BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

IN RE: THE MATTER)
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OF)
)
DAVIS-BESSE)

REPORT OF PROCEEDINGS
December 10, 2003
9:30 A.M.

REPORT OF PROCEEDINGS had and testimony taken the hearing of the above-entitled matter, held before Mr. Jack Grobe, at the Nuclear Regulatory Commission, 801 Warrenville Road, Lisle, Illinois.

PRESENT ON BEHALF OF N.R.C.:

MR. JACK GROBE, Hearing Officer;

MS. CYNTHIA PEDERSON;

MS. CHRISTINE LIPA;

MR. SCOTT THOMAS;

MS. PATRICIA LOUGHEED;

MR. ZELIG FALEVITS;

MR. JULIO LARA.

PRESENT ON BEHALF OF DAVIS-BESSE:

MR. LEW MYERS;

MR. JIM POWERS;

MR. ROBERT SCHRAUDER;

MR. JOHN GRABNAR;

MR. JOSEPH HAGAN;

MR. DAVID GUDGER;

MR. NATHAN BARRON;

MR. BRIAN BOLES;

MR. MARK RADNER;

MR. STEVE FRANTZ;

MR. JAY LEININGER;

MR. TODD SCHNEIDER;

MR. BRIAN HENNESSY.

MR. GROBE: Good morning. My name is Jack Grobe, I'm the chairman of the Davis-Besse oversight panel for the N.R.C. I appreciate FirstEnergy ~~First Energy~~ coming in on fairly short notice for a meeting to continue a dialogue on some issues that were identified by our corrective action team inspection.

The meeting today is a public meeting between the FirstEnergy ~~First Energy~~ Nuclear Operating Company and the Nuclear Regulatory Commission. It's being made available for public observation, both here in the N.R.C. Region III office in Chicago, Illinois, as well as in our N.R.C. headquarters office in Rockville, Maryland, and telephonically. And I understand there is some 25 or so participants in this meeting that are on the telephones.

When people speak today, if you would take a moment, make sure you introduce yourselves, and also speak clearly and loudly. That would assist both the transcriber here in Region III, as well as the folks on video

conference at headquarters and on the audio conference bridge.

This meeting is being transcribed today to make sure that we maintain a record and make that record available to those people that could not participate in the meeting. As I mentioned earlier, the meeting is between FirstEnergy ~~Energy~~ Operating Company and the N.R.C.

At the conclusion of that business portion of the meeting, we will take a brief recess and then convene a question-and-answer session, where members of the public can ask questions or make comments -- ask questions of the N.R.C. staff or make comments that they feel are appropriate.

We are in an office space -- a meeting space here in Region III that does not permit participants of the meeting to go to and fro, since we are completely within N.R.C. spaces, so if members of the public here in Region III would refrain from leaving this space, we will take frequent breaks to make sure that

personal needs are appropriately satisfied.

Christine, is there anything I missed as far as --

MS. LIPA: The only thing is we have handouts available here. We also want to make sure we have handouts available at headquarters, and the public feedback form is also available.

MR. GROBE: Very good, very good, thank you very much. At this time I'd like to introduce the staff from the N.R.C. that are here today.

On my immediate left is Christine Lipa. Christine is branch chief responsible for the inspection programs at the Davis-Besse facility. To my right is Scott Thomas. Scott is the senior resident inspector at the Davis-Besse facility. Next is Cindy Pederson, director of our division of reactor safety.

On her right is Patricia Lougheed. Patricia is a senior mechanical engineer in the division of reactor safety and one of the key members of the corrective action team inspection. Zelig Falevits is next to Patricia. Zelig was

the team leader of the corrective action team. Next is Julio Lara, Julio is the branch chief in the division of reactor safety responsible for the electrical programs, and he has lead responsibility for the corrective action team inspection.

Lew, why don't you take a moment to introduce your staff.

MR. MYERS: What I'd like to do is start at the end, Mark, and let's go around, briefly introduce yourself and describe what you do.

MR. RANDER: Mark Rander, I am assistant engineer, work in the plant engineering department.

MR. BOLES: Brian Boles, I'm the plant engineering manager at Davis-Besse.

MR. BARRON: Nathan Barron, I'm a mechanical design engineer.

MR. GRABNAR: John Grabnar, I'm manager of the design engineering at Davis-Besse.

MR. HAGAN: Joe Hagan, senior V.P. of engineering for FirstEnergy ~~First Energy~~.

MR. POWERS: I'm Jim Powers, director of engineering at Davis-Besse.

MR. MYERS: Lew Myers, chief operating officer of FirstEnergy ~~First Energy~~ Nuclear Operating Company.

MR. SCHRAUDER: Good morning, Bob Schrauder, the director of support services at Davis-Besse.

MR. GUDGER: Dave Gudger, I'm supervisor of regulatory affairs.

MR. FRANTZ: Steve Frantz from Morgan Louis.

MR. LEININGER: Jay Leininger, engineering consultant to Jim Powers.

MR. SCHNEIDER: Todd Schneider, manager of communication for FENOC.

MR. HENNESSY: Brian Hennessy, supervisor of performance improvement.

MR. GROBE: Very good, thank you very much.

Earlier this year, in 2003, the N.R.C. began what we have called the corrective action team inspection. In February of 2002,

FirstEnergy ~~First Energy~~ shut down for --

MR. ~~Reuland~~ Ruland: Can we introduce ourselves?

MR. GROBE: I apologize, Bill. Go ahead, of course.

MR. ~~Reuland~~ Ruland: I'm Bill ~~Reuland~~ Ruland, project director in 83, I'm the vice-chairman of the 0350 ~~30355~~.

MR. HOPKINS: John Hopkins, N.R.C. project manager.

MR. MENDIOLA: Tony Mendiola, section chief for Davis-Besse, and we have Dan Horner -- Dan Horner from McGraw-Hill.

MR. GROBE: Excellent. Thank you, Bill, I apologize for forgetting you.

MR. ~~Reuland~~ Ruland: That's all right. You guys are busy, we understand.

MR. GROBE: As I mentioned, FirstEnergy ~~First Energy~~ shut down in February of 2002 for what was anticipated to be a routine refueling outage. During the course of performance of inspections of the reactor vessel head penetrations, a cavity -- a corrosion cavity was discovered.

FirstEnergy ~~First Energy~~ assessed the causes of that corrosion cavity, and one of the causes was an inadequate implementation of corrective action program for a number of reasons. Because the ineffective corrective action program was a significant contributor to the head degradation, the Davis-Besse oversight panel added to the restart checklist, a specific item regarding corrective action program effectiveness. That is one of the eight remaining open restart checklist items.

The N.R.C. began an inspection in the spring, late spring of this year, 2003, titled the Corrective Action Team Inspection. That inspection has involved as many as some ten inspectors over a period of six or eight months multiple weeks on-site, as well as weeks in the home office performing inspection activities.

We had a public dialogue during the November '03 public meeting in Oak Harbor regarding the results of that corrective action team inspection. Briefly, there was some 30

violations, approximately, identified. That is a significant number of violations, and they spanned the entire spectrum of corrective action.

The issues went from identification, to proper categorization, prioritization and resolution of corrective actions of deficiencies, as well as some programmatic aspects of program implementation. But in particular, there was concerns regarding the adequacy of the evaluation of deficiencies to identify the causes and the effectiveness of the correction of deficiencies.

And the majority of the concern in this area focused in engineering areas. FirstEnergy ~~Energy~~ submitted some broad concepts of improvement activities and discussed in some detail in our November meeting the improvement activities they had taken and will take in the engineering, and corrective action areas. The N.R.C. found it needed additional detail in this area and requested that FirstEnergy ~~First Energy~~ present to us more detail on why they believe in the

engineering and corrective action effectiveness areas. The plant is ready for restart, and of equal importance, why the N.R.C. should have confidence that the corrective actions that have been or are being taken will be effective into the future.

So the purpose today is to hear additional detail in those areas, essentially augmentation of the submittal that you made in late November, which was your request for restart, and included your Cycle 14 operational excellence plan, and for the N.R.C. staff here in Region III and in headquarters to have an opportunity to question you about the bases for your conclusions that things are adequate today and will continue to improve into the future.

Cindy, unless you have any other thoughts or comments, at this point I would just suggest we turn it over to FirstEnergy ~~First Energy~~.

MS. PEDERSON: Fine.

MR. GROBE: Go ahead, Lew.

MR. MYERS: Thank you Jack. We have a

couple of desired outcomes today that we thought about. First, we want to demonstrate our corrective action process itself and our effective implementation of the process, if you will, and engineering qualities, of course restart, as we go through the presentation.

At the time of the team inspections, we had already taken several actions for -- before that team came in the March time frame to improve the corrective action program, and we looked at our program compared to some of the industry's best programs. So we had taken some actions at that time.

Additionally today we want to say as soon as the team left, we continued to take actions, and we took some strong actions, and they went out the door to really focus in a couple of areas. First, you know, the apparent cause and engineering, and then the quality of some of our engineering calculations and the strong self-assessment we will talk about today, and finally on the document for restart was a

document we provided you with some of our initial activities to improve the overall corrective action program, engineering performance. That is in our operational improvement plan, and as we are looking now, you know, we told you as we submitted that, that we are going to be adding more information to it as time goes on. It's a living document, we are going to share some additional thoughts with you on that plan today.

Joe Hagan -- next slide -- will discuss the engineering functions that support restart. Jim Powers will talk to you about some of the improvement initiatives and then Bob Schrauder will talk about some of the corrective action program improvements that we have made. And then Bob will also discuss some of the details of some of those improvements, if you will.

Our operational improvement plan, you know, once again the 0350 process doesn't go away at restart. We would not sit here and say we have arrived, and our operational improvement

plan ensures that continued improvements and sustained performance continues after restart of the plant.

We do believe that our programs are in good stead, our implementation is in good stead, but we are always up for improvement. We also believe that as we look at our processes now in the plant, that we are transitioning to organization from programmatic actions, if you will, changing all the walk-downs we did, all the program changes, all the corrective actions into an operational phase and normal operations. And we are trying to do that with our operational plan, and focusing on on-line scheduling, detailed scheduling of activities, if you will, and then final refueling outages for mid-cycle outages. So we are trying to get more in an operational focus.

We provided you that plan as part of our entry restart report, and once again we are looking at our -- we are in the middle of another revision to that plan. One of the things

that I would assure you today if you go back and look at this outage, I mean it's been an extensive outage. FirstEnergy ~~First Energy~~ has stepped up to the plate, we think we have improved the quality of some major, major structures in the plant over and above what we think is an industry lead. For example, containment, we are the only plant starting up that corrective action program, we drove that and we will have a monitoring program so we can look at and monitor ~~pit~~ leaks continuously while we are working.

We think our leak rate program is a good example of strong corrective actions. So we are proud of a lot of things that FirstEnergy ~~First Energy~~ supported through the extended shutdown. But I will tell you today that is -- that support continues. We have been through our restart improvement plan, and we -- that plan is fully functioning for next year. We talked about that, so it's not some wish list that we have laid out, we find that plan working well.

We talked about our operational

improvements. One of the things that we want to do is try to reduce challenges as we move forward. And as we looked at building blocks, we went through all of our root causes, we developed a model that we will continue to use.

That model looks at the competence of individuals. Today you will hear us discuss some of the discussions that were taken with our new engineers and old engineers and next year and in the training area. You anchor your standards, if you will, through your programs and processes, and we will talk about some of the changes we have made and some of the new programs that we are putting in place that you have yet to see.

From a management standpoint, we have strong management, we have got a good, good team together at our Davis-Besse plant, and now that we brought in our new plant manager, we are looking at a couple more positions as we speak.

And then finally, effective oversight through both independent oversight and self-assessment, and we have done some things to

strengthen that program that we will discuss today, and some of the assessments that we will be doing as the year progresses through the next refueling cycle.

So we will discuss those things today that we think we are going to be doing that will prevent challenges in the future. With that I'd like to turn the meeting over to Joe Hagan, senior vice-president of engineering services to discuss the engineering functions. If you will, Joe.

MR. GROBE: Joe, this is Jack Grobe. Before you get into some of the detail that you are going to get into, I probably should have mentioned one item, especially for those that are observing this meeting. I anticipate that the N.R.C. is going to be asking some very probing and challenging questions, nobody should interpret that as a decision by any stretch of the imagination.

Our purpose today is to hear what you have to say and probe it so we have a clear

understanding of that information. The process that we go through would be that Zelig and his team would assess the information we hear today and prepare to make a recommendation to the panel. The panel will evaluate the recommendation made by the corrective action team and make a decision based on safety as to whether or not the checklist item 3A, which is corrective action program, is sufficient for restart.

But I didn't want anybody to interpret probing and challenging questions as concerns or decisions. Thank you. Go ahead, Joe.

MR. HAGAN: Thanks, Jack. As Lew said, I'm Joe Hagan, I'm the senior vice-president for engineering and services for FirstEnergy ~~First Energy~~ Company. First, let me say I recognize the importance of this meeting, Jack, and we brought with us a fairly large group from an engineering perspective. We have the manager of design systems, we also brought Mark and Nate along as implementing engineers, if you will, so any

questions you may have, feel free to ask anybody that's here. That's why we brought along this group.

The presentation itself too is -- I know, Jack, you are looking for a detailed presentation. The way we put this together was I will provide a little bit broader view, carrying on the barrier theme that is required for quality engineering, and Jim will get into details of the plan as they apply to Davis-Besse.

