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2 NUCLEAR REGULATORY COMMISSION

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4 581TH MEETING

5 ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

6 (ACRS)

7 OPEN SESSION

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9 FRIDAY

10 MARCH 11, 2011

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12 ROCKVILLE, MARYLAND

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14 The Advisory Committee met at the

15 Nuclear Regulatory Commission, Two White Flint

16 North, Room T2B3, 11545 Rockville Pike, at 1:00

17 p.m., Said Abdel-Khalik, Chairman, presiding.

18 COMMITTEE MEMBERS:

19 SAID ABDEL-KHALIK, Chairman

20 J. SAM ARMIJO, Vice Chairman

21 SANJOY BANERJEE, Member

22 DENNIS C. BLEY, Member

23 DANA A. POWERS, Member

24 HAROLD B. RAY, Member

25 JOY REMPE, Member

1   MICHAEL T. RYAN, Member

2   WILLIAM J. SHACK, Member

3   JOHN D. SIEBER, Member

4

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6   NRC STAFF PRESENT:

7   BENJAMIN BEASLEY, OEGIB

8   JOHN KAUFFMAN, OEGIB

9   KENT L. HOWARD, SR., Designated Federal

10   Official

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1   P-R-O-C-E-E-D-I-N-G-S

2   (12:59 p.m.)

3   CHAIRMAN ABDEL-KHALIK: The meeting will

4   now come to order. This is the second day of the

5   581st meeting of the Advisory Committee on Reactor

6   Safeguards. During today's meeting, the Committee

7   will consider the following: One, improvements to

8   the Generic Issue Program, and two, preparation of

9   ACRS reports.

10   This meeting is being conducted in

11   accordance with the provisions of the Federal

12   Advisory Committee Act. Mr. Kent Howard is the

13   Designated Federal Official for the initial portion

14   of the meeting.

15   We have received no written comments or

16   requests for time to make oral statements from

17   members of the public regarding today's sessions.

18   There will be a phone bridge line. To preclude

19   interruption of the meeting, the phone will be

20   placed in a listen-only mode during the

21   presentations and Committee discussions.

22   A transcript of portions of the meeting

23   is being kept, and it is requested that the speakers

24   use one of the microphones, identify themselves, and

25   speak with sufficient clarity and volume so that

 1 they can be readily heard.

 2   At this time, we will go to Item Number

 3 9 on the agenda, Improvements to the Generic Issue

 4 Program. And Dr. Powers will lead us through that

 5 discussion.

 6   MEMBER POWERS: Thank you, Mr. Chairman.

 7 I think all of the members on the Comittee now have

 8 episodically seen items come to us labeled "Generic

 9 Issue" with a number after it, and probably thought

10 no more about that number and the gastrointestinal

11 label that was put in front of it.

12   But in fact, it is a generic issue. The

13 inception of the concept of a generic issue took

14 place many, many years ago. Even before Shack was

15 on the Committee, the Generic Issue Program existed.

16 It was originally an invention of the ACRS itself,

17 except they called it a Generic Safety Issue at the

18 time, and things were labelled GSI.

19   I'm not, myself, absolutely certain when

20 it was formulated. But I do have in front of me a

21 letter from 1972 from Chad Sies to the venerable Dr.

22 Schlesinger, then Chairman of the Nuclear Regulatory

23 Commission, reporting on the status of the Generic

24 Safety Issues.

25   And it's interesting reading, because he

1   categorizes the issues into those that have been

2   resolved, those that are pending resolution, and

3   those that are in need of further attention. And

4   among the things that he lists, number one on the

5   list of the resolved issues, Dr. Shack, is net

6   positive suction head for ECCS pumps.

7   Number Seven -- Mr. Armijo is not here,

8   unfortunately, but number seven on the resolved

9   generic issues was protection of primary system and

10 engineered safety features against pump flywheel

11 missles.

12   The generic issues list goes on, and

13 there are those pending resolution, and those

14 nearing resolution. And you would find it

15 interesting, especially those of the PRA persuasion,

16 because nearing resolution was the issue of common-

17 mode failures.

18   Well, since the days of yore, when the

19 ACRS formulated and kept the generic issues, the

20 members of the ACRS were no more responsible than

21 the members now, and so eventually the staff says

22 "Maybe it would be better if we took over the

23 generic issues list, and made it our own."

24   And over the years, there have been some

25 refinements in not only the name, but in what makes

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 1    the generic issues.  Because so many of the members

 2    probably are not familiar with this history, I

 3    thought it would be useful for the staff to come

 4    refamiliarize the members with the Generic Isssues

 5    Program, and to give us some indication of what the

 6    status is, so we could update Mr. Chad Sies's letter

 7    of 1972 on this.

 8              We're not being asked to write a letter

 9    on this.  This is strictly for our information.  And

10    I thank the staff very much for taking the time to

11    put together a discussion for us on this.  And so

12    I'll turn it over to you, John.

13              MR. KAUFFMAN:  Okay, good afternoon.

14    Thank you for inviting us.  As you touched upon, we

15    were briefing the Siting Subcommittee on Generic

16    Issue 199 back in november, and Dr. Powers thought

17    it would be a good idea, since there were a lot of

18    new members, to brief the full committee on the

19    program, and also to talk about some of the changes

20    that we've made in the last few years, trying to

21    make the program better.

22              I would say there's a lot of

23    misconceptions.  A lot of people have bad feelings

24    about the program from years gone past.  And I

25    figured we'll take every opportunity we can get to
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1 talk about what we're doing. We're proud of what

2 we're doing.

3   We think we're doing good work, and

4 hopefully we can change some people's minds. That

5 being said, we're always looking to improve the

6 program and make it better, so we are happy to hear

7 what you might say.

8   I'd just like to acknowledge, sitting

9 next to me is Ben Beasley. He's the branch chief

10 over this program. And Doug Coe is our acting

11 division director. He's not here today.

12   MEMBER POWERS: I hasten to point out

13 that Doug was a fellow for the ACRS for a couple of

14 years before he went off to a legitimate job.

15   MR. KAUFFMAN: And some of the previous

16 generic issues staff, for instance Harold

17 VanderMolen, came to ACRS and worked for a few years

18 before he retired. There have been a lot of good

19 people in the program throughout time. But the

20 program has changed.

21   And we'll talk a little bit about that.

22 My next slide is my agenda. We're going to give

23 some of the historical perspective, basis of the

24 program, the key parts of the program. Going to

25 talk about some of the past program problems. You

1 can read this slide.

2   But we're going to give you a good

3 overview, do what we can to explain the program, how

4 it's changed from the prior program, and what we're

5 doing to make it better.

6   If we go to the next slide, you were

7 able to dig up some stuff that we didn't, as you can

8 tell. None of us were here then. The basis for our

9 program is the Energy Reorganization Act of 1974.

10 And the Act -- I'm not going to read you the law,

11 but it talks about "We will develop a plan for

12 analysis of Generic Issues," or they call them

13 "unresolved safety issues, we will implement

14 protective measures, and we will report to

15 Congress."

16   So those are our statutory requirements.

17 I'd like to emphasize the Generic Issues Program --

18 some people in the Agency think it's a research

19 program or a research activity. It's an agency-wide

20 program that is run and administered out of

21 Research.

22   And that might not seem like a big

23 point, but it's a perception that we're trying hard

24 to change. Because in a lot of cases it's being

25 viewed as an offices against offices program, and

1   that is certainly not what we're looking for.

2   I'd also like to emphasize that although

3   it's dealt with predominantly reactor issues, our

4   program is available to all licensing offices. We

5   can deal with security issues, materials issues, new

6   reactor-type issues.

7   MEMBER ARMIJO: John, does the Generic

8   Issues Program have a budget to fund research, or

9   direct research, to solve the unresolved issue? Or

10   is it --

11   MR. KAUFFMAN: We're going to talk a

12   little bit about how research and --

13   MEMBER ARMIJO: Or a role in

14   establishing priorities in Research, if it's needed?

15   MR. KAUFFMAN: We'll get to that. I

16   would say in general, our activity now is half a

17   branch in Research, and so we have a budget for

18   that. And typically we have set aside some contract

19   dollars to get new GIs started and funded.

20   MR. BEASLEY: Yes, and that's specific

21   to the program. And another aspect of the answer is

22   that for the active Generic Issues, Generic Issues

23   that are undergoing resolution, they do have

24   separate budgets and separate staffing.

