 is revised?

22 MS. ERVIN: This is correct. As I mentioned in my
23 briefing, that's strictly voluntary. If a licensee for some
24 reason chooses to continue to call in the one-hour reports,
25 that is your option. This generic letter is strictly

1 voluntary.

2 MR. NOVAK: Thank you.

3 MS. HIGDON: Could I ask the gentleman from
4 Clinton, do you receive directly the quarterly feedback
5 report?

6 MR. BROWNELL: No.

7 MS. HIGDON: Have you see a copy of it?

8 MR. BROWNELL: Yes.

9 MS. HIGDON: Okay. Do you want to be added to our
10 mailing list?

11 MR. BROWNELL: I think I asked to be added a
12 couple times.

13 MS. HIGDON: Are you receiving it yet?

14 MR. BROWNELL: No.

15 MS. HIGDON: Okay. Well, why don't you --

16 MR. BROWNELL: I'll be happy to give you my
17 address again.

18 MR. NOVAK: I think I interrupted -- someone was
19 going to get up to the speaker. Go ahead.

20 MR. NALEPKA: I just had one question. Dave
21 Nalepka, Wisconsin Public Service. In regard to SALP
22 reports, do these quarterly logs and reportable events, are
23 those considered in the evaluation for SALP ratings?

24 MS. ERVIN: No. This was a concern that was
25 expressed in the regulatory impact survey and if you're

1 talking about whether or not your number of events can go
2 against you just strictly by the number, no. This cannot --
3 it should not be happening. Again, if you're concerned that
4 it is happening, then you should talk to Region III and get
5 it resolved.

6 MR. GREENMAN: As a voting member of the SALP
7 Board representing projects, you're absolutely right. The
8 numbers game and how many numbers, that is not part of the
9 SALP process. What you're doing with loggable events, what
10 they mean and how you react to them and how you respond,
11 that's fair game for the SALP analysis.

12 MS. ERVIN: And that would include, like, remember
13 I mentioned that we put the information notice out because
14 we were concerned because some licensees were, in fact, not
15 analyzing their problems. We didn't limit them to the logs.
16 That's one tool. You have many tools. You've got your
17 incident records, whatever. You've got your daily logs.
18 You've got your maintenance records. But our concern was
19 that some licensees were not analyzing their problems. They
20 weren't trying to find the root cause and they weren't
21 taking the proper corrective measures to correct the problem
22 and to ensure that it didn't repeat itself.

23 We did, in fact, state the log as one effective
24 tool that you could use to do this, but the problem was it
25 wasn't being done.

1 MR. NOVAK: Other questions?

2 [No response.]

3 MR. NOVAK: We're at a point -- I don't want to
4 drag the meeting on, but if there are any areas that you
5 still have a question, this is the time we were going to put
6 them on the record, or if there was a comment that you
7 wanted to leave, we can do that now.

8 Also, if, in fact, you've got something and you
9 just want to give it to me as a written question, we will
10 take it and it will be included when we develop the guidance
11 document. Seeing no more questions, I would say I think
12 this meeting has come to an end. It's been, I think, a very
13 beneficial meeting.

14 We expected these things to go a little downhill.
15 I'm surprised. I think Region III -- we've had a very
16 active meeting today and, again, I thank you very much for
17 your participation.

18 [Whereupon, at 3:30 p.m., the workshop was
19 concluded.]

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REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

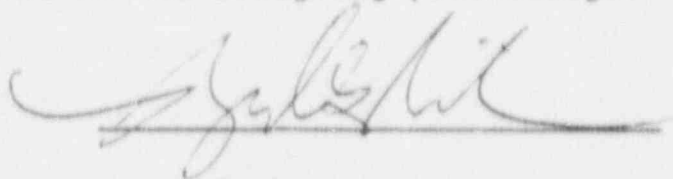
in the matter of:

NAME OF PROCEEDING: Region III Workshop

DOCKET NUMBER:

PLACE OF PROCEEDING: Rosemont, Illinois

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 or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.



Official Reporter
Ann Riley & Associates, Ltd.

LEGAL ASPECTS OF BACKFITTING --
THE EXPERIENCE WITH IMPLEMENTATION
OF SECTION 50.109

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ON BACKFITTING

1990

PURPOSE OF SECTION 50.109

- * TO RESTORE STABILITY AND PREDICTABILITY TO THE REGULATORY PROCESS

- * 1981 SENIOR NRC MANAGEMENT SURVEY:

"NOTWITHSTANDING THE COMPETENCE AND GOOD INTENTIONS OF THE STAFF . . . THE PACE AND NATURE OF REGULATORY ACTIONS HAVE CREATED A POTENTIAL SAFETY PROBLEM OF UNKNOWN DIMENSIONS."

NUREG - 0839 at 1.

- * UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT AFFIRMED RULE IN JULY 1989

GENERIC BACKFIT PROCESS

MAJOR GENERIC COMMUNICATIONS
OCTOBER 1988 - SEPTEMBER 15, 1990

	<u>NO</u>	<u>RESPONSE BURDEN (PERSON-HOURS PER PLANT)</u>	<u>50.109 ANALYSIS</u>
GENERIC LETTERS	18	13,000-17,000	6
BULLETINS	<u>7</u>	<u>7,500-17,000</u>	0
TOTAL	25	20,500-34,000	6

WHY REGULATORY/BACKFITTING ANALYSES NOT DONE

- * MANY GENERIC COMMUNICATIONS ISSUED AS "INFORMATION REQUESTS" UNDER 10 C.F.R. § 50.54(F)

- EXAMPLES:

- * GENERIC LETTER 89-07 (VEHICULAR BOMBS)
- * GENERIC LETTER 89-19 (SG AND VESSEL OVERFILL)
- * PROPOSED PPEE GENERIC LETTER -- COST OF \$1M AND 6 PERSON-YEARS

- IN MANY CASES, "INFORMATION REQUESTS" CALL FOR (1) MAJOR NEW PROGRAMS OR (2) EXTENSIVE ANALYSES AGAINST NEW CRITERIA
- ISSUE OF SECTION 50.54(F) VERSUS 50.109 IS BEING ADDRESSED BY OGC

CRGR DECISION ON USI A-46 (SEISMIC QUALIFICATION):

"UNDER THE PROPOSED RESOLUTION THE ADEQUACY OF THE DESIGN OF A LICENSEE'S FACILITY WOULD BE JUDGED AGAINST SIGNIFICANTLY DIFFERENT CRITERIA THAN WERE USED BY THE STAFF IN LICENSING THE FACILITY INITIALLY . . . THESE WERE CLEARLY THE TYPE OF CIRCUMSTANCES CONTEMPLATED BY THE COMMISSION IN APPROVING THE BACKFIT RULE. SECONDLY, THE TIME AND EXPENSE INVOLVED (IN PERFORMING THE ANALYSES) IS CLEARLY GREATER THAN THE 'INFORMATION REQUEST' CONTEMPLATED BY THE COMMISSION IN APPROVING SECTION 50.54(F)."

CRGR, OCTOBER 1986

- MANY GENERIC COMMUNICATIONS ISSUED UNDER "COMPLIANCE" EXCEPTION TO THE BACKFITTING RULE, SECTION 50.109(A)(4)(I)

- EXAMPLES:

- GENERIC LETTER 89-04
(INSERVICE TESTING)
- GENERIC LETTER 89-13
(SERVICE WATER SYSTEMS)

- COMMISSION EXPLAINED IN 1985 RULE:

"THE COMPLIANCE EXCEPTION IS INTENDED TO ADDRESS SITUATIONS WHERE THE LICENSEE HAS FAILED TO MEET KNOWN AND ESTABLISHED STANDARDS OF THE COMMISSION . . . NEW OR MODIFIED INTERPRETATIONS OF WHAT CONSTITUTES COMPLIANCE WOULD NOT FALL WITHIN THE EXCEPTION."

- SCOPE OF "COMPLIANCE" EXCEPTION:

1. MUST HAVE EXPLICIT REQUIREMENT
2. REINTERPRETATIONS ARE BACKFITS

PLANT-SPECIFIC BACKFIT PROCESS

PLANT-SPECIFIC BACKFITTING APPEALS
OCTOBER 1985 - PRESENT

<u>NUMBER OF FORMAL APPEALS</u>	<u>GRANTED/ RESOLVED</u>	<u>DENIED</u>	<u>PENDING</u>
20	10	7	3

ROOM FOR IMPROVEMENT

1. IDENTIFICATION OF BACKFITS

* SOURCES OF POTENTIAL PLANT-SPECIFIC BACKFITS:

- INSPECTION REPORTS, NOV'S, SER'S

* STAFF RESPONSIBILITY

"THE NRC STAFF SHALL BE RESPONSIBLE FOR IDENTIFYING PROPOSED PLANT-SPECIFIC BACKFITS . . . THE STAFF AT ALL LEVELS WILL EVALUATE ANY PROPOSED PLANT-SPECIFIC POSITION WITH RESPECT TO WHETHER OR NOT THE POSITION QUALIFIES AS A PROPOSED BACKFIT. . . ."

MANUAL CHAPTER 0514

2. BACKFITTING APPEAL PROCESS

- * "BACKFIT" IS NOT A BAD WORD
 - USE OF SECTION 50.109 IS CONSISTENT WITH SAFETY-FIRST PHILOSOPHY

- * INFORMAL USE OF RULE -- I.E., IN DISCUSSIONS WITH THE STAFF DURING INSPECTIONS OR TECHNICAL MEETINGS -- PROMOTES EFFICIENCY

SUGGESTIONS FOR IMPROVEMENT

1. NRC SHOULD CONTINUE EFFORTS TO IMPROVE
GENERIC COMMUNICATIONS PROCESS

- * MAKE DRAFTS AVAILABLE FOR COMMENT
- * TAKE HARD LOOK AT 50.54(F) AND
COMPLIANCE ISSUES

2. PLANT-SPECIFIC

- * IMPROVE PROCESS FOR NRC
IDENTIFICATION OF BACKFIT POSITIONS
- * FOCUS ON RESOLVING ISSUES
INFORMALLY

NRC BACKFITTING WORKSHOP
 October 15, 1990
 REGISTRATION

Name	Affiliation	Address
1. Clebus J Frank	CLEVELAND ELECTRIC ILLUMINATING CO.	PERRY, OH.
2. Walter Elgin	" "	" "
3. BRYAN LAUZAU	AMERICAN ELECTRIC POWER	Columbus, Oh
4. Denny Ross	USNRC	Wash DC
5. Hubert Miller	USNRC, REG ID	GREEN BAY, WI
6. JOE SIPEK	Illinois Power Co	Clinton IL
7. Ken Putnam	Iowa Electric	Duane Arndt En. Center
8. ROBERT W. BISHOP	NUMARC	1776 Elm St NW Washington, DC
9. Tom Malanowski	WEP Co	231 W. Mich. Milwaukee, WI
10. Bob Hesse	NRC REG ID	Glen Ellyn, IL
11. Frank Spangenberg	Illinois Power	P.O. Box 678, Clinton, IL. 61727
12. RICK PULEC	WISC. PUBLIC SERVICE	GREEN BAY WI
13. Steve Brewer	AEP	1 Riverside Plaza Col. OH 45216
14. PATTY DAY	NUS CORPORATION	2650 McCormick Dr. Clearwater, FL 34619
15. TRACY ARNOLD	Illinois Power Co.	P.O. Box 678 Clinton IL 61727
16. DAN STENGER	WINSTON & STRAWN	WASHINGTON, D.C.
17. Richard Krop	USNRC	Glen Ellyn IL
18. JOHN ARCHARD	PACIFIC GAS & ELECTRIC	333 MARKET SF, CA 94106

NRC BACKFITTING WORKSHOP
 October 15, 1990
REGISTRATION

	Name	Affiliation	Address
19.	WAYNE KROPP	USNRC	BYRON
20.	MICHAEL KIRK	NUMARC	1776 I ST. NW, WASH. DC
21.	Janis Roberts	TENECA	Bethesda, MD
22.	Mike Aycock	TENECA	Bethesda MD
23.	GENE KUBATZ	NUS	2275 HALF RD BANNOCKBURN
24.	J. HEJEMES	NRC	HQ IL 60015
25.	GEOFFREY C WRIGHT	NRC RJE	^{only 4} 711 Roseodt Rd Glen Ellyn, IL. 60177
26.	CARL H. BERLINGER	NRC H/Q	WASH DC
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NRC BACKFITTING WORKSHOP
 October 15, 1990
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Name	Affiliation	Address
1. PETER W. SMITH	TOLEDO EDISON	300 MADISON AVE, TOLEDO OH 43522
2. MIKE PAXER	IDNS	1035 OUTSIDE PARK, ST. LOUIS, IL 62704
3. BOB ALEXANDER	CPC - Big Rock Point	US-31 JONATH, Chaeleynx, MI 49720
4. PAUL Bessetto	Ferris Electric	200 1 st St. Cedar Rapids, IA 52406
5. T.P. SHARKEY	Union Electric - Callaway	Box 620, FULTON, MO 65251
6. R. J. GOEBBERT	SARGENT & Lundy	55 E. HOWARD Chicago, IL
7. Kirk W. Peterman	Commonwealth Edison	Dorsey, BRT, Harris IL 60450
8. RON DiPACCA	Neotek house	Hopewell Rd. Monroeville, PA.
9. TOM TELLA	US NRC	799 ROOSEVELT RD, GLENVIEW, IL 60037
10. MARE P. HUBER	US NRC RTI	"
11. Darrell Taylor	CECs	"
12. Armend Masciantonio	US NRC NRR	Washington DC 20533
13. David Rickett	NUS	2650 M. Cormick Dr. Clearwater, FL 34619
14. PETER JORDAN	NUS CORP.	2650 M. CORMICK DR, CLEARWATER, FL 34619
15. SCOTT BAUER	POPE AND GENERAL ELECTRIC	71760 Columbia River Hwy Rainier OR 97048
16. RICHARD BARRETT	US NRC / NRR	7501 Ave. F WASHINGTON D.C. 20555
17. PAUL GIBSON	CECO	Quad Cities Nuclear Station
18. Roger Lanksbury	US NRC / RTI	799 Roosevelt Rd, Glen Ellyn, IL

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 October 15, 1990
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	Name	Affiliation	Address
19.	Lynne Goodman	Detroit Edison	6400 N. Dixie Hwy, Detroit MI 48226
20.	K.S. Dworakowski	Commonwealth Edison	1900 OPUS PLACE, SUITE 400 GROUND, IL
21.	GA. DENENBERG	COMMONWEALTH EDISON	1400 OPUS PLACE, SUITE 300 DOWNERS GROVE, IL
22.	Frank Hawkins	Dept. of Energy	M.S. A-433 Washington D.C. 20545
23.	JOHN GOUVAS	SARGENT & LUNDY	30 W MONROE ST CHICAGO IL
24.	GIRIJA SHUKLA	DETROIT EDISON	6400 N. DIXIE HWY, NEWPORT, MI. 48106
25.	Tom Parker	NSP	414 Nicolet Mall, MPUS, MN, 55401
26.	ROBERT LEZON	COMMONWEALTH EDISON	1400 OPUS PLACE SUITE 300 DOWNERS GROVE IL.
27.	T. J. Korach	Commonwealth Edison	" " " "
28.	A. Chava	" " " "	" " " "
29.	M. Frycoble	TRINITY LP	7101 Wisc. Ave, Bethesda, MD. 20817
30.	N. ERVIN	NRC	9D-24
31.	Isa T. Yin	NRC - RIII	799 Roosevelt Rd., Glen Ellyn, IL 60137
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AGENDA FOR NRC BACKFITTING WORKSHOP (REGION III)

<u>Time</u>	<u>Topic</u>	<u>Presentation/Discussion</u>
9:00am	Opening Remarks Moderator's Comments Welcome/Introductions Opening Remarks	Conran (AEOD) Paperiello, RIII Ross (AEOD)
9:30	NRC Process for Backfit Review Review of NRC Internal Process Summary of NUREG-1409 "Backfitting Guidelines"	Ross (AEOD)
10:15	Break (15 min)	
10:30	Legal Aspects of Backfitting NRC Perspectives of Issues Industry Perspectives of Issues	<i>Malsch</i> Malsch (OGC) Bishop (NUMARC) Stenger (NUBARG)
11:00	Bulletins and Generic Letters Discussion of process for development and review of bulletins and generic letters with illustrative examples	Berlinger (NRR)
12:00	Lunch (1 hr)	
1:00pm	Utility Perspectives and Processes Discussion of utility views on current backfit issues, including the need for improvement in the current process to identify, evaluate and prioritize safety issues for backfit	Illinois Power Authority, Spangenberg
2:00	IPE/IPEE (Severe Accident) Discussion of closure status, and use of methodologies for evaluation and integration of backfit issues	Ross (AEOD)
2:30	Regulatory and Backfit Analyses Discussion of planned improvements to NRC internal guidance	Heltemes (RES)
3:00	Break (15 min)	

<u>Time</u>	<u>Topic</u>	<u>Presentation/Discussion</u>
3:15	Rulemaking vs Issuance of NRC Staff Positions/Guidance for Backfitting Discussion of audience views/comments on relative merits of each approach	Discussion by NRC Panel
3:45	Backfit Appeal Process Discussion of experience to date (plant-specific and generic appeals)	Ross
4:00	NRC Panel Discussion and Wrapup Discussion of followup questions and comments on any/all agenda topics	Discussion by NRC Panel
5:00	Adjourn Workshop	

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NRC PROGRAM AND ACTIVITIES ON
BACKFITTING

Denwood F. Ross
Deputy Director
Office for Analysis and Evaluation
of Operational Data

NRC/Industry Backfitting Workshop
October 15, 1990
Ramada Hotel O'Hare, Rosemont, IL

OVERVIEW OF BACKFITTING

- 0 Background
- 0 Backfit Rule
- 0 NRC's Program and Process
 - Plant-specific applications
 - Generic applications
- 0 Perceptions of Licensees
- 0 Recent Initiatives
- 0 Future Staff Activities

BACKGROUND

- 0 Backfitting is the decision process by which the NRC decides whether to impose new requirements on nuclear power licensees.

- 0 Backfits are expected to occur and are an inherent part of the regulatory process.

- 0 Backfits are imposed only after a formal, systematic review to assure that changes are justified and suitably defined.
 - Necessary for public health and safety, common defense and security
 - Ensure compliance with rules and commitments
 - Cost-justified substantial safety improvement

- 0 Backfit process is imposed on the NRC to provide for order, discipline and predictability and optimal utilization of staff and licensee resources.

BACKGROUND

0 There are two different types of backfitting.

- Plant-specific backfits are applicable to one facility only.

-- Proposed backfits are handled in accordance with a specific staff procedure (Manual Chapter 0514).

- Generic backfits are applicable to more than one facility.

-- Proposed backfits undergo review by the Committee to Review Generic Requirements (CRGR), which makes recommendations to the Executive Director for Operations (EDO).

0 These backfits will be discussed separately because of the difference in the way they are reviewed and imposed.

5

AEOD RESPONSIBILITIES IN MONITORING OF PLANT-SPECIFIC BACKFITS

- 0 Director of AEOD assigned oversight of plant-specific backfit process.
- 0 Assure adequacy of regional and office backfitting procedures.
- 0 Conduct training on plant-specific backfitting for staff and industry.
- 0 Inform licensees of NRC program and procedures (e.g., Manual Chapter 0514).
- 0 Conduct annual assessment of office and regional programs for implementation of NRC program controls.
 - Reviews all staff or industry identified plant-specific backfits.
 - Review office procedures and selected records of inspection reports, notices of violation, confirmatory action letters, and licensing actions.
 - Interview regional and office staff on understanding of the program.
 - Obtain industry feedback on the backfitting process.

BACKFIT RULE

0 Backfit Definition

- Modification of or addition to
 - (a) systems, structures, components or design of a facility; or
 - (b) the design approval or manufacturing license for a facility; or
 - (c) the procedures or organization required to design, construct or operate a facility
- Which may result from
 - (a) a new or amended provision in Commission rules; or
 - (b) imposition of a regulatory staff position that is either new or different from a previously applicable staff position
- Imposed after
 - (a) issuance of a construction permit*
 - (b) six months before docketing of the operating license application**
 - (c) issuance of the operating license
 - (d) issuance of the design approval for standard plants***

* CP issued after 10/21/85

** CP issued before 10/21/85

*** Some certificates and permits are subject to more stringent rules

7

BACKFIT RULE

0 Revised backfit rule (10 CFR 50.109) has been in place since 1985.

- Provides specific guidance for backfits.
- Provides for management control and accountability.

0 1985 rule was vacated by U.S. courts in 1987.

- Not clear that costs could not be considered in establishing or enforcing adequate protection of the public health and safety.

0 Clarified rule was issued in 1988 - upheld by court.

- Backfitting shall always be required if necessary for adequate protection.
- Costs not considered when backfitting is necessary to ensure adequate protection or when Commission defines or redefines adequate protection standard or to ensure compliance with Commission rules or licensee commitments.

0 Applies to generic and plant-specific actions.

0 Regulation is based on the fact that each plant, as initially licensed, meets a then-acceptable level of safety -- an adequate protection standard.

BACKFIT RULE

- 0 Applies only to power reactors.

- 0 Applies only to positions or requirements imposed on licenses.
 - Not actions which are optional or voluntary.

- 0 Applies to all mandatory changes.
 - Reductions of requirements have been troublesome.