So the first slide, the barrier model we have is the competent individual, experienced manager of the -- for effective oversight and it's really how we build -- we are looking at how to build a quality engineering organization and maintain it, and really keep driving this for continued improvement.

The purpose of engineering, as I look at the handbook that we have for expectations and standards with engineering, is FirstEnergy ~~First Energy~~ is going to ensure -- the purpose of engineering is to ensure safe, reliable equipment

performance and control, maintain configuration of nuclear and design licensing bases. That is our overall approach from an engineering standpoint, and that is what we have from the corporate standpoint.

Next slide is the -- for the individuals. Any engineering organization of any quality engineering starts with competent individuals. You have to have people that have the right standards, the right knowledge in place to be able to produce a quality product.

We put out the engineering principles and expectation document in July of 2002, and as a result of what we saw from the CATI inspection and some of the things we have found from the corrective action process, we reinforced that.

And reaffirming that in August of 2003, the document itself I think captured very well -- captures those principles of engineering that you need to run a facility. In terms of competent individuals, you've got to have a good

selection and hiring process, and we are in the process of overall, from a management standpoint, looking at assessing what our talent is, what our talent needs are, what the demographics are. The plan is to replace those individuals that are leaving, both at Davis-Besse and from a corporate standpoint.

Training qualification, you have got to have the right training programs in place. We put a lot of training in place in terms of engineering principles within all three of our sites.

Coaching development for the individuals, we have got a -- Jim will cover that in detail, but that is really to assess how we're performing in the field real-time, providing feedback to individuals and actually doing assessment of whether the individuals are performing at the standards we expect. If they are not, then we need take whatever corrective action is required, and we are willing do that. We recognize that and we do it.

The other thing that I will mention is the --

MR. FALEVITS: Can you elaborate a little bit on ~~regress~~ - address application of engineering procedure and what you have done in this area?

MR. POWERS: What we have done is reinforcing the procedural adherence particularly, and I will get into this in detail in my section, but through our Engineering Assessments Board, we have really calibrated them on their approach to review of stuff, products and calculations where we had a concern on the quality of calculations, and the workmanship attention to detail that we had in our calculations, input both from yourselves annual the CATI team inspection, as well as the independent assessments that we commissioned by Sargent& Lundy immediately after your last inspection visit at the site.

The Engineering Assessments Board is now using a checklist for the procedure that assures that the engineers are following the

procedure in detail and the preparation of calculations and the engineering person gets feedback that the board has written, it's all documented and maintained. And then that feedback is provided to the supervisors and management of the engineering organization to coach the individuals and understand where the shortfalls have been. So we have taken some decisive action that I will describe for you. We think it is setting us up, and really putting a strong barrier in place for improvement there.

MR. MYERS: We didn't have engineering coaching.

MR. POWERS: What we had was -- calculations are a part of that, but at the time they were looking at -- they were looking at preservation of the design basis, ~~50-5059~~ 50.59 quality interface to other disciplines, have you thought about all the issues, the higher order engineering functions. They would look to see a calculation had been prepared, but they wouldn't necessarily do a line-by-line check for procedure

adherence check. These are senior consultant levels that we are looking at a problem and mentoring and commenting to the individual engineers on their approaches, so we have changed that now, reflecting and acknowledging the need that we have to look at more detail for procedure adherence.

MR. FALEVITS: Have you --

MR. THOMAS: I have a question.

MR. GROBE: What I'd like to do is let Jim get into his detailed presentation after Joe goes through his higher level, but if we have some specific focus areas that we want to make sure Jim covers, I'd like to make him aware of those. I have a couple that I'd like to give you a couple of slides to think about. But let's do it at that level, and then let Jim get into his details. Are there specific focus areas?

MR. FALEVITS: I will do my best not to forget my questions. Go ahead.

MR. GROBE: I have got a number I want you to think about, you should make sure that you get

all issues on the table.

MR. FALEVITS: It's good to interface, I think that we understand what we are doing, so I think it's good while we are doing it to ask the questions, I'm going to forget later. That's very good what you are doing, what EAB is doing, but I have a follow-up question, and excuse me, Scott.

How many calcs are they looking at, are they looking at all calcs, all of the old ones, new ones, or --

MR. POWERS: Right now it's the new ones that come through that are prepared, Zelig, it's actually built into our process. I will describe a design interface evaluation process of when a calculation or modification is prepared, that calc is cycled not only through the effective disciplines on-site, including operations maintenance, other engineering disciplines, but EAB is a necessary route through, so it's hard wired into our process that they look at all calcs, and we have a calc improvement project

that is looking at older calcs, and I will describe that as well.

MR. MYERS: One of the team comments in one of the exits recently, was they would not want to sit in front of that board, one of your own teams, some of the probing questions they were asking.

MR. GROBE: Let me take it to a little higher level and give you an opportunity to reflect while Joe finishes his slides. Prior to the corrective action team inspection exit you were implementing your return to service plan, and after hearing the results of the exit, you invited Sergeant & Lundy to do a comprehensive review of the engineering program.

As a result of that, you learned quite a bit, so I'm interested in several things as you go through the details of your presentation. The most important is why did it take the results of an N.R.C. inspection to get effective self-assessment and management of the calcs, such that you are now taking improvement

activities. What was going on with the supervision, review and approval of calculations and engineering products that caused them to not be fully effective? What was going on with the effectiveness and intrusiveness of the Engineering Assurance Board, what was going on with the effectiveness of nuclear quality assurance and your other oversight activities?

So in the context of engineering quality, I would like to make sure that we get into the full breadth of those things. I appreciate also that they identified some opportunities to improve your programs, your engineering calculations program, so we are talking about these various barriers, people, processes, the management, the oversight.

In the people area, I'd be interested in the number of agencies you have in your various engineering departments, the tenure of the supervision and management, the consistency and the leadership and engineering function. That is the level of depth that I

would like to see you get into when you get into your presentation, Jim, and specifically along the lines that Zelig was identifying, the Engineering Assurance Board, make sure that we cover the scope, the function and the competency of those individuals.

Scott, do you have something else that you want to say?

MR. THOMAS: It's hard to remember all of them, but --

MR. MYERS: You could write a book here.

MR. THOMAS: In answering Zelig's questions, you talk about in-house products, and I was wondering how your improvements -- what you have done to improve your own acceptance of products, you know, engineering products, calculations.

MR. POWERS: I will talk to that. There has been activities that are encompassed by this, but I will talk to this as well.

MR. THOMAS: Okay.

MR. GROBE: If any of the other N.R.C.

staff have focus area discussions that we want Jim to get into when he gets into the details, please bring them up while Joe is giving the broad oversight, and then we can let Jim get into it and maybe he can make a bit more cohesive presentation. Thank you.

MR. HAGAN: Okay. Continuing on in, we have a good couple of slides to think about it. The other element for quality engineering must include experienced management in terms of the experienced leadership we have at the site, we have SRO experienced individuals in both the design system engineering, we brought in different experiences from different sites, so it's bringing in a different perspective which I think is important from an engineering standpoint.

The design engineering standards and system engineering standards weekly staff meetings, the engineering plans and expectations are reviewed at those meetings, and really the overall impact here is intrusive involvement by

management, that is one of the keys in terms of quality engineering product. We have got to be involved in what the product is from the start to the finish, so in terms of management involvement, that is a must. The other part of the engineering has to be the planning effort. We have an engineering work management plan, which is now used at all three of the sites, I'd say it's used more -- it's being used more efficiently now at Davis-Besse than it has in the past, and that is the basis, when Jim gets into the long-term action plans, that they are all inputted, they are scheduled resource loaded in that workplace work plan that engineering has.

The other is observation and engagement in terms of experienced management. You have got to be in the field in case of engineering, design engineering, make sure they were in the field doing the walk-downs, doing the interface with operations in terms of what exactly planning is doing and what expectation needs to be done in terms of plant design.

The next area, the -- one of the foundations for engineering quality is strong programs and implementation of these programs, and that is -- the key focus for us in terms of FirstEnergy's ~~First Energy's~~ implementation, we did review the process that we have. I believe there is 66 programs that have been reviewed. We have benchmarked those against the industry, and the overall approach we have is to have the standard process with the three sites, that gave us strength in terms of reviewing products from one site to another site. People can go, they understand the overall approach that is being used at the site when they go there, so it's not something they have to interpret, it's their own process they are looking at in the application of another site.

We reinitiated the system health and plant health reports. The plant health exam is not in place as yet at Davis-Besse, but it's planned to be put in place, as well as the other two sites, so the system health review, I said

through all of them, through the yellow and read systems, we are going to make sure we have plans that were in place to improve the systems as well as what plans are in place to maintain the green and white systems.

That is green and white of the corrective -- the corrective action program. From a FirstEnergy First Energy standpoint this is viewed as an extremely important tool for engineers. And one of the major day-to-day tasks of engineering is to resolve problems, that is by nature of what we do, questions or problems. In the corrective action process, CAPSs, the vehicle that we use to report, assess, assign actions, track and evaluate effectiveness in solving problems, that is what we view in engineering as one of the major tools that we will have.

The Project Review Committee or PRC, this is a committee that stands to look at prioritization of projects, larger-term projects in the plant to make sure we understand from a -- this is both sites. And at the site level we

elevated that to the director level and at corporate we have a PRC that looks at overall projects being done at the site and what is being supported. We did that for a couple of reasons in terms of from an engineering perspective, one was to put in all three sites, is there some improvement we can make from what we did at one site versus another site.

MR. MYERS: Jim, as we go into the transition to a new process would you see that as being different than in the process that we have been under for the past couple of years?

MR. HAGAN: The modifications process is being looked at now, it's being benchmarked against the modification processes that are out in the field or at other organizations. I have had experience with both -- well, two other facilities, fairly large utilities in terms of their process, and our mod process is a little bit different than theirs, so we are benchmarking a modification process.

I will comp that with external

reviews, as far as we have commissioned INPO ~~Impo~~ to come in and give us the site review of four specific areas and the modification process is one of them. So actually it's going to change some from the way we have been doing it.

MR. MYERS: And also we will be more going to a normal operation mod process rather than trying to find issues in walk-downs and design them, we will be within our normal cycle process, which improves I think greatly the quality of the reviews and timeliness, because you were not trying to do 200 mods at one time -- did you have a normal operational process and what do you call the at-risk mods, I would expect to see that.

MR. POWERS: And I will talk about that in detail.

MR. HAGAN: Jim will cover that, and actually I see changes happening in a number of different areas in terms of engineering programs.

MR. GROBE: Jim, are you going to get into some detail? I understand what you said, Joe, that you've got the system health evaluations and

we have seen those reports on Davis-Besse, but you said there is some additional enhancements that you are doing to that program, the plant health committee, are you going to --

MR. POWERS: I will touch on that.

MR. GROBE: Okay. Any other questions or comments on the programs area?

MR. FALEVITS: I have a follow-up check on the corrective action program or process for engineering. How do you measure effectiveness of engineers resolving issues right now, addressing issues, how do you measure the effectiveness?

MR. HAGAN: The overall effectiveness measurements that we have for the corrective action process is by definition within that process is whether a corrective action prevents recurrence of problems. I mean, that is the definition of a corrective action process, it's used throughout the organization, not just engineering.

MR. FALEVITS: That's a good way, but you do need to do some training, right?

MR. MYERS: We are going to cover that.

MR. HAGAN: We will be covering that. There are measurements you have, and one is Corrective Action Review Board, and Bob will cover that and look at what are the comments coming from the Corrective Action Review Board, are they rejected, you know, is the overall resolution rejected and for what reasons. Bob will cover that.

MR. FALEVITS: Sorry, go ahead.

MR. GROBE: I think I'd like to broaden that question a little bit, that is an excellent focus, and I will have both Jim and Bob Schrauder address it. Many of the issues we identified in the corrective action team inspection were engineering-focused issues, were in the context of the corrective action program. And neither the engineering organization nor the corrective action program effectiveness was identifying these issues, so I think it's not just trending in the corrective action area, but it's also oversight effectiveness evaluation in the

engineering area. Both of you can address that, I'd appreciate that.

MR. SCHRAUDER: Okay.

MR. POWERS: Okay.

MS. LOUGHEED: Jim, for part of your presentation, Joe mentioned something about sitting in on some of the system health reports on yellow and red systems. I don't know if you would have the information, but it would be nice to hear some additional information about what your overall systems status is, you know, how many are red, how many are yellow.

MR. POWERS: Brian will be able to talk to that. We brought copies of the design basis assessment report, which is the companion hardware and design and support. John Grabnar can speak to the design basis assessment report, which I don't think you have seen, because that is relatively new.

MR. SCHRAUDER: And these are quarterly FENOC issues, and they track the engineering health, not only in the hardware and software,

but if the programs have indicators in there too, so I will talk about that in whatever detail you'd like to get to I'm prepared to provide.

MR. GROBE: Excellent.

MS. PEDERSON: One other thing to add for Bob, Jack broadened the question a bit to talk about effectiveness in engineering. I'd also be interested in the effectiveness on the other areas outside of just engineering, we've got to cover the gamut.

MR. HAGAN: Going to the next slide, the -- which is the barrier effective oversight. This element is what drives continuous improvement in terms of engineering quality from an engineering perspective, and that is the critical challenging aspect of the oversight boards that we have and the intrusion of management, including corporate, or especially corporate in terms of what my role -- we talked about EAB. EAB is only one of a number of oversight functions we have in place.