25   So for instance, GI-191, there's pretty

1 much a branch in NRR dedicated to that. And they

2 have a budget. So that is independent of the

3 program budget, the program support

4   MR. KAUFFMAN: One of the points that

5 we'll get to is, the old program, around 1999,

6 prioritized issues. At that point we really stopped

7 prioritizing issues. In fact, we changed the title

8 of NUREG-0933 to clarify that point.

9   Now, we basically get an issue in, we

10 try and work that issue or find the best place in

11 the Agency to work that issue. Perhaps we analyze

12 it and we find it's been addressed before, it

13 doesn't need to be addressed. But our goal is to

14 find issues and work them actively.

15   Now, if an issue does require what we'll

16 call longer-term research, one of the problems in

17 the past with the program is a lot of activities got

18 put in there that were, in fact, Research-like

19 activities.

20   And now our branch tries not to manage

21 Research activities. We try and send that to the

22 Office of Research, and let Research and Research

23 Management, in consultation with the other offices,

24 talk about which work they want to fund and how big

25 of a priority that would be.

1   As an example, we have have a proposed

2   GI on multi-unit PRAs. The idea is maybe we're

3   missing some of the risk. That would be a huge

4   effort to undertake that, so it's -- the screening

5   analysis is in concurrence, but it looks like that

6   will be referred to Research, and Research will then

7   talk with the other offices and decide, in today's

8   budgetary environment, how much money, if any, we

9   want to spend on that.

10   MEMBER POWERS: John, you mentioned that

11   you were open to issues of security and things like

12   that. I just had to mention to you, Number 8 on the

13   resolved generic issues in 1972 was "Protection

14   against industrial sabotage."

15   MR. KAUFFMAN: Well, one thing we find

16   in the program is, issues get dealt with and

17   resolved, and sometimes they come back and

18   resurface.

19   MEMBER POWERS: Sometimes.

20   MR. KAUFFMAN: I'd like to point out,

21   status of generic issues is part of the Agency's

22   semi-annual report to Congress. And very quickly,

23   I'm going to talk about, what is a generic issue?

24   Everybody seems to think they know, but

25   there's a very specific definition for our program.

 1 And that is -- and it pretty much follows the

 2 criteria that we'll talk about later -- it's a well-

 3 defined, discrete technical or security issue whose

 4 risk or safety significance we can adequately

 5 determine, and which is generic, applies to two or

 6 more facilities, affects public health and safety.

 7 And ultimately that's going to be tied

 8 to a risk threshold, because ultimately, if the

 9 issue goes all the way through the program, we're

10 looking at backfits and whether or not they can be

11 imposed.

12 We also are looking to, is the Generic

13 Issues Program the best place to deal with it in the

14 Agency? Are there other places in the Agency that

15 can deal with it better, faster, more efficiently?

16 For example, we have operating experience programs,

17 we have Generic Communication programs. We have a

18 lot of programs.

19 And ultimately, in the end, it's an

20 issue that could require action by licensees. It

21 could be something that's addressable by revised

22 policy, regulations, or guidance. So the point is,

23 a Generic Issue is something that could lead to

24 regulatory change.

25 Just a little bit more on what I'll call

1   definitions. Some people are confused between

2   Generic Issues, Generic Safety Issues, Unresolved

3   Safety Issues. So we'll talk a little bit about

4   what a USI is.

5   We currently do not have any that are

6   active or open, but a USI is kind of a special case

7   of a Generic Issue. It's only related to nuclear

8   power plant safety, and involves a question of

9   adequate protection. And there's no staff position

10   on one side expected within six months. So if you

11   see a USI, that means it's one of the more important

12   Generic Issues.

13   As you can see on the slide, our program

14   has dealt with a lot of issues. 853 of them since

15   1976. Our program is important, because both in

16   Part 52 and in Part 50, there are requirements that

17   applicants for new plants look at the medium and

18   high priority Generic Issues that are in NUREG-0933

19   and address those in their applications. And as we

20   talked about, it's a very visible program with a lot

21   of periodic and high-level reporting, and these

22   reports go to the public.

23   When we look at what has become of

24   Generic Issues over time, this pie chart here shows

25   -- the darker blue, 46 percent of the -- well, let

1   me give one caveat here, before -- this pie chart's

2   based on the 300 high, medium, and low issues that

3   have been dealt with throughout the history of the

4   program.

5   It does not include issues that were

6   submitted, got a Generic Issue designator, and then

7   were dropped at that point. But 46 percent of GIs

8   lead to a regulatory product, such as Generic

9   Communication policy and rules, changes in Reg

10   Guides, et cetera.

11   There's a light blue box on the side.

12   Another 18 percent have resulted in what we'll call

13   indirect actions or regulatory products. Other

14   Agency activities that were ongoing were used to

15   address the GI and close it. So roughly two thirds

16   of the issues lead to regulatory change.

17   And just as a refresher -- I'm not going

18   to go through all 853 issues, but station blackout

19   rule was an issue that was a USI at one point.

20   Similarly, the anticipated transient without scram

21   was another issue that came through the rule.

22   And many of the TMI action items, for

23   example almost all of 50.34(f) in 10 CFR, changes to

24   and evaluations of aux feedwater at BWRs, HPSI, and

25   RCIC at BWRs, safety parameter display systems,

1   improved operating procedurs, hydrogen combustion,

2   PORV improvements. So the program is a veritable

3   history of nuclear regulation.

4   That being said, the program has had

5   some problems in the not-too-distant past. Around

6   the 2005, 2006 timeframe, the Commission was

7   unsatisfied with how timely the program was

8   processing some of the issues. And basically,

9   directed us to do better.

10   And some of these problems are on this

11 slide. I'll talk about them very quickly. In some

12 cases, ownership and accountability of issues was

13 not clear. And when I say this, the prior program

14 had certain steps of the program -- like the current

15 program -- involve other offices taking activities,

16 especially the implementation and verification

17 stages of these issues.

18   The problem was, the program was sort of

19 accepting the input we got from these other offices,

20 and that was maybe coming from a worker level. The

21 management in the program offices maybe wasn't

22 involved, and not aware of the input that was being

23 provided.

24   And there was a lot of frustration,

25 because the Generic Issues Program felt like we were

1   being blamed for these actions not moving forward.

2   And yet, the people didn't work for us. We couldn't

3   make them do the work.

4   And so one of the -- and we'll get into

5   some of the changes, but one of the major

6   improvements we've made to the program is to clarify

7   the ownership and accountability of issues. When,

8   if somebody on the Commission isn't happy with an

9   issue, they call Brian Sheron.

10   And I've already touched on the second

11   bullet. There was sometimes weak management

12   emphasis on resolution. And I also touched on the

13   third bullet, that the program staff was geared

14   towards tracking of the issues, rather than on

15   resolving.

16   All those affected timeliness. And

17   we've made a lot of changes to try and address that.

18   Another problem with the old program is,

19   andectodally, there were cases where you might have

20   three research people on a panel, and they would

21   decide that this issue should go to rulemaking.

22   They would prepare the memo, and the memo that this

23   issue should go to rulemaking would be about to come

24   out, and everybody would be going "No, no, no.

25   That's the last thing we want."

1   So in the new program, we'd try and get

2   involvement of offices early on. We try and get

3   involvement of management early on. And we try and

4   surface the different options and disagreements in

5   the earliest stages, where it's easy to address

6   them.

7   The fifth bullet is minimal public

8   engagement. We've changed the program now, that

9   when an issue screens in we generally hold a public

10 meeting to see if they will want to voluntarily take

11 on this issue. And also just to give them a heads-

12 up, let them know it's coming, and to hear their

13 thoughts and their possible solutions to it.

14   Again, there's a lot of flexibility

15 built into the new program, but the idea is we want

16 to -- these are real safety issues. We want to deal

17 with them in the best, most expeditious way we can,

18 whether it's in the program or somewhere else.

19   My next bullet there is, sometimes

20 people played -- I'll call it games -- with our

21 program. There's a provision in 2.206 that if the

22 Agency is actively dealing with an issue, for

23 example if it's in the Generic Issues Program, we

24 don't necessarily have to do anything when we answer

25 the 2.206 petition. Sometimes people couldn't

1 figure out what to do with an issue, so give it to

2 them, let them figure it out.

3   And so one of the major changes we've

4 made is, we've kind of tightened up the criteria on

5 what gets in, to give us more control over what gets

6 in and what gets money spent on it. And I think

7 that's helpful. Maybe we've gone too far in that

8 regard. We don't know.