- 0 Does not apply to requirements imposed by laws passed by Congress.

- 0 All backfits require a documented justification.

- 0 No cost benefit analysis required for the following:
 - For compliance with license, rules or written licensee commitments.
 - To ensure adequate protection.
 - When defining or redefining what constitutes adequate protection.

- 0 Has been applied since effective date of rule (October 21, 1985).

- 0 Does not apply to requests for information.

REQUESTS FOR INFORMATION

0 Commission may require licensee statement under oath or affirmation (10 CFR 50.54(f)).

0 Purpose: to determine

- Modification of license
- Suspension of license
- Revocation of license

0 Requests for information are not a backfit, but do impose a burden on licensees.

0 Covered by a rule (10 CFR 50.54f) and use involves an analysis and justification of the burden to be imposed.

0 Justification for request includes:

- Definition of burden to be imposed
- Potential safety significance of information

0 Review by CRGR required (if generic).

PRINCIPLES OF PLANT-SPECIFIC BACKFIT MANAGEMENT

1. Responsibility and accountability for management controls starts at highest levels in the NRC.
2. Plant-specific backfits result from events, revisions or inspections which uncover deficiencies in specific plant design or operation.
3. NRC trains staff at all levels in the principles of plant-specific backfit management.
4. Procedures have been in place since 1985. NRC Manual Chapter 0514 applies. Each operating office has approved procedures.
5. NRC conducts an annual assessment, and reports to Congress each year on backfits imposed during that year.
6. There is a centralized, agency-wide record system that documents each plant-specific backfit in process, for each plant, and is used to monitor status.

NRC MANUAL CHAPTER 0514

MC-0514 covers these activities:

- 0 Responsibilities and Authorities
- 0 Identifying Backfits
- 0 Preparing Regulatory (Backfit) Analyses
- 0 Preparing Documented Evaluations
- 0 Appeal Processes
- 0 Implementing Backfits
- 0 Recordkeeping and Reporting
- 0 Exceptions to the Process
- 0 Definitions of Backfit
- 0 Guidance for Making Backfit Determinations

PLANT-SPECIFIC BACKFITS

1. NRC staff members, at all levels, are responsible to identify proposed backfits.
2. NRC staff completes a regulatory (backfit) analysis or documented evaluation before communicating backfit to licensee.
3. Licensees have a right to claim:
 - That an action is a backfit
4. Licensees have the right to appeal:
 - To reverse a denial of licensee claim of backfit
 - That an adequate protection or compliance exception does not meet the criteria
 - To modify or withdraw a staff proposed backfit
 - Normal levels of appeal are Region/NRR, EDO
5. Appeals are resolved through meetings and are resolved, if necessary, by EDO.

GENERIC BACKFITTINGCRGR Process

- 0 Objective is to eliminate unnecessary burdens on licensees, reduce exposure of workers to radiation in implementing requirements, and conserve NRC resources - while ensuring public health and protection.

- 0 Provides single agency-wide point of review for all generic correspondence requiring power reactor licensee action.

- 0 Committee is composed of six members -
 - Chairman - Director, AEOD (Ed Jordan)
 - Member - Deputy Director, NRR (Frank Miraglia)
 - Member - Division Director, RES (Brian Sheron)
 - Member - Deputy Director, NMSS (Guy Arlotto)
 - Member - Deputy Assistant General Counsel, OGC (Janice Moore)
 - Member - Regional Office Division Director (Luis Reyes)

GENERIC BACKFITTINGCRGR Process

- 0 Members appointed by EDO (General Counsel concurs for OGC member).
- 0 Members are individual contributors, and not office representatives.
- 0 Committee was established in November 1981.
- 0 Charter established scope, responsibilities and authorities of Committee.
- 0 Charter established under Commission authority and review.

TYPES OF DOCUMENTS TO BE CONSIDERED BY CRGR

- 0 The types of documents to be considered by the CRGR include the following:
1. Staff papers proposing the adoption of rules or policy statements affecting power reactors.
 2. Staff papers proposing new or revised rules including Advanced Notices.
 3. Proposed new or revised regulatory guides, Standard Review Plan (SRP) sections, and branch technical positions
 4. Proposed generic letters, multiplant orders, show cause orders, and generic information requests under 50.54(f).
 5. Proposed bulletins.
 6. New or revised Standard Technical Specifications.
 7. Any correspondence to licensees which may reflect or interpret new generic NRC staff positions.

LRGR REVIEWS

- 0 Focus is on Justification:
 - Need for requirement - does it enhance safety?
 - If not required for adequate protection or compliance, does it provide a substantial improvement in safety and is the cost justified?

- 0 No prior review is necessary for items involving emergency action.

- 0 Urgent matters are considered within two days.

- 0 Routine items are usually considered within 2 to 4 weeks.

- 0 Meetings are held at scheduled two-week intervals.
 - Agendas and background material provided sufficiently in advance to allow detailed review.

- 0 Items are carefully reviewed on the basis of oral discussion and written justification.

CRGR REVIEWS

- 0 Meetings are closed.
- 0 Committee recommends approval, revision, or disapproval of office proposals to EDO through formal meeting minutes.
- 0 Committee can request additional information from staff or industry prior to making recommendations.
- 0 A written response is requested from cognizant office to report agreement or disagreement with CRGR recommendations.
- 0 Cognizant office can disagree with CRGR recommendations, and refer issue to EDO.
- 0 CRGR staff maintains records and prepares minutes (AEOD responsibility).
- 0 When action is completed, review packages, presentations and meeting minutes are placed in Public Document Room.

CRGR REVIEWS

- 0 Review packages include the following information:
- Proposed generic requirement
 - Supporting document justifying need
 - Proposed method and schedule of implementation
 - Regulatory (backfit) analysis or documented evaluation
 - Category of reactors to which the requirement applies
 - Safety goal considerations

EXAMPLES OF TYPICAL CRGR RECOMMENDATIONS OR COMMENTS

0 Against taking proposed action

- Proposed revision to Reg Guide 1.33 on QA (not justified)
- Proposed endorsement of ASME Subsection IWE on inspection of steel containments (not justified)

0 Narrowing proposed action

- Bulletin 90-01 on Rosemount Transmitters (narrow actions to specific models)
- Bulletin 90-02 on Channel Box Bow (narrow actions to re-used channel boxes)

0 Strengthening Proposed Actions

- Bulletin 89-03 on Shutdown Margin (add training)
- Proposed final rule on dry storage (add testing)

0 General

- Proposed NUREG 1385 on Implementation of Fitness for Duty Rule (remove all hints of new requirements)
- Proposal to drop CRGR review of routine endorsements of ASME Code in 10 CFR 50.55(a)(g) (CRGR review should continue)

EXAMPLES OF BACKFITTING CONSIDERATIONS

(For Items with Favorable CRGR Recommendations)

ACTION	ISSUE	BACKFITTING BASIS
Proposed rule change (50.61) on criteria for pressurized thermal shock considerations	New data on reactor vessel embrittlement	Adequate protection exception (at some future time)
Bulletin 89-03 on shutdown margin in spent fuel pool (PWR's)	Use of higher enriched fuel requires additional measures to ensure shutdown margin	Adequate protection exception
Generic letter 89-10 on testing of motor operated valves (MOV's)	Capability of MOV's under design basis accident conditions	Compliance exception
Generic letter 89-13 on service water systems	Capability of service water systems for design basis conditions	Compliance exception

EXAMPLES OF BACKFITTING CONSIDERATIONS
(For Items With Favorable CRGR Recommendations)

ACTION	ISSUE	BACKFITTING BASIS
Proposed rule change (App. E, 50.72) on Emergency Response Data System (ERDS)	Enhanced data transmittal to NRC during emergencies	Cost justified enhancement
Generic letter 90-06 on PORV block valve reliability and low temperature overpressure protection	Enhanced procedural requirements for some plants	Cost justified enhancement
Proposed rule (Part 54) on license renewal	Standards and procedures for license renewal	Not backfitting (prospective action)
Revised regulatory guides 1.35 and 1.35.1 on inservice inspection of ungrouted tendons	Improvements in inservice inspection program	Not backfitting (voluntary)

PERCEPTION OF LICENSEES

- 0 The number and overall burden of recent generic communications is of concern to many licensees.
- 0 The consideration of cost and schedule impacts are often thought to be inadequate.
- 0 The basis for issuing requirements involving backfits is often not clear to licensees.
- 0 Licensees believe that use of the backfit rule is not encouraged.
- 0 Some licensees fear retaliation if a backfit claim is filed.
- 0 The appeal process for backfit claims is of concern since it may not be independent, i.e., involves the same individuals that imposed the requirement.
- 0 Many licensees believe that both the NRC staff and licensees could benefit from additional training on backfitting.

FUTURE STAFF ACTIVITIES

- 0 Hold periodic workshops with industry.
- 0 Conduct periodic workshops with NRC staff.
- 0 Examine ways to better consider cumulative impact of new requirements.
- 0 Consider need for changes to CRGR Charter.
- 0 Consider need for revisions to 50.109.

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4. Procedures have been in place since 1985. NRC Manual Chapter 0514 applies. Each operating office has approved procedures.
5. NRC conducts an annual assessment, and reports to Congress each year on backfits imposed during that year.
6. There is a centralized, agency-wide record system that documents each plant-specific backfit in process, for each plant, and is used to monitor status.

NRC MANUAL CHAPTER 0514

MC-0514 covers these activities:

- 0 Responsibilities and Authorities
- 0 Identifying Backfits
- 0 Preparing Regulatory (Backfit) Analyses
- 0 Preparing Documented Evaluations
- 0 Appeal Processes
- 0 Implementing Backfits
- 0 Recordkeeping and Reporting
- 0 Exceptions to the Process
- 0 Definitions of Backfit
- 0 Guidance for Making Backfit Determinations

PLANT-SPECIFIC BACKFITS

1. NRC staff members, at all levels, are responsible to identify proposed backfits.
2. NRC staff completes a regulatory (backfit) analysis or documented evaluation before communicating backfit to licensee.
3. Licensees have a right to claim:
 - That an action is a backfit
4. Licensees have the right to appeal:
 - To reverse a denial of licensee claim of backfit
 - That an adequate protection or compliance exception does not meet the criteria
 - To modify or withdraw a staff proposed backfit
 - Normal levels of appeal are Region/NRR, EDO
5. Appeals are resolved through meetings and are resolved, if necessary, by EDO.

GENERIC BACKFITTINGCRGR Process

- 0 Objective is to eliminate unnecessary burdens on licensees, reduce exposure of workers to radiation in implementing requirements, and conserve NRC resources - while ensuring public health and protection.

- 0 Provides single agency-wide point of review for all generic correspondence requiring power reactor licensee action.

- 0 Committee is composed of six members -
 - Chairman - Director, AEOD (Ed Jordan)
 - Member - Deputy Director, NRR (Frank Miraglia)
 - Member - Division Director, RES (Brian Sheron)
 - Member - Deputy Director, NMSS (Guy Arlotto)
 - Member - Deputy Assistant General Counsel, OGC (Janice Moore)
 - Member - Regional Office Division Director (Luis Reyes)

GENERIC BACKFITTINGCRGR Process

- 0 Members appointed by EDO (General Counsel concurs for OGC member).
- 0 Members are individual contributors, and not office representatives.
- 0 Committee was established in November 1981.
- 0 Charter established scope, responsibilities and authorities of Committee.
- 0 Charter established under Commission authority and review.

TYPES OF DOCUMENTS TO BE CONSIDERED BY CRGR

- 0 The types of documents to be considered by the CRGR include the following:
1. Staff papers proposing the adoption of rules or policy statements affecting power reactors.
 2. Staff papers proposing new or revised rules including Advanced Notices.
 3. Proposed new or revised regulatory guides, Standard Review Plan (SRP) sections, and branch technical positions.
 4. Proposed generic letters, multiplant orders, show cause orders, and generic information requests under 50.54(f).
 5. Proposed bulletins.
 6. New or revised Standard Technical Specifications.
 7. Any correspondence to licensee which may reflect or interpret new generic NRC staff positions.

CRGR REVIEWS

- 0 Focus is on Justification:
 - Need for requirement - does it enhance safety?
 - If not required for adequate protection or compliance, does it provide a substantial improvement in safety and is the cost justified?

- 0 No prior review is necessary for items involving emergency action.

- 0 Urgent matters are considered within two days.

- 0 Routine items are usually considered within 2 to 4 weeks.

- 0 Meetings are held at scheduled two-week intervals.
 - Agendas and background material provided sufficiently in advance to allow detailed review.

- 0 Items are carefully reviewed on the basis of oral discussion and written justification.

CRGR REVIEWS

- 0 Meetings are closed.
- 0 Committee recommends approval, revision, or disapproval of office proposals to EDO through formal meeting minutes.
- 0 Committee can request additional information from staff or industry prior to making recommendations.
- 0 A written response is requested from cognizant office to report agreement or disagreement with CRGR recommendations.
- 0 Cognizant office can disagree with CRGR recommendations, and refer issue to EDO.
- 0 CRGR staff maintains records and prepares minutes (AEOD responsibility).
- 0 When action is completed, review packages, presentations and meeting minutes are placed in Public Document Room.

CRGR REVIEWS

0 Review packages include the following information:

- Proposed generic requirement
- Supporting document justifying need
- Proposed method and schedule of implementation
- Regulatory (backfit) analysis or documented evaluation
- Category of reactors to which the requirement applies
- Safety goal considerations

EXAMPLES OF TYPICAL CRGR RECOMMENDATIONS OR COMMENTS

0 Against taking proposed action

- Proposed revision to Reg Guide 1.33 on QA (not justified)
- Proposed endorsement of ASME Subsection IWE on inspection of steel containments (not justified)

0 Narrowing proposed action

- Bulletin 90-01 on Rosemount Transmitters (narrow actions to specific models)
- Bulletin 90-02 on Channel Box Bow (narrow actions to re-used channel boxes)

0 Strengthening Proposed Actions

- Bulletin 89-03 on Shutdown Margin (add training)
- Proposed final rule on dry storage (add testing)

0 General

- Proposed NUREG 1385 on Implementation of Fitness for Duty Rule (remove all hints of new requirements)
- Proposal to drop CRGR review of routine endorsements of ASME Code in 10 CFR 50.55(a)(g) (CRGR review should continue)

EXAMPLES OF BACKFITTING CONSIDERATIONS

(For Items With Favorable CRGR Recommendations)

ACTION	ISSUE	BACKFITTING BASIS
Proposed rule change (50.61) on criteria for pressurized thermal shock considerations	New data on reactor vessel embrittlement	Adequate protection exception (at some future time)
Bulletin 89-03 on shutdown margin in spent fuel pool (PWR's)	Use of higher enriched fuel requires additional measures to ensure shutdown margin	Adequate protection exception
Generic letter 89-10 on testing of motor operated valves (MOV's)	Capability of MOV's under design basis accident conditions	Compliance exception
Generic letter 89-13 on service water systems	Capability of service water systems for design basis conditions	Compliance exception

EXAMPLES OF BACKFITTING CONSIDERATIONS

(For Items With Favorable CRGR Recommendations)

ACTION	ISSUE	BACKFITTING BASIS
Proposed rule change (App. E, 50.72) on Emergency Response Data System (ERDS)	Enhanced data transmittal to NRC during emergencies	Cost justified enhancement
Generic letter 90-06 on PORV block valve reliability and low temperature overpressure protection	Enhanced procedural requirements for some plants	Cost justified enhancement
Proposed rule (Part 54) on license renewal	Standards and procedures for license renewal	Not backfitting (prospective action)
Revised regulatory guides 1.35 and 1.35.1 on inservice inspection of ungrouted tendons	Improvements in inservice inspection program	Not backfitting (voluntary)

PERCEPTION OF LICENSEES

- 0 The number and overall burden of recent generic communications is of concern to many licensees.
- 0 The consideration of cost and schedule impacts are often thought to be inadequate.
- 0 The basis for issuing requirements involving backfits is often not clear to licensees.
- 0 Licensees believe that use of the backfit rule is not encouraged.
- 0 Some licensees fear retaliation if a backfit claim is filed.
- 0 The appeal process for backfit claims is of concern since it may not be independent, i.e., involves the same individuals that imposed the requirement.
- 0 Many licensees believe that both the MRC staff and licensees could benefit from additional training on backfitting.

FUTURE STAFF ACTIVITIES

- 0 Hold periodic workshops with industry.
- 0 Conduct periodic workshops with NRC staff.
- 0 Examine ways to better consider cumulative impact of new requirements.
- 0 Consider need for changes to CRGR Charter.
- 0 Consider need for revisions to 50.109.

NRC GENERIC RESPONSE TO EVENTS AND OTHER SAFETY ISSUES

- INFORMATION NOTICES
- BULLETINS
- GENERIC LETTERS

INFORMATION NOTICES

- NOTIFY UTILITIES OF PROBLEMS THAT COULD AFFECT THEIR PLANTS
- MAY DELINEATE CORRECTIVE ACTIONS TAKEN BY ONE OR MORE UTILITIES
- DO NOT PRESCRIBE ANY SPECIFIC ACTIONS
- DO NOT REQUIRE RESPONSE
- DO NOT CONVEY ANY CHANGES TO STAFF POSITIONS

BULLETINS

REQUEST ACTIONS IN RESPONSE TO AN EVENT OR PROBLEM OR SEVERAL RELATED EVENTS
AND PROBLEMS

MAY REQUEST UTILITIES TO DETERMINE APPROPRIATE PROPOSED CORRECTIVE ACTIONS
WITHIN GENERAL GUIDELINES AND SUBMIT PROPOSED ACTIONS FOR NRC APPROVAL

MAY CONTAIN SPECIFIC CORRECTIVE ACTIONS AND ASK UTILITIES TO CONFIRM TO THE
NRC THAT THE ACTIONS HAVE BEEN OR WILL BE TAKEN

MAY CONVEY A CHANGE IN STAFF POSITION

REQUIRE WRITTEN RESPONSE

GENERIC LETTERS

REQUEST ACTIONS IN RESPONSE TO PROGRAMMATIC PROBLEMS OR ISSUES

ACTIONS REQUESTED GENERALLY OF A CONTINUING NATURE

MAY CONVEY A CHANGE IN STAFF POSITION

WRITTEN RESPONSE GENERALLY REQUIRED

INFORMATION NOTICE 89-07

INFORMATION NOTICE DESCRIBING FAILURES IN WORKING OF INSTRUMENTATION AND CONTROL AIR SYSTEMS AS WELL AS IN FUEL OIL AND LUBE OIL SYSTEMS APPARENTLY CAUSED BY VIBRATION WHICH CAN RENDER EMERGENCY DIESEL GENERATORS INOPERABLE

INFORMATION NOTICE ISSUED AS A RESULT OF SEVERAL RELATED EVENTS AND PROBLEMS

INFORMATION NOTICE 89-15

INFORMATION NOTICE DESCRIBING APPARENT DECOUPLING OF A REACTOR COOLANT PUMP SHAFT AND IMPELLER AT THE CRYSTAL RIVER UNIT 3 PLANT IN JANUARY 1989.

INFORMATION NOTICE ISSUED AS A RESULT OF ONE SPECIFIC EVENT. OTHER INFORMATION NOTICES HAD BEEN ISSUED DISCUSSING PREVIOUS REACTOR COOLANT PUMP SHAFT FAILURES.

INFORMATION NOTICE 89-20

INFORMATION NOTICE DESCRIBING WELD FAILURES IN PRIMARY LOOP RECIRCULATION PUMPS OF BYRON-JACKSON DESIGN EXPERIENCED BY OWNERS OF BOILING WATER REACTORS IN A FOREIGN COUNTRY.

INFORMATION NOTICE ISSUED AS A RESULT OF SEVERAL RELATED PROBLEMS OCCURRING IN A FOREIGN COUNTRY.

INFORMATION NOTICE 89-21

INFORMATION NOTICE DESCRIBING VENDOR PRACTICES IN WHICH CHANGES TO MOLDED CASE CIRCUIT BREAKER TIME-CURRENT CHARACTERISTIC CURVES PERTAINING TO PARTICULAR BREAKER TYPES WERE MADE WITHOUT CHANGING THE PART NUMBER OF THE BREAKERS AND WITHOUT ANY SPECIFIC NOTIFICATION TO THE CUSTOMERS.

INFORMATION NOTICE ISSUED AS A RESULT OF FINDINGS FROM NRC INSPECTIONS OF EQUIPMENT VENDORS.

INFORMATION NOTICE 89-22

INFORMATION NOTICE DESCRIBING PROBLEMS WITH THE CERTIFICATION OF BOLTS, NUTS, AND STUDS
FURNISHED BY HARDWARE SPECIALTY COMPANY, INCORPORATED OF LONG ISLAND CITY, NEW YORK.

INFORMATION NOTICE ISSUED AS A RESULT OF FINDINGS FROM NRC INSPECTIONS AT THE WATERFORD
SITE AND HARDWARE SPECIALTY COMPANY.

INFORMATION NOTICE 89-26

INFORMATION NOTICE DESCRIBING PROBLEMS FOUND BY UTILITIES WHEN PERFORMING ACTIONS REQUESTED BY NRC IN A GENERIC LETTER ENTITLED "INSTRUMENT AIR SUPPLY SYSTEM PROBLEMS AFFECTING SAFETY-RELATED EQUIPMENT."