CNRB also has an engineering subcommittee with specific tasks to look at

products, sample the products and come up with an assessment of whether it would be effective or not. There is an engineering subcommittee within the CNRB, which stands for Company Nuclear Review Board, which is composed of external individuals, most of those seasoned in engineering in terms of outside experience of -- outside FirstEnergy ~~First Energy~~.

The external review I tested a little bit, and most are headed by INPO ~~Impo~~. We requested at least four years experience in engineering specifically, and that will be composed of individuals from other companies also, not just INPO ~~Impo~~ coming in here pulling in other people with different perspectives to look at what we're doing.

MS. PEDERSON: You mentioned mods. What are the other areas that you have asked for INPO ~~Impo~~ review?

MR. HAGAN: Again, Jim will cover that in his presentation, but the overall system, our system engineering approach, system health approach, that is one area we are looking at, our

use of the corrective action process.

MR. POWERS: Calculations.

MR. HAGAN: Calculations, and how we get calculations. Quality oversight organization is another one that is being headed up by design engineering individuals. We have system engineering experience site organization, so we are putting the people that -- within the oversight offerings that have the experience and know what actually to look at.

Peer engineering, my personal goal is to be intrusive, so I think Jim and Brian and John can attest to that. But we will have periodic performance reviews with the Engineering Department outside of the site performance review that are held, so my charge is engineering and we will apply the same rigor that I have had to plant operations to engineering. That is expected output, so there will be periodic performance review with myself, and corporate staff program managers will be involved in those reviews also.

And there is corporate I think it's -- what's different in terms of our approach here now is ~~fleet,~~ we have corporate different assessments. What I mean by that is there is program managers in the corporate office that have the ownership of the program, they will look at all three sites and see what is the implementation aspect, really what's really happening at the sites, generate the corrective actions from that, and -- just as everything else is in terms of the assessments process.

MR. GROBE: Joe, I know over the last maybe year or so, you have been building this corporate level oversight in engineering, could you give us a sense for how many program owners, not topics, how many programs are going to have corporate level owners that are independent of the sites and how many other programs are going to have program owners that maybe at one site that are trying to drive consistency?

MR. HAGAN: Well, the actual number, the programs themselves will all have an owner, Jack.

MR. GROBE: Okay.

MR. HAGAN: Individuals may have two programs that they own, they are shepherding it, essentially they will all have owners at corporate, it's -- the majority of them will reside in corporate. I don't have a specific number of the 66, but somebody will sponsor them. And as you say, we may decide the better response is somebody at the individual site that will sponsor for the rest of --

MR. GROBE: And how many of those positions are filled today?

MR. HAGAN: They are all -- from an engineering perspective they are all filled. The only one we are still recruiting for or looking for is maintenance and outage, which is a little bit different program.

MR. GROBE: Good, I understand.

MR. FALEVITS: Is this a long-term objective or is this a short-term objective?

MR. HAGAN: It's our organizational structure.

MR. FALEVITS: That is long-term?

MR. HAGAN: That it is.

MR. FALEVITS: It's budgeted?

MR. POWERS: We created an organization at FirstEnergy ~~First Energy~~ headquarters of upwards of, I think, 60 people or so are down there, Zelig, so as long as we have management working down there, we have top level program owners as Joe was describing.

MR. FALEVITS: How long have you had it in place?

MR. POWERS: Over the course of the last year that it's been developing.

MR. HAGAN: Within the last year, so some are about a year, some are only --

MR. MYERS: That is one of the major actions that we have taken is the chief operating officer positions, Joe's position, and none of these corporate positions existed before the Davis-Besse issue. What we found in the root cause report was that our plants were somewhat isolated. That is an oversight problem too, from the quality reporting sort of through the sites,

so we created a V.P. of quality assurance also that reports directly to our board. So we have the corporate organization, we have corporate owners, now we've got my job, Joe's job. The chief operating officer job didn't exist. My job is to make sure we are doing the same, he provides the corporate direction, so that is a major change in FENOC business.

MR. FALEVITS: I don't remember you indicating inspections, that's why I'm asking, thank you.

MR. ~~Reuland~~ Ruland: Bill ~~Reuland~~ Ruland. Joe, I have a question about what you do with the issues that corporate folks identified. Do you have a corporate Q.A. program, or do you enter those problems into the respective site corrective actions programs, how does that work?

MR. HAGAN: Right now, Bill, they are identified as a corporate identified action, but they are entered at specific sites, specific sites will need corrective actions coming out of that, and we assign corrective actions to

corporate also, so --

MR. ~~Reuland~~ Ruland: Great, thank you. Thank you very much. And just for those people that are on the phone, the FENOC slides are posted on our Web site, so if you have the availability of a computer while you listen in, you can look at the slides, you can look at the slides on our Web site.

MR. GROBE: Thanks.

MR. ~~Reuland~~ Ruland: Thank you.

MR. HAGAN: So let me go to the summary slide and bring this to a conclusion. We have an integrated -- of course, we have taken four barriers in terms of engineering, and said we've got to address all four barriers, we know that.

And important to me is the ownership and monitoring by management in terms of how intrusive are you. You've got to be intrusive in this business, so I do get involved in the detail probably to lower levels most people are used to, but that's what I have learned to do in terms of assessing what exactly

is actually going on at the sites. We need clear lines of accountability as far as performance for both good and bad, that has to be in place, that has to be driven by management.

The engineering approach to corrective action program has improved, and both Jim and Bob will supply the data, but overall review now is what we have improved in terms of the engineering applications of the corrective action process.

MS. LIPA: When you talk about improvement, what time frame are you talking about, since when to now?

MR. HAGAN: Measurements I have seen, Christine, are like three, four months. Bob can get into that.

MS. LIPA: Thank you.

MR. HAGAN: We have demonstrated our ability to perform fairly complex engineering. You know, we have taken on some very large and complex engineering issues at Davis-Besse and driven them to a resolution, and I think we have

used contractors to do a lot of that work.

We have responsibility for the product, but I think we have demonstrated that we are smart enough to know when to get a specialist involved. And we own that product, so we will continue to use and have a need to use contractors at the site. We talked about the long-term plan, which Jim will get into in the next plan that is resource loaded, and we use what we have referred to as prime contractors that are fairly large and well-staffed engineering firms.

And the last bullet is critical assessment has to be there to drive improvement. We have got to be critical about performance. We may want to make sure we are making the progress that we need to make in terms of engineering quality, to me that is a never-ending journey. You've got to keep plugging at it, you've got to keep testing it and keep it in place.

So with that I will turn it over to Jim and let you ask specific questions from

that.

MR. GROBE: Why don't we just double-check and make sure that there ~~is~~ are no other thoughts or issues that N.R.C. staff will come up with and make sure we hit all the topics ahead of time so Jim can effectively incorporate them into his presentation.

MR. FALEVITS: Q.A. involvement in this process, are you going to talk about that?

MR. POWERS: I will talk about it, I will try to hit all points. If I miss one, just ask me a question.

MR. FALEVITS: We will.

MR. POWERS: Thank you, Joe. Today I'm here to acknowledge -- and from the engineering organization at Davis-Besse acknowledge the 30 violations that the CATI team found during the reviews and acknowledge the performance shortfalls there and that we recognize that improvement is required.

What my desired outcome during the course of my discussion is to lay out the changes

that we have put in place, both over the course of the outage at Davis-Besse, but also in the near term. We have strengthened a number of areas and we have also put plans in place for the long-term, and many things that you will see, as we discussed with the corporate organization, are intended to be permanent changes in our business practice.

I will go through my discussion also from the perspective of the barriers that we have to ensure good performance at the site. The first is competent individuals, and what are we doing for the individuals, and particularly we are going to talk today about our individual engineers. These are the people who do the calculations, who answer the condition reports, who answer the questions to operations and maintenance at the plant.

And some of the things that we have done for them included the Engineering Assessment Board and feedback that we are giving to engineers and our Engineering Assessment

Board, and I will describe the board in more detail on the next slide to give you a lot of detail there.

But during the course of the outage, we put an Engineering Assessments Board in place last year when the outage began. We brought in some experienced external contractors, we staffed up into a number of subcommittees, one was design products, one was containment health and containment recovery oversight, and the other was programs oversight recovery.

And we had -- we also staffed up considerably on general technical specialist contractors who were familiar with nuclear plant recovery operations, and they came from plants such as Millstone, Cook, Clinton. We brought in people with the detailed experience, worked through the discovery process during the course of last year, and then in the fall as discovery completed, we ran back on the level of contractor support and retained the better contractors, and particularly the ones that were associated with

our prime contract organizations, because during the course of the year bringing in many specialists, we really went for the specialists as opposed to the company. But as we began to finish discovery, we felt we needed to manage more effectively all these technical organizations, technical processes.

And when you apply your prime contractor, one of the benefits you get is their management, their headquarters management support, so as issues developed, you can engage that and get some assistance. And so when we scaled back contractors to prime contractors, we also scaled back our EAB.

One of the questions that has arisen is what is the continuity of EAB, what is its consistency, who is on it, what is their qualifications, what have we done with it. And I will describe that in more detail in the next slide, but we have taken the feedback from the EAB, which initially was in the form of comment forms. As you get formal comment forms on a

procedure review or any other formal document review, those comment forms would go back to the engineers with, you know, resolve these comments, and this is not only monitoring of the engineers, but it was providing a quality check on the higher level of the engineering function. Those comments had to be resolved before the product could be approved by EAB.

One of the things we have put into place in that feedback is to strengthen its application through the supervisory management team at the site, and I really have to reinforce this as what I consider to be a major positive change to achieve what we want for quality improvement, performance improvement for engineering at Davis-Besse.

I put the requirement in place that the supervisors utilize the results of the EAB reviews and coach and counsel their individual engineers on those results. Through our formal observation programs, we have a documented coaching function in place.

We have a very active intrusive observation program at the site, it's electronic, which allows -- it's a Lotus Notes document, field observations as well as office observations, training observations, but we really weren't utilizing the tools that were there for us to the maximum extent to achieve rapid stable change and also to drive standards to a higher level, and where the rubber hits the road on this is even the supervisors and the individual engineers.

We have been very busy during the course of the recovery, creating product, investigating condition reports, issuing modifications, checking and driving quality of the contractors that were previously working for us, but now what I'm putting in place is that the supervisors need to take the results of the EAB, coach their individuals on that. There's been shortfall, not just comments on documents, there ~~is~~ are performance shortfalls there, and if there ~~is~~ are trends, we can identify them, then trend that

type of information.

So that is going to be very important to us, and I believe it's going to help us drive improvement more quickly. EAB gave us results on a weekly basis, so if they review 15 products in a week, we get the results mailed out to the supervisory change at the end of the week, and then they do monthly roll-up reports, meet with me and my management team to give us a report on where they see weaknesses and areas for improvement, and I will talk about -- a little bit more about their function. But in the feedback function, the individual is what's going to give us competent individuals and continue that improvement.

Coaching and reinforcement of those standards, then, is going to be -- is really going to be directed at the critical and constructive feedback we get not only from EAB, but we get it from N.R.C. inspection reports, INPO ~~Impo~~ assessments from our Company Nuclear Review Board, we have a 50.59 subcommittee that we get

technical comments from them, as well as N.Q.A. reviews of the technical area, and they are very active in reviewing of the technical area so it's just a --

MS. PEDERSON: I have a question if I could. You are talking a lot about the supervisors coaching the staff engineers. What's your assessment of the supervisors and managers capability of doing that, do they have the right standards?

MR. POWERS: Yes, I think that they do, and I think in general, part of -- this has been two aspects of it, one is during the course of the outage, we restructured the organization to a common FENOC engineering organization, saying that all three sites now we have commonality in the process of it too.

I needed to rebuild the supervisory and management chain and positions at the site. There were some positions that remained open for some period of months while we recruited and found the right individuals. There

were acting individuals, there were contract individuals who were quite competent and skilled, but they weren't company employees in terms of driving the right performance appraisal feedback to individuals on accountability. Now we have all employee supervisors in place with good experience, good standards, right up through the management, and Joe, he described that we have got the managers here, both new to the Davis-Besse organization, and I believe we have the right management supervisory team in place. But I also believe that with the amount of ground that we have covered during this recovery, the amount of technical issues we have taken on over the past 20 months, the feedback that we are getting on areas for improvement, that really needs to be driven back down through.

And these people have the right standards to do it, they just need to take that feedback and apply it down through their organization, both direct coaching, counseling, as well as training of -- taking advantage of

lessons learned through training of the organization, and the amount of material. We have to do that. We need to use it more effectively

MR. HAGAN: Jim talked about the managers. The question was more the managers and supervisors. I invite my panel and John to answer your question.

MR. GRABNAR: I would agree with Jim's characterization. We have -- my organization, we have one new supervisor brought in from outside the company, 20 plus years of nuclear consulting engineering experience, and we selected him as the right candidate, specifically for the reason you are asking, someone who has done calculations, design changes and N.R.C. inspections. In fact, he first was -- I first met him on the architect engineer inspection back in the late '90s at Perry, so he has exactly that kind of technical knowledge, capability and standards that we needed, specifically our design unit, which has a number of less experienced

employees.

And, again, to let you know, I will point out that that is a specific example of how we selected highly qualified and capable people in important positions, in this case the supervisory position, to make sure we drive exactly the kind of standards you are talking about.