9   And then a lot of times, again, part of

10 the communications aspect, other offices and the

11 Regions weren't necessarily aware of what was going

12 on in our program. And that still may be the case

13 to some extent, but we make every effort to

14 communicate.

15   For example, on GI-0199, we had a

16 communications plan. We had several briefings of

17 the Regions, because of the sensitivity of the

18 issue. We did everything we could think of to get

19 the Agency ready to deal with that issue when it was

20 time, when it was right.

21   And so in many ways, what the program

22 does has changed. In the past, the program did a

23 lot more technical work. Now, we do a lot more

24 management of the technical work resources of

25 others, and a lot more work on the consensus-

1   building, communication, and coordination. So if I

2   had a takeaway from the meeting, that's the big

3   change of how the program has changed.

4   The next slide is the Generic Issues

5   Criteria. These are paraphrased and cut down to

6   take out the legal speak from the management

7   director. I touched on these quickly already, but

8   Number 1: affects public health and safety.

9   And the purpose of this means that we

10 don't look at administrative, organizational,

11 regulatory process or policy issues. Although our

12 program could surface policy issues that need to be

13 addressed.

14   And ultimately, the first criterion is

15 tied to a risk threshold. If and when it's

16 determined that the safety significance of an issue

17 is low, then we're generally done with it. Although

18 we may hand it off to another office, for example,

19 to issue an information notice or something like

20 that.

21   Second criterion is, is the issue

22 generic? Does it apply to two or more facilities?

23 That's pretty straightforward. As we mentioned

24 before, we get some of the issues that are

25 difficult. The Agency has a large staff, good

1 management. They're very good at dealing with most

2 of the issues that come their way. Occasionally,

3 they get some thorny, difficult issues, and those

4 are the ones we tend to get.

5 But I would say we provide two services

6 there. One, we try and figure out what to do with

7 an issue. And in some cases, we go off and do work

8 to -- what I'll say is ripen, or mature the issue.

9 Develop information to help people decide whether

10 it's a problem or not.

11 The fourth criterion, again, we're

12 looking at taking issues to regulatory change. The

13 fifth criteria, risk or safety significance, can it

14 be determined? Generally, we try to put numerical

15 values on the risk of issues. But we have

16 provisions to do qualitative, somewhat subjective

17 evaluations of that.

18 Sixth criterion, well-defined, discrete,

19 and technical. We've had cases in the past where

20 issues have grown. Things got added onto them. And

21 we try and have flexibility. We can group things

22 together that should be. But we also have

23 flexibility to look at things one at a time if that

24 makes sense.

25 And it might not sound like much, but

1   the idea that the issue is technical -- our process

2   is open to anybody to submit an issue. We could get

3   a submittal to our program, "I'm worried about

4   nuclear safety." That would be an issues, but we

5   wouldn't spend much time with it, because it's not

6   very well-defined.

7   In general, since our body of

8   regulations is fairly mature, they have to bring us

9   something that says how this issue isn't addressed

10   by current regulations, how current regulations

11   aren't good enough, how they're based on some

12   assumption that's no longer true. And then finally,

13   our issues ultimately may involve some action by our

14   licensees.

15   Our next slide is, we have a five stage

16   process. The first stage pretty much happens

17   outside the program. It's identification. As I

18   mentioned, anyone can submit a GI. The form is on

19   the website. Most of our issues come from NRC staff

20   and management; they're internally generated, at

21   least in the recent past.

22   Our second block there is an acceptance

23   review. I'll call it a quick and dirty review of

24   the issue by the Generic Issues Program staff. And

25   it's geared towards moving the issue forward, unless

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 1    it obviously fails one of the seven criteria or

 2    there's nothing new on the issue that would suggest

 3    there's -- part of it is, we're looking to see if

 4    there's a concrete problem there that is being

 5    presented to us.

 6              The next stage of our program is a

 7    screening process.  That is composed of the Generic

 8    Issues Program staff or other experts throughout the

 9    Agency or from Research that we identify, taking a

10    more in-depth look at the issue and making a

11    recommendation that it is then reviewed by a panel.

12    The panel generally has an SES chair, and it has

13    generally two or more technical experts on the

14    panel.

15              And the idea here is we're trying to get

16    senior management involvement, and we're trying to

17    get technical experts to give us their take on the

18    issue, and help us identify the path forward.

19              And of course, the screening panel

20    recommendations are endorsed -- or not endorsed, but

21    the office directors from the affected offices are

22    on concurrence to attempt to get their buy-in, and

23    then the panel recommendations ultimately go to

24    Brion Sheron, our office director, for his

25    endorsement.
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1   If an issue does pass screening, that's

2   when it gets a Generic Issues number, and at that

3   point we will develop a communications plan for it,

4   and generally hold a public meeting to get

5   stakeholder involvement.

6   After screening, generally a task action

7   plan is developed to perform the safety risk

8   assessment. The idea there is, we're going to

9   develop risk numbers to get a very good

10   understanding of this issue and whether or not it

11   could possibly pass backfit.

12   And similarly, this will have a panel,

13   and panel members' recommendations have a similar

14   review process. And at that point, if the risk is

15   low, the issue will probably be dispositioned at

16   that point, or it can go on to regulatory

17   assessment, where we will identify possible backfits

18   and attempt to identify the best one.

19   And as you'll recall , GI-199, we handed

20   that off to NRR after the safety risk assessment

21   stage, when we concluded we didn't have access to

22   the information to let us do the regulatory

23   assessment.

24   And I'd like to -- the blue box at the

25   bottom there, the issue doesn't have to proceed step

1   by step through the process. At any point, if we've

2   identified a regulatory action and we get one of the

3   regulatory offices to agree to take on that issue,

4   it can exit the program at that point and go to the

5   regulatory office. We call that a hand-off.

6   A similar thing, if we decide the issue

7   needs long-term study, it can exit the program for

8   long-term study, have that long-term study work

9   done, and then possibly come back to the program.

10 Or again, if it fails the criteria it can leave the

11 program.

12   CHAIRMAN ABDEL-KHALIK: Are issues that

13 come up in differing professional opinions

14 automatically entered into this evaluations process?

15   MR. KAUFFMAN: No, they're not.

16 Although we have had some issues that have come

17 through that process. GI-193, for example.

18   CHAIRMAN ABDEL-KHALIK: So somebody has

19 to submit it to you for it to go through this

20 assessment?

21   MR. KAUFFMAN: That is correct.

22   MR. BEASLEY: And we've sometimes had

23 our management tell us to --

24   (Mr. Kauffman poured a glass of water.)

25   MR. KAUFFMAN: My throat's getting dry.

1   I apologize for getting the water.

2   MEMBER POWERS: Don't apologize.

3   MR. KAUFFMAN: Pardon me?

4   MEMBER POWERS: Don't apologize. We'll

5   sit here.

6   MR. KAUFFMAN: So one of the things

7   we've talked about is possibly being more proactive

8   in trying to identify and mine some of the data

9   that's available in the Agency for issues.

10   For example, the Operating Experience

11   Clearinghouse has issues for resolution. We've

12   considered, perhaps, mining that.

13   MR. BEASLEY: We don't have any current

14   plans to do that.

15   MR. KAUFFMAN: Right.

16   MR. BEASLEY: You know, we've talked

17   about that. One of the things that I think John

18   will talk about in a few minutes, that we're trying

19   to do with the program, is just market it a little

20   bit, so that the staff -- you know, newer staff in

21   the Agency -- becomes familiar with the program,

22   knows that we are a place where they can bring

23   issues that they might come across.

24   And so that's kind of been our first

25   approach, is to just raise awareness of the program.

 1 You know, do some education on the program, so that

 2 staff that may have issues and would be willing to

 3 bring them to us, would know how to bring them to

 4 us.

 5   And so that's kind of been our first

 6 approach. We had talked about, but aren't currently

 7 pursuing any activities to just go digging.

 8   MEMBER POWERS: You know, I teach a

 9 class for the NRC, kind of an introduction to how

10 the regulations came about. I don't have in that

11 class a section on the GI program, but it might be

12 not too much difficulty to put together a few

13 amusing anecdotes, and then a brief description of

14 the program, and point to the place where they can

15 go to submit Generic Issues.

16   Since it's a class they're required to

17 take, it might not -- I mean, it seems like it's a

18 doable thing. Maybe we ought to chat about it.

19   MR. BEASLEY: Yes, that would be a great

20 idea. And those types of things are the things that

21 we're trying to take advantage of. We've made

22 presentations similar to this at the vision

23 meetings.