INFORMATION NOTICE ISSUED AS A RESULT OF SEVERAL RELATED PROBLEMS. CONSIDERABLE DETAILS FOR THE INFORMATION NOTICE PROVIDED BY REGIONAL OFFICES.

INFORMATION NOTICE 89-29

INFORMATION NOTICE DESCRIBING DESIGN PROBLEM WITH ASEA BROWN ROVERI (ABB) K-LINE CIRCUIT BREAKERS DELIVERED TO CUSTOMERS BEFORE JULY 1974 WHICH COULD CAUSE BREAKER FAILURES DURING A SEISMIC EVENT.

INFORMATION NOTICE ISSUED AS A RESULT OF VENDOR REPORT TO NRC RECEIVED BY
10 CFR PART 21.

INFORMATION NOTICE 87-28

INFORMATION NOTICE ON COMPLETION OF AN AEGID LONG TERM STUDY OF AIR SYSTEM PROBLEMS INCLUDING DISCUSSION OF SEVERAL SPECIFIC EVENTS.

INFORMATION NOTICE ISSUED AS A RESULT OF AN IN-DEPTH SYSTEMATIC REVIEW OF PROBLEMS OCCURRING OVER SEVERAL YEARS WITH AIR SYSTEMS.

INFORMATION NOTICE WAS FOLLOWED BY GENERIC LETTER REQUESTING SPECIFIC UTILITY ACTIONS TO ADDRESS AIR SYSTEM PROBLEMS. GENERIC LETTER REQUIRED RESPONSE FROM EACH UTILITY.

BACKFIT CONSIDERATIONS REGARDING BULLETINS AND GENERIC LETTERS

BACKFIT RULE MUST BE CONSIDERED IF GENERIC COMMUNICATION INVOLVES CHANGE IN APPLICABLE REGULATORY STAFF POSITION.

EVERY BULLETIN OR GENERIC LETTER IS PRESENTED TO CRGR. GENERALLY ACCOMPANIED BY A PACKAGE THAT INCLUDES RESPONSES TO THE REQUIRED QUESTIONS IN 10 CFR 50.109.

WAIVER OF CRGR REVIEW OF SOME GENERIC LETTERS MAY BE OBTAINED BECAUSE NO CHANGE IN STAFF POSITION OR NEW REQUIREMENT IS INVOLVED.

CRGR MEETING MINUTES AND MATERIAL SUBMITTED FOR CRGR REVIEW ARE MADE PUBLICLY AVAILABLE.

BULLETIN PP-18

BULLETIN ISSUED TO REQUEST THAT UTILITIES (1) REVIEW THEIR REACTOR COOLANT SYSTEMS TO IDENTIFY ANY CONNECTED, UNSOLUBLE PIPING THAT COULD BE SUBJECTED TO TEMPERATURE DISTRIBUTIONS WHICH WOULD RESULT IN UNACCEPTABLE THERMAL STRESSES AND (2) TAKE ACTION TO ENSURE THAT SUCH PIPING WILL NOT BE SUBJECTED TO UNACCEPTABLE THERMAL STRESSES.

BULLETIN ISSUED AS A RESULT OF A SPECIFIC EVENT INVOLVING LOSS OF INTEGRITY OF REACTOR COOLANT SYSTEM PRESSURE BOUNDARY.

TWO BULLETIN SUPPLEMENTS ISSUED TO PROVIDE INFORMATION ON OTHER SIMILAR EVENTS AT FOREIGN REACTORS. ONE SUPPLEMENT ISSUED TO EMPHASIZE NEED FOR ENHANCED ULTRASONIC TESTING AND EXPERIENCED PERSONNEL TO DETECT CRACKS IN STAINLESS STEEL PIPING.

BULLETIN ISSUED UNDER COMPLIANCE JUSTIFICATION IN THE PACKAGE TABLE - GENERAL DESIGN CRITERION 14, 10 CFR PART 50, APPENDIX A, "REACTOR COOLANT PRESSURE BOUNDARY"

BULLETIN P8-07

BULLETIN ISSUED TO REQUEST THAT UTILITIES WITH BOILING WATER REACTORS ENSURE THE AVAILABILITY OF ADEQUATE OPERATING PROCEDURES AND INSTRUMENTATION, AND PROVIDE ADEQUATE OPERATOR TRAINING TO PREVENT OCCURRENCE OF UNCONTROLLED POWER OSCILLATIONS DURING ALL PHASES OF NORMAL AND ABNORMAL OPERATION.

BULLETIN ISSUED AS A RESULT OF A SPECIFIC ABNORMAL OPERATING EVENT INDICATING THAT PAST LICENSING CALCULATIONS WERE NOT RELIABLE IN DETERMINING THAT A CORE WILL BE STABLE UNDER ALL OPERATING CONDITIONS DURING A FUEL CYCLE. FURTHERMORE, THE AMPLITUDE OF THE POWER WAS GREATER THAN PREVIOUSLY EXPERIENCED FOR IN-PHASE LIMIT CYCLE OSCILLATIONS DURING U.S. SPECIAL STABILITY TESTS, AND FOR KNOWN FOREIGN OPERATING REACTOR EVENTS AND TESTS.

BULLETIN SUPPLEMENT ISSUED TO PROVIDE ADDITIONAL INFORMATION CONCERNING POWER OSCILLATIONS IN BWRs AND REQUEST ACTIONS TO ENSURE THAT THE SAFETY LIMIT FOR MINIMUM CRITICAL POWER RATIO IS NOT VIOLATED.

BULLETIN ISSUED UNDER COMPLIANCE JUSTIFICATION IN THE BACKFIT RULE -- GENERAL DESIGN CRITERION 12, 10 CFR PART 50, APPENDIX A, "SUPPRESSION OF REACTOR POWER OSCILLATIONS."

BULLETIN 89-03

BULLETIN ISSUED TO REQUEST ACTIONS BY UTILITIES WITH PRESSURIZED WATER REACTORS TO PREVENT POTENTIAL VIOLATIONS OF REQUIRED SHUTDOWN MARGIN AND, IN EXTREME CASES, INADVERTENT CRITICALITY DURING REFUELING OPERATIONS.

BULLETIN ISSUED AS A RESULT OF A 10 CFR PART 21 REPORT TO THE NRC REGARDING THE POTENTIAL LOSS OF SHUTDOWN MARGIN DURING PETUELING OPERATIONS AT CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2.

BULLETIN ISSUED ON THE BASIS OF THE NEED TO PROVIDE ADEQUATE PROTECTION TO THE HEALTH AND SAFETY OF THE PUBLIC CONSISTENT WITH THE PROVISIONS OF

10 CFR 50.103a(4)(11).

BULLETIN 90-01

BULLETIN ISSUED TO REQUEST THAT ADDRESSEES PROMPTLY IDENTIFY AND TAKE APPROPRIATE CORRECTIVE ACTIONS FOR MODEL 1153 SERIES B, MODEL 1153 SERIES D, AND MODEL 1154 PRESSURE AND DIFFERENTIAL PRESSURE TRANSMITTERS MANUFACTURED BY ROSEMOUNT THAT MAY BE LEAKING FILL-OIL.

BULLETIN ISSUED AS RESULT OF SERIES OF REPORTED FAILURES OF MODELS 1153 AND 1154 TRANSMITTERS AND AFTER EXTENSIVE DISCUSSIONS WITH ROSEMOUNT AND NUCLEAR UTILITIES CONCERNING THE CAUSE OF THE FAILURES, DETECTION OF THE FAILURES, AND CORRECTIVE ACTIONS. TRANSMITTER FAILURES CAUSED BY LEAKING FILL-OIL ARE NOT READILY DETECTED AND INCREASE THE POTENTIAL FOR COMMON MODE FAILURES WHICH MAY RESULT IN THE AFFECTED SAFETY SYSTEM NOT PERFORMING ITS INTENDED SAFETY FUNCTION.

BULLETIN ISSUED UNDER COMPLIANCE JUSTIFICATION IN THE BACKFIT RULE -- GENERAL DESIGN CRITERION 21, 10 CFR PART 50, APPENDIX A, "PROTECTION SYSTEM RELIABILITY AND TESTABILITY," AND 10 CFR 50.55a(h) (REQUIRING THAT PROTECTION SYSTEMS MEET IEEE-279).

GENERIC LETTER 88-14

GENERIC LETTER ISSUED TO REQUEST THAT LICENSEES ENSURE THEIR OPERATIONAL PROGRAM INCLUDES TESTING TO VERIFY INSTRUMENT AIR QUALITY, AIR ACCUMULATOR CAPACITY, VALVE FAILURE POSITIONS ON LOSS OF INSTRUMENT AIR, AND ADEQUACY OF MAINTENANCE PRACTICES, EMERGENCY PROCEDURES AND TRAINING.

GENERIC LETTER ISSUED AS RESULT OF AEDD STUDY INDICATING PERSISTENT AIR SYSTEM PROBLEMS.

GENERIC LETTER IMPLEMENTED EXISTING REQUIREMENTS BASED ON FSAR COMMITMENTS ON THE DESIGN BASIS (COMPLIANCE EXCEPTION).

GENERIC LETTER 89-10

GENERIC LETTER REQUESTED THAT LICENSEES DEVELOP AND IMPLEMENT PROGRAM TO ASSURE THAT MOTOR OPERATED VALVES WILL PERFORM THEIR INTENDED SAFETY FUNCTIONS UNDER CONDITIONS ASSOCIATED WITH DESIGN BASIS ACCIDENTS. GENERIC LETTER WAS SEQUEL TO BULLETIN 85-02 IN EXTENDING THE REQUESTED ACTIONS TO ALL SAFETY RELATED MOVs.

GENERIC LETTER ISSUED TO COMPLEMENT THE REQUIREMENTS OF ASME SECTION XI TESTING, RESOLVE GENERIC ISSUES 87 AND 11.E.6.1, AND MAINTAIN FAILURE RATES OF MOVs WITHIN ACCEPTABLE LIMITS.

GENERIC LETTER JUSTIFIED ON BASIS OF COMPLIANCE WITH 10 CFR PART 50, APPENDIX A (GDCS 1, 4, 18 & 21) AND APPENDIX B.

GENERIC LETTER 89-13

GENERIC LETTER REQUESTED THAT LICENSEES ESTABLISH PROGRAM THAT WOULD INCLUDE CERTAIN FEATURES TO ASSURE ADEQUACY OF THE SERVICE WATER SYSTEM. SUCH FEATURES INCLUDED MEASURES TO PRECLUDE FLOW BLOCKAGE; TESTING TO VERIFY HEAT TRANSFER CAPABILITY; PROTECTION AGAINST CORROSION, EROSION AND PIPING; CONFIRMATION OF FUNCTIONALITY WITH RESPECT TO DESIGN BASIS.

GENERIC LETTER ISSUED IN RESPONSE TO A LARGE NUMBER OF OPERATIONAL EVENTS.

GENERIC LETTER RESOLVED GENERIC ISSUE 51. RESPONDED TO NEED CASE STUDY.

RESPONDED TO REGIONAL RECOMMENDATION FOR GENERIC ACTION.

GENERIC LETTER JUSTIFIED ON BASIS OF COMPLIANCE WITH 10 CFR PART 50, APPENDIX A (GDCs 44, 45 & 46 RELATED TO HEAT REMOVAL) AND APPENDIX E.

NRC GENERIC RESPONSE TO EVENTS AND OTHER SAFETY ISSUES

- INFORMATION NOTICES
- BULLETINS
- GENERIC LETTERS

INFORMATION NOTICES

NOTIFY UTILITIES OF PROBLEMS THAT COULD AFFECT THEIR PLANTS
MAY DELINEATE CORRECTIVE ACTIONS TAKEN BY ONE OR MORE UTILITIES
DO NOT PRESCRIBE ANY SPECIFIC ACTIONS
DO NOT REQUIRE RESPONSE
DO NOT CONVEY ANY CHANGES TO STAFF POSITIONS

BULLETINS

REQUEST ACTIONS IN RESPONSE TO AN EVENT OR PROBLEM OR SEVERAL RELATED EVENTS
AND PROBLEMS

MAY REQUEST UTILITIES TO DETERMINE APPROPRIATE PROPOSED CORRECTIVE ACTIONS
WITHIN GENERAL GUIDELINES AND SUBMIT PROPOSED ACTIONS FOR NRC APPROVAL

MAY CONTAIN SPECIFIC CORRECTIVE ACTIONS AND ASK UTILITIES TO CONFIRM TO THE
NRC THAT THE ACTIONS HAVE BEEN OR WILL BE TAKEN

MAY CONVEY A CHANGE IN STAFF POSITION

REQUIRE WRITTEN RESPONSE

GENERIC LETTERS

REQUEST ACTIONS IN RESPONSE TO PROGRAMMATIC PROBLEMS OR ISSUES

ACTIONS REQUESTED GENERALLY OF A CONTRIBUTING NATURE

MAY CONVEY A CHANGE IN STAFF POSITION

WRITTEN RESPONSE GENERALLY REQUIRED

INFORMATION NOTICE 89-07

INFORMATION NOTICE DESCRIBING FAILURES IN TUBING OF INSTRUMENTATION AND CONTROL AIP SYSTEMS AS WELL AS IN FUEL OIL AND LUBE OIL SYSTEMS APPARENTLY CAUSED BY VIBRATION WHICH CAN RENDER EMERGENCY DIESEL GENERATORS INOPERABLE

INFORMATION NOTICE ISSUED AS A RESULT OF SEVERAL RELATED EVENTS AND PROBLEMS

INFORMATION NOTICE 89-15

INFORMATION NOTICE DESCRIBING APPARENT DECOUPLING OF A REACTOR COOLANT PUMP SHAFT AND IMPELLER AT THE CRYSTAL RIVER UNIT 3 PLANT IN JANUARY 1989.

INFORMATION NOTICE ISSUED AS A RESULT OF ONE SPECIFIC EVENT. OTHER INFORMATION NOTICES HAD BEEN ISSUED DISCUSSING PREVIOUS REACTOR COOLANT PUMP SHAFT FAILURES.

INFORMATION NOTICE 89-20

INFORMATION NOTICE DESCRIBING WELD FAILURES IN PRIMARY LOOP RECIRCULATION PUMPS OF BYRON-JACKSON DESIGN EXPERIENCED BY OWNERS OF BOILING WATER REACTORS IN A FOREIGN COUNTRY.

INFORMATION NOTICE ISSUED AS A RESULT OF SEVERAL RELATED PROBLEMS OCCURRING IN A FOREIGN COUNTRY.

INFORMATION NOTICE 89-21

INFORMATION NOTICE DESCRIBING VENDOR PRACTICES IN WHICH CHANGES TO MOLDED CASE CIRCUIT BREAKER TIME-CURRENT CHARACTERISTIC CURVES PERTAINING TO PARTICULAR BREAKER TYPES WERE MADE WITHOUT CHANGING THE PART NUMBER OF THE BREAKERS AND WITHOUT ANY SPECIFIC NOTIFICATION TO THE CUSTOMERS.

INFORMATION NOTICE ISSUED AS A RESULT OF FINDINGS FROM NRC INSPECTIONS OF EQUIPMENT VENDORS.

INFORMATION NOTICE 89-22

INFORMATION NOTICE DESCRIBING PROBLEMS WITH THE CERTIFICATION OF BOLTS, NUTS, AND STUDS FURNISHED BY HARDWARE SPECIALTY COMPANY, INCORPORATED OF LONG ISLAND CITY, NEW YORK.

INFORMATION NOTICE ISSUED AS A RESULT OF FINDINGS FROM NRC INSPECTIONS AT THE WATERFORD SITE AND HARDWARE SPECIALTY COMPANY.

INFORMATION NOTICE 89-26

INFORMATION NOTICE DESCRIBING PROBLEMS FOUND BY UTILITIES WHEN PERFORMING ACTIONS REQUESTED BY NRC IN A GENERIC LETTER ENTITLED "INSTRUMENT AIR SUPPLY SYSTEM PROBLEMS AFFECTING SAFETY-RELATED EQUIPMENT."

INFORMATION NOTICE ISSUED AS A RESULT OF SEVERAL RELATED PROBLEMS. CONSIDERABLE DETAILS FOR THE INFORMATION NOTICE PROVIDED BY REGIONAL OFFICES.

INFORMATION NOTICE 89-29

INFORMATION NOTICE DESCRIBING DESIGN PROBLEM WITH ASEA BROWN BOWENI (ABB) K-LINE CIRCUIT BREAKERS DELIVERED TO CUSTOMERS BEFORE JULY 1974 WHICH COULD CAUSE BREAKER FAILURES DURING A SEISMIC EVENT.

INFORMATION NOTICE ISSUED AS A RESULT OF VENDOR REPORT TO NRC REQUIRED BY 10 CFR PART 21.

INFORMATION NOTICE 87-28

INFORMATION NOTICE ON COMPLETION OF AN AECID LONG TERM STUDY OF ATR SYSTEM PROBLEMS INCLUDING DISCUSSION OF SEVERAL SPECIFIC EVENTS.

INFORMATION NOTICE ISSUED AS A RESULT OF AN IN-DEPTH SYSTEMATIC REVIEW OF PROBLEMS OCCURRING OVER SEVERAL YEARS WITH ATR SYSTEMS.

INFORMATION NOTICE WAS FOLLOWED BY GENERIC LETTER REQUESTING SPECIFIC UTILITY ACTIONS TO ADDRESS ATR SYSTEM PROBLEMS. GENERIC LETTER REQUIRED RESPONSE FROM EACH UTILITY.

BACKFIT CONSIDERATIONS REGARDING BULLETINS AND GENERIC LETTERS

BACKFIT RULE MUST BE CONSIDERED IF GENERIC COMMUNICATION INVOLVES CHANGE IN APPLICABLE REGULATORY STAFF POSITION.

EVERY BULLETIN OR GENERIC LETTER IS PRESENTED TO CRGR, GENERALLY ACCOMPANIED BY A PACKAGE THAT INCLUDES RESPONSES TO THE REQUIRED QUESTIONS IN 10 CFR 50.109.

WAIIVER OF CRGR REVIEW OF SOME GENERIC LETTERS MAY BE OBTAINED BECAUSE NO CHANGE IN STAFF POSITION OR NEW REQUIREMENT IS INVOLVED.

CRGR MEETING MINUTES AND MATERIAL SUBMITTED FOR CRGR REVIEW ARE MADE PUBLICLY AVAILABLE.

BULLETIN 88-08

BULLETIN ISSUED TO REQUEST THAT UTILITIES (1) REVIEW THEIR REACTOR COOLANT SYSTEMS TO IDENTIFY ANY CONNECTED, UNSOLUBLE PIPING THAT COULD BE SUBJECTED TO TEMPERATURE DISTRIBUTIONS WHICH WOULD RESULT IN UNACCEPTABLE THERMAL STRESSES AND (2) TAKE ACTION TO ENSURE THAT SUCH PIPING WILL NOT BE SUBJECTED TO UNACCEPTABLE THERMAL STRESSES.

BULLETIN ISSUED AS A RESULT OF A SPECIFIC EVENT INVOLVING LOSS OF INTEGRITY OF REACTOR COOLANT SYSTEM PRESSURE BOUNDARY.

TWO BULLETIN SUPPLEMENTS ISSUED TO PROVIDE INFORMATION ON OTHER SIMILAR EVENTS AT FOREIGN REACTORS. ONE SUPPLEMENT ISSUED TO EMPHASIZE NEED FOR FINANCED ULTRASONIC TESTING AND EXPERIENCED PERSONNEL TO DETECT CRACKS IN STAINLESS STEEL PIPING.

BULLETIN ISSUED UNDER COMPLIANCE JUSTIFICATION IN THE RACFIT RULE - GENERAL DESIGN CRITERION 14, 10 CFR PART 50, APPENDIX A, "REACTOR COOLANT PRESSURE BOUNDARY"

BULLETIN P8-07

BULLETIN ISSUED TO REQUEST THAT UTILITIES WITH BOILING WATER REACTORS ENSURE THE AVAILABILITY OF ADEQUATE OPERATING PROCEDURES AND INSTRUMENTATION, AND PROVIDE ADEQUATE OPERATOR TRAINING TO PREVENT OCCURRENCE OF UNCONTROLLED POWER OSCILLATIONS DURING ALL MODES OF NORMAL AND ABNORMAL OPERATION.

BULLETIN ISSUED AS A RESULT OF A SPECIFIC ABNORMAL OPERATING EVENT INDICATING THAT PAST LICENSING CALCULATIONS WERE NOT RELIABLE IN DETERMINING THAT A CORE WILL BE STABLE UNDER ALL OPERATING CONDITIONS DURING A FUEL CYCLE. FURTHERMORE, THE AMPLITUDE OF THE POWER WAS GREATER THAN PREVIOUSLY EXPERIENCED FOR IN-PHASE LIMIT CYCLE OSCILLATIONS DURING U.S. SPECIAL STABILITY TESTS, AND FOR KNOWN FOREIGN OPERATING REACTOR EVENTS AND TESTS.

BULLETIN SUPPLEMENT ISSUED TO PROVIDE ADDITIONAL INFORMATION CONCERNING POWER OSCILLATIONS IN BWRs AND REQUEST ACTIONS TO ENSURE THAT THE SAFETY LIMIT FOR MINIMUM CRITICAL POWER RATIO IS NOT VIOLATED.

BULLETIN ISSUED UNDER COMPLIANCE JUSTIFICATION IN THE RACK-IT RULE -- GENERAL DESIGN CRITERION 12, 10 CFR PART 50, APPENDIX A, "SUPPRESSION OF REACTOR POWER OSCILLATIONS."