MR. POWERS: If I may clarify that. This individual led the architects engineering inspection team and I knew him from my days at a large architect engineering firm when we worked together, and so we hired him. So we think he's got the right standards, and he understands what needs to get done.

MR. MYERS: Also, we put the engineering management team together over the last two years, the fact that they -- there was a couple of recent moves that happened, but if you look at the engineering management team starting with Jim and his staff, they are all proven design engineering and engineering people, knowing that

they are all SROs. I mean, I don't know another engineering group at any plant that I visited, and I visited several of them, where you can look and say, starting with this gentleman, all his managers that have the backgrounds across the board that they have. It is a strong, strong team.

MS. PEDERSON: I appreciate your thoughts on that, but I'd also be interested in if your external review would similarly support your views about the strength --

MR. POWERS: Yes, we just took -- INPO ~~Impo~~ has been helping us through this recovery in different stages. They come in with external teams from the industry and sliced us and looked at where we're at and defined to us the gaps in performance, because we have gone into a forced outage mode, and we needed to address issues and change along the way to gain more towards operational practice, more return to normal the process.

So they brought the team in at

various points. One of the things they pointed out to me very early in 2003 was that we needed to fill supervisory roles. Now, the individual that was here as part of an engineering assessments that they did, specifically engineering in December of 2002, engineering capabilities assessments, they brought in, for example, Jim Meister from Exelon and other vice-presidents of engineering, representatives from various sites came in,

One of those individuals came back, he had a very high level of concern with the supervisory portion, filling the slots, having the right people in place. They just assessed us two weeks ago, and he was very positive, he was satisfied that we had the right people in place in the supervisor position, his direct -- his area of concern and his direct feedback.

MR. BOLES: I can tell you two or three different contractors, one of them was a regional administrator, he made personal comments to me

about the strength of the engineering management team in the plant engineering areas. I mean, that's the team I got, I don't necessarily think I can comment on the supervisors as well as they can, but from a management team standpoint I can tell you I have had good comments from outside industry, experienced people that visit our plant about the leadership of this engineering organization. I was project manager. The most recent INPO ~~Impo~~ assessment we just finished with, and I was mainly brokering information and support for the management team, and several -- or more than several comments were made on the strength of this engineering management team in place today.

MR. POWERS: Now that my colleagues have said everything I was going to say, I have five engineering supervisors, they are all full-time FirstEnergy ~~First Energy~~ employees, which was not the case before my arrival. One of my supervisors filled the manager role for a period of approximately seven months while the engineering manager

position was not filled, and we also have a recent addition, Harold Hopkins, who is a 20-year plus, well-experienced engineer ~~that~~ who has had roles in supervision of management equivalent to mine, and he has worked out well. He's been there approximately seven months, I believe. ~~We~~ We promoted from within.

One of our engineering program owners we promoted to program area supervisor with approximately 20 years experience at Davis-Besse, and I also have an individual that's moved from the maintenance organization up to engineering. He serves as the engineering manager on emergency plan activities, brings the maintenance experience up to engineering.

And I recently inherited the computer engineering group, which is led by Greg Hayes, another full-time employee, and he serves as the night shift engineering support manager. So of the five supervisors that I have, one served as the engineering manager, two are serving as the work support center, engineering

manager, both day shift and night shift, and then four of the five is engineering manager qualified for another plant, I believe. They are a very strong team, communicate well, and I'm very satisfied that I won't need to make changes at that level.

MR. MYERS: Jack Holly, who is our project manager, he's been at the Beaver Valley plant and Davis-Besse plant, is an SRO at Davis-Besse, went down to do some things, brought him back, and he's been our night shift manager the whole time you were there the last year. We are just now putting him back in the operation, letting him do his job. He's been the night shift outage manager, so he's been really driving the night shift for a large portion of time part of the time, so he is that strong, from our standpoint, we went to our engineering group, that leadership, you know.

MR. FALEVITS: One comment: During the CATI inspection, one of the concerns was that you relied on supervisors to conduct training rather

than the training department. You relied very much on the supervisors to conduct training rather than formal training by the training department. Is this still the philosophy?

MR. POWERS: No. And of course the supervisors do that day-to-day training for lower level, and the lesson learned here is a problem we had in the unit last week. "The rest of you engineers need to know about this," that type of training, but the training organization, we have a full-time engineering representative in the training organization at the site.

We have also supplemented that with a contract individual who helps him assure effectiveness of training in our accredited -- INPO ~~Impo~~ accredited technical training perspective, and that program is one that we utilize and will be utilizing, in fact, in the operational improvement plan, continued areas in assessing the type of training that we wanted to do, capturing lessons learned from inexperience creating jobs from the organization, guidelines

for all engineering positions and qualifications, training of the engineers, a lot of activity there, so the supervisors are not going to be relied on to do the training.

MR. MYERS: I will give you my perspective. I believe in the systematic approach to training. I believe in it totally, I believe that you drive the changes and that's how you train your organization. If you allow people to do training other than that, then I have seen time after time where you are doing negative training, so you have to make sure you're not doing the negative training, and if you are going to anchor the training for the long-term rather than just a one-shot deal, then you have to put through the systematic approach to training, so it gets indoctrinated into routine training programs, otherwise it's just a one-shot information. I don't consider that training

MR. FALEVITS: Good.

MR. MYERS: We use the systematic approach to training.

MR. GUDGER: And one of the systematic approaches to training is the manager and supervisor do only that training, and they may not perform it, but they own it, so they have to improve what's being trained, they have to attend to training.

MR. FALEVITS: That's fine that they are involved in owning it, but when we were there, you did a lot of training in the -- training was done by the supervisors.

MR. GUDGER: When you were there, there was a special initiative that we were -- corrective action program, and it was a top-down training approach that we were trying to institute only for corrective action program during that time period to strengthen management to supervisor relationships and strengthen supervisor to employee relationships with regard to the program. As we established the expectations coming from the top down and that was just one period of time and that was a training program from our training department that was given the

materials to the supervision in that time frame.

MR. POWERS: But the answer to your question, Zelig, is we will be using the training organization to do a systematic approach to training.

MR. FALEVITS: Thank you.

MR. POWERS: The next topic was --

MR. GROBE: I apologize, Jim, we are focusing on engineering and corrective action today, but if I remember correctly I think I read your Cycle 14 Improvement Plan multiple times, and if I remember, there is a section in the management effectiveness or organizational effectiveness topic area that talked about additional training for all supervisors on site in the observation, coaching and mentoring areas; is that correct?

MR. POWERS: Yes, that's correct.

MR. GROBE: Could you talk a little bit about that?

MR. POWERS: We want to improve the observation skills, and particularly the

intrusiveness of our observation. As I described, we have a very active, very robust observation program at the site that is electronic, you do your observations, you intercede where you see that standards are not being met, procedural adherence is not being met. There is an opportunity for coaching, both satisfactory coaching to improve performance or recognize good behavior, as well as unsatisfactory coaching in the cases where expectations are not being met.

And so we want to make that even more effective. And one of the areas that we found, particularly in our normal operating pressure test where we exercised the observation program pretty heavily was that we needed to take it a step higher in terms of intrusiveness, so we leave training to the supervisor and management staff on observation skills is going to help us in that area, really intrusiveness of observation, ask them the three layers of questions, get counsel to the actual work level

of what's going on in the procedural step.

For example, the ideas, and we thought our skill set there needs to continue to improve.

MR. SCHRAUDER: Also intended to increase the criticality of our observation in terms of whatever we will see from outside organizations and that type of observation.

MR. THOMAS: What about the preparation for the observation?

MR. POWERS: That is a big part of it too, Scott. That is a very good point. Some of the structure we had at the site during the ~~NOM~~ NOP test, for example, we would do observation, control room observation on four-hour shifts, management and control room, turn it over on four-hour shifts, and we learned from the experiences at that time that the observation would be better geared on a certain function or event that you can prepare for. For example, pre-job briefing for operations evolution, study the procedures for that so you know specifically what's going to

occur and what the exact expectations are, the actions that are going to be taken are rather than going and only looking at the behaviors, communication, expectations for command and control expectations, preparation for it by looking at the procedures that are going to be involved is an important aspect of the observation.

That is another area we need to improve, this training, is encompassed in that as well.

MR. THOMAS: I was wondering how that would be rolled into the process.

MR. MYERS: One of the things I want to do to answer your question -- I don't know if this team looked at its data base, but we have a training data base called Fits, and it tracks our lesson plans, it tracks all the training that we want to add to our lesson plans, and so it's a training data base.

Now -- so if you want to know how up-to-date is this lesson plan, based on

experience, all those actions are in there to improve that lesson plan, so it's good there. But what it does more than anything else is I can sit in my office and go -- or our supervisor can -- first-line supervisor should be using this, and you can go and look, say you want to use a person, there is two tables you go to, and any organization, engineering operations or whatever, with one tab say, hey, look I know a task that I want to perform, and I can go in there and click on that task, maybe it's 50.59 review or line system, and it will tell you all the people that are completely qualified, and not qualified, flashes in red, so you immediately see they are not qualified.

When you want to see what they need to get to be qualified, you can click on those people, and the person's name will tell you what he needs, so if you are sending somebody out in the plant to do a job and you need to -- or an engineer, you know, and you want to do some TPE with that engineering, you know you can go there

and immediately tell, here is a task that is going on today, here is some training, on-the-job training or TPE that an engineer or operator needs, or -- and I can find that right now and find that he's qualified to do everything, so, you know, I'm just -- I really like this piece of software. If you haven't seen it, you should look at it.

MR. POWERS: One more piece of information I'd like to add on the observation program is that as I described, we go out, supervisors, managers, directors and do observations and we have the written electronic Lotus Notes data base, so we have a form that we fill out with comments, then it's forwarded to the individuals or work groups that were observed, so it's critical feedback provided to them.

It just doesn't go out into a data base someplace, and -- it's a feedback mechanism, and one of the things we are working on in the site is the openness and desire to be observed. I think we are making some positive progress. We

get out there and observe somebody working with a wrench, get them to feel positive about demonstrating their skills, and made some strides on that working with INPO ~~Inpo~~ and working within the program. But we actually then take this constructive criticism in the observation program and forward it to the individual, so we have that communication going on.

MS. PEDERSON: A question on the observation program. Some things are easier to observe than others. How does this work for the engineering work products?

MR. POWERS: Well, for the engineering work products, there is several different ways to observe. We have unit meetings or section meetings where expectations are delivered from the management and supervisory chain so you can see what's going on there. But if you even stop into the cubicle and see what's going on with preparation of a modification, for example, I may stop into to Nate's cubicle, which I have done, to find out how he's doing and what he's doing

with the ~~cycle and~~ cyclone separators on the HPI pumps, that small modification, find out who he's talking to, what process he's working in, what he's thinking about, is he working within the procedure, is he getting ~~DIE~~ the calculations to the appropriate ~~portions~~ positions on-site, so it's an awful lot that you can do to observe what's happening, even in an area like engineering.

But what I described earlier, the driving standards, you can also have a reverse load, they can say I've got a report from the EAB that says we got a low score on this modification behavior last week, let's talk about the individual comments and why that score was low, and really drive that personal interface between the supervisor and worker on what standards need to be --

MR. SCHRAUDER: Another method that we talked about using, we have this business plan for problem-solving and decision-making, and, you know, as operators go in to watch them, go in a simulator, and they train on that, and we will

observe their actions.

It's very difficult to observe someone's thought process, but one way of going about it is in the problem-solving and decision-making process where we will take -- in this case our concept is to take actual problems that are getting in the corrective action program resolved, putting together a problem-solving decision-making team and have a full-time observer watching the process of how are they thinking, you know, what types of processes are they using, are the right kinds of questions being asked as opposed to management, and periodically checking with teams to see how they are coming along, where they do actual observation from start to finish, you're not there to participate on the team, just to observe the process, how the team is progressing.

MS. PEDERSON: Can you give me couple of examples where that's been used?

MR. SCHRAUDER: Problem-solving decision-making was used in a breaker trip on the

containment spray pumps. For instance, we had breaker tripping on that and didn't have the cause, and that was a problem-solving decision-making theme that was in place to --

MR. MYERS: ~~Speed~~ ...spray pumps, one of the things that brought the concept, we did this during the heat-up, the whole time we had those observers that were doing management observations from the process, you know, we did that to look at our phases of organization, so the organizational effectiveness that was our plan, and we actually decided to run some drills along the way, we didn't need the drills, you know, so we wound up having some issues, and we had the advantage of observation of those issues, and for instance in the troubleshooting we said we have got forms to lead us through the questioning process at ~~Perryville~~ Perrywell, let's bring those over. So we learned a lot through that. So as you go forward, that was a pretty refreshing way of doing business, so if you have a big issue going on, why not do management observation of that

issue, good time to do it, have the manager go through it.

MR. HAGAN: As far as the problem-solving and decision-making, the biggest example we have is service. Jim commissioned an independent team to look at the overall approach we are taking, so it was an independent assessment, because we had time, we completed it about a week ago, and they have a plan independent of what was actually -- system engineering was directed to stop, take your time, back up, what are you doing to solve here. First, understand what the problem is and look at the approach we are taking, so is that problem-solving decision-making process working.