24   We took advantage of the Generic Issue

25 199 discussions that we were having around the

1   Agency to do some of the education, some of the

2   promotion of the program. And so just getting some

3   exposure out there, whatever mechanism we can take

4   advantage of, we want to do.

5   MEMBER POWERS: I have a one hour

6   section on risk-informed regulation, and it seems

7   like it would fit in there fairly nicely, just as

8   "Here's one of the things the Agency has going on."

9   MR. BEASLEY: Yes.

10   MEMBER POWERS: Not with an intent to be

11 an in-depth description, but something that would

12 maybe flag the site on the web, and things like

13 that. Give them a few accounts of issues that have

14 been resolved in the past.

15   And we certainly have talked about

16 station blackout rule, and the ATWS rule. So it

17 probably would fit in there.

18   MR. BEASLEY: Yes, that would be great.

19   MEMBER POWERS: I'll chat with you about

20 that.

21   MR. KAUFFMAN: Sure. And we're

22 developing a brochure -- we've done a research

23 seminar on the program. And certainly from a

24 knowledge management point of view, we're trying to

25 get the word out on NUREG-0933, and the wealth of

 1   information that's available there.

 2   And one of our engineers has, along with

 3   Ben and some others, he's working very hard to

 4   modernize, if you will, NUREG-0933, and make it

 5   computer-friendly, and all these good things. Okay,

 6   enough about that.

 7   So we've already talked about some of

 8   these enhancements we've made to the program. I'll

 9   touch on them again very briefly. We view it as our

10   role to help management understand the importance of

11   an issue in some cases, and to find the best place

12   for it to be worked in other cases.

13   So any issue that comes through us, one

14   of the kind of determinations we make is, is our

15   program the best place for this? Even if it doesn't

16   meet our criteria, should something be done on this

17   topic? And can we kind of broker that? Can we talk

18   to people in other parts of the Agency and make that

19   happen?

20   The second bullet is, being situated in

21   Research, we have access via contracts or through

22   in-house expertise in Research, or through our

23   office contacts to ask for resources in other parts

24   of the Agency, where can we get the resources to

25   work on the issue?

1   MEMBER SHACK: Is it sometimes difficult

2   to get the appropriate home to accept the issue?

3   MR. KAUFFMAN: It can be.

4   MR. BEASLEY: And you know, we haven't

5   had an abundance of issues proposed of late. And so

6   I can't say we have lots of experience with that,

7   but the couple of examples that we have worked on,

8   yes.

9   There have been some challenges to doing

10   that. But we aren't being frivolous in our

11   rejection of -- not rejection, but not accepting an

12   issue into the program. We have a basis for that.

13   And so some of that is just a matter of

14   trying to -- I don't want to say convince, but bring

15   the proposer up to speed on what other avenues may

16   be good, may be better for addressing a particular

17   issue.

18   MR. KAUFFMAN: And I would also say,

19   some of the difficulty we have is, sometimes there's

20   just staff frustration sometimes, if you will, with

21   the regulatory framework, and the backfit framework

22   that we have.

23   And sometimes they have issues that

24   they're trying really hard to do something about,

25   and they can't figure out a way to do it. Or they

 1 want to write a RIS, they want to change a position,

 2 and it's gone to CRGR, and CRGR told them "No, it's

 3 a backfit. You can't go there."

 4   We get some issues that way, where we're

 5 almost like an appellate court. "Maybe you guys can

 6 get a different answer."

 7   MEMBER POWERS: And Shack may want to

 8 send a cop up there pretty soon.

 9   MR. KAUFFMAN: And then, again, as we

10 said, these issues aren't always easy and

11 straightforward. And there have been some cases

12 where we've tried to give the issue back to the

13 group that proposed it, saying "We think you have

14 all the tools you need to deal with this."

15   And they're going "No, we've been trying

16 for 20 years."

17   MEMBER SHACK: Does it ever get to the

18 point where you have to go to higher management, who

19 says "You take it."

20   MR. BEASLEY: Not in our experience. We

21 haven't had to deal with that. And the management

22 directive is written that there's not necessarily an

23 appeals process if we don't accept an issue. You

24 know, it's written such that our determination is

25 the determination.

1   But we take it very seriously, the

2   responsibility of being a good steward of all of

3   these safety issues. It's not that they're non-

4   issues. So we do have that, because we agree that

5   something is an issue.

6   It's just a matter of what's the best

7   path for getting it addressed. And so we are, at

8   least, working towards the same goal with the

9   proposers.

10   MR. KAUFFMAN: And I would say for

11   issues that are in the screening and safety risk

12   assessment stage, we talked about before that it's

13   built in that the affected office directors concur

14   on that. And in the last rewrite of the MD, that

15   was a pretty serious point of contention, in that

16   the way it's set up now is, no one office director

17   can force an issue in. No one office director can

18   keep an issue out.

19   And if the office directors can't agree

20   and get along, then the process is that it would go

21   to the EDO.

22   MEMBER SHACK: Okay. So there is a

23   resolution process if it comes to that.

24   MR. KAUFFMAN: Yes. We haven't had to

25   go down that path, but in many cases it takes a lot

1 of briefings and a lot of selling, and a lot of

2 getting division directors talking to their office

3 directors, and getting the office directors to come

4 to agreement on what to do with -- 199 comes to

5 mind. We did more briefings than I care to think

6 about on 199.

7   MR. BEASLEY: It was very --

8   MR. KAUFFMAN: It worked out, but it was

9 not as quick as some of us might have hoped.

10   MEMBER SHACK: That was going to be my

11 next question, just what's the timeframe before you

12 get an issue, and then you sort of get onto the

13 regulatory part of where it's really getting a

14 serious assessment?

15   MR. BEASLEY: Each of the stages has a

16 timeframe objective. Because of the complexity of

17 the issues that we tend to be handling these days,

18 it's difficult to meet those timeframe objectives.

19 There aren't firm requirements for processing an

20 issue at any particular stage in a particular time,

21 but that has been a criticism in the past, that

22 issues have taken a long time, and very

23 understandably.

24   Some of the issues, you know, have been

25 in the program for almost a couple of decades.

1 There are some issues that we're hoping to close out

2 fairly soon that have been there almost 15 years.

3 And that's admittedly a very long time between

4 identifying an issue and being able to come to some

5 regulatory resolution where licensees have had to

6 make a change, to do something to address that

7 issue.

8   So yes, there's some guidance on that,

9 but it's not a requirement. And again, we go to the

10 discussion of the complexity of the issue. And

11 Generic Issue 199, for example, is merging the old

12 deterministic seismic requirement as the licensing

13 basis with the new probabilistic seismic hazard

14 curves.

15   And it's uncharted territory, and we've

16 had to work on figuring out how to assess it, and we

17 also are challenged to figure out how to do

18 something with it with the licensees.

19   MEMBER RAY: Listen up, everybody.

20   CHAIRMAN ABDEL-KHALIK: Okay.

21   MR. KAUFFMAN: Okay. I had one point I

22 was going to add, that in the past, in the early

23 days many Generic Issues could be -- the solutions,

24 the resolutions could be identified by picking a few

25 representative plants and looking at that.

1   For GI-199, even though it's a generic

2   issue, site-specific evaluations were done at each

3   and every plant to understand the risk at each and

4   every plant. So it was one GI, but it was really

5   more like 104 separate GIs.

6   This is a quick list of the current GIs.

7   I wasn't going to talk in any detail about these.

8   GI-186 and 189 are, hopefully, going to be closed

9   here in the near future. GI-186, I was looking at

10   it this morning, and I learned that that came about

11   out of USI-836 resurfacing when new information came

12   up.

13   But anyway, one of the things we talked

14   about is ownership of issues. When issues are

15   handed off from the program now, we call that

16   Regulatory Office Implementation, and that's a

17   status that's in our Generic Issues Management

18   Control System report.

19   And that means that a program office

20   like NRR has the lead and is responsible for

21   progress on it. And so we have three issues in

22   Regulatory Office Implementation, and those are 189,

23   191, and 199.

24   MEMBER BANERJEE: So the S has been

25   dropped, right?

1   MEMBER POWERS: Pardon me? Oh, yes. A

2   long time ago. I think it was sometime after the

3   staff took over that the S disappeared.

4   MEMBER BANERJEE: So why do we keep

5   saying GSI?

6   MEMBER POWERS: Because we're hidebound.

7   MEMBER BANERJEE: And why does the

8   Commission keep saying GSI?

9   MEMBER POWERS: Because they're

10   hidebound. We polluted their thinking.