BULLETIN 89-05

BULLETIN ISSUED TO REQUEST ACTIONS BY UTILITIES WITH PRESSURIZED WATER REACTORS TO PREVENT POTENTIAL VIOLATIONS OF REQUIRED SHUTDOWN MARGIN AND, IN EXTREME CASES, INADVERTENT CRITICALITY DURING REFUELING OPERATIONS.

BULLETIN ISSUED AS A RESULT OF A 10 CFR PART 21 REPORT TO THE NRC REGARDING THE POTENTIAL LOSS OF SHUTDOWN MARGIN DURING REFUELING OPERATIONS AT CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2.

BULLETIN ISSUED ON THE BASIS OF THE NEED TO PROVIDE ADEQUATE PROTECTION TO THE HEALTH AND SAFETY OF THE PUBLIC CONSISTENT WITH THE PROVISIONS OF 10 CFR 50.109a(4)(11).

BULLETIN 90-01

BULLETIN ISSUED TO REQUEST THAT ADDRESSEES PROMPTLY IDENTIFY AND TAKE APPROPRIATE CORRECTIVE ACTIONS FOR MODEL 1153 SERIES B, MODEL 1153 SERIES D, AND MODEL 1154 PRESSURE AND DIFFERENTIAL PRESSURE TRANSMITTERS MANUFACTURED BY ROSEMOUNT THAT MAY BE LEAKING FILL-OIL.

BULLETIN ISSUED AS RESULT OF SERIES OF REPORTED FAILURES OF MODELS 1153 AND 1154 TRANSMITTERS AND AFTER EXTENSIVE DISCUSSIONS WITH ROSEMOUNT AND NUCLEAR UTILITIES CONCERNING THE CAUSE OF THE FAILURES, DETECTION OF THE FAILURES, AND CORRECTIVE ACTIONS. TRANSMITTER FAILURES CAUSED BY LEAKING FILL-OIL ARE NOT READILY DETECTED AND INCREASE THE POTENTIAL FOR COMMON MODE FAILURES WHICH MAY RESULT IN THE AFFECTED SAFETY SYSTEM NOT PERFORMING ITS INTENDED SAFETY FUNCTION.

BULLETIN ISSUED UNDER COMPLIANCE JUSTIFICATION IN THE BACKFIT RULE -- GENERAL DESIGN CRITERION 21, 10 CFR PART 50, APPENDIX A, "PROTECTION SYSTEM RELIABILITY AND TESTABILITY," AND 10 CFR 50.55a(h) ("REQUIRING THAT PROTECTION SYSTEMS MEET IEEE-279).

GENERIC LETTER 88-14

GENERIC LETTER ISSUED TO REQUEST THAT LICENSEES ENSURE THEIR OPERATIONAL PROGRAM INCLUDES TESTING TO VERIFY INSTRUMENT AIR QUALITY, AIR ACCUMULATOR CAPACITY, VALVE FAILURE POSITIONS ON LOSS OF INSTRUMENT AIR, AND ADEQUACY OF MAINTENANCE PRACTICES, EMERGENCY PROCEDURES AND TRAINING.

GENERIC LETTER ISSUED AS RESULT OF AEDD STUDY INDICATING PERSISTENT AIR SYSTEM PROBLEMS.

GENERIC LETTER IMPLEMENTED EXISTING REQUIREMENTS BASED ON FSAR COMMITMENTS ON THE DESIGN BASIS (COMPLIANCE EXCEPTION).

GENERIC LETTER 89-10

GENERIC LETTER REQUESTED THAT LICENSEES DEVELOP AND IMPLEMENT PROGRAM TO ASSURE THAT MOTOR OPERATED VALVES WILL PERFORM THEIR INTENDED SAFETY FUNCTIONS UNDER CONDITIONS ASSOCIATED WITH DESIGN BASIS ACCIDENTS. GENERIC LETTER WAS SEGEL TO BULLETIN 85-02 IN EXTENDING THE REQUESTED ACTIONS TO ALL SAFETY RELATED MOVs.

GENERIC LETTER ISSUED TO COMPLEMENT THE REQUIREMENTS OF ASME SECTION XI TESTING, RESOLVE GENERIC ISSUES 87 AND 11.E.6.1, AND MAINTAIN FAILURE RATES OF MOVs WITHIN ACCEPTABLE LIMITS.

GENERIC LETTER JUSTIFIED ON BASIS OF COMPLIANCE WITH 10 CFR PART 50, APPENDIX A (GDCS 1, 4, 18 & 21) AND APPENDIX B.

GENERIC LETTER 89-13

GENERIC LETTER REQUESTED THAT LICENSEES ESTABLISH PROGRAM THAT WOULD INCLUDE CERTAIN FEATURES TO ASSURE ADEQUACY OF THE SERVICE WATER SYSTEM. SUCH FEATURES INCLUDED MEASURES TO PRECLUDE FLOW BLOCKAGE; TESTING TO VERIFY HEAT TRANSFER CAPABILITY; PROTECTION AGAINST CORROSION, EROSION AND PIFOULING; CONFIRMATION OF FUNCTIONALITY WITH RESPECT TO DESIGN BASIS.

GENERIC LETTER ISSUED IN RESPONSE TO A LARGE NUMBER OF OPERATIONAL EVENTS.

GENERIC LETTER RESOLVED GENERIC ISSUE 51. RESPONDED TO AEDD CASE STUDY.

RESPONDED TO REGIONAL RECOMMENDATION FOR GENERIC ACTION.

GENERIC LETTER JUSTIFIED ON BASIS OF COMPLIANCE WITH 10 CFR PART 50, APPENDIX A

(GDCs 44, 45 & 46 RELATED TO HEAT REMOVAL) AND APPENDIX E.

BACKFIT ANALYSIS WORKSHOP

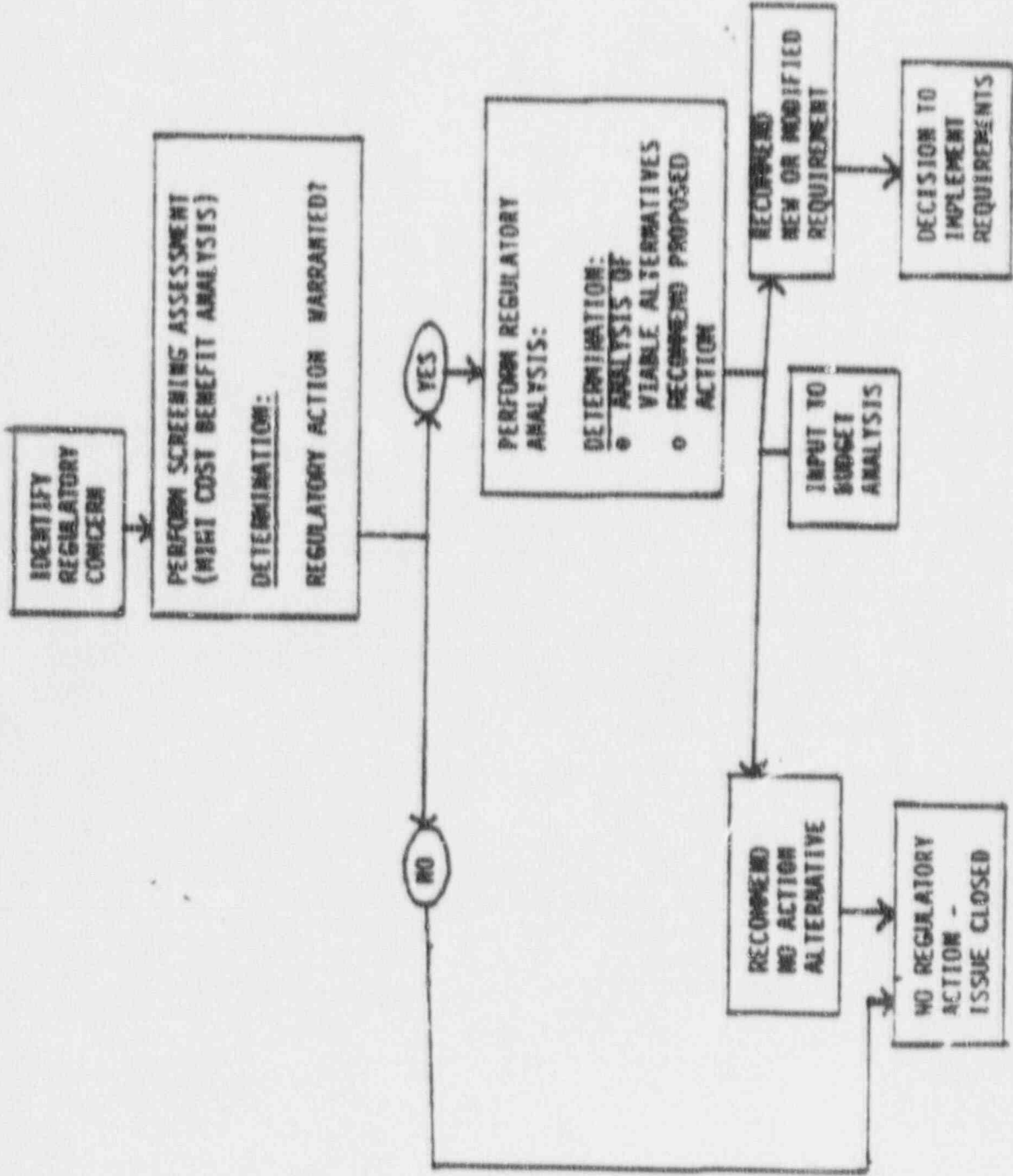
RESEARCH PERSPECTIVE

C. J. HELTEMES, JR.

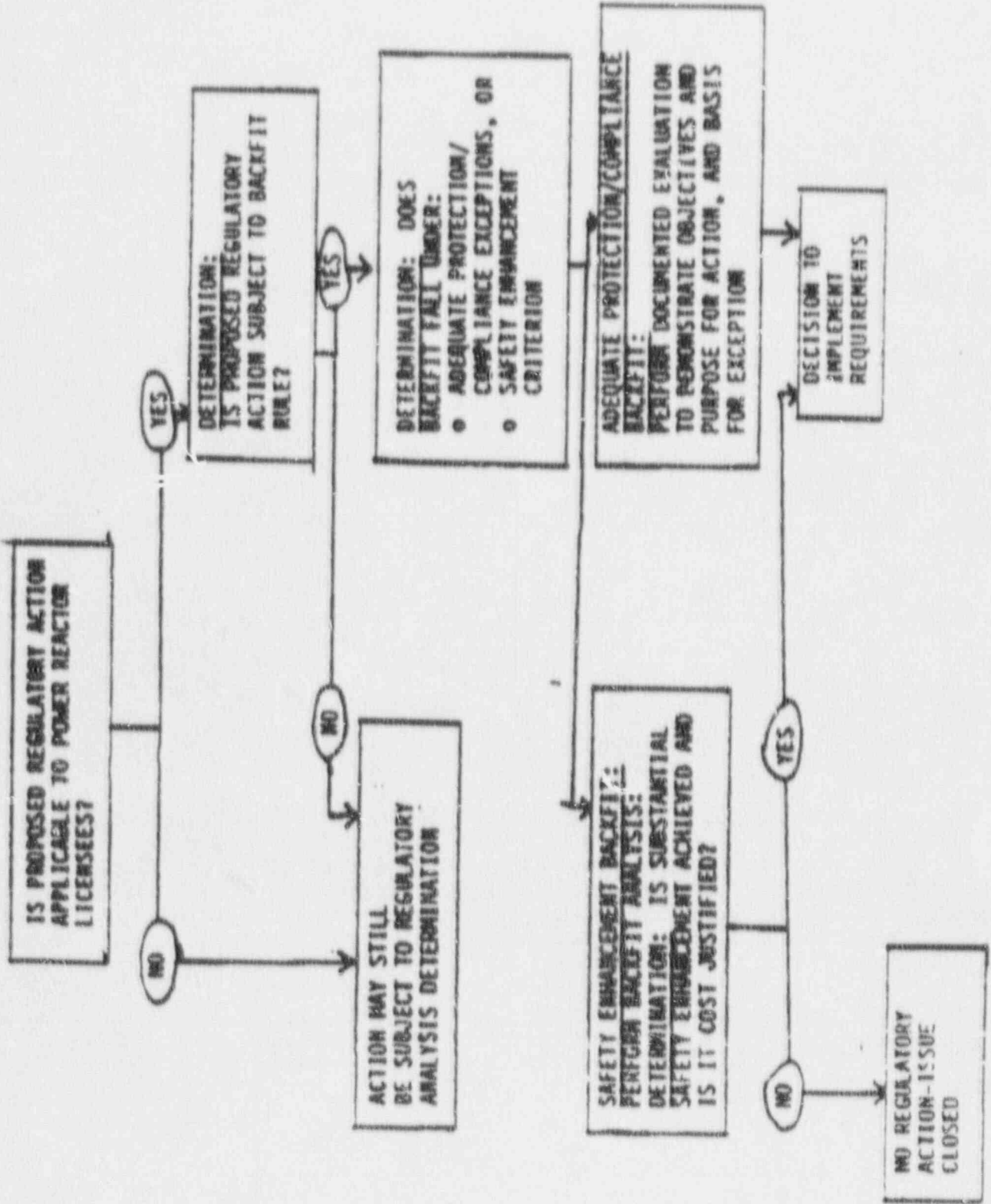
DEPUTY DIRECTOR FOR GENERIC ISSUES AND RULEMAKING
OFFICE OF NUCLEAR REGULATORY RESEARCH
U. S. NUCLEAR REGULATORY COMMISSION

SEPTEMBER/OCTOBER 1990

REGULATORY ANALYSIS PROCESS
(ALL LICENSEES)



BACKFIT ANALYSIS PROCESS



THE NATURE OF THE DIFFERENT TYPES OF ANALYSES

- 0 THE REGULATORY ANALYSIS ASSESSES COSTS AND BENEFITS OF VIABLE ALTERNATIVES AND RECOMMENDS A PROPOSED ACTION. A PROPOSED BACKFIT, IF IT IS A SAFETY ENHANCEMENT, REQUIRES A BACKFIT ANALYSIS WHICH ASSESSES COSTS AND BENEFITS ASSOCIATED WITH THE PROPOSED ACTION. OTHER BACKFITS, ADEQUATE PROTECTION AND COMPLIANCE, REQUIRE A DOCUMENTED EVALUATION WHICH STATES THE OBJECTIVES AND PURPOSE OF THE BACKFIT AND THE BASIS FOR INVOKING THE EXCEPTION.
- 0 IN MANY RESPECTS, THE REGULATORY ANALYSIS, AND BACKFIT ANALYSIS FOR SAFETY ENHANCEMENT BACKFITS, ARE SIMILAR.
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- 0 THE BACKFIT ANALYSIS FOR SAFETY ENHANCEMENT BACKFITS IS MORE DEMANDING OF THE STAFF AS ONE IS FORCED TO MAKE A DETERMINATION THAT:
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 - COSTS OF IMPLEMENTATION ARE JUSTIFIED.

REGULATORY ANALYSIS

0 PURPOSE: TO DEVELOP AND DOCUMENT INFORMATION ON THE NEED FOR AND CONSEQUENCES OF A PROPOSED REGULATORY ACTION AND ITS ALTERNATIVES.

0 ELEMENTS OF REGULATORY ANALYSIS:

- STATE THE PROBLEM AND DEFINE OBJECTIVES
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- SELECTION OF ATTRIBUTES (VALUES, IMPACTS) TO BE INCLUDED IN VALUE IMPACT ANALYSIS
- EVALUATE CONSEQUENCES (VALUE IMPACT ANALYSIS)
- DEVELOP DECISION RATIONALE
- DESCRIBE IMPLEMENTATION

SAFETY ENHANCEMENT BACKFIT ANALYSIS

PURPOSE:

- SYSTEMATIC, DOCUMENTED ANALYSIS OF PROPOSED BACKFIT MODIFICATION TO DETERMINE WHETHER
- PUBLIC HEALTH AND SAFETY OR COMMON DEFENSE AND SECURITY ARE SUBSTANTIALLY IMPROVED
 - COSTS OF IMPLEMENTATION ARE JUSTIFIED

ELEMENTS:

- SPECIFIC OBJECTIVES OF BACKFIT
- ACTIVITY REQUIRED OF LICENSEE
- CHANGE IN ACCIDENTAL OFFSITE RADIOLOGICAL RISK TO PUBLIC
- POTENTIAL IMPACT ON RADIOLOGICAL EXPOSURE OF ON-SITE WORKERS
- INSTALLATION AND CONTINUING LICENSEE COSTS
- IMPACT ON OPERATIONAL COMPLEXITY/RELATIONSHIP TO REGULATORY REQUIREMENTS
- IMPACT ON NRC RESULTS
- IMPACT OF DIFFERENCES IN FACILITY TYPES
- WHETHER INTERIM OR FINAL ACTION
- OTHER GERMANE FACTORS

GUIDANCE DOCUMENTS IN SUPPORT OF REGULATORY ANALYSIS

- 0 REGULATORY ANALYSIS GUIDELINES, NUREG/BR-0058, REV. 1, MAY 1984
- 0 HANDBOOK FOR VALUE-IMPACT ASSESSMENT, NUREG/CR-3568, DECEMBER 1983
- 0 HANDBOOK FOR COST ESTIMATING, NUREG/CR-3971, OCTOBER 1984
- 0 GENERIC COST ESTIMATES ... ABSTRACTS FROM GENERIC STUDIES FOR USE IN PREPARING REGULATORY IMPACT ANALYSES, NUREG/CR-4627, REV. 1, JANUARY 1988.
- 0 OFFICE LETTERS
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 - RES OFFICE LETTER 2, "PROCEDURES FOR OBTAINING REGULATORY IMPACT ANALYSIS REVIEW AND SUPPORT," NOVEMBER 18, 1988

GUIDANCE DOCUMENTS IN SUPPORT OF BACKFIT ANALYSIS

- 0 1988 BACKFIT RULE (10 CFR 50.109)
- 0 BACKFITTING GUIDELINES, NUREG-1409, JULY 1990
- 0 MANAGEMENT OF PLANT-SPECIFIC BACKFITTING OF NUCLEAR POWER PLANTS
(MANUAL CHAPTER 0514)
- 0 CRGR CHARTER (GENERIC BACKFIT)

CURRENT ACTIVITIES TO IMPROVE REGULATORY/BACKFIT ANALYSIS PROCESS

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REVISION OF REGULATORY GUIDANCE