MR. POWERS: I will talk about that and how it contributes to the more holistic approach to problems, which I think we are both after to drive improvement in that specific area of engineering. The mentoring and development incumbent on new hires is also important because you will see, as I move down the page here, that we have replenished our engineering staff at the

sites, and over 20 percent of new engineers, and these can be some of the supervisory -- well-experienced supervisory people that we have brought in that the managers defined, but it was also a couple of examples of the new faces of Davis-Besse here at the table with Nate there and Mark Rander.

These new individuals come in, they need to get qualified in their particular area, whether they're supervisors or new engineers, and there ~~is~~ are qualification card requirements for them to go through that now, which is a lot of training and experience, it's procedures, it's demonstrating activities. They work through that, and the process, they are mentored by other qualified engineers.

For example, they can't produce a product independently until they are qualified, so everything that they do gets checked by qualified individuals, and then they get feedback from that, and of course in the course of making the product, so it's really learning on the job

through the mentoring process and direct feedback as you'd expect from any engineering organization. That's what you'd expect to happen with a licensed professional engineer overseeing the work of the junior engineers or unlicensed engineers, so we have a similar function, and we are working to complete all the engineers at the site.

For example, this week there is a systems ~~form~~ forum that is ongoing for the engineers, that is complete qualifications for a number of them, and there is a follow-up session of course in January, we are trying to balance getting the work done at the site, priorities there with getting the qualification completed and training, so we are just very busy, but we are trying to meet all of those needs.

MS. PEDERSON: How large is the engineering organization? In other words, how many are qualified currently?

MR. POWERS: I would say it's approximately 125 people all together, and that is a total for

the organization with -- we have a document control unit, we have several, you know, clerical -- couple of clerical helpers and secretaries, and we have engineers, I would say, and of the qualified staff, when you talk about 20 percent replenishment, that is probably about the numbers that we are trying to finish qualification of, those individuals. So it's in that range.

MR. FALEVITS: How many of this 20 percent is in design engineering?

MR. POWERS: I would say it's --

MR. GRABNAR: I have nine individuals in the organization that still need to be -- have items open on qual cards. That is out of a staff of 41, although I'm including eight contractors in that staff of 41 as well.

MR. FALEVITS: Is that design?

MR. GRABNAR: That is design.

MR. POWERS: That is design ~~plant~~ ...plant...

MR. BOLES: I think I have 27 qualified system engineers, and I think the total complement of the section is approximately 60,

which includes some contractors in the program.

MR. FALEVITS: Are you also looking at old-timers to see if they are doing a good job on what they are doing, because most of the problems we have identified had to do with not newcomers, but individuals you had there for a long time.

MR. POWERS: We are looking at everybody's work, yes. We are also looking at qualifications for -- there are individual positions where we restructured the organization, as I described earlier this year. Now we are creating the job qualification cards, particularly where there is -- new positions have been created by that restructuring, but we don't -- okay. We look at everybody's work the same, there is no grandfathering clause.

MR. ~~Reuland~~ Ruland: Jim, I think you're familiar with the kind of issues that the CATI raised, I was wondering what part of the qualification process you have that addresses the kinds of issues that the CATI raised?

MR. POWERS: There is -- really the primary

one is the procedural and adherence aspects of that qualification card, Bill. For example, one of the issues that was raised by CATI was calculations quality, and in particular we look at that, we look at the calculations, procedure and process that we have in place, and we have made some improvements in that process during the course of the outage. But the adherence and understanding of the expectations when you prepare a calculation is something that we need to drive home so that those attributes are in the engineers' qualification card from the perspective of, do you read the procedure, you may prepare a calculation, for example, to get checked out on it.

But to understand, you know, the -- as the process changes and what does a really good calc look like, we have got further -- there is going to be further focus training. Now, the engineers, when they get qualified, get a base level of orientation training and procedure training for the processes at the site. But then

above that is the reinforcement training that we get from things like the CATI inspection findings, like our own NQA findings, our latent issues and program review findings.

We had a number of condition reports written during the outage, and rolling those up and feeding them back, saying here is areas of weakness we need to improve on, and here is what the standard needs and here's what the example needs to be in the specific case, the calculation improvement project we have got that with the plant with preparing example calculations, short ones albeit, but you can see what is the expectation for documents, the inputs or assumptions, and that is the type of area that we focus in as part of the reviews that we really need to drive up the bar, and understanding of procedure may be documents or input assumption, but what does it look like when you do that well.

MR. MYERS: Aren't you putting the engineers through apparent cause training?

MR. POWERS: Bob will talk about training

in the apparent cause area, but those are the type of -- Bill, does that answer your question on the qualification card?

MR. ~~Reuland~~ Ruland: Yes, thank you.

MR. THOMAS: Before we get away from the procedure adherence, there is not just an issue of engineering, there is -- other organizations on-site have had issues with procedures and adherence, and I was wondering how that is being addressed. I don't know if this is the right place to talk about that, or --

MR. POWERS: Well, there has been several levels of that. You will recall a meeting that we had probably several months ago, Scott, where you gave us some feedback on your observations on procedural adherence results, and there was very strong feedback to the supervisor, manager, supervisor and superintendent level of the organizations, both maintenance and operations where the lion's share of the specific in-field and step-by-step procedures are used and what the expectations were.

We have taken it to the point where if the expectations are not met, and particularly when the work is proceeding in the field, whether it is with a maintenance mechanic working on a safety-related pump or valve or an operator doing a valve -- lineup of the valve, if the expectations are not met, the feedback is given in writing in terms of the expectation not being met on the sequence of that, and of course it's graded, send the feedback to the individual, their performance is expected to improve, and if it's not, then the progressive feedback and discipline process kicks in.

And this was kind of a broad response to your question, but as we do that, we work it through our safety-conscious review team, review of any steps that we take in terms of that disciplinary action, letters to file and such. But any of the organizations are run through a Safety Conscious Work Environment Review Team, SCWERT.

MR. MYERS: To answer your question across

T~~t~~he ~~board~~ point is, each one of the departments, from ops to maintenance, the operations improvement the last few months, and I think we are seeing good improvement there, it's really focused on procedure adherence. Also, in the maintenance improvement plan implemented a few months ago, there was an issue there and focused on procedure there and improvements with maintenance, and then we did the heatup, we had some issues with operations, we focused on that, so procedure adherence and implementation and quality ~~is~~ are -- all three areas are areas that we focus on throughout this outage. We think we are seeing good improvement, and we will continue to do that during the next outage.

MR. GROBE: Jim, have you completed the first three bullets on Slide 14?

MR. POWERS: Almost, Jack. Actually, I talked a little bit about -- I will go faster.

MR. GROBE: I wasn't meaning to rush you. When you were -- it's time for a break, and I wanted you to finish those first three bullets.

MS. LOUGHEED: Actually, I have a question that does relate to the mentoring and development hiring and those ways, so -- which I think are one of the ones that you talked about. Could you give me an idea what the overall experience level is in the various engineering departments?

MR. POWERS: Sure. I think we have got -- the breadth of experience at Davis-Besse was very heavily weighted on high level experience individuals at the beginning of this outage, and I would characterize it as individuals that have been in the industry for 20 years roughly, individuals that have been at Davis-Besse for long periods of time, many were brought in during the recovery efforts and earlier years, and what we wanted to do and really what the site had in place was a demographics work force replenishment plan because there was concerns about upcoming retirements, and the nuclear industry in general is addressing the issue, and so what we have done is really -- is created a more active hiring flow of engineers that if you look at our organization

now you will see that it's very highly populated with students, co-ops and part-time summer employee engineering students, so we are getting that very early development, get them in so they can see the business, we can see them and we can grow them as potential candidates for the future, so there is a lot that, there is a lot of relatively new hire individuals that may have several years of nuclear naval experience or they may be coming directly from college, graduating with an engineering degree, and we do highly value degreed engineers, four-year degreed engineers as a criteria for our engineering candidates.

Now, in between that, what we have been focusing on getting is the 10- to 12-year experienced individual who's got nuclear experience and can come right up to the plate and get a hit, and we have -- we are having some success there, we have had a recruiting firm engaged for us over the past several months going through the -- recruiting that type of

individual.

We are in the process now of dialogueing with, making some job offers, hiring people. We have got an electrical engineer we have hired recently, we have got a structural engineer that is coming in to join us, and so it's a very active dialogue right now, but that gives you a picture of what we are trying to have, a great demographics of experience through the department, but that is relatively senior.

MR. MYERS: Let me comment on the other two plants too. One of the things I don't see there at Davis-Besse as well as I do at our Perry and Beaver Valley plants, both of those plants have relationships with several good universities, we are in a pretty good location when it comes to -- the Beaver Valley plant is near the University of Pittsburgh, Penn State, and there is another college up the street too that has good engineering degrees.

Our Perry plant is the same way in the Cleveland area, we have Kent State University

and University of Cleveland and Youngstown University feeds both of them. And we have good relationships with those schools, I mean, down to the point where we know the deans pretty well at various schools, and we use a lot of their summer students.

In fact, they call me personally to locate summer students there at our Beaver Valley plant. And at Perry and Beaver we have courses that are provided on-site to some of our -- at our beginning level crafts organization, at our Perry and Beaver plant, not at Davis-Besse yet, but entry requirement is as an associate, and so we have courses taught on-site that help people to conclude their engineering degree at both the Perry and Beaver Valley plants, and we are looking to extend this as we go forward at Davis-Besse also.

MR. POWERS: I have covered the three bullets, Jack.

MR. GROBE: What I'd like to do is take a brief break. This meeting was originally

scheduled for 9:30 to 11:30. It's pretty clear to me that it's not going to be over at 11:30. My recommendation, Lew, if you agree, we just keep plowing forward until we get it done.

There may be a need for some adjustments as far as conference room scheduling and phone call arrangements and things like that. I'd like to take little bit longer break than I normally would so that we can accomplish that.

MR. MYERS: Okay.

MR. GROBE: Before we do that, I'd like to ask if there is any other questions here at the table on the material we have covered so far.

(No response.)

MR. GROBE: Bill, do you folks have any additional questions at headquarters before we take a break?

MR. ~~Reuland~~ Ruland: No. But we have already extended the ~~video~~ telephone conference to 2:00 p.m. eastern time.

MR. GROBE: Very good. Why don't we take a break. It's now six minutes after 11:00. Let's

go to 11:20, that should give us plenty of time to take the -- take the necessary actions we need to cover here, right?

(Whereupon, a recess was had, after which the meeting was resumed as follows:)

MR. GROBE: Why don't we continue. I think we are on Slide 14 on Bullet No. 4.

MR. POWERS: That's right. This is Jim Powers speaking.

From the training perspective, some of the things we have done to ensure that we have competent individuals in the mentoring area is to provide a root situation, root cause methodology that the FirstEnergy ~~First Energy~~ Company uses as a standard approach to our root cause assessments, and this teaches an approach, a structured approach to determining the root cause, going through a root cause process in significant condition reports, and we provided that to managers, supervisors, selected

engineers, and it's something that in the engineering area that will continue to provide this type of training.

Also, operability evaluation. We had a specific course on operability evaluations during the course of this past year, and I think that this has helped us out in terms of the operations engineering interface and quality of operability evaluation.

We have gotten feedback on those in some cases and have continued to strive to improve those, but in general I think we have developed a much improved questioning attitude by our operations staff and a technical rigor by our engineering staff in support of the operability evaluations to ensure that issues don't fall into the crack if know one is providing questioning or rigor between the two organizations. So it's been improvement there.

MR. MYERS: That was one of the major -- this is Lew Myers. That was one of the major areas that we did the operability reviews and

isolationism of operation. I will not tell you we have arrived there, I will never tell you we have arrived, but that is an area I can do great improvement at the station, and I think that it's -- it's comparable to some good performance stations, and Scott sees those all the time.

MR. THOMAS: I was going to ask John and Brian whether they think their folks are -- their ability to assess availability versus operability. One of their key functions is to provide input for ops -- for operability issues and there's a big difference between whether a system or component is available, whether it's operable, and I was just wondering what your opinion is of your staff's ability to, you know, determine the fine points between the two.

MR. GRABNAR: This is John Grabnar. We focus -- we spend a decent amount of our time looking at these very questions, and the training that we were provided, which was provided by industry experts on -- and focused really, and the title of the course I believe was resolution

of ~~grand~~ nonconforming issues, and it was an extremely good class, because it laid out very clearly for the technical staff -- each class incidentally had in it plant engineers, design engineers, operations personnel and quality assurance personnel. Each class was specifically split up so that you had a mix of all the people who perform evaluations, had to accept them, and then provide oversight as well. There was a lot of very good discussion in there, but again we have a lot of tools available, we focus on every one of those, of course, in determining whether or not the engine can perform or component can perform its function. And that is the recommendation that we have provided, the document, in the event that we show that it is capable of performing its function with a basis included in this reference with that, of course, immediately over the phone should we feel that the item cannot perform its intended function.

But, again, we have focused a lot of stress into the technical staff that their

role is, of course, in giving the operator technical information that he needs to make the final operability determination. So we focus on again performing functions under all accident and averse conditions, which is what our operability evaluations address versus the question on availability, which, you know, bottom line is we don't do formal availability evaluation, we do them to establish the system can perform its function, all required functions under all required conditions.

So I'm not sure if that answers your question.

MR. THOMAS: No. What I'm looking for is where you think there's been examples in the past of issues with -- you know, I understand ops has the final call on operability, but engineering has to -- if they request an evaluation, engineering has to provide them sufficient technical evaluation for them to either say the system or component is operable or it's not.