11   MEMBER SIEBER: I'm just a little bit

12   curious. You know, I look at GSI-186, which is

13   about to close. Well, I was a young man when that

14   was --

15   (Laughter)

16   MEMBER SIEBER: Do you know the history?

17   Because back in, I would say, the early 1980s, we

18   were testing cranes, and the controls on them. And

19   that's a long time.

20   MR. BEASLEY: Yes. And I'm not familiar

21   with the specific issues in 186, but the stage

22   they're at is just confirming that each of the

23   facilities has, in fact --

24   MEMBER SIEBER: Done their work?

25   MR. BEASLEY: -- implemented all of

1   that.

2   MEMBER SIEBER: They should have been

3   done 20 years ago.

4   MR. KAUFFMAN: Well, as we talked about,

5   there was a USI on that that was, I think, resolved.

6   This issue came up in 1999. There was a NUREG study

7   done, 1774. Then there were engagements with

8   industry. Industry endorsed -- or we endorsed

9   industry standards.

10   NRR put out a RIS, and there's an

11 inspection activity. One of the reasons -- you're

12 right. The regulatory process is long. The old

13 program had like seven or eight stages.

14   And some people might call this sleight

15 of hand in the new program, in that the old stages

16 of implementation and verification used to be

17 considered to be in the program and were part of

18 that timeframe.

19   Now we continue to track those in our

20 control system and report those to Congress, but

21 they're considered to be out of the program. And

22 there's a lot of tricky words with the program.

23 Resolution, as historically used by the program,

24 meant the answer to the issue. What are you going

25 to do about the issue?

1   It doesn't mean that the resolution has

2   been imposed and implemented everywhere. And in the

3   last rewrite of the MD, we came up with my own

4   favorite confusing words, and that is "Closed for

5   the purposes of the program."

6   "Closed for the purposes of the program"

7   means it has exited our program and been handed off

8   to another program. So now we talk about when all

9   Agency actions are completed.

10   MEMBER POWERS: Just so that you know,

11   in 1972 the Committee defines "resolved for a

12   Generic Issue to mean that a specific conclusion or

13   policy decision has been reached by the Directorate

14   of Licensing and the ACRS. Resolution of the item

15   indicates the Committee is satisfied in a generic

16   sense. However, this does not mean that

17   improvements should not be investigated and possibly

18   implemented."

19   They've been wrestling with what it

20   means to be resolved since at least 1972.

21   MR. BEASLEY: And on this specific one

22   and others, for heavy load drops, this may be some

23   aspects that didn't get worked based on the guidance

24   that came out.

25   MEMBER SIEBER: Yes, because there had

 1 to be something before. Because that's ancient

 2 history to me.

 3   MR. BEASLEY: Yes.

 4   MEMBER SIEBER: You know, the paths that

 5 you mark on the floor, and all that stuff.

 6   MR. BEASLEY: Right.

 7   MEMBER SIEBER: I'm just surprised it's

 8 still around.

 9   MR. BEASLEY: And again, this -- you

10 know, I'm assuming that there are some specific

11 aspects that are the subject of this generic issue.

12   MR. KAUFFMAN: They are completing the

13 inspections, considering some inspection guidance

14 changes. And we may be getting a new date here in

15 our next quarterly update.

16   MEMBER SIEBER: Does total resolution

17 mean that everybody is in compliance, or exemptions

18 have been given as appropriate? How do you know

19 that you're done?

20   MR. BEASLEY: Yes. For all Agency

21 actions being completed, that would be the case.

22   MEMBER SIEBER: And licensee actions

23 also?

24   MR. BEASLEY: Yes. Part of the Agency

25 actions are verifying that the licensees have

 1 implemented their changes. Yes.

 2   MEMBER SIEBER: Okay.

 3   MR. KAUFFMAN: And those used to be --

 4 in the old program, those were specific stages in

 5 the program. In the last rewrite, we moved those

 6 out. Some people say it's sleight of hand. I'm

 7 being up front about it. You can judge for

 8 yourself.

 9   MEMBER SIEBER: Well, how many are still

10 open right now?

11   MR. KAUFFMAN: These are the five. And

12 two are set to be completed.

13   MEMBER SIEBER: That's it?

14   MR. KAUFFMAN: Yes.

15   MEMBER SIEBER: That's all that's left

16 on the list? That's not bad.

17   MEMBER POWERS: When I first came on to

18 the Committee, it was widely presumed that the

19 Generic Safety Issue list was a place to bury an

20 issue. If you didn't want anything done with it,

21 put it in GSI. Since that time, they have a much

22 better track record.

23   MR. KAUFFMAN: And I think the new

24 criteria, and the fact that no one office director

25 can force an issue in -- and Ben will probably tell

 1 you, too, I'm a little bit perhaps overly

 2 protective, at times, about letting issues in.

 3 Because taking them to screening and taking them to

 4 panels is a lot of work.

 5   We want things to get in that should be,

 6 but we want to keep things out that don't belong.

 7 And we do want to find homes for things that need

 8 work, whether it's in or out of the program.

 9   MR. BEASLEY: And that's the flip side

10 that I wanted to emphasize. We're not trying to

11 just keep them out to keep them out. We really want

12 to find the best avenue for addressing them, and so

13 our expectation of ourselves is that we will find a

14 home for every issue. It might not be in the

15 program, but we intend to find someplace for it to

16 be addressed.

17   MEMBER POWERS: That's good.

18   MR. KAUFFMAN: And I'm kind of a convert

19 to the program. I only came over to the program

20 four years ago. I spent most of my career in AEOD

21 Operating Experience, and the last thing I wanted

22 was for my issue to go to the Generic Issues

23 Program.

24   I wanted to talk about a Generic Letter,

25 this, that or the other. I've been there, so I

1   wanted to make this program work for people.

2   MEMBER POWERS: There's just no

3   question. Over the last decade, the resolution rate

4   for Generic Issues has gotten astronomically high

5   compared to what it was when I first came on the

6   Committee.

7   MEMBER BLEY: And the entry rate is

8   lower too, it looks like.

9   MR. BEASLEY: Yes.

10   MEMBER BLEY: By quite a bit.

11   MR. BEASLEY: Yes, it is.

12   MEMBER SIEBER: It looks like somebody's

13 been working.

14   MR. KAUFFMAN: This next slide, the

15 activity level of Generic Issues. You can see that

16 a few years after TMI, in the early to mid 80s,

17 there was just a flurry of activity at that point in

18 time.

19   I wasn't here, but people tell me there

20 was a whole division in NRR that was working on GIs.

21 And now you can see, the activity is much lower.

22 We're down to half of a branch. But what that does

23 mean is that the issues we have, we can be on top

24 of. And we can push them and move them.

25   As we mentioned before, there are two

1 proposed issues that are of some interest right now.

2 There's multi-unit risk, and we also have dam

3 failure. And again, it's sort of like GI-199. It's

4 related to external events and new information.

5   MEMBER BLEY: Are these a particular set

6 of dams, or just it's really generic and general?

7 Are there a handful of these around the country that

8 we're especially worried about?

9   MR. KAUFFMAN: Well, NRR submitted this

10 to us, and it was based on some inspection findings

11 and concerns about Oconee and Fort Calhoun.

12 Certainly there are other -- there are a lot of big

13 dams on the Missouri River. There are plants

14 downstream.

15   There are some other plants. I think

16 there's maybe about 20 plants that possibly need to

17 be looked at. Clearly, it wouldn't be all plants.

18   MEMBER STETKAR: John, I'm kind of

19 curious about --

20   MEMBER SIEBER: What is the multi-unit

21 risk?

22   MR. KAUFFMAN: That was an issue that

23 was sent to the program from the SORCA project, and

24 the idea there is that some events, perhaps seismic

25 events or station blackout events, could affect both

44

1 units at the same time.

2 Staff could be dealing with that at a

3 single site. And so the idea there is, are we

4 missing -- because we predominantly have single-unit

5 PRAs, are we possibly missing some of the risk? And

6 that's a question that, without developing the PRAs,

7 we can't really answer.

8 And so conceptually, to me, that's an

9 issue that should be sent to Research, and Research

10 and the other offices should decide if that's

11 something we want to spend money on. But we'll see

12 how that plays out.

13 MEMBER SIEBER: But that's not a new

14 hazard. That's just a redefinition of a meaning of

15 a specific event, right?

16 MR. KAUFFMAN: Scientific knowledge

17 continues to advance. That's essentially what GI-

18 199 was about.