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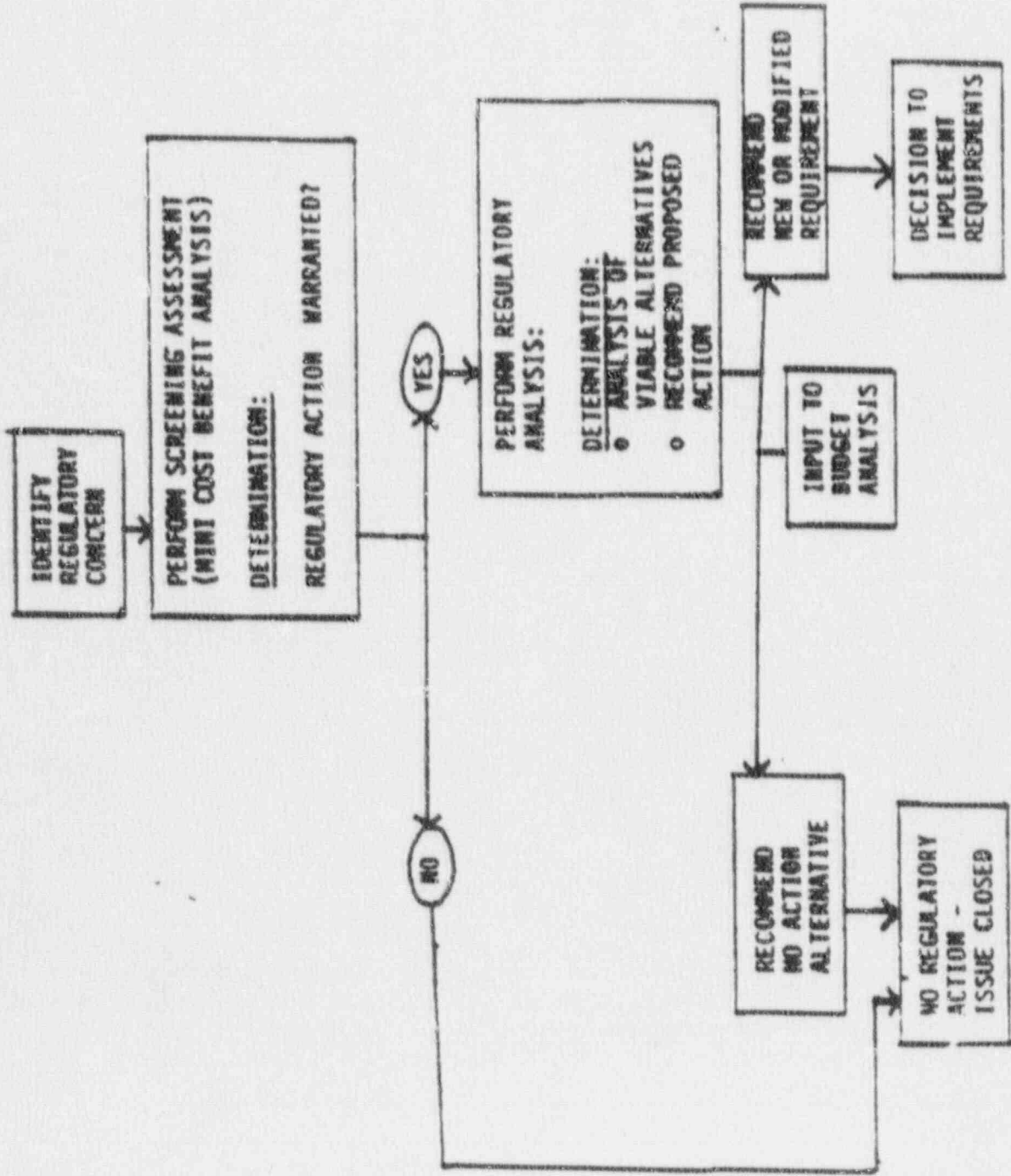
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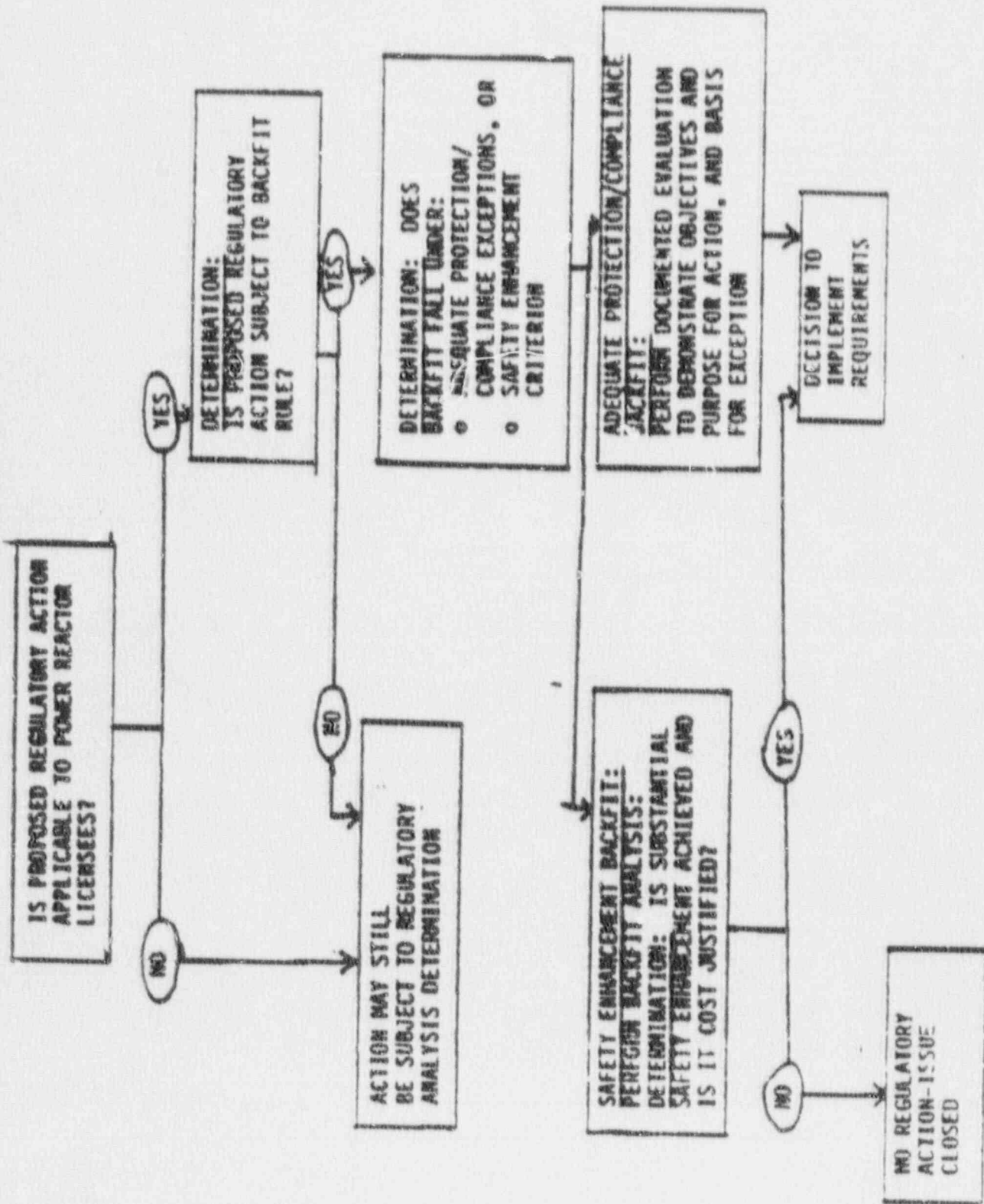
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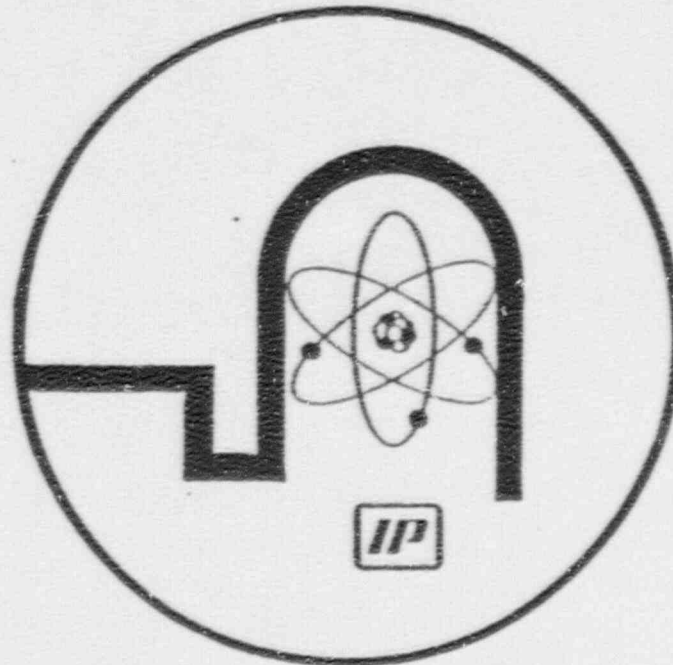
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**ILLINOIS POWER COMPANY
CLINTON POWER STATION**



NRC REGION III BACKFITTING WORKSHOP

OCTOBER 15, 1990

LIMITORQUE VALVE MOTORS

ISSUE

- o LIMITORQUE INSTALLED NYLON WIRE CAPS

CORRECTIVE ACTION

- o IMMEDIATE TEST
- o ENGINEERING ANALYSIS
- o REWORKED VALVES
- o PERFORMED TWO TESTS ON AGED WIRE CAPS

MITIGATING FACTORS

- o WIRE CAPS HAD BEEN TESTED BY LIMITORQUE
- o NO METAL CONTACT IN FIELD
- o NO IMMEDIATE IMPACT ON SAFE OPERATION OF THE PLANT
- o IP TOOK VIGOROUS CORRECTIVE ACTION

ELECTRICAL BUTT SPLICES

ISSUE

- o **TESTING OF KYNAR AMP BUTT SPLICES**

CORRECTIVE ACTION

- o **IMMEDIATE TEST**
- o **ENGINEERING ANALYSIS**
- o **TEST OF AGED SPLICES**
- o **MANAGEMENT DIRECTED PLANT TO REMAIN SHUTDOWN**
- o **ALL BUTT SPLICES WERE REPAIRED, REWORKED OR REPLACED**

MITIGATING FACTORS

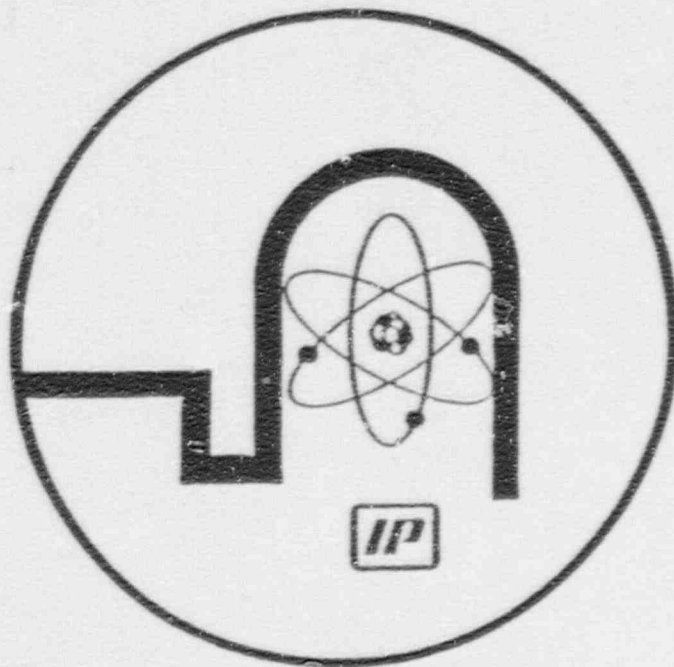
- o **QUALIFICATION CONSISTENT WITH INDUSTRY PRACTICES**
- o **NO METAL CONTACT IN FIELD**
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Potential Backfit of NUREG 1021 Rev. 6

- o **Clinton Power Station is committed to the following in Updated Analysis Report (USAR)**
 - **Reg Guide 1.8 Revision 1**
 - **ANSI/ANS 3.1 - 1978**
- o **Nuclear Power Plant Experience Requirements as stated in ANSI 3.1 - 1978**
- o **NUREG 1021 Rev. 6 (Incorporates Requirements of Reg Guide 1.8 Rev. 2 and ANSI/ANS 3.1 - 1981)**
 - **Reactor Operator Eligibility Requirements**
 - **Senior Reactor Operator Eligibility Requirements**
- o **Clinton Power Station is not required to comply with NUREG 1021 Rev. 6**

- o NUREG 1021 specifically states "Regulatory Guides, NUREG reports and industry standards are not requirements excepts as required by \ commission orders or as committed to by the facility licensee the appropriate revisions should be consulted as referenced in the facility FSAR or approved training program.**
- o However, the NRC is reviewing Clinton Power Station's License application to the requirements of NUREG 1021 Rev. 6.**

**ILLINOIS POWER COMPANY
CLINTON POWER STATION**



NRC REGION III BACKFITTING WORKSHOP

OCTOBER 15, 1990

OVERVIEW

- o ENVIRONMENTAL QUALIFICATION JUNCTION BOX ISSUE
1987-88
- o OPERATOR LICENSING

INTRODUCTION

NRC IDENTIFIED ISSUES DURING EQUIPMENT QUALIFICATION (EQ). AUDIT OF AUGUST 1987 WHICH REQUIRED FOLLOW-UP IPC ACTION.

- o NYLON CAPS USED TO TERMINATE INTERNAL WIRES ON LIMITORQUE MOTOR OPERATORS**

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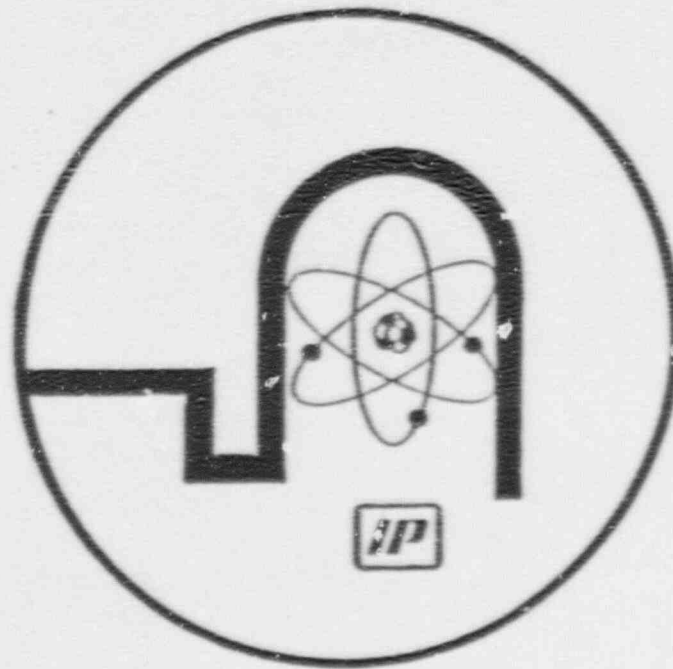
Potential Backfit of NUREG 1021 Rev. 6

- o Clinton Power Station is committed to the following in Updated Analysis Report (USAR)
 - Reg Guide 1.8 Revision 1
 - ANSI/ANS 3.1 - 1978
- o Nuclear Power Plant Experience Requirements as stated in ANSI 3.1 - 1978
- o NUREG 1021 Rev. 6 (Incorporates Requirements of Reg Guide 1.8 Rev. 2 and ANSI/ANS 3.1 - 1981)
 - Reactor Operator Eligibility Requirements
 - Senior Reactor Operator Eligibility Requirements
- o Clinton Power Station is not required to comply with NUREG 1021 Rev. 6

- o **NUREG 1021 specifically states "Regulatory Guides, NUREG reports and industry standards are not requirements except as required by commission orders or as committed to by the facility licensee the appropriate revisions should be consulted as referenced in the facility FSAR or approved training program.**

- c **However, the NRC is reviewing Clinton Power Station's License application to the requirements of NUREG 1021 Rev. 6.**

**ILLINOIS POWER COMPANY
CLINTON POWER STATION**



NRC REGION III BACKFITTING WORKSHOP

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Potential Backfit of NUREG 1021 Rev. 6

- o Clinton Power Station is committed to the following in Updated Analysis Report (USAR)
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 - ANSI/ANS 3.1 - 1978
- o Nuclear Power Plant Experience Requirements as stated in ANSI 3.1 - 1978
- o NUREG 1021 Rev. 6 (Incorporates Requirements of Reg Guide 1.8 Rev. 2 and ANSI/ANS 3.1 - 1981)
 - Reactor Operator Eligibility Requirements
 - Senior Reactor Operator Eligibility Requirements
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- o However, the NRC is reviewing Clinton Power Station's License application to the requirements of NUREG 1021 Rev. 6.**

Region III - NRC EVENT REPORTING WORKSHOP - Agenda

<u>Time</u>	<u>Topic</u>	<u>Presentation/Discussion</u>
9:00am	Opening Remarks Moderator's Comments Welcome/Introductions Opening Remarks	T. Novak (AEOD) NRC Regional Rep. D. Ross (AEOD)
9:30	Immediate Notification (10 CFR 50.72) Overview of purpose and reporting criteria, NRC use and experience with 50.72 reporting	A. Chaffee (NRR) C. Berlinger (NRR) E. Weiss (AEOD)
10:00	Break (15 min)	
10:15	NRC Panel Discussion - industry feedback on 50.72 reporting	
11:00	LER System (10 CFR 50.73) Overview of purpose and reporting criteria, NRC use, history and feedback on 50.73 reporting	J. Rosenthal (AEOD)
11:30	Lunch (1½ hr.)	
1:00	Current rulemaking/Guidance revision	J. Crooks (AEOD)
1:30pm	NRC Panel Discussion - Industry feedback on 50.73 reporting	
2:30	Break (15 min)	
2:45	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)
3:15	NRC Panel Discussion - Industry feedback on 73.71 reporting	
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4:00	Summary Discussion	T. Novak (AEOD)

50.72 REPORTING

NRC USE AND EXPERIENCE

REGULATORY REPORTING REQUIREMENTS

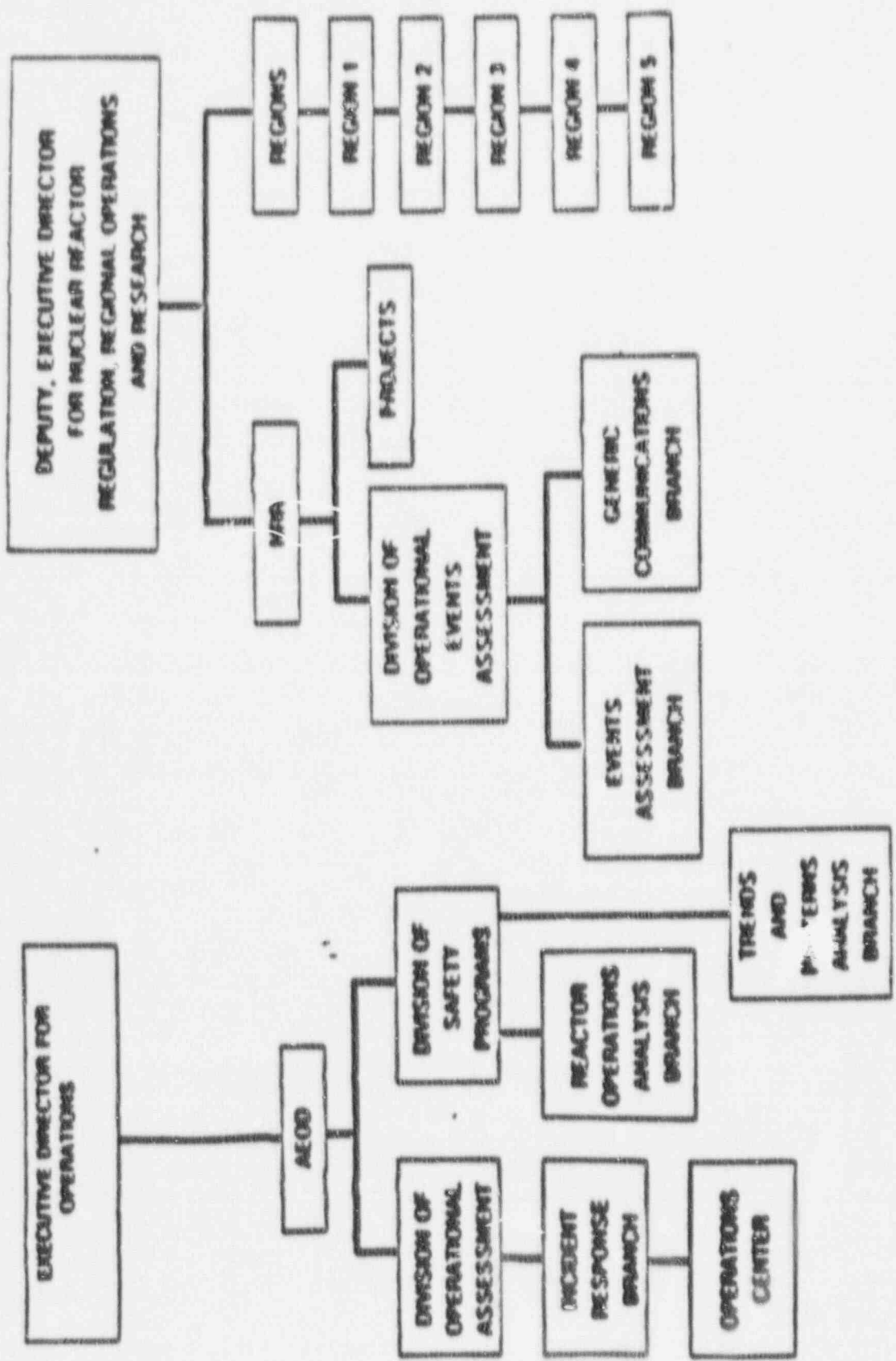
10 CFR 50.72

- 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

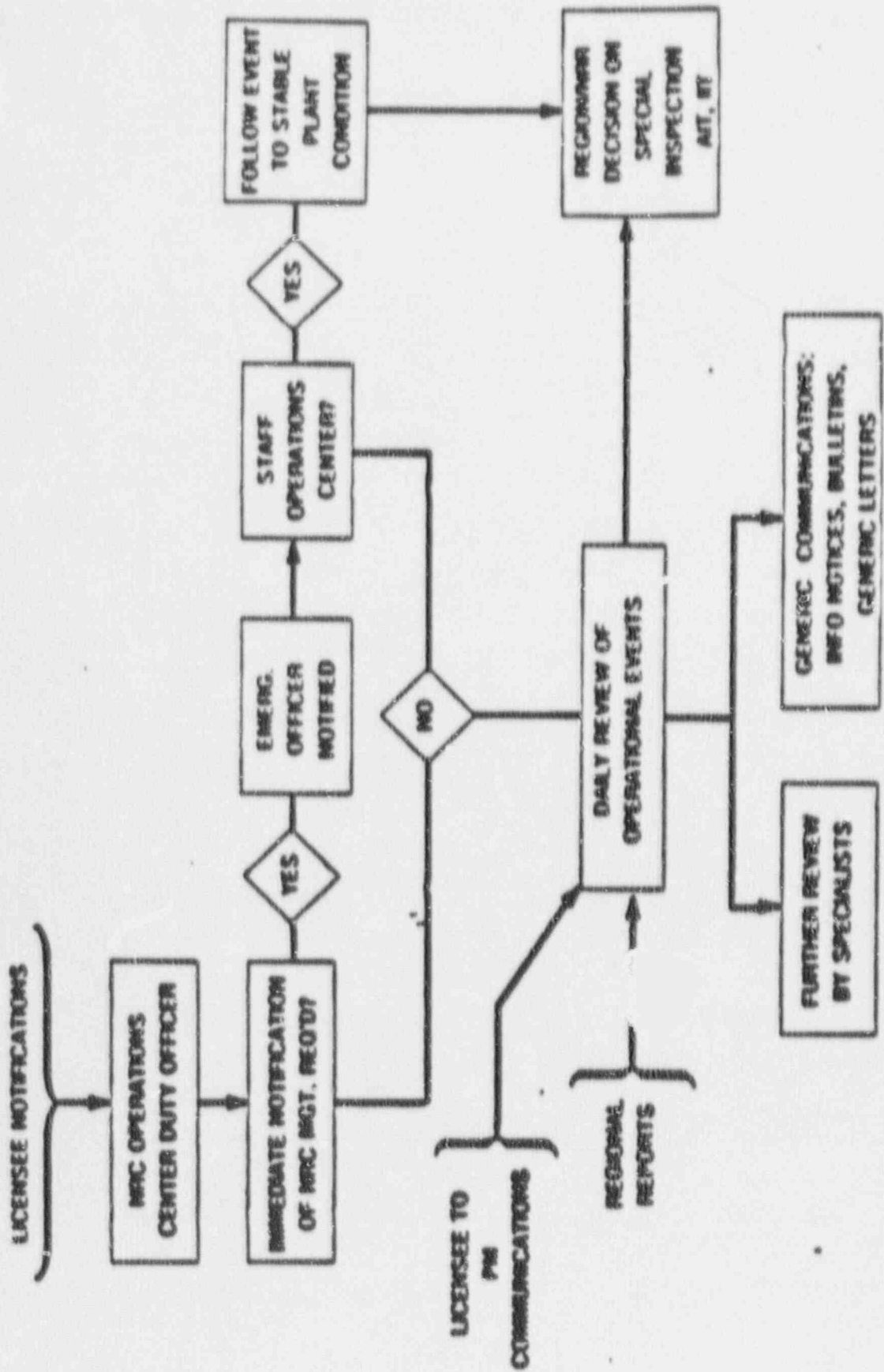
- CONTROL RELEASE OF RADIOACTIVE MATERIAL

- 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, DAILY REVIEW BY EVENTS ASSESSMENT BRANCH
 - 50.72 REPORT WRITUPS 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 ENL, GCB, NEDD, RWIB, 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

- o 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

- o 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.**

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.