I was wondering what you think the

level of your staff is in being able to determine that threshold between operability and availability. Is that any clearer?

MR. MYERS: I would tell you I get feedback, and everything from the operations is good on the operability is much better than they were getting a year ago, much, much better. I think you get the same thing from the managers and operating staff. I don't know if that answers the question or not.

MR. THOMAS: We can go on.

MR. MYERS: No, I mean I'm trying to understand your question.

MR. GROBE: We are going to get some detailed insight from the restart readiness assessment team inspection, because that is one of the focus areas they are going to be looking at is engineering maintenance and other support operations. And one of the main areas for engineering support to operations is in the operability evaluation area, so we will be getting some additional insight on that, and if

we're not satisfied, we will certainly be letting you know.

MR. MYERS: Yeah, we are doing all the operability reviews now, and we are keeping that up. And just to let you know -- and there is some good quality improvement, not to say they don't have some questions.

MR. FALEVITS: One question is about the ~~tap and~~ root cause analysis. This is Zelig. During the inspections, one of the observations we made is that you had about 160 individuals that were supposedly qualified to perform root cause analysis. What is the number today, and how many are really qualified today?

MR. SCHRAUDER: I can't give you an exact number.

MR. FALEVITS: Approximately a percentage?

MR. SCHRAUDER: Same -- qualification numbers are the same as when you were there. What we are doing on a FENOC-wide level is -- has not yet been presented to the executive leadership team, but I know it's going there.

But I know that each of the sites have a much reduced population and dedicated team of root cause evaluators, that there is in the range of 10 root cause evaluators, and they will do all the root causes that come out.

MR. MYERS: If you look at the data base, you will see that we are going to train a lot of people on apparent causes, all the engineers. That doesn't mean that all the engineers will be on the qualified list to perform apparent cause, it just means they are trained.

MR. HAGAN: As Bob says, it's come to be the executive level team, Lew and I are both in agreement of reduced staff, maintain a proficiency to do a root cause analysis, and shouldn't be much discussion when it comes to executive level team.

MR. FALEVITS: Thank you.

MS. LOUGHEED: This is Patricia Lougheed. I'm still on the same bullet. Looking at the operability evaluations, would you say that all the engineers have been trained in how to do

operability evaluation?

MR. POWERS: I would say that many of them have. John, I don't know if you --

MR. GRABNAR: All of them are not. Most of those people have not been trained, that is correct.

MS. LOUGHEED: It's part --

MR. GRABNAR: My entire staff at the time the classes were held was signed up and trained through this course for evaluations.

MR. MYERS: About 100 people total, including operators, were trained.

MR. POWERS: We had a very good turnout in terms of having the operating crews, there were engineers, plus the reps were from chemistry or HP, some of the other outlying groups that get involved on the periphery of the operability determination, but we had the actual ops and engineering to get some dialogue, and I opened up those sessions, given the expectation of why we are giving the training, because ops needs to be critical and engineering needed to have the rigor

of a good technical product, so we thought it is beneficial for both.

MR. POWERS: Jim Powers. That is correct, our operability evaluation is part of the qualification process for engineers.

MR. GRABNAR: There is several qualification activities for operability evaluations. I believe we have added to our most recent engineering qual card, I want to verify that first, but I believe there is also an action to develop a qual card specifically for operability evaluations.

MR. ~~Reuland~~ Ruland: This is Bill ~~Reuland~~ Ruland. Could you get back with us on that, on that item, and let us know precisely where that stands.

MR. MYERS: Okay. It is in ~~Fits~~ FITS, if you want to go to ~~Fits~~ FITS and look up a qualified individual, you can look them up in the ~~Fits~~ FITS data base.

MR. ~~Reuland~~ Ruland: I understand.

MR. POWERS: We will get a specific answer on that,.

MR. ~~Reuland~~ Ruland: Thank you.

MR. POWERS: We have talked about the hiring of new employees so I will move on to the managing of engineering workloads. I wanted to touch on the use of contractors here. We have mentioned it in the earlier parts of the discussion, we used quite a few experienced contractors during the recovery of Davis-Besse, and quite extensively I would say.

What we are planning to do is continue to utilize the -- utilize contractor assistance, both mixed within the engineering organizations, on the floor, as well as what we refer to as a managed task where you send a task, like an evaluation or modification or calculations, to an engineering organization externally, have them prepare it, and then submit it to us for our review and acceptance. And both of those are a very beneficial practice first, and just in work, the workload and getting through it, but also in bringing to us industry experience.

Many of those contractors work at a number of the domestic nuclear sites, as well as internationally. They see problems and issues at the various sites, and then when they come to our site, they can give us insights on those issues, and whether we have an issue at our site that we need to address. And we still have good input from them, and of course recovery through our corrective action program.

And so we expect that we will be utilizing contractors' assistance through the next operating cycle, and I will get into our work plan for the next operating cycle. Those are an important member of our team, and they are prime contractors, we use them, keep them active not only at Davis-Besse, but at the Perry and Beaver Valley facilities.

So they are familiar with the FENOC processes and our staff, and -- but I think for all their value, I need to make a very important point here, and that is -- there is nothing that is installed in our plant that is

provided by our engineers or engineering organization that is not checked and approved by our engineers through the owners review process.

All of the positive things that you have seen that we have done during this recovery at the plant, Lew mentioned some of them, with our containment sump ~~recoding~~ recoating projects and the containment~~s~~ area permanent cavities, electrical transient analysis, rework the reconfiguration and margin definitions in our electrical system, these were provided by experienced, expert organizations. But the standards are driven by our engineers every step of the way. Nothing happens in a vacuum. Every step of the way our engineers need to be involved, we need to give input, expectations, standards, and when it comes to the products coming to their desk, they're the ones that check it, review and comment back on it.

And so we are very active in that respect, and that is another part of the mentoring and development of the engineers as

well. They see what somebody else in the industry prepares, they are expected to review it, comment on it, or EAB reviews and comments on it. So I don't want to give the impression that the contractors do all the work, because that's far from the truth. But they are an important, very important member of our team.

One of other things I want to talk about here, and it's a good time to mention some of the coding that we have got in our slides. On Page 14 you will see after some of the bullets here, it says in parens OI plan, as operational improvement plan. That indicates that those specific items are in our operational improvement plan, as it was delivered with our integrated restart report.

Now, that is a living document, some of the things we are talking about today we are going to factor into that plan in the next revision, and so I wanted to let you know that is the way it's laid out. Enhancing engineering ownership is one of the -- system engineering

ownership is an area that we are going to be driving, better ownership. Joe has a good high level of interest in that as well, because we indicated he sat personally with the system engineers going through their system reviews as part of restart readiness and material condition reviews, as well as he wanted to see specifically what are the improvement plans for the systems because we are at a point where they are ready for restart, there are still goals and objectives that we want to achieve for the systems, getting existing work orders done, looking at potential specific items, future modifications and improvement, and so driving that ownership is something that we have in our operational improvement plans.

And finally, a new process, new technical issue resolution process, I developed a procedure at the site that is going to address the individual engineers' approach to solving problems. That is, you know, giving guidance on approaching a problem from a more holistic basis,

when you get a question, don't leap to the answer that you expect may be the answer and then try to defend it, but look at what all the options are, walk through a structured process that compares those options, develop some of them and can provide them for review.

We have had this type of approach developed and applied in our problem-solving and decision-making process, which is really geared towards plant hardware type issues in many cases, but we feel based on the feedback that we have gotten that this is an important step for the technical staff at the engineering level, how do you approach an engineering problem, and this procedural anchor, that process and that thought process pattern within the engineering organization, so we have got a draft of that.

I have taken input from some of our peer utilities on what they have available for this type of guidance. In fact, I'm getting more of that currently back at the site, and we expect we will have this procedure issued within

the next week. I have already got a good draft of it available.

MR. MYERS: So from an individual standpoint, we have extended our corrective action training, root cause, apparent cause, okay, we have troubleshooting, problem-solving, decision-making process did not exist at Davis-Besse, utilized that well during the heatup and cool down and finally now we are going back to the routine questions and technical issues, developed an anchor on what they are doing there also, so we have improved that process.

MS. PEDERSON: I have a question on that, what kinds of training will be provided on this new procedure.

MR. POWERS: Once we roll out this procedure, then we have a specific type of systematic approach to training, you look at the needs and you develop the training based on that, you pile up that training with a group of the -- not only supervisor management sponsors of it, but some of the selected site individuals will

receive it. They divide it and get a pile of constructive feedback and finalize it and present it, so it will be a training course through systematic approach to training.

MS. PEDERSON: How long will it take for all the engineers to be trained in this?

MR. POWERS: I imagine in the first quarter of next year we would go through this process.

MS. PEDERSON: Okay.

MR. POWERS: That is an important objective, to anchor the improved approach to problem-solving in the engineers. We take very seriously feedback from not only CATI, but our own corrective action and N.Q.A. observations.

MS. LIPA: I had one more question on this last bullet on Slide 14. It doesn't say OI plan, so it is not in your plan now?

MR. POWERS: No, it's not in the plan.

MS. LIPA: But you plan to add it?

MR. POWERS: Right.

MS. LIPA: Thank you.

MR. GROBE: When will we see that revision

to the operational improvement plan?

MR. POWERS: Well, we haven't talked about a specific date on that.

MR. MYERS: We are working on looking at some other issues too, and I would say in the next few weeks, we will revise that.

MR. GROBE: Before restart?

MR. MYERS: Yes.

MR. POWERS: Next, I'd like to talk about Slide 15, about the Engineering Assessment Board in more detail. Some of the questions that I touched on earlier relative to the composition of the board and continuity of the board in the November of 2002 time frame was streamlined, the board and some of the contract individuals that we had on there were reduced based on going to a prime contractor. And we had completed the discovery phase of our restart building block process, so where we had previously had our Engineering Assessment Board split up into subcommittees, there was a program review subcommittee, there was a containment health

review subcommittee and then there was a technical products review subcommittee.

Now, individuals that were on the board at that time remain, in terms of the ones we currently have. The chairman of the program review subcommittee that reviewed 66 of our technical and other important station programs that programs review chair, we subsequently hired as our EAB chairman as an employee leader now of EAB at Davis-Besse, external regulatory experience as well as commercial sector experience, very seasoned individual, and I think provides a very good approach to mentoring of the engineering staff, very familiar with the program review. He led that program review, got very good input and remarks from your inspectors looking at that building block on the teeth of that program review process. In fact, I think the comment by some of the inspectors is they wouldn't want to have to sit in front of that board. Well, the board chairman is now our employee, chairman of EAB.

MR. GROBE: Who is that individual?

MR. POWERS: J.D. Wilcox. The initial chairman of our EAB was an individual from one of our prime contractors who I had worked with at our Perry plant, very sharp in the area of accident analysis, knows what it takes to get a modification done, because he had prepared them for us at the Perry plant.

When we first entered into the recovery activities at Davis-Besse, I called him in to chair and operate the EAB because he had done a similar function for us at Perry. He had chaired on an interim basis and started up the EAB, which is now a vital force at Perry. This individual's name is Dave Studly, has I'd say over 20 years experience actually preparing engineering analysis, well versed in license basis, very critical, but in a mentoring, positive way. Comments by some of our restart oversight panel members such as Jack Martin and observations of Dave's skills as an EAB reviewer and particularly Jack was very impressed with his

approach and methodologies, so Dave was the original chairman, he remains on the EAB today.

And the continuity has been there in the electrical ~~INC~~ I&C area. We have an individual ready to go, he has probably 35 years experience in the nuclear industry, he came from the Philadelphia Electrical company where he was supervisor in electrical and ~~INC~~ I&C engineering over the years and had many different roles there, but principally in that discipline.

He currently comes to us through Stone and Webster Engineering Organization where he's employed. He has been with us doing these reviews through the process, reviewing technical products. I brought examples as a matter of fact today, some of his review ~~comps~~ comments which will show us the structure. He's a very sharp individual, has continuity and understands the improvements and standards that need to be applied.

And, finally, there is a fourth member of the committee. His name is Pete Strawby. Pete is a senior civil structuring

engineer at the site. He was the ~~IAB~~ EAB owner, if you will, at the time the outage started. Davis-Besse was just starting up a fledgling EAB similar to what we had at Perry. It was really not fully effective yet, and it was in its infancy, Pete was the owner of it and had an interest in that and ownership in it, and so we put him on the Engineering Assessment Board as an employee member of the board, and he does civil structural reviews, and he's critical and very knowledgeable in that area.

So we've got a pretty good balance on this board of those individuals reviewing the technical products. Now, some of the other individuals we had last year, where did they go? One of the other members of our Engineering Assessment Board was active principally in the program review areas, Jay Leininger. Jay is here today, Jay is from Marathon. He was our long-time project engineer, project manager at Gilberts Associates, responsible for the construction and -- design and construction of

Perry. He has very great depth in project management and technical projects. He is currently serving in an advisory capacity, he's helped with preparation, for example, of the engineering work plan we discussed today, make sure we are on track to resolve issues and resolve them effectively.

He also on a daily basis gets involved with some of the technical topics you hear discussed, whether it's breaker coordination, or HPI pump performance, electrical issues we are working through, Jay is there probing and asking whether the engineers are doing the right thing.

Another member of the board was Dick Stillman. Dick was also very active in the program review, also in technical reviews. Dick came to us as a former engineering director at T.M.I. during the recovery of the T.M.I. unit. He was a long-term engineering director during that process, as was Mike Ross, being the operations director and V.P. Those two

individuals were principally responsible for the engineering operations recovery of that unit.