19 MEMBER STETKAR: When you say scientific

20 knowledge --

21 MR. KAUFFMAN: Scientific understanding.

22 MEMBER STETKAR: Of what? How to do a

23 risk assessment for a multi-unit site? People have

24 done that for about 25 years in the industry. Is it

25 a new -- I mean, I don't understand this process, to

1 some extent.

2   MR. BEASLEY: I think the new --

3   MEMBER STETKAR: I understand the dam

4 failures, and I understand the seismic hazard,

5 because I -- that's evolving knowledge. But this

6 one is curious.

7   MR. BEASLEY: The multi-unit risk is

8 probably not new scientific understanding, as much

9 as it is the way the Agency has handled assessing

10 risk. We do it per reactor rather than per site.

11 And so that was --

12   MR. KAUFFMAN: And it's also tied to the

13 fact that we're talking about more reactors at some

14 of the sites, perhaps modular reactors. And I'd

15 just like to emphasize that 933 is a good knowledge

16 management tool. A lot of information.

17   Go to the next slide where we talk about

18 program initiatives. We've already touched on this.

19 We're trying to improve how we present the

20 information in 933. There's some information in 933

21 that's significantly out of date, and we're working

22 to correct some of that.

23   And that's related to the second bullet,

24 that there are some low-priority issues in there

25 that, again, don't belong in the new program. We

1   don't define things as low priority. It's either in

2   the program or it's not.

3   And as Ben had talked about earlier,

4   we're trying to increase awareness of the program.

5   We're giving briefings whenever we can. We've gone

6   to conferences out at ICAP, brochures we're

7   developing.

8   We've done all-hands briefings. We've

9   established office counterparts in the other offices

10   to keep their ears as to what's happening, and bring

11   us issues, help their staff with submitting issues.

12   So we are doing all that we can to promote the

13   program.

14   One activity that we're going to do in

15   the near future is, on our internal web page, we

16   have lists of proposed issues and their resolution,

17   but we haven't had that on the public page. We

18   haven't periodically put out that to management.

19   That's something that Ben is working on, and

20   thinking about how to best do that.

21   And there's been a lot of concerns about

22   if issues get transferred out to Research that

23   aren't Generic Issues, say at the pre-GI stage, what

24   happens to them? And so we're looking at how to

25   improve the tracking and accountability and improve

1 reporting on the pre-Generic Issues that get sent

2 out for research activities. That was all of the

3 prepared remarks I had.

4 MEMBER POWERS: Thank you very much. Do

5 people have questions about the Generic Issues

6 Program that we haven't already asked?

7 Well, thank you very much. And Ben,

8 I'll get in touch with you. I'll put together three

9 or four slides, I think, from this material, and

10 I'll just stick it in when we talk about the station

11 blackout and the ATWS rule, and attach some of this

12 advertising material about the Generic Issue and

13 tell them to get in contact with you if they want

14 more information.

15 MR. BEASLEY: That would be great.

16 MEMBER POWERS: I think it fits in

17 nicely, and there are a couple of nice anecdotes to

18 stick in there that could make it quite interesting.

19 MR. BEASLEY: Thank you.

20 MEMBER POWERS: Mr. Chairman, it's all

21 yours.

22 CHAIRMAN ABDEL-KHALIK: Thank you. At

23 this time, we are off the record.

24 (Whereupon, the above-entitled meeting

25 went off the record at 2:02 p.m.)

Generic Issues Program Overview

ACRS Full Committee Briefing

March 11, 2011
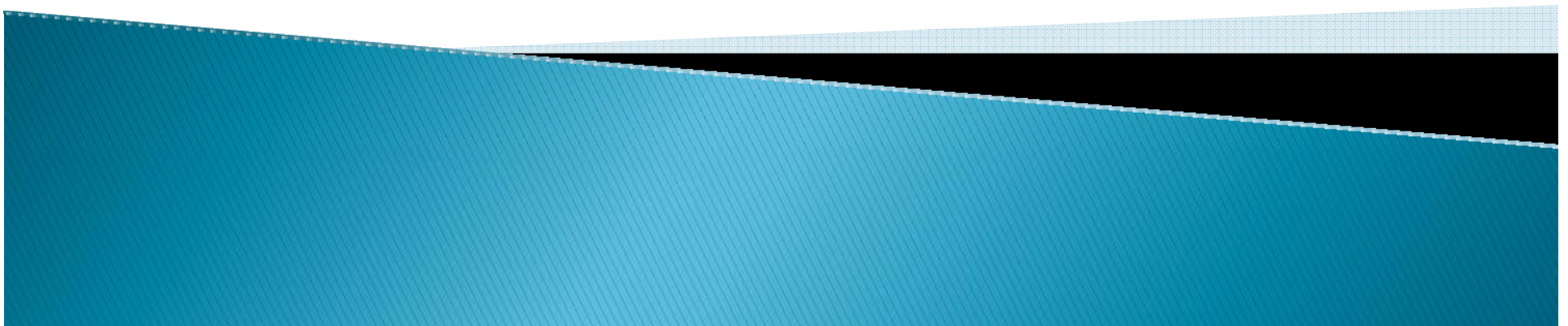
Agenda

- Historical Perspective
  - Basis of Generic Issues Program
  - Key Elements of the Generic Issues Program
  - Results of Generic Issue Evaluations
  - Past Program Problems
- Fundamentals of the Generic Issue Program
  - Generic Issue Criteria and Process
  - Generic Issues Program Enhancements
- Current Issues
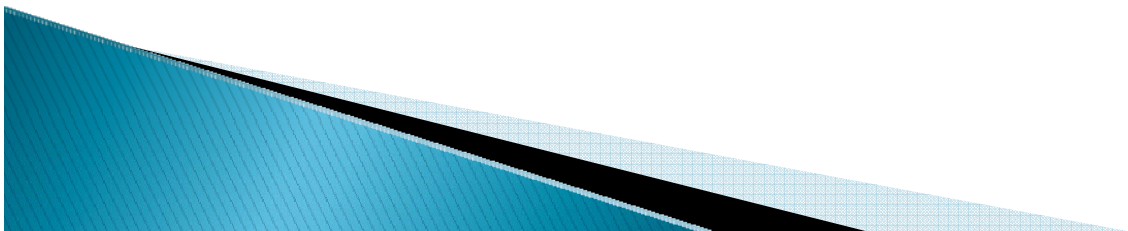 - Current Generic Issues
  - New Issues and Program Initiatives
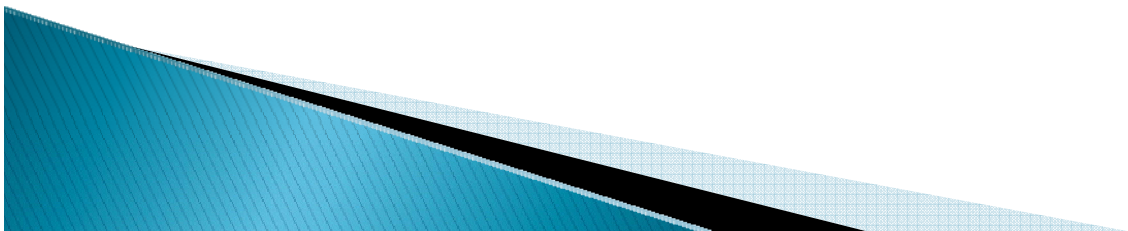
Basis of Generic Issues Program

- Energy Reorganization Act of 1974 (1977 amendment)
  - "Sec. 210. Unresolved Safety Issues Plan
    - The Commission shall develop a plan providing for the specification and analysis of unresolved safety issues relating to nuclear reactors and shall take such action as may be necessary to implement corrective measures with respect to such issues. Such plans shall be submitted to the Congress on or before January 1, 1978, and progress reports shall be included in the annual report of the Commission thereafter."
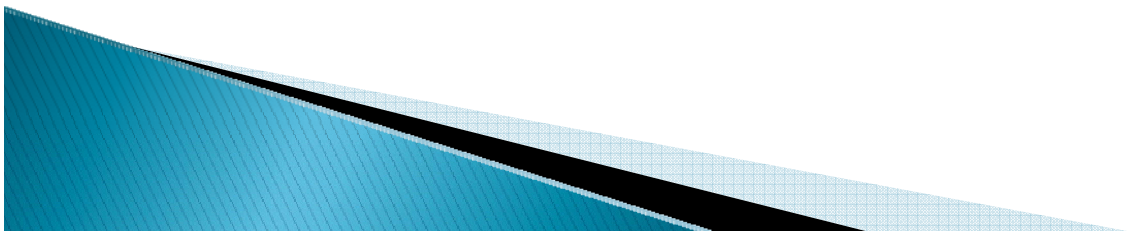
Key Elements of the GI Program