Required Oral Reports Are Sometimes
Made To Other NRC Personnel Rather
Than The Operations Center.

● ● ●
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.

REPORTING OF SAFEGUARDS EVENTS 10 CFR 73.71

Summary of Regulatory Base

- Significant Events
 - Prompt Reporting/1 Hour
 - NRC Operations Center
- Less Significant Events
 - Record in Log/24 Hours
 - Log to NRC Quarterly

HISTORY

Originally Published 1973

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 - Documented Questions Discussed at September 14, 1987, Workshop

1-HOUR REPORTS

Purpose

- Prompt Notification
 - Significant Events
- Safe Operation of Plant(s)
- Health and Safety of Public
 - May Warrant NRC Oversight

NRC Use of Information

- Immediate Analysis
- Notification to Other Agencies

NRC Feedback

- Oversight if Appropriate
- Immediate Generic Communication if Appropriate
- Rule/Guidance Revision as Appropriate

LOGGABLE EVENTS

Purpose

- Notification Quarterly
 - Less Significant Events
- Safeguards System Effectiveness

NRC Use of Information

- Long-Term Analysis

Feedback

- Analyses to Licensees
- Generic Communication as Appropriate
- Rule/Guidance Revision as Appropriate
- IN-90-13, "Importance of Review and Analysis of Safeguards Event Logs"

ON-GOING ACTIVITIES

Revision to RG 5.62

- NUREG-1304
- Incorporate Lessons Learned/
2 Year's Experience

Generic Letter

- Policy Revision
- Eliminate Unnecessary Reporting

Responsive to Impact Survey

- Impact Survey Considered in Revision
to RG 5.62 and Generic Letter

Safeguards Event Log
Analysis Program

10 CFR 73.71
Reporting of Safeguards Events

Office of Nuclear Material Safety and Safeguards
Division of Safeguards and Transportation
Joan Higdon (301) 492-0477

Safeguards Event Log Analysis Program

- Analysis of Reported Events
- Use of Event Data by NRC/Licensees
- Program Results
- New Initiatives

Analysis of Reported Events

- Categorization of safeguards events
 - Specific failed component
 - Type of human error
 - Influences by environment
- Quarterly Feedback Report to NRC and licensees
 - Statistical data for hardware system/
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NRC Use of Event Data

- Identify indicators of possible system/program weaknesses
- Provide feedback to licensees for maintaining effective safeguards system performance
- Provide input for NRC inspection planning

Industry Use of Event Data

- Perform self-assessment of a facility's security equipment and procedures
- Compare facility data against industry

Program Results

Event logs and feedback data bases for root cause analysis performed by licensee and NRC which resulted in:

- Improved equipment reliability
 - Card Readers
 - Computers
 - Perimeter detection system

- Reduced human error
 - Lost badges
 - Badges taken off site
 - Badges incorrectly issued
 - Unsecured door events

New Initiatives

Analysis to determine correlations between event data and facility design, equipment and special circumstances

- Normalization of data
- Root cause analysis

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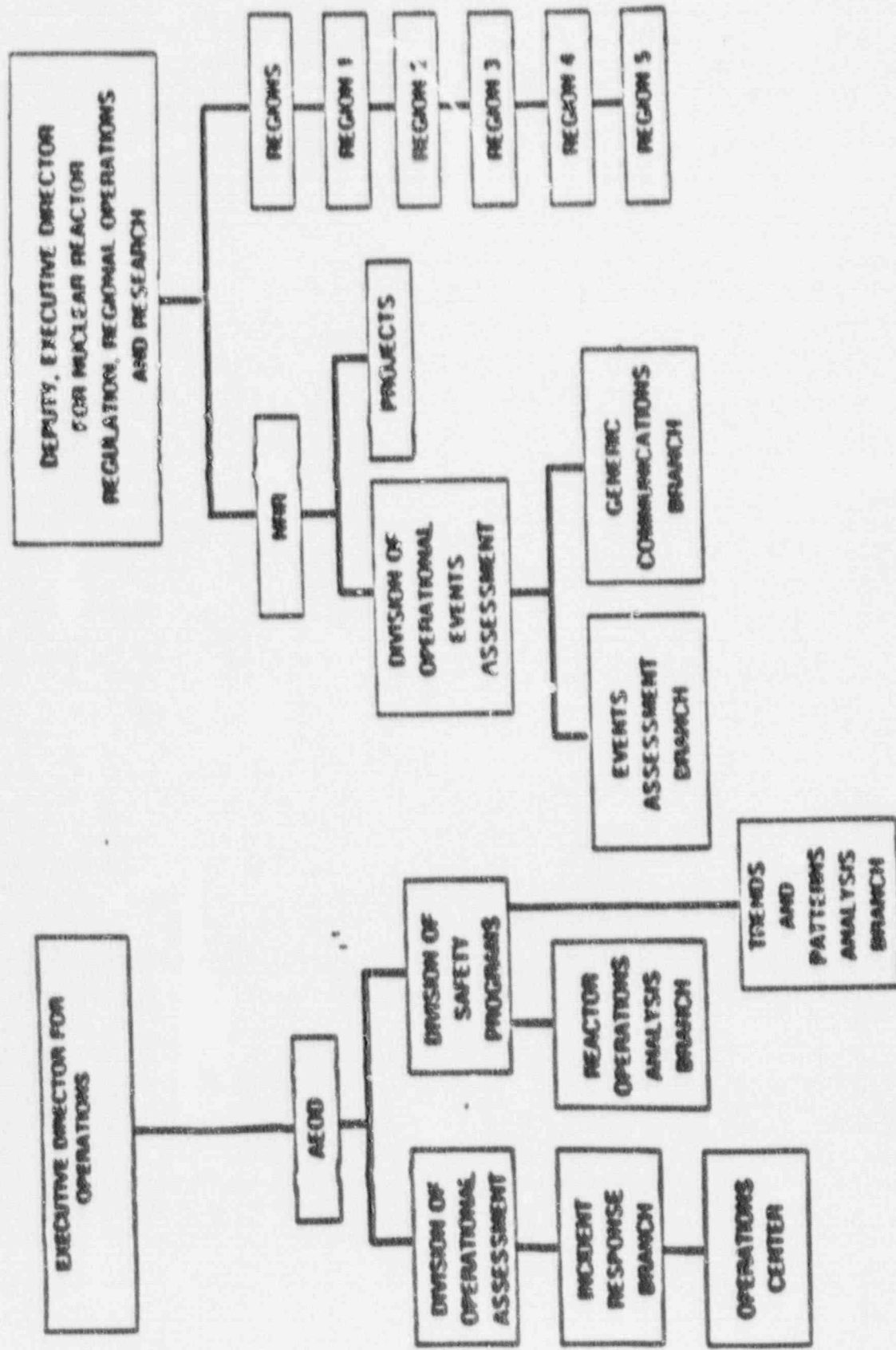
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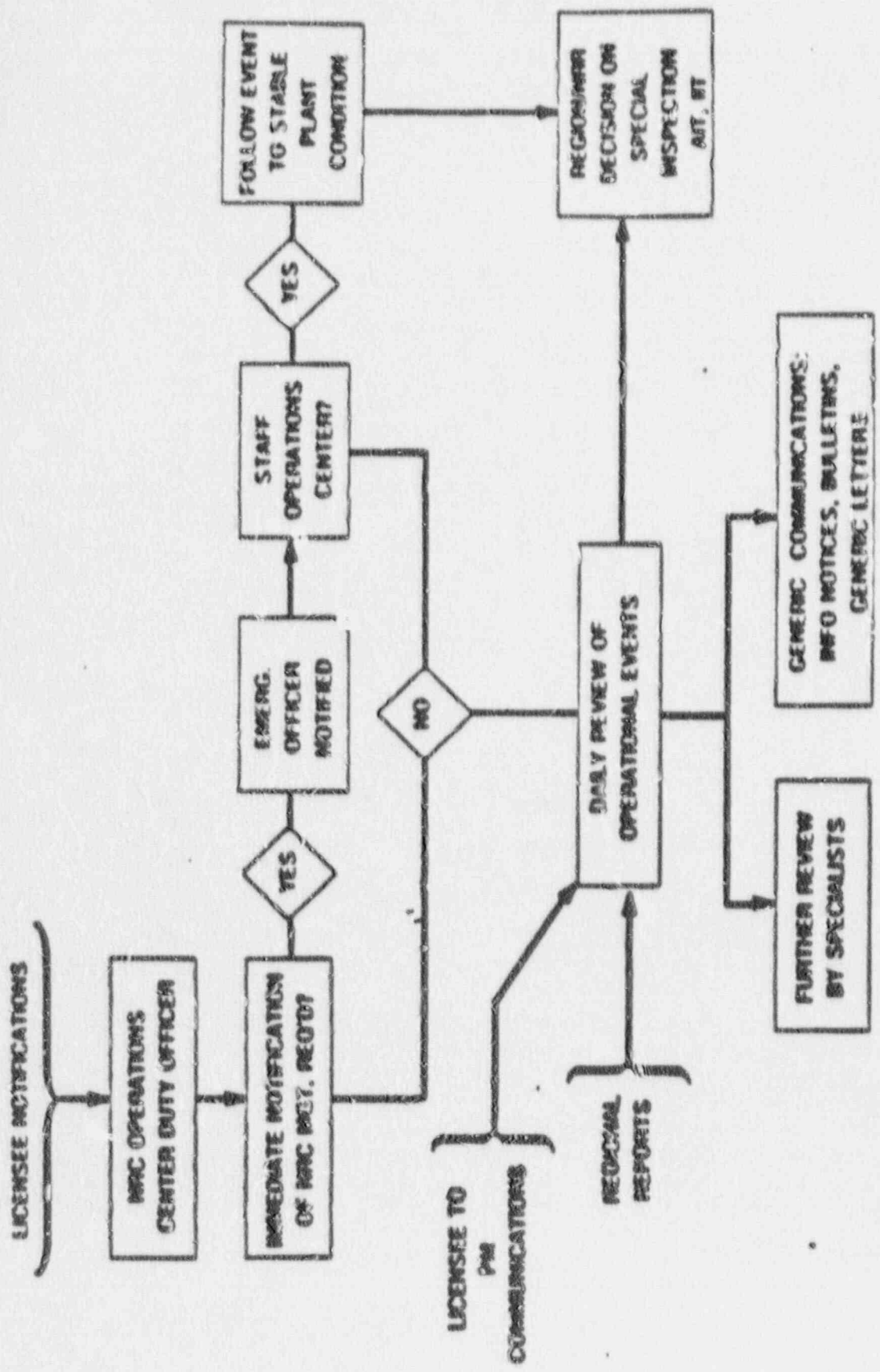
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EVENT ASSESSMENT

CRITERIA FOR EVENT FOLLOWUP

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- POTENTIALLY SIGNIFICANT EVENT
- EVENT NOT UNDERSTOOD
- NO FOLLOWUP NECESSARY

● EVENT FOLLOWUP CRITERIA ●

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10 CFR 73.71
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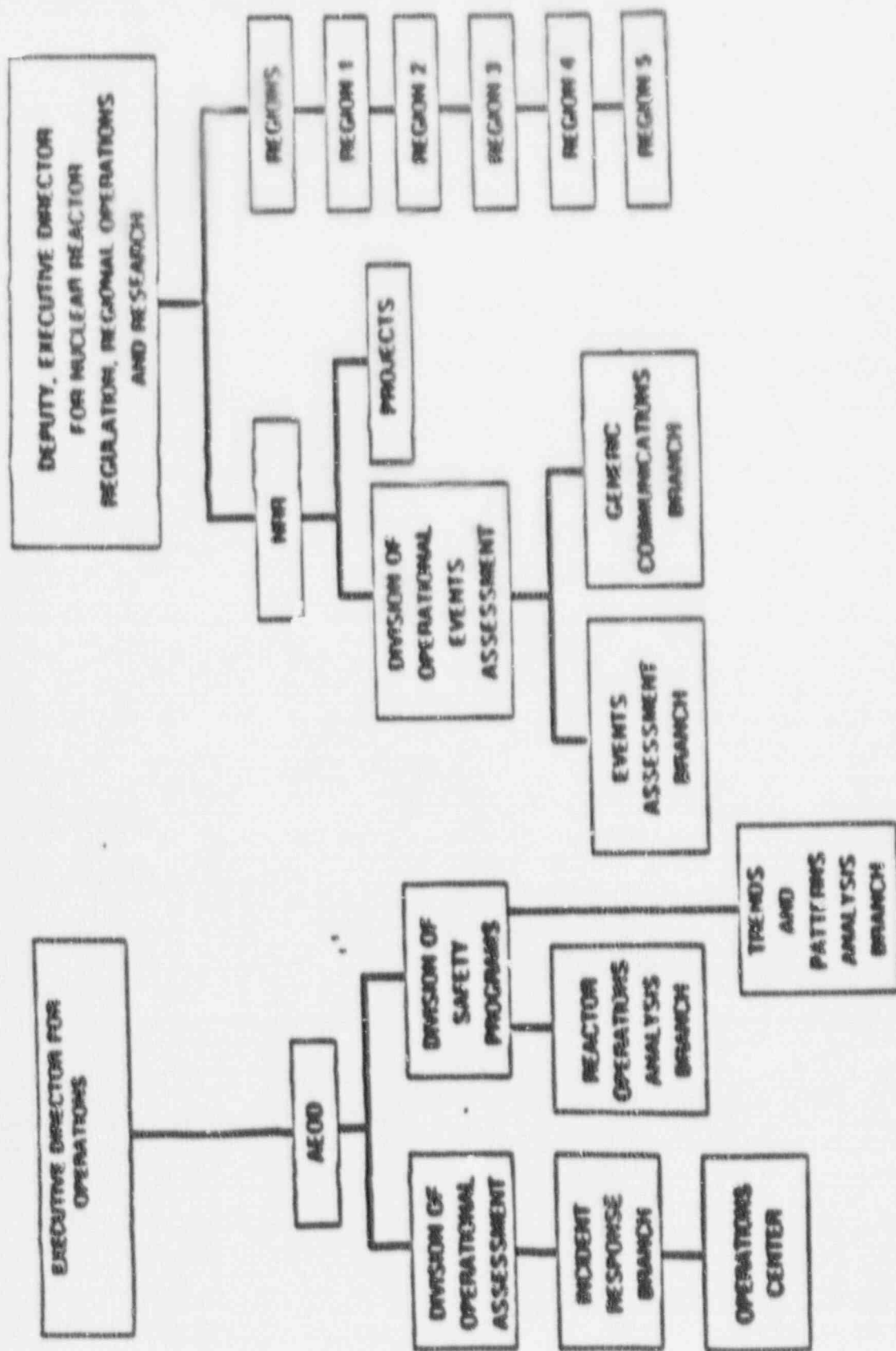
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- 1 HOUR OR 4 HOUR REPORTS
- REVIEWED BY EVENTS ASSESSMENT BRANCH, NRR

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

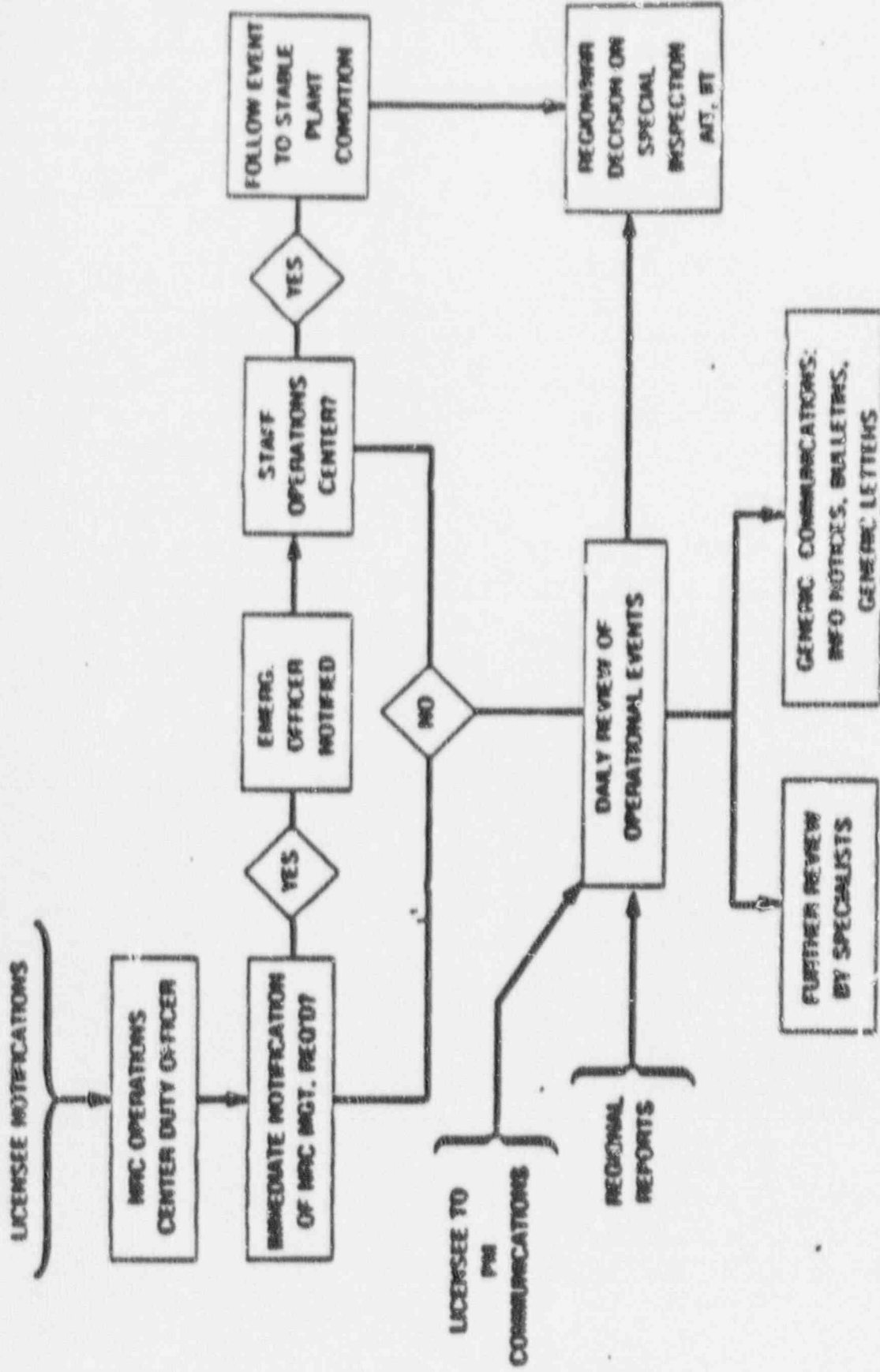
MANUAL OR AUTOMATIC ACTUATION OF ESF INCLUDING RPS-NOT PREPLANNED EVENT OR CONDITION WHICH COULD PREVENT FULFILLMENT OF SAFETY FUNCTION

- 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 WRITUPS 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, AED, RWIB, 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

- o 1:15 P.M. EVENTS MEETING ON TUESDAY
 - REVIEWERS, PROJECT MANAGERS, SECTION LEADERS
BRANCH CHIEFS INTERESTED IN EVENTS TO BE
DISCUSSED
 - SCHEDULED FOR LONG TERM FOLLOW OF EVENTS
 - ASSIGNMENTS FOR LONG TERM FOLLOW
 - DRY RUN AND CRITIQUE OF WEDNESDAY MORNING EVENTS
BRIEFING

- o 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 (OR) 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.**

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.