Dick provided support to our EAB through the November time frame. At the time we scaled back and went to prime contractors, he elected that he did not want to take that path. However, we subsequently brought him back in as a member of our company nuclear review board for Davis-Besse, so he is still in the critiquing and oversight role of engineering, on the engineering subcommittee of that board, so we still have the depth and teeth of these reviewers, senior reviewers actively engaged at Davis-Besse.

MR. MYERS: A comment I want to provide to you that I heard the term used, and he used, scaled back. You know, if you go look at our budget and our spend rates and everything else, we didn't scale back, we went through a discovery phase and we shifted the discovery phase to a design phase, and at the same time when we did that, we moved into using a core group of architect engineering prime contractors, which are well-known as we do

design work, and that skill has made a difference.

So if you go look at spend rates for engineering, we focus on HPI, we went through the discovery phase of all the building blocks and then we changed the focus of prime contractors to address the engineering modification issues, but as far as scaling back, we never -- you know, our spend rate stayed -- may have gone up during that time.

MR. GROBE: This Jack Grobe. I had one question, maybe two questions. You mentioned that Jay Leininger is an advisor, I didn't quite understand who he's an advisor to, is he an advisor to EAB or you personally?

MR. POWERS: He advised me at my level personally on technical matters and management approaches, and so there is a mentoring function there as well. He also functions keeping involved with the EAB activities and oversight that they are providing on technical reviews.

MR. GROBE: And Leininger and Stillman are

contractors?

MR. POWERS: Yes.

MR. GROBE: And the EAB is actually four individuals, Strawby, who is a FirstEnergy ~~First Energy~~ employee; Wilcox, who is a FirstEnergy ~~First Energy~~ employee, W~~ea~~iegle, who is ~~still in~~ Stone and Webster; and Studly, who is Entercon. Jay, you went through TVA experience too, right?

MR. LEININGER: That's right, my experience, I have about 25 -- this is Jay Leininger. I have about 35 years of experience, 25 years of that was with a major architectural company. The last ten years I have been in consulting relative to plants that have been in this kind of situation. I was involved at the ~~Sequoia~~ Sequoyah plant, I was also involved in Brunswick, directly working for the utility, and I was involved from a managerial standpoint.

MR. POWERS: And I appreciate that breadth of experience in this very busy time at the site right now, and keep us on track and getting technical problems resolved effectively. The

message is that the individuals' depth of experience, the external influence is still in place with our Engineering Assessment Board.

The Engineering Assessment Board charter is a Davis-Besse business practice. As it currently was issued we have a previous charter that was part of the building blocks, but that was issued going forward. Back in September it was issued, and it provides the expectations and scope of review of EAB, as well as a description of its structure and its activities, and so we operate under that business practice.

The Engineering Assessment Board maintains a very complete documentation trail. For example, I just wanted to show you for your information the type of documentation that is developed when they review a product. This is a review of a calculation that was done by one of the Engineering Assessment Board members, and so you can see this is a formal document, review type of form where the technical comments are given on the product.

They prepared a new -- address those comments and resolve them in order for the reviewer, EAB member in this case, to approve it. The comments have to be addressed. And as I mentioned earlier, calculations were sent to the EAB, all calculations go to them for review. That is a change that -- since CATI arrived on-site.

MR. FALEVITS: That is my question, how long have they been looking at calculations?

MR. POWERS: At the level I'm going to describe, I'd say probably four weeks, it's since the CATI team left. This was a specific action we took to strengthen an area of weakness that CATI pointed out to us. They go in and they review -- they use for their review a checklist, and this is a checklist that comes from our calc procedure, it's had a calculations review checklist.

This is what the engineers use, but the EAB uses an -- it's really a subset of questions. Most of the questions they go over to

review and they check out the calculations now on a much greater level of detail for compliance with a checklist, and had they given their calculations or their comments on the calculation, you would see here on a specific comment that ends with a number in parens, and that number then ties back to which one of these attributes are they specifically questioning, whether we met that procedural requirement and expectation.

Now, they grade all of these products when they come through, and we have talked about how they grade, and they grade the products as they get them, scores are -- scores are delivered as the product quality is seen week to week. They graded over 1,100 products during the course of our recovery, and they have them all entered on a spread sheet listed in here, and you would see on the spread sheet the products and then you have the categories of attributes that they are scoring them on, and if there is weaknesses they will put a digit in the column

for that, and then they can look down the columns on a collective significance, is there something going on, the past couple of weeks they have been reviewing products, and if there's been a weakness in the regulatory affairs, interface guys haven't been doing it, they will point that out to the management supervisory team.

MR. FALEVITS: This is Zelig. Would they provide feedback to individuals after they're done?

MR. POWERS: Yes.

MR. FALEVITS: And mentoring?

MR. POWERS: Yes. What happens is engineering takes its products over to EAB as part of the review process and run through a ~~p~~lot of ~~groundless~~ electrical guys, plant engineering, operations, maintenance, et cetera, planning. The EAB is one of those. They get to see it late in the stage when it's essentially completed, and then grade it.

So we get the formal comments going right back to that individual that prepares

it, you didn't meet the mark on these, what is the answer? And so you get that direct coaching, hey, you should have talked about this, you should have addressed this in your calculation, you should have addressed this aspect of the modification, get that direct feedback and mentoring in writing, has to be responded on.

Then they get -- the product is graded, and you will see we have our performance indicators that you reviewed as part of the CATI inspection, which tracks those grades. The additional step that I put in place since the time the CATI left, and I think is a significant improvement is now a requirement for the supervisor to document coaching to their -- the engineers on these results, that if the review results in a poor grade, that the -- there is coaching that occurs, because the grading is given to us on a weekly basis by the EAB, so we see real-time how we are doing in directed areas, and supervisors can see that.

Then the EAB on a monthly basis

rolls up the results and meets with myself and my management team to go over what they are seeing in the current month, what they recommend we do for course change corrections, we talk about what other assessments do we want them to look at, because there is a number of areas that they review for us and participate in.

They are very involved, they attend unit meetings, circumstance meetings, department meetings, observe feedback to me and the other management chain on what they have observed. For example, they review the system health report and comment on it, they review the design basis assessment report, comment on it. They are engaged in company nuclear review board, Dick Stillman or Jack Martin, who is our outside external consultants who critique us as part of the company nuclear review board also critique EAB, so J.D. Wilcox needs to go in front of them and explain to them the value he's giving to the engineering organization on a basis that they come and review us.

MR. LARA: Do you have an insight as to when the assessment of the checklist is filled out, what's identified, is it primarily inputs which do not change the overall conclusion of the calc, or is there something else being generated?

MR. POWERS: Yes, many times inputs do not change the conclusion of the calculation, but it's a level of detail similar to what the CATI found, Julio. We found a number of calculation discrepancies, weaknesses, I would characterize as assumptions and inputs. For example, there was a specific one that we talked about, engineers use of an ideal gas law for compressed ~~area~~ gas in a cylinder, whereas the effects of compression were questioned whether they should have been used.

It was an assumption, but it was not a well-documented assumption. When the assumption was investigated based on questions from the CATI team, we found an approximate two percent change in the results of the calculation, so it was reasonable in terms of the results of

the calculations assumption, but it was not appropriately documented, technically it was not justified technically, did not change the conclusion of calculations, but it was -- it didn't hit the target, didn't hit the mark in terms of our standards.

That is the type of comments that we would have here. We are looking very closely at assumptions. So some of the dialogue we have had most recently about calculations that we have been working through is testing at the power plants in the past week resulted from this change in the EAB review, detail review of the calculations.

They asked some questions about assumptions in the electrical calculation and whether those were borne out by good technical backgrounds, what was the source that gave the good foundation for that assumption. We found that -- we decided we wanted to increase the technical basis for the assumption we put in the testing at the site and revision of the

calculation, and that is the case where the teeth of the EAB resulted in changes.

MR. FALEVITS: This is again Zelig with another question. What sample, or how do you select the sample of the engineering products and the EAB reviews, and what are the engineering products they are reviewing today?

MR. POWERS: They reviewed design modifications and all calculations going to them, all root -- significant root cause condition reports, and then selected apparent cause condition reports, technical activities, and then at the discretion of management, they can look at, as I mentioned, the system health report, the design basis assessment report. And it's not a question -- these are guys with former inspection experience. In the case of J.D. Wilcox, he's a former inspection leader, so he will go seek out areas that they think are weak, do some investigation by EAB and get feedback to the engineering management.

MR. GRABNAR: Also, all operability

evaluations are reviewed by EAB.

MS. LIPA: Is this an in-line review on the part of EAB or after it's approved?

MR. GRABNAR: Once the supervisory approval has been accepted, so once the supervisor has approved the product, then it goes for EAB review. I will state that on some of our major modifications, we have had some in-line review from EAB members because of their experience in terms of developing the technical approach making sure we are, you know, checking on the basis so we don't get a whole major modification done and then bring it there and have a question of a fundamental, you know, design approach.

So we have had on some cases, you know, and it's in line with the mentoring, as well as the guys that are a wealth of experience there, so there isn't exactly a wall built up where you can't go ask them a question, but we don't send, as a matter of course, products down for pre-reviews and get, you know, comments to make sure that when this goes down there finally

we will have it meeting our expectations. In general, products are completed, prepared, reviewed, owner accepted if it's vendor products, and then approved by the supervisor and then sent to the engineering assessments ~~program~~ board.

MS. LIPA: More specifically -- and this is Christine Lipa, I forgot to say my name earlier. Can the system that is being modified be declared operable before the EAB reviews the mod?

MR. POWERS: Well, the EAB reviews the mod typically before it's issued so --

MR. GROBE: Focus the question on eval, does modification happen before the EAB reviews it?

MR. GRABNAR: No, because I don't sign it before the EAB reviews it, therefore it cannot go to operations.

MR. GROBE: So in effect it is an in-line process?

MR. POWERS: Right, it's not after the fact.

MR. GROBE: It's not an audit or oversight,

it's part of your review?

MR. GRABNAR: I understand your question. That is correct, yes.

MR. POWERS: That is a barrier that is in place to assure quality of engineering products that are issued to the plants.

MR. GROBE: It's part of the management barrier, it's not part of the independent oversight barrier?

MR. POWERS: That's right.

MS. PEDERSON: This is Cindy Pederson. What quality are they seeing, what kind of grade are they giving?

MR. POWERS: We have an indicator we maintain and we have a scoring system of zero -- essentially if you think of it in how many comments Jack is describing, it's zero comments, one, two, three, with three being unacceptable and it's wrong, needs to be revised. Two is a significant comment, conclusions should be revised. One would be could be improved, does not have to be revised. Zero is nothing observed

of significance wrong.

But our restart goal was to have an average score, rolling score of one, and we are below that, we were at .85 I believe roughly today. Post-restart we are lowering that limbo bar, if you will, down to .5. We want fewer comments, fewer significant comments, so what we see is on a weekly basis we see some variation in the scores based on different products that come through, and we are seeking over the course of the recovery, we sought initially a rather wide situation in terms of quality that has tended to subside and become more uniform, but, you know, some weeks we may get products in with significant comments on them, other weeks relatively fewer, but it's meeting our goal for restart readiness and quality of the work.

MR. HAGAN: This is Joe Hagan. Let me clarify the comments we made. EAB is an oversight function for operability evaluations. If you want to say we are using them in a management type function to give feedback to

management, that's true, but EAB is part of the oversight function, it's an internal quality check with engineering.

MR. MYERS: It's in the process, but it's an oversight function.

MR. GROBE: I think I understand what they do, I'm not sure I agree with the vernacular. In my vernacular, oversight is something that is independent of line management, and it's a review of activities that are accomplished, whether it's a review of a worker following procedure, it doesn't coach him to follow procedure, but it observes and gives feedback after the fact, or it's a review of an engineering product. It would -- in my mind oversight would be independent after it's gone through all of its reviews and approvals.

MR. HAGAN: In terms of internal oversight function.

MR. GROBE: Internal to the engineering organization, so it's line assessment so to speak?

MR. HAGAN: Yes.

MR. MYERS: If you look at this, when we define effective oversight, we don't say quality assurance, we say self-assessment, internal oversight and quality, so they are all oversight problems. We have been very careful not to say independent quality oversight.

MR. POWERS: One of the --

MR. GROBE: I apologize to you. I'm not sure if it's important to split hairs on this, but if your manager -- in my mind, line assessment is also independent assessment, but it's not -- it's not -- the supervisor or manager won't sign off until they get the approval, that is not assessment, that is part of your review and approval process, you know, it might be an additional layer that you put into the review and approval process because you've got some concerns and you want to get additional review and approval, because assessment is after the fact.

MR. SCHRAUDER: It's assessment, it may be line, it's oversight for the engineering review.

MR. GROBE: I understand.

MR. POWERS: For me it's an oversight function because it is assessments, they are giving me grades and scoring the quality of the work, so that is a major function, so we achieved quite a bit from it. But another topic I wanted to touch on while we're here talking about oversight is the N.Q.A. question, which how is N.Q.A. doing their review, how engaged are they?

Currently our quality assurance manager is a former design engineering employee from the Beaver Valley site. He's well familiar with design and engineering principles and processes. He leads the quality assurance organization, and he has a group within that that does the engineering oversight, and that engineering oversight has been -- consists of several former system engineers from the plant that were active system engineering, know the plants, know the processes.