- Unresolved Safety Issue is a special case of Generic Issue (GI)
- 853 Generic Issues since 1976
- Part 52 has requirements to use NUREG-0933
- Reporting
  - Annual SECY on the Program
  - Semi-annual reporting to Congress
  - Quarterly reports on issue status
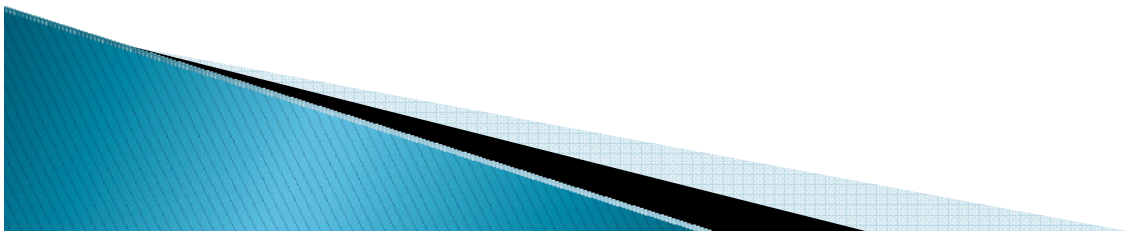
Results of Generic Issue Evaluations

No Regulatory Products (no associated actions) 36%

No Regulatory Products (other associated actions allowed resolution) 18%

Generic Communications 10%

Regulatory Guidance 5%

Policy & Rules 3%

Policy & Rules 11%

Generic Communications 17%

Regulatory Guidance 18%
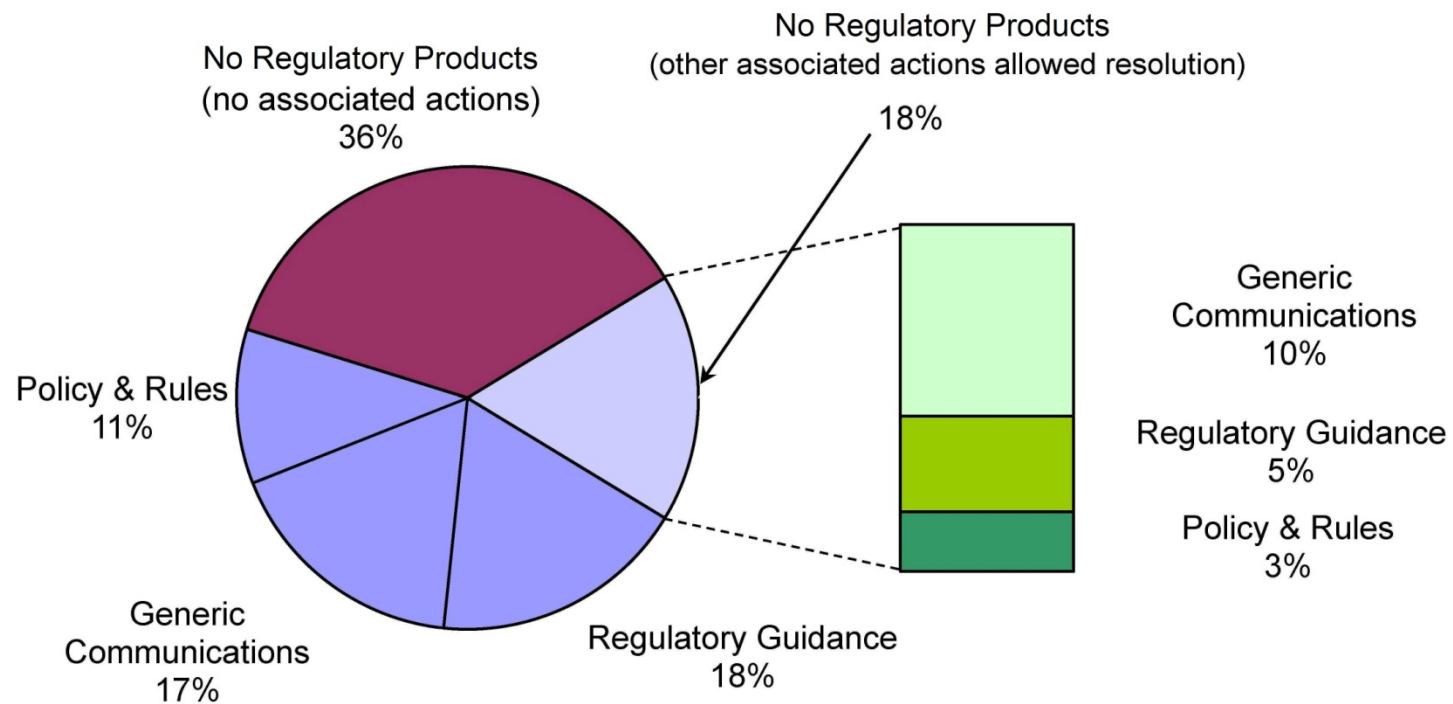
Past Program Problems

- Ownership and accountability not clear
- Weak management emphasis on resolution
- Program staff geared toward tracking and reporting rather than resolving issues
- Disagreement on proposed resolutions surfaced late in process
- Minimal public engagement
- Issues put in or excluded from program at management discretion
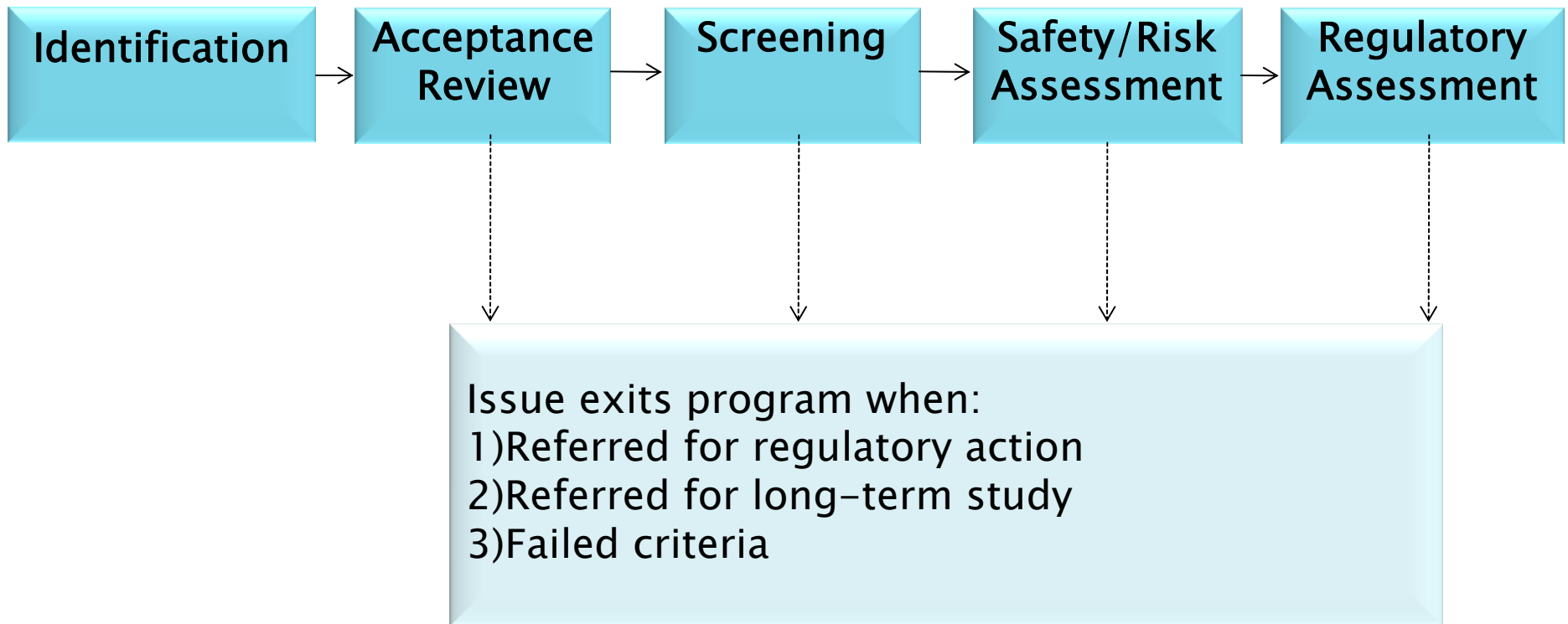- Regulatory Offices and regions not aware of issues being worked