Required Oral Reports Are Sometimes
Made To Other NRC Personnel Rather
Than The Operations Center.

● ●

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.

Eric W. Weiser, Chief
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Office for Analysis and Evaluation
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NRC EVENT REPORTING WORKSHOP
 October 16, 1990
 REGISTRATION

Name	Affiliation	Address
19. Ken Putnam	Iowa Electric	Cedar Rapids IA
20. Paul Bessette	Iowa Electric	Cedar Rapids IA
21. Mike Fycock	TFNERA	Bethesda, MD.
22. Tom Barker	NSP	414 Nicolet Mall, MPLS, MN 554
23. Jack Rosenthal	USNRC	Naval Academy 1900 P St PL Annapolis MD 20715
24. Allen Checca	Commonwealth Edison	RR 1, Morris IL 60450
25. Kirk Peterman	Commonwealth Edison	Chgo, IL.
26. PAT LAIRD	Commonwealth Edison	CEDAR RAPIDS, IA
27. JIM PROBST	IOWA ELECTRIC	
28. Eric Weiss	NRC	
29. MARK RING	NRC	R III
30. ED GREENMAN	NRC	R III
31. George Honma	Toledo Edison	Toledo, OH.
32. JAN SPITZ	Toledo Edison	Toledo, OH
33. Michael Kex	NUMARC	WASHINGTON, DC.
34. JOHN ARHAR	PACIFIC GAS & ELECTRIC	333 MARKET, SF, CA 94104
35.		
36.		

NRC EVENT REPORTING WORKSHOP
 October 16, 1990
 REGISTRATION

Name	Affiliation	Address
1. Ray Harris	Pennsylvania Power & Light	2 N 9th ST Allentown, PA
2. Jack Crooks	USNRC/AEED	WASHINGTON D.C. 20555
3. DONALD GOBLE	COMMONWEALTH EDISON	4450 N. GERMAN CHURCH BYRON, IL.
4. MIKE BARFELZ	INDIANA MICHIGAN POWER, D.C. COOK	1 COOK F. A. BRIDGMAN, MI
5. Peter Holland	Commonwealth Edison	Rd #1 Graceville, IL.
6. MIKE MIERAU	INDIANA MICH. POWER	1 COOK PLACE, BRIDGMAN, MI 49106
7. B. A. SVENSSON	INDIANA MICHIGAN POWER	ONE COOK PLACE, BRIDGMAN, MI
8. S. J. Brewer	AEP	1 Riverside Plaza Col. ok 43216
9. Joan McCullum	WISCONSIN ELECTRIC CO.	6610 NUCLEAR RD TWO RIVERS, WI 53241
10. JOSEPH PENDERGAST	DETROIT Edison Co.	6400 N. D. x. 16 Hwy NEUFORT
11. JAMES WARNEK	CONSUMERS Power Co, Alsides Ave	Blue Star Hwy. Covert MI 49013
12. BRYAN LAUZAN	AMERICAN ELECTRIC POWER	1 Riverside Plaza, Columbus, OH 43215
13. THOMAS NOVAR	USNRC	Washington D.C.
14. David Nalepa	Wisconsin Public Service	700 N. Adams Green Bay, WI
15. Henry Hearst	Cleveland Electric Illuminating Co.	10 N. Center RD, Perry, OH 44881
16. Victor Benavidez	USNRC/AEED	WASHINGTON, D.C. 20555
17. Bert Davis	USNRC/RTII	Glen Ellyn, IL.
18. CHUCK KRAUSE	WISCONSIN ELECTRIC	231 W. MIDWAY APTN MILWAUKEE WI 53207

NRC EVENT . . . PORTING WORKSHOP
 October 16, 1990
REGISTRATION

Name	Affiliation	Address
19. PATTY DAY	NUS	2650 McCORMICK DR. CLEARWATER, FL 34619
20. Marseyas Snow	CECO	Byron Nuclear Plant
21. Bill Pirnat	CECO	Byron Nuclear Plant
22. Barry M. SAUNDERS	CECO (Nuc. Security)	DNPS/RR#1 MORRIS IL. 60450
23. PETER W. SMITH	TOLEDO EDISON	300 MADISON AVE TOLEDO, OH, 43522
24. Paul Geddes	CECO	101 Shiloh Blvd Zion IL 60099
25. Gordon BEALE	CECO	101 SHILOH BLVD ZION, IL 60099
26. Tom Hammerich	CECO	LaSalle County RR1 Box 220 Marseilles IL 61341 CALLAWAY PLANT
27. T.P. Sharkey	UNION ELECTRIC CO.	BOX 620, FULTON, MO 65251
28. PETER JORDAN	NUS CORP.	2650 McCORMICK DR, CLEARWATER, FL 34619
29. DAVID REIF	CECO	LaSalle County Station, RR1 Box 220 Marseilles IL
30. CHARLES GALLINA	IDNS	1035 OUTHOPARK DR. SPRINGFIELD, IL 62704
31. JOHN GOUVAS	SARGENT & LUNDY	30 W. MADROEST CHICAGO
32. Janis Roberts	TENERA	7101 Wisconsin Ave, Bethesda, MD 20814
33. MIKE BROWN	CECO	QUAD. CITIES
34. Bob GOEBERT	S&L	55 E. MONROE Chicago, IL
35. JOE SIPEK	Illinois Power	Clinton Power Station BOX 678 Clinton
36. TOM PLOSKI	NRC R3	799 ROOSEVELT, GLEN ELLEN

NRC EVENT REPORTING WORKSHOP
 October 16, 1990
 REGISTRATION

Name	Affiliation	Address
37. DON BRINDLE	CEC - Byron	4400 N. Ceram ch. Rt. B, Ga. 111
38. MORGAN CLARITY	NSP	2807 W HWY 75 Monticello, Va
39. MIKE PARKER	IDRS	1035 OAKRIDGE PARK, SPED, IL
40. Johnny Lockwood	CEC - LSCS	LaSalle Generating Station
41. JOAN HIGDON	NRC	Washington, D.C. 20555
42. Jim Brownell	IP	P.O. Box 178 Clinton, IL 61727
43. GA DENENBERG	CECO	1400 OROS PLACE, DOWNERS GROVE, IL
44. E. LIZANZA	Workshop	Monroeville, PA.
45. C. S. KORUP	CPCO	COVERT MI 49038
46. N. ERVIN	NRC	799 LUDWIGSTADT RD SILVER SPRING, MD 21153
47. E. P. GREENMAN	NRL	SAME
48. J. R. CREED	NEC - RESEARCH III	
49. A. E. CHAFFEE	NRC - NRL	10161 Colonial Dr. Ellicott City Md
50.		
51.		
52.		
53.		
54.		

NRC EVENT REPORTING WORKSHOP
 October 16, 1990
 REGISTRATION

Name	Affiliation	Address
1. Mark J Andrews	Commonwealth Edison Co	Braidwood Station RR1 Box 84 Braidwood
2. Keith L. Leech	Commonwealth Edison Co	Good Cities Station Cordova, IL
3. JACK C DILLICH	TOLEDO EDISON	JAK HARBOR, OHIO
4. RITA RADTKE	COMMONWEALTH EDISON CO.	DOWNERS GROVE, IL.
5. Robert Newkirk	Cleveland Electric	Perry Nuclear PP, PO Box 97, Perry Ohio
6. RICK PULEC	WISC. PUBLIC SERVICE CORP	GREEN BAY WIS
7. David Repka	Winston & Strawn	1400 L Street, NW Wash DC
8. Bruce Burgois	NRC Region III	755 Roosevelt Rd, Glen Ellyn, IL
9. David Perley	NUS	2650 Mt Carmel Dr. Clearwater, FL 34629
10. Scott Bauer	Portland General Electric	71760 Columbia River Hwy Rainier, OR 97070
11. ROAM SANDOVAL	BRAIDWOOD NPS	Braidwood Ill
12. Lynne Goodman	Detroit Edison	6400 N Dixie Hwy Newburgh, NY 12550
13. DAVID J. MILLER	CECO - BRAIDWOOD STATION	RR1 Box 84 BRADWOOD IL
14. William L. ROSIATS	Consumers Power Co.	22780 Blue Star Highway, Inlet NC 28590
15. TRACY S. ARNO	Illinois Power Co.	P.O. Box 678, Clinton IL 61717
16. Frank Spangenberg	" " " "	" " " " " "
17. John McKeenan	CECO	Lusalle County Station
18. Bruce L. Jorgensen	NRC Region III	755 Roosevelt Rd, Glen Ellyn, IL

LICENSEE EVENT REPORTING WORKSHOP

MORNING SESSION



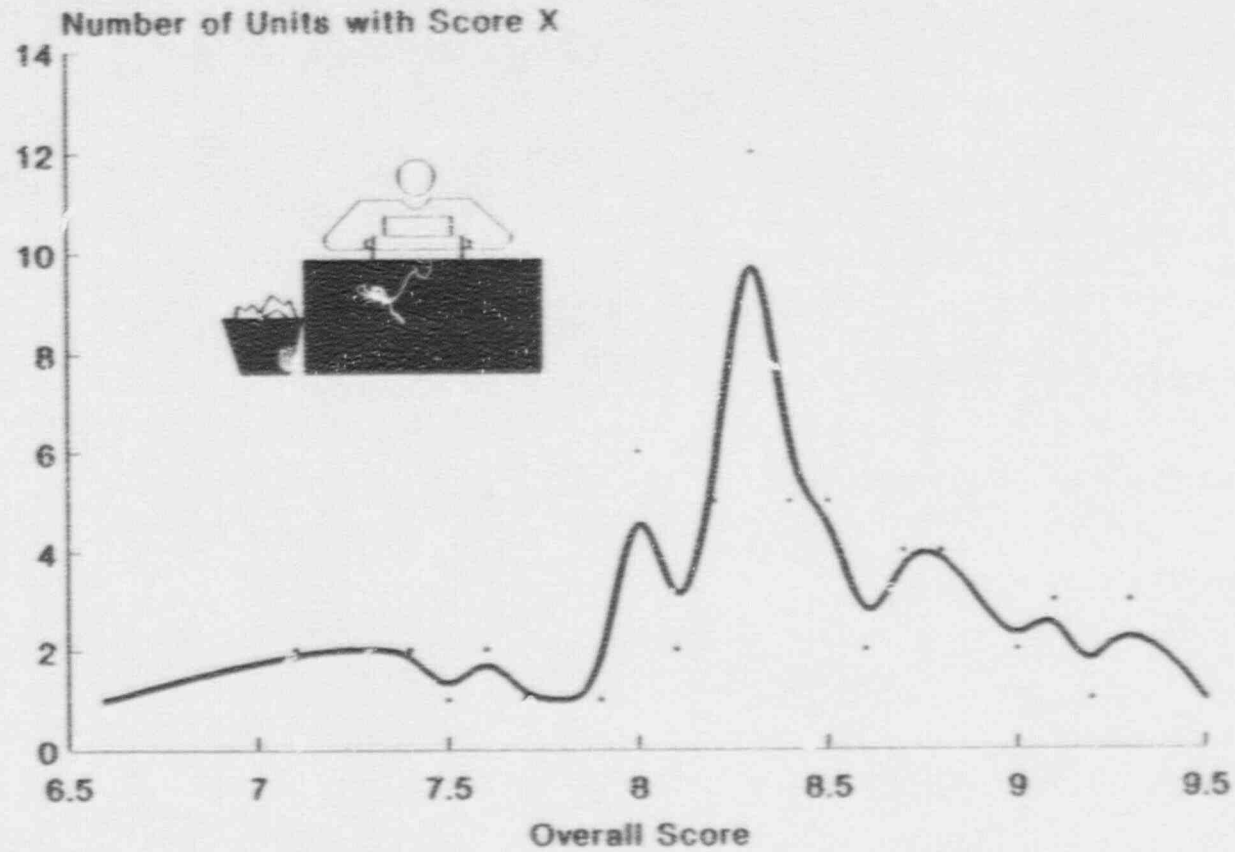
LER SYSTEM 10 CFR 50.73

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



INCOMING LERs (CY 1989)

. NATURE OF REPORTS - CATEGORIES

. ESF ACTUATIONS
AREA OF INTEREST FOR IMPROVEMENT

. T.S. VIOLATIONS



LICENSEE EVENT REPORTING WORKSHOP

MORNING SESSION



LER SYSTEM 10 CFR 50.73

BACKGROUND

- . TMI ACTION PLAN - MAY 1980
- . PRE-1984 REPORTS
- . IOERS (1980 ANPRM)
- . INPO MANAGEMENT OF NPRDS
- . 10 CFR 50.73 - EVENT LEVEL REPORTING



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REPORTING GUIDANCE & EVALUATIONS

GUIDANCE

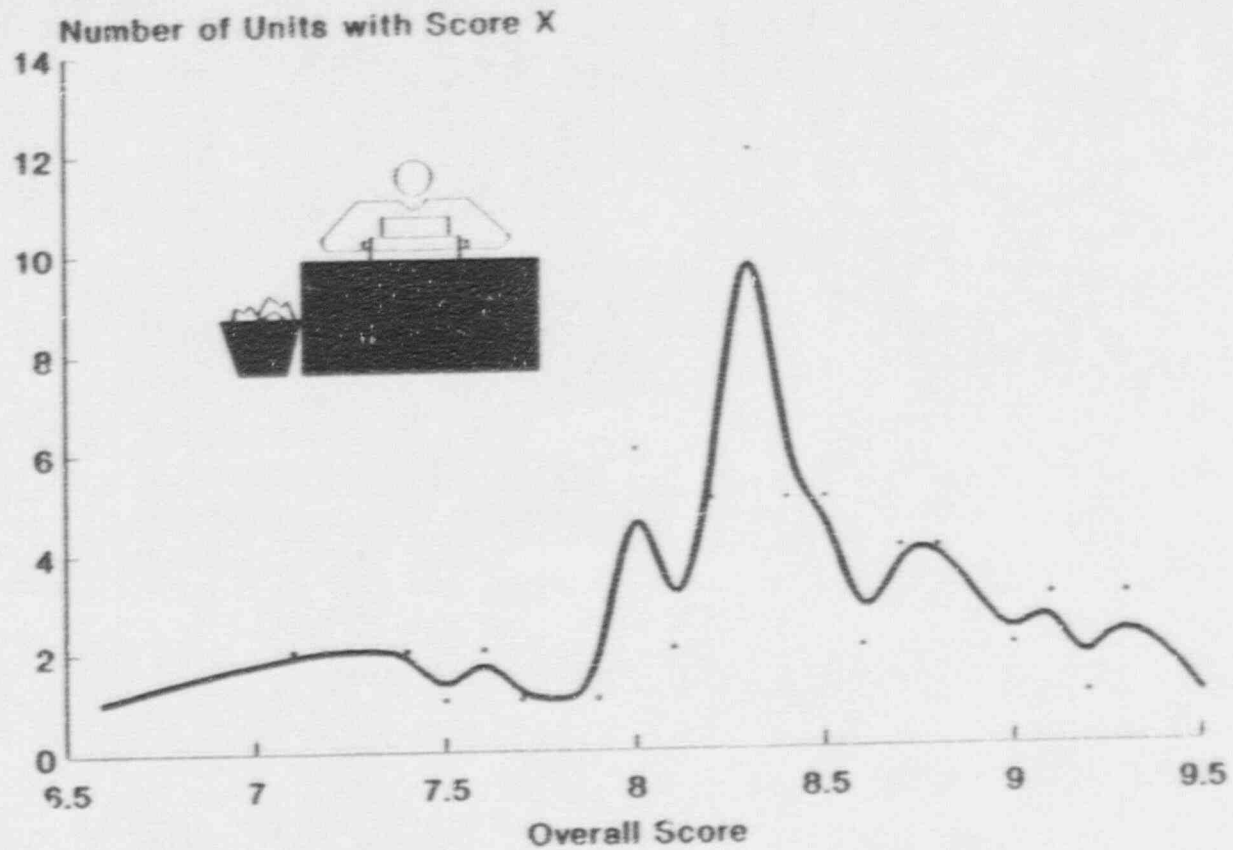
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EVALUATIONS

- . LER QUALITY EVALUATION PROGRAM (1985-EOFY 1987)
- . NRC OR CONTRACTOR QUESTIONS



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70 Units 1987



NRC USE OF LERS

- . **GENERIC ISSUE EVALUATION (RES)**
- . **GENERIC COMMUNICATIONS (NRR)**
- . **OPERATING EXPERIENCE FEEDBACK (AEOD)**
- . **PERFORMANCE ASSESSMENT AND MONITORING
(NRR/REGIONS/AEOD)**

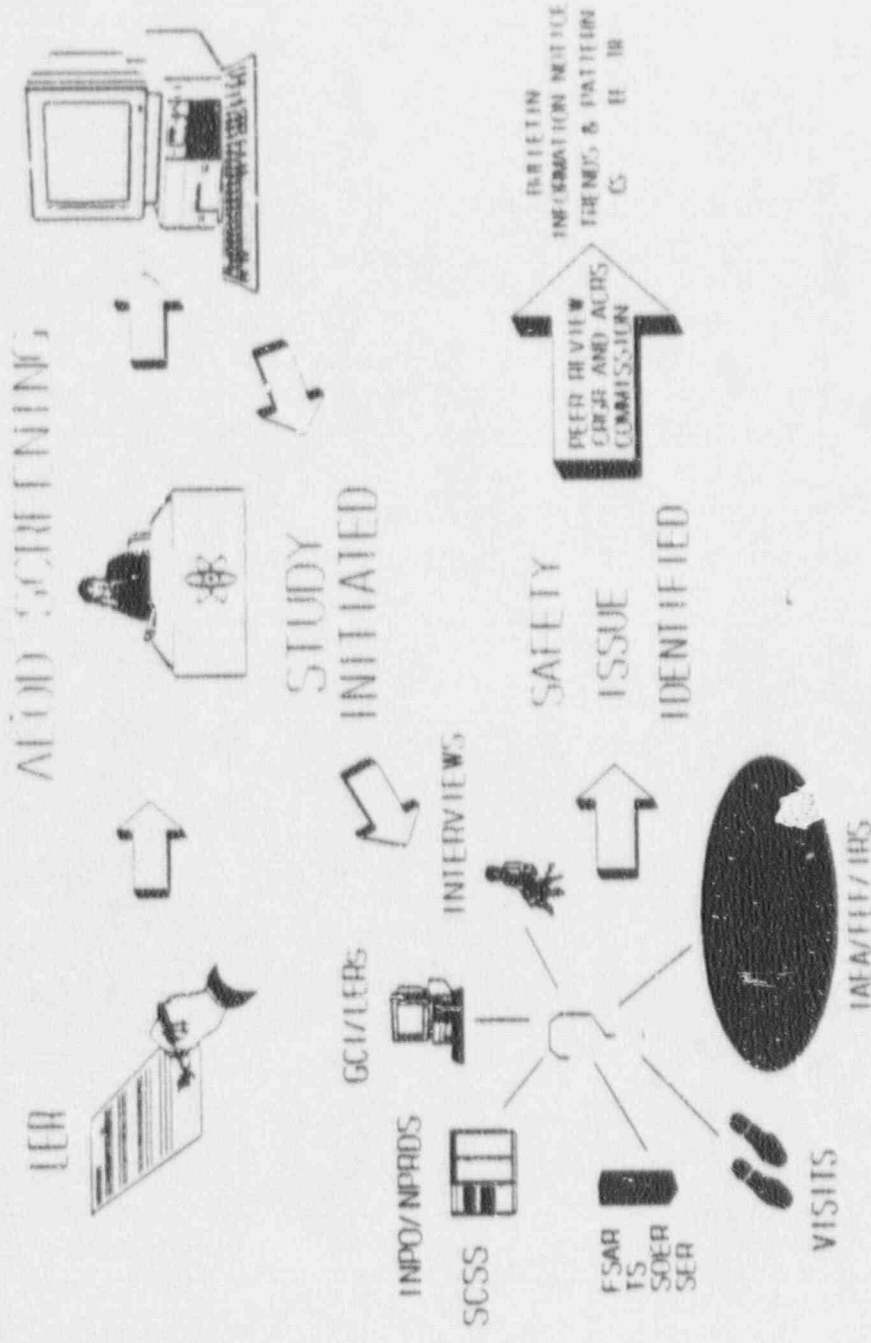


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AFTERNOON SESSION

"RULEMAKING/GUIDANCE REVISION"



INCOMING LERs (CY 1989)