GI Criteria

1) Affects public health and safety
2) Applies to two or more facilities
3) Not readily addressable through other regulatory processes
4) Can be resolved by regulation, policy, or guidance
5) Risk or safety significance can be adequately estimated
6) Well defined, discrete, technical
7) May involve review, analysis, or action by licensees

GI 5-Stage Process

Identification	Acceptance Review	Screening	Safety/Risk Assessment	Regulatory Assessment

Issue exits program when:
1) Referred for regulatory action
2) Referred for long-term study
3) Failed criteria

Generic Issue Program Enhancements

- Find appropriate home for issues
- Apply appropriate technical resources
- Screening / Assessment panels
- Concurrence of stakeholder offices
- Issues that meet the criteria for a GI get a Communication Plan and public meeting
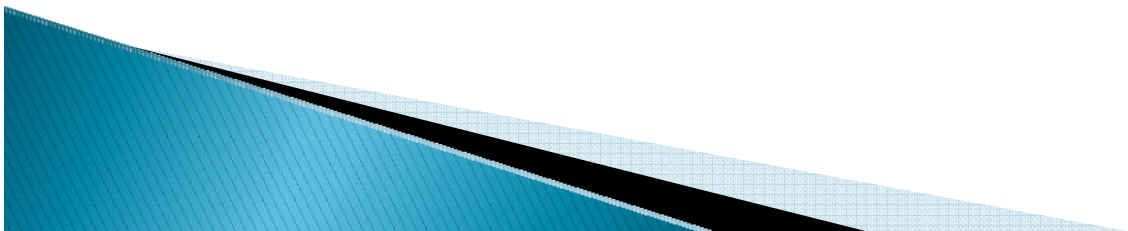
Current Generic Issues

- GI-186, Heavy Load Drops (Mar. 2011)
- GI-189, Susceptibility of Ice condenser and Mark III Containments to Early Failure from Hydrogen Combustion (Mar. 2011)
- GI-191, Assessment of Debris Accumulation on PWR Sump
- GI-193, BWR ECCS Suction Concern (in S/RA)
- GI-199, Updated Probabilistic Seismic Hazard Estimates in CEUS (in ROI)

Activity Level of Generic Issues

53 Issues

■ Newly Screened in GIs
■ Resolved
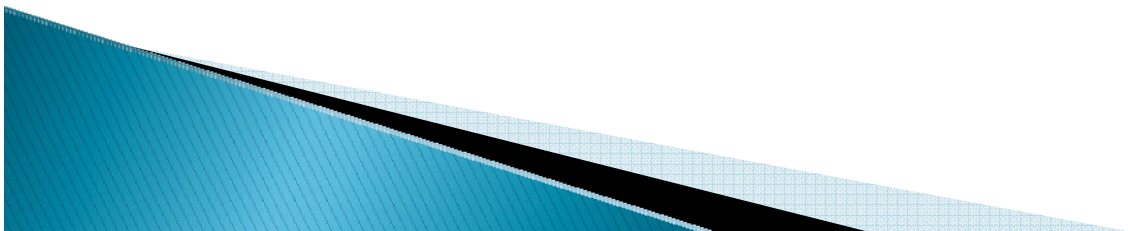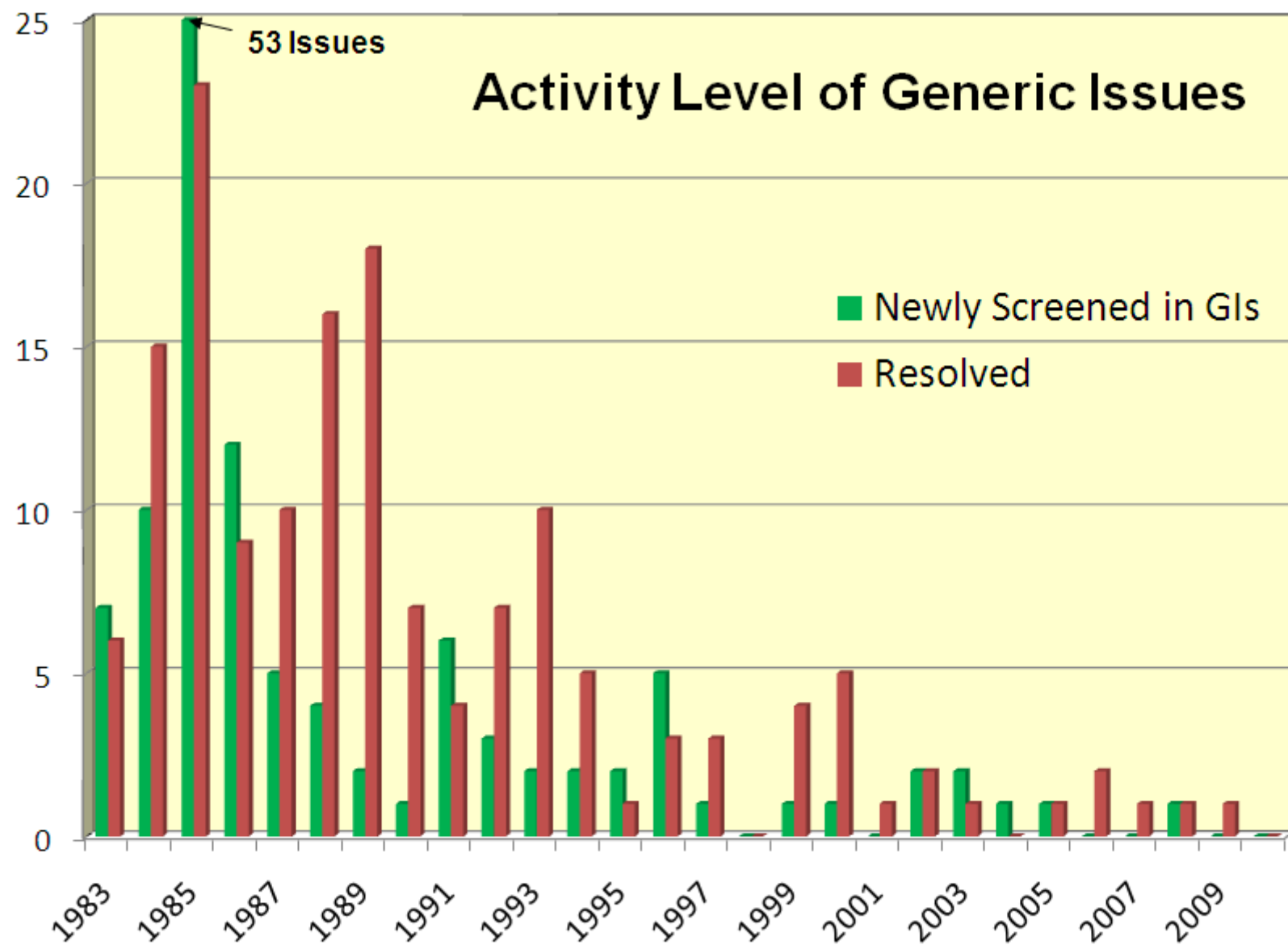
New Issues and Program Initiatives

▸ Two Proposed Issues
  ◦ Multi-unit risk (Pre-GI-001)
  ◦ Dam Failure (Pre-GI-009)

▸ Contemporary issues are complex
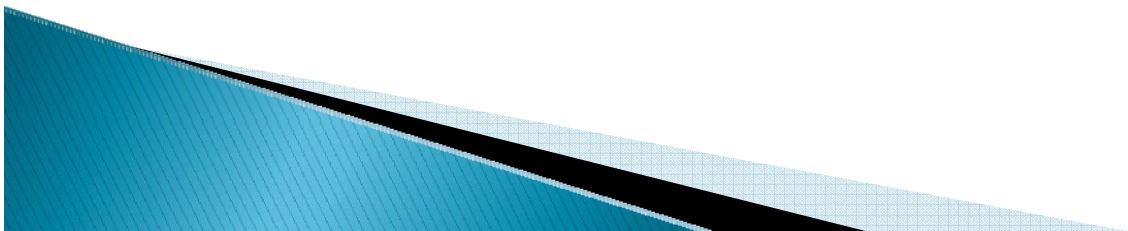
Program Initiatives

- Improve access to information in NUREG-0933
- Disposition older, low priority issues still in system
- Increase awareness of the program
- Increase visibility of proposed issues
- Increase tracking/accountability of proposed issues transferred out for additional research