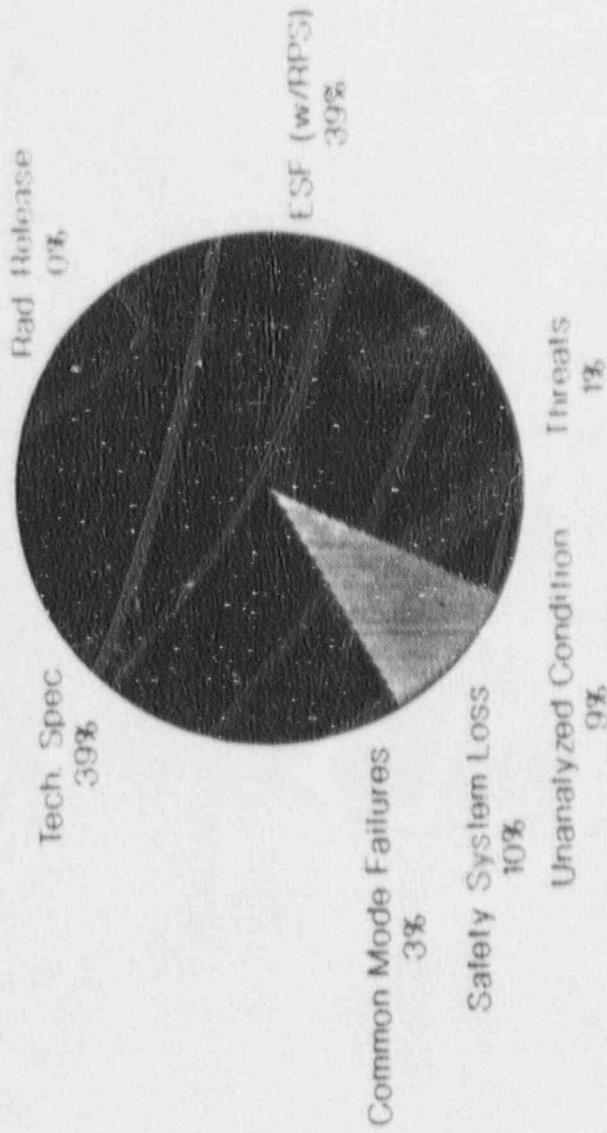
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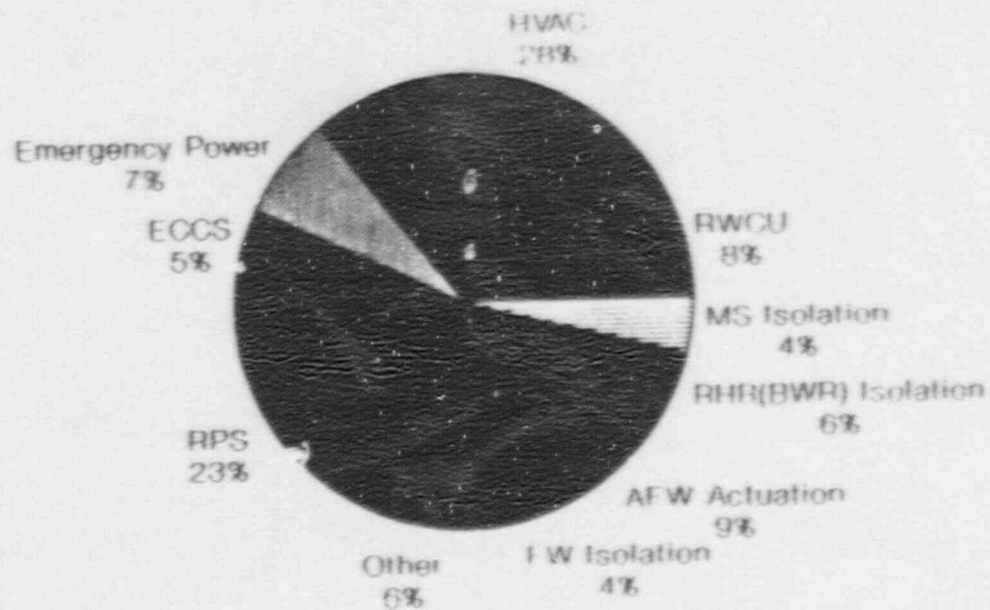
. T.S. VIOLATIONS



1989 LER DISTRIBUTION REPORTING CRITERIA



1989 ESF ACTUATION REPORTING



(Based on Total Number of
Systems Actuated, Not LERs)



1989 ESF LERs (WITHOUT RPS)

. TOTAL LERs: 609 [1358 ACTUATIONS/ISOLATIONS]

	<u>TOTAL</u>	<u>INVALID*</u>
. LERs WITH SINGLE ESF	432	325
HVAC SYSTEMS:	158	132
RWCU SYSTEM:	48	34

* MEASURED PARAMETER DID NOT REACH SETPOINT BAND.

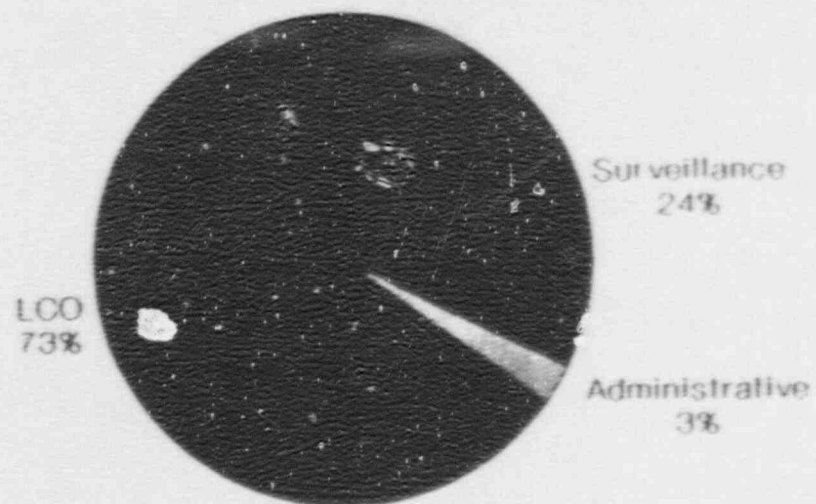


**LERs WITH SINGLE ESF
(HVAC - 1989)**

<u>SYSTEM/AREA</u>	<u>No. LERS</u>	<u>INVALID</u>
CONTROL ROOM	77	66
GE	22	16
WE	42	37
CE	7	7
BW	6	6
REACTOR BUILDING	34	29
GE	5	4
WE	28	24
CE	1	1
BW	0	0
OTHER HVAC	47	37
TOTAL	158	132



1989 TECHNICAL SPECIFICATION LERs VIOLATIONS



I & C Systems • 43% of LCOs and 42% of Surveillances



PAST STAFF INITIATIVES

- . NUREG-1022 w/SUPPLEMENTS 1 & 2

- . STAFF CONSIDERATION - TRAIN LEVEL REPORTING (1988)
 - . SAFETY SYSTEMS TRAIN UNAVAILABILITY
 - . TABULAR MONTHLY REPORT FORMAT

- . EXCLUDE LER REPORTING FOR SELECTED ESF EVENTS



CURRENT STAFF INITIATIVES

NEAR-TERM

- . ELIMINATION OF SELECTED ESFs
- . UNNEEDED¹ RWCU ISOLATION OR CONTROL ROOM HVAC ACTUATIONS
- . ISSUANCE OF ADDITIONAL GUIDANCE (NUREG 1022 SUPP. 3)

LONG-TERM

- . SYSTEMATIC RE-EVALUATION OF REQUIREMENTS
- . PROBABLE RULE CHANGE

¹ Unneeded actuations are those that are spurious or occur when the measured actuating parameter(s) did not reach the set-point(s) band.



LICENSEE EVENT REPORTING WORKSHOP

MORNING SESSION



LER SYSTEM 10 CFR 50.73

BACKGROUND

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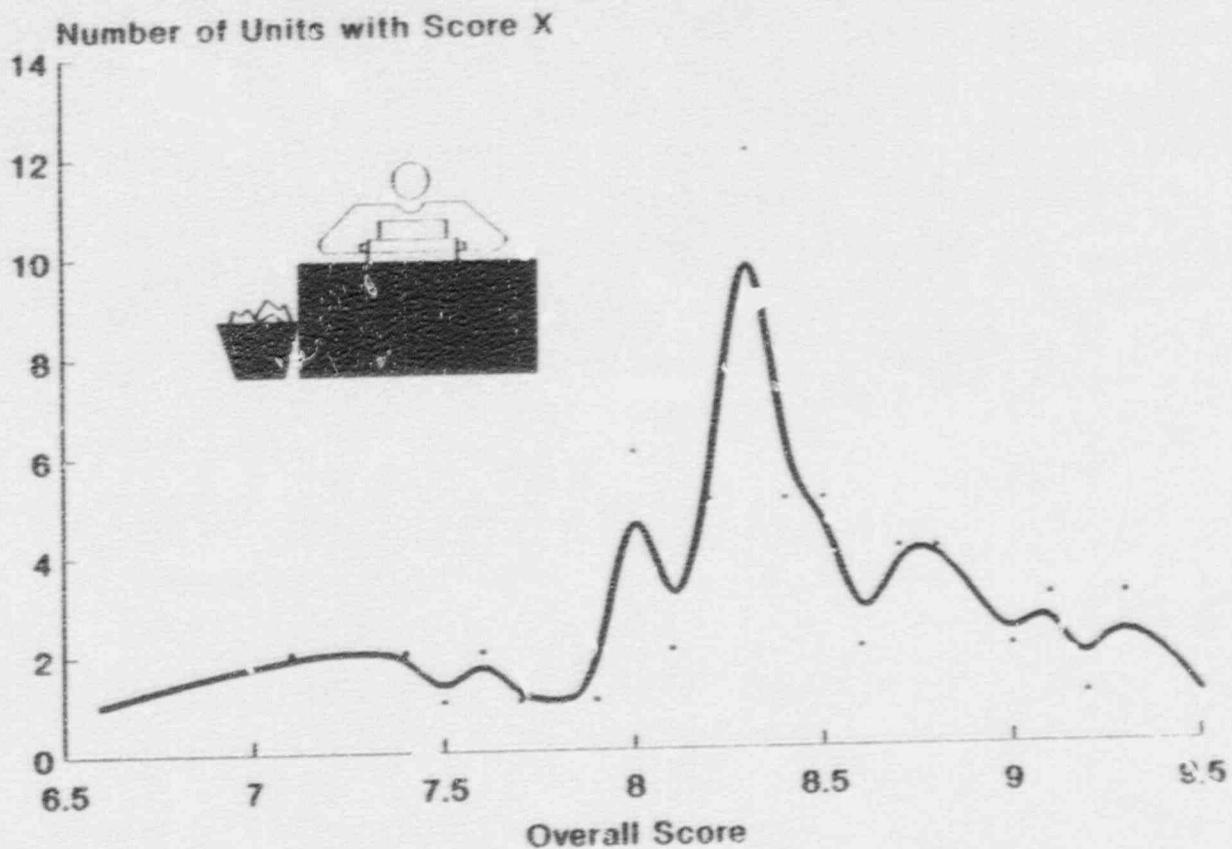
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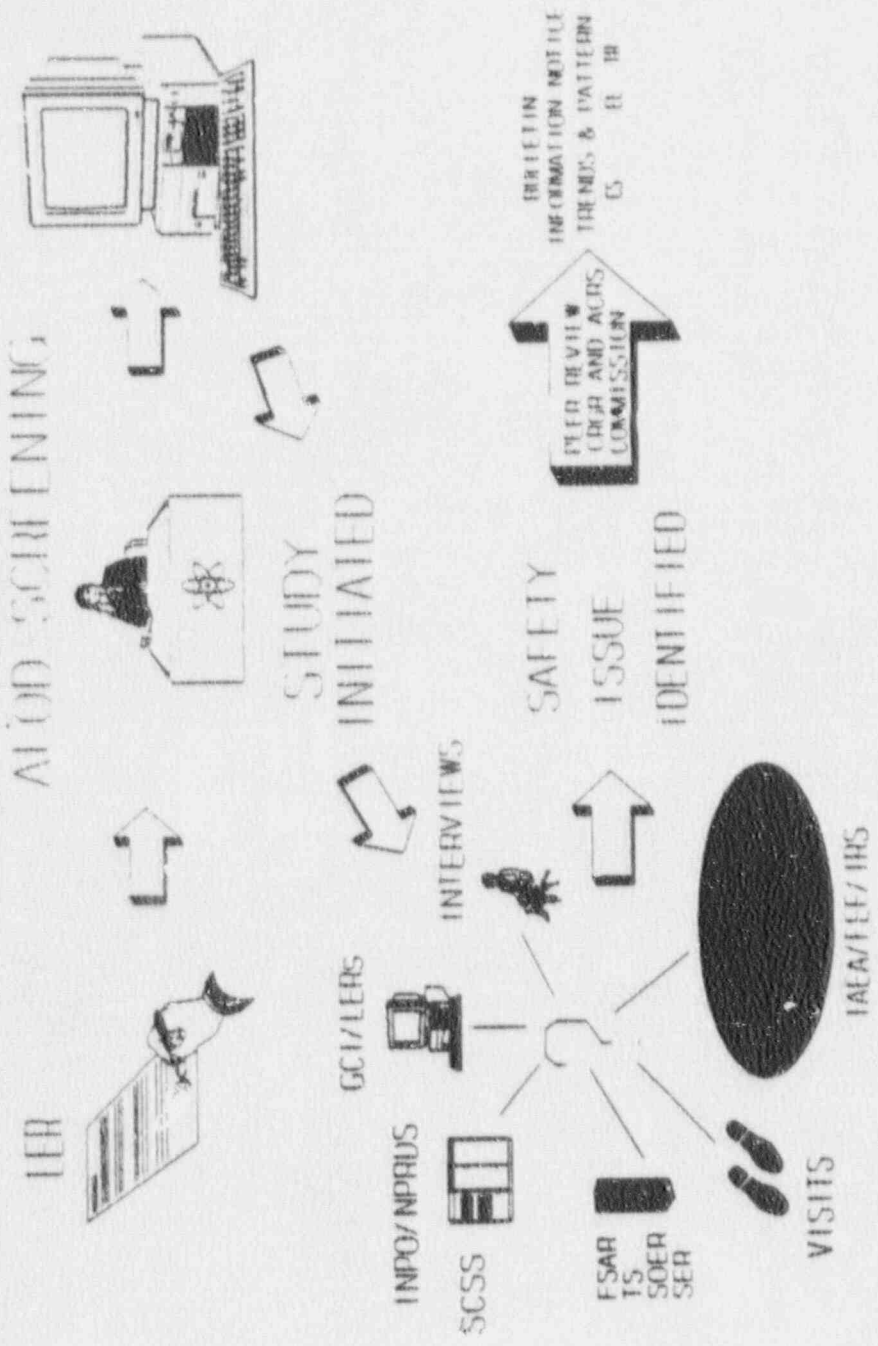


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INCOMING LERs (CY 1989)

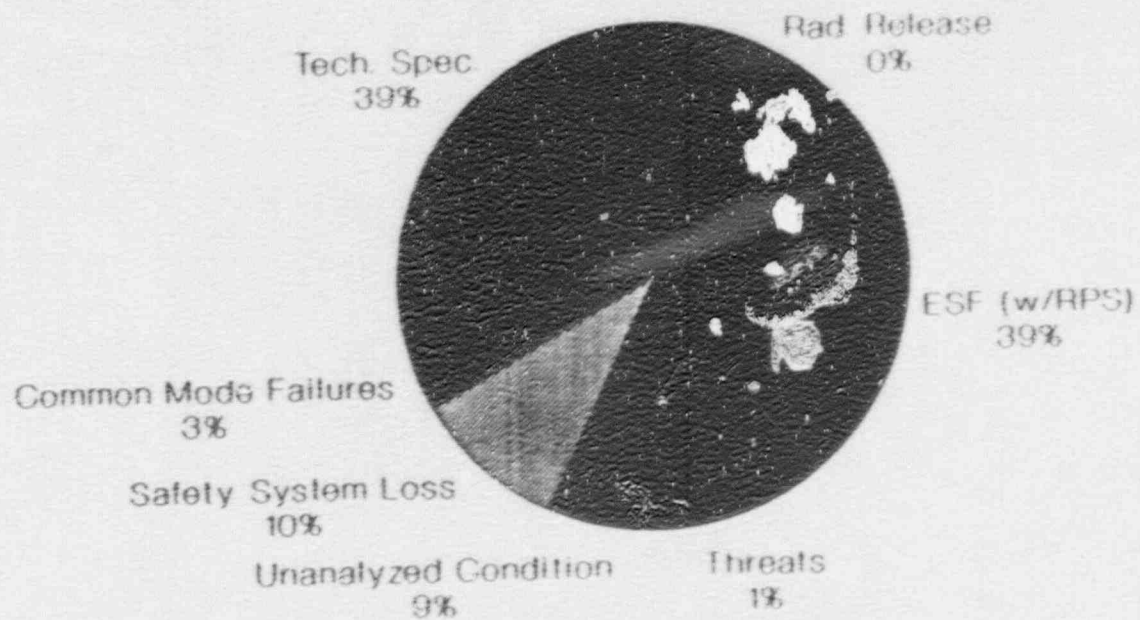
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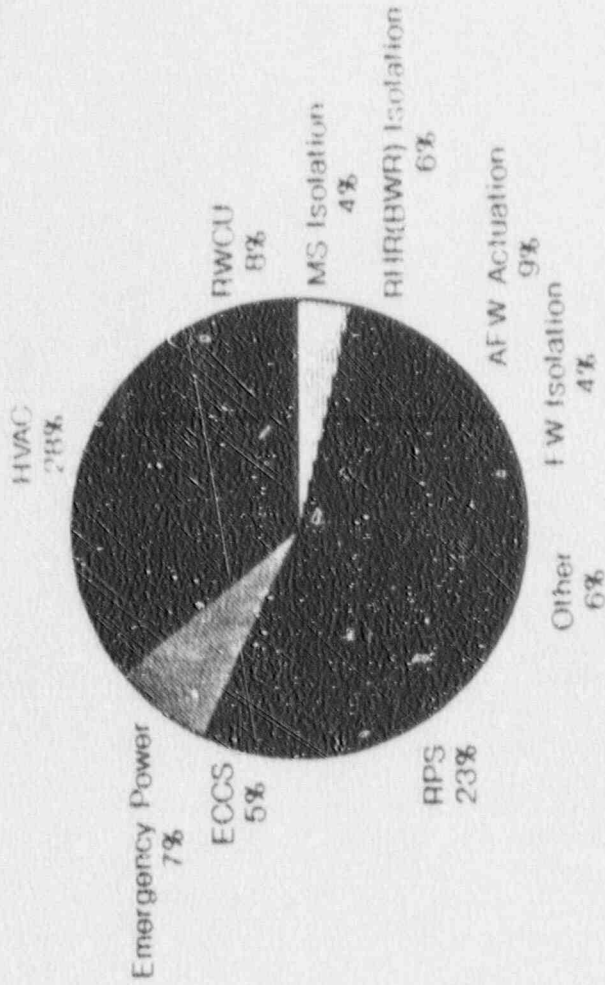
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RMCU SYSTEM:	48	34

* MEASURED PARAMETER DID NOT REACH SETPOINT BAND.

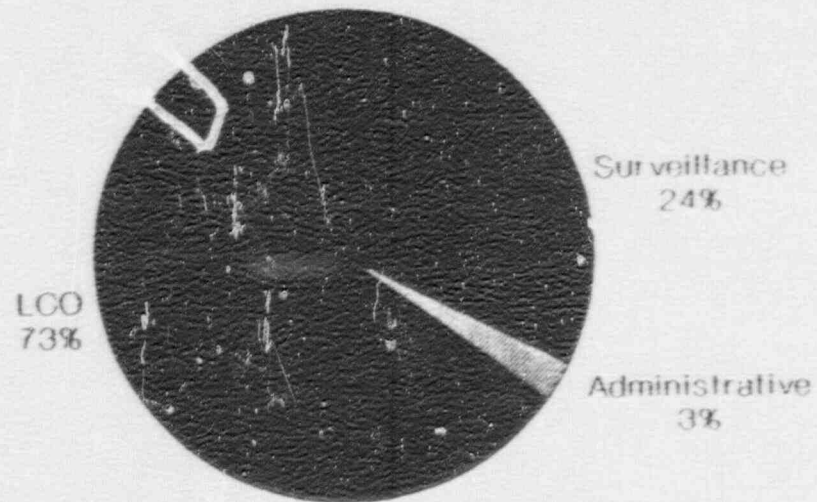


**LERs WITH SINGLE ESF
(HVAC - 1989)**

<u>SYSTEM/AREA</u>	<u>No. LERS</u>	<u>INVALID</u>
CONTROL ROOM	77	66
GE	22	16
ME	42	37
CE	7	7
BW	6	6
REACTOR BUILDING	34	29
GE	5	4
ME	28	24
CE	1	1
BW	0	0
OTHER HVAC	47	37
TOTAL	158	132



1989 TECHNICAL SPECIFICATION LERs VIOLATIONS



I & C Systems - 43% of LCOs and 42% of Surveillances



PAST STAFF INITIATIVES

- . NUREG-1022 w/SUPPLEMENTS 1 & 2
- . STAFF CONSIDERATION - TRAIN LEVEL REPORTING (1988)
- . SAFETY SYSTEMS TRAIN UNAVAILABILITY
 - . TABULAR MONTHLY REPORT FORMAT
- . EXCLUDE LER REPORTING FOR SELECTED ESF EVENTS



CURRENT STAFF INITIATIVES

NEAR-TERM

- . ELIMINATION OF SELECTED ESFs
- . UNNEEDED¹ RWCU ISOLATION OR CONTROL ROOM HVAC ACTUATIONS
- . ISSUANCE OF ADDITIONAL GUIDANCE (NUREG 1022 SUPP.3)

LONG-TERM

- . SYSTEMATIC RE-EVALUATION OF REQUIREMENTS
- . PROBABLE RULE CHANGE

¹ Unneeded actuations are those that are spurious or occur when the measured actuating parameter(s) did not reach the set-point(s) band.