They are very -- a pair of very questioning individuals, and they also bring in

external engineering support for review from our other plants as well as they review external contractor support to report to us as well. So N.Q.A. is very active in reviewing the engineering activities.

MS. PEDERSON: This is Cindy Pederson. Just for my own clarity, the EAB, going back to that for a moment, their review and approval happens before the document is considered approved for use?

MR. POWERS: Correct.

MS. PEDERSON: Thank you.

MR. POWERS: So that is -- for us that is an oversight function, it's a barrier for quality, it's a mentoring function, assures that before the products are released for use, they have gone through that review process.

After the products have been released, that is when the N.Q.A. function takes over and sees what exactly was delivered as the final product, how did that work out with the other organizations, and they have got the skill

sets to do that in the engineering. I feel that our managers here, whether they feel like N.Q.A. auditors are intrusive in the engineering area.

MR. GRABNAR: The answer is yes. I would actually ask two of our engineers as well to explain on that we have N.Q.A. auditors regularly, as regular fixtures in the area. I interface with them, I get regular debriefings from their assessment activities. I get regular feedback on their field observations and I observe them regularly interfacing with the engineering staff as well.

MR. BOLES: This is Brian Boles. I don't have any issue with the amount of rigor that is supplied by your nuclear quality assurance organization or auditing processes.

MR. RANDER: Mark Rander. Speaking to follow-up on what both John and Brian have said, I deal on a regular basis with our N.Q.A. inspectors, they are involved in every project I think of, and they are providing strong questions, and we are expected to respond to

their concerns in a timely manner, and it's tracked through management supervision, and -- I'm sorry, I can't stress enough, though, how much involvement we have with N.Q.A. inspectors and the level of expectations that our supervision has and is responding to those concerns and assure appropriate action is being taken.

MR. LARA: This is Julio Lara. I became aware recently that there was an issue with a 40 volt voltage drop analysis difference with respect to ~~EAP~~ EAB. Was that an example of what you were talking about earlier?

MR. POWERS: That's right.

MR. LARA: That gives me a little pause in for whatever went back to EAB for review. In other words, it went through your existing processes well before the EAB changed direction. Therefore, that tells me there may be other similar calcs that are not run through EAB which may have similar type errors which requires significant analysis and potentially rework.

Do you have any thought on that potential problem?

MR. POWERS: Yeah. And we are concerned with the quality of all of our calculations. I will say that from the perspective that most of the comments that we have gotten and observations from the -- not only the CATI, but our own assessments, our system health and latent issues assessments on calcs has indicated there hasn't been a lot of highly significant issues.

In this particular one, in the case of the electrical calc we found by looking at the assumptions that we wanted to improve those assumptions, we think that essentially what's going to happen here is we are going to bear out those assumptions were quite reasonable and that is going very well, so it's not as if we found, hey, we have got the calculation results are wrong, we are actually finding out that some testing is going to validate that the assumptions in the calc are, in fact, supported by very good field information, test information.

But because we are concerned about our calculations quality in our operational improvement plan, we have got calculation improvement projects that are currently ongoing, and I will talk about that in a little bit more detail later, but that is a significant area, getting all the calcs identified, getting the top priority one's identified, looking at them to be sure that they meet the standards, and we have gone through a lot of the calculations as part of this recovery.

They were not old calcs, the calc had been revised by external -- these were an electrical engineering contractor, we got experienced people we brought in to help. The calc had been revised twice, and during the course of our technical work on the third time around we were revising it as part of the breaker coordination modification that we are pursuing at the site, this questioning attitude that we have injected into the Engineering Assessment Board, as well as our engineering identified that in

this calculation there was an application equation that did not look to be appropriate relative to the -- because of base angle in the circuitry there and also the questioning on where the assumptions that were in the calculation really supported and did they really meet the standards, and you get into that through the EAB checklist review, detail review. So the calculation is going to be strengthened substantially, but what's going to happen is our field testing that we have been performing, circuit testing is going to back up the assumptions that were in the calculations.

MR. FALEVITS: Don't EAB members have a sign-off place in the calc when they review it?

MR. POWERS: It's --

MR. FALEVITS: Do they sign off on it?

MR. POWERS: They don't sign on the calculations, but rather they review the comments, the comments have got to be resolved, the reviewer has got to sign concurrence on those comments, so if the engineer doesn't have

concurrence, then there is a problem that he can't get the package through. He's got to seek supervisory help on resolving the comments with EAB.

MR. GRABNAR: The design interface process requires the Engineering Assessment Board require interface organization, and they have to send back an approved design interface that evaluation form, then that gets reviewed, so they have to have -- they in effect are tied in to make sure that they get the chance to review as part of the final calculation.

MR. FALEVITS: The reason I'm asking is during the CATI inspection again we had quite a few concerns about peer reviews, if you remember.

MR. POWERS: Right.

MR. FALEVITS: So what I'm asking is, you're not eliminating the peer review signature?

MR. POWERS: That's a good point, yeah, thank you, that is -- let me clarify. There is a couple of things on EAB that that brings up. One is that EAB is not a substitute for the line

management review of the products, it is an oversight function, mentoring function, but it is no substitute for the preparer, checker and supervisor review, management reviews of the products. It checks them out to be sure they meet standards, but it's not a substitute for that.

In terms of the peer check-in function, we had a dialogue on that, Zelig, the last time I think you were at the site, and I certainly took that to heart in terms of what was important to us now at the station, and the peer checking function, not only in engineering, but across the station, how well do we do at looking at each other's work and critiquing it, to give good insight, if you will, and are we able to accept those internalizing use of critiques to improve our products as part of the observation requirements that they have got toward the engineering supervisor to take the EAB results and other critical input results and coach the individuals.

I also pointed out in that directive that the reviewer of the products needs to be held just as accountable as a preparer for their quality because of that, specifically because of that peer check-in function, which we need to improve on. So I put that out in writing to the staff. So I appreciate your insights on that, I think it's quite accurate.

Finally, on EAB review, we have talked about all of these types of documents --

MR. ~~Reuland~~ Ruland: Before you go forward, I missed the comment that was made about operability evaluations, what percentage of those were reviewed by the EAB?

MR. POWERS: I think virtually all of them.

MR. GRABNAR: 100 percent.

MR. POWERS: The idea is that they all get reviewed.

MR. ~~Reuland~~ Ruland: Thank you.

MR. MYERS: Let's make that 99.9 percent -- but 100 percent.

MR. POWERS: The EAB also, they do not

review every document that we do, okay, they review selective documents, portions of documents, that things that come to them to review, for example, everything is sent to them to review through the formal process of calculations. Now, they may look at a specific calculation and say this is pretty minor and meets the formats, it looks like it's been done appropriately, the last ones I have checked by this individual, he's got it, he's getting it done right.

They may not do, okay, check that particular one, they focus their activities on monitoring new mods that are coming out, new calcs by individuals that need them and such, so there is that gradation, but I will say that everything that they check, they maintain the records on, and we have got track records, and that feeds back to us, so we have got all that information available. So I will --

MR. GROBE: Excuse me, this is Jack Grobe. I have one clarifying question, and I just want

to make sure I understand what you said. The responsibilities of the EAB or the scope of their work activities, all calculations, modifications and operability evaluations are provided to the EAB and they choose which ones they want to look at?

MR. POWERS: They will make a judgment in terms of the complexities, that they can look at the quality, on inspection of it, and -- but currently in the case of calculations, they are looking at virtually every one, Jack.

MR. GROBE: But it's not part of their charge to sign off on every calc?

MR. POWERS: No, it's not.

MR. GROBE: And then all resolutions of significant conditions adverse to quality are provided to them and they sample from those also?

MR. POWERS: They typically get involved in each one of those. In fact, these principal products that we have talked about, they get involved in virtually every one. I mean, the process sends it to them, they need to get -- I

think they need to get ~~EIE back~~ feedback from the EAB for products that are submitted to them for the process, right?

MR. GRABNAR: That's right. This is John Grabnar. The percentage of review on design changes, operability evaluations, root cause is very high. Those are rarely -- and I haven't seen one where the EAB has declined to review. When you get to the calculations is more where you are likely to -- again, for some of the lower level, more straightforward calculations you are more likely to get a -- and also on, for example, a minor modification or revision where you might get an essentially -- you still have the interface form that comes back, but --

MR. POWERS: They may look at it, but it's risk based. I would say there is a consideration of what is the risk significance of the work that is coming through, some engineering work is relatively routine, lower level documentation and the EAB focuses their efforts on high value risk significance for the plant, the important

activities that we really need to assure high quality is achieved.

MR. FALEVITS: This is Zelig again. If we ask you to give us a list of percentages of what the EAB looks at thoroughly, not just looks at in the calcs, root cause analysis, mods and so on, can you provide it to us?

MR. POWERS: I can probably give you an estimate of that.

MR. ~~SCREW~~ FALEVITS: And if you wanted them to look at all of them, can they do it, do you have individuals to do that?

MR. POWERS: Yes. We have not maintained any sort of backlog, yes, they can do it.

MR. ~~SCREW~~ FALEVITS: Thank you.

MR. POWERS: Yeah, during the course of the outage, I will say that it has been a long outage, and one of the reasons is because we have taken the time to get the work done well, we strive to get the work done well, so the EAB has been able to review the products on line without building up a significant backlog. They are

available on all shifts, or when at home by fax and e-mail, cell phones. They stay engaged, and have been able to keep up with the delivery of products.

MR. MYERS: This is Lew Myers. As we move forward with the operational phase, certainly we would not expect the number of engineering products that we have been seeing as the building blocks, I hope not, and, you know, so you would expect to see that in a more controlled, deliberate manner. We normally lay out the mods over a two-year cycle, and we have an outage plan, if you look at it, we planned those mods in a very controlled manner, and that's just not where we've been, so I would expect to see that quality really improve.

MR. POWERS: I will talk about that in terms of our next slide on 16 is the strong programs area.

MR. GROBE: Just let me interrupt for a moment. This is Jack Grobe. We have been at it about an hour, I'd like to finish engineering

before we take another break.

MR. POWERS: I will do that, Jack.

Strong programs are important to us in our building block restart, reviewing 66 programs at the site, to run them through our Engineering Assessments Board program subcommittee. Corrective action program, Bob Schrauder will go into details on that following my presentation.

Modification process, Lew just said exactly right, as we go into the operational phase of the plant, the work stream through engineering is going to change significantly as we go through the 12-week schedule for work control in the plant, which means work is designed, then it's planned, parts are obtained, walk-downs are done, and then the work is implemented and everything is staged, you have to have it done in advance of the work being done.

During this recovery, we have been identifying issues, initiating design changes, getting them done promptly to support the field

change and improvement to the plant, but that's been a fast-paced and challenging environment for our engineers.

I think they have covered a lot of ground and learned a lot in the process, but nevertheless it's been a challenging environment, and that is going to change.

The typical modification starts with identification, going into initiation report phase, system engineer, design engineer involvement, design options are looked at, detailed design phase when the selected option has been pursued in more detail, and then the final detailed design issued six to nine months before refueling outage for modification task must be done during refueling, so there is a lot of time built into the process for review and preparation, which is in advance of the field work.

Now, during the current outage, we have utilized a component of our modification referred to as the ~~ATLAS~~ at-risk process, and this refers

to field work being released to the field to be implemented in advance of the completion of all the paperwork that goes with final modification.

It's a commercial risk when we speak of risk, we may do something that we have to undo. We have refined the final package, it's not exactly what we wanted, we may have to undo it. That would be at our cost, but there is no nuclear risk involved in that risk package because they don't ~~run~~ return any equipment to service ~~or~~ that's affected by the at-risk change, but nevertheless we have used quite a bit this process approach to expedite our work during the outage, and we are going to be curtailing restricting the work of at-risk. We had begun the process in the past weekend as we approach completion of the outage and turn the operational environment and change to our on-line schedule that occurred this week?

MR. MYERS: Correct.

MR. POWERS: So all of that is coming together pretty well for the mod process,

calculation control program, we have improved that. We have also got input and out from Sergeant & Lundy's review, independent review of calculations to make some further improvements, particularly in the areas of indexing of our calculations, but also documentation of the assumptions and our critical input aspects of calcs.

We now used a checklist for ownership acceptance of calculations. This was a specific improvement during the course of recovery that we put in. EAB now uses that checklist as well, so they are much more intrusive, and I pointed that out as a significant barrier we have put in place since the time that CATI gave us feedback on that area of need.

The design phase is something I wanted to take you through. Engineering prepared these products, whether it's a calculation or modification, the design interface evaluation process kicks in to assure that as you go through

the checklist for all of the programs on-site and sends it to them, if you are changing a safety analysis calculation, that could affect an emergency operating procedure due to sequence of plant events that could occur during an event. That calculation result is sent to the design interface evaluation process to the operations group, so they understand the potential for changing to the emergency operating procedures.

Similarly, if you are doing a modification of the site that could affect in any way the fire protection provisions of an area or of a system, the modification is sent over to our fire protection program and Appendix R inspections to make -- an EQ specialist gets engaged in case harsh environment is involved, so you really make sure through a controlled, structured process that you are sending the information to the right individuals to get the right review at the right time.

This is another reason why when we bring in a new engineer, we have got the

structure in place with your processes as they have evolved over the years that they can get guidance to ensure that they are heading down the right track, they need oversight by senior quality engineer and supervision before the processes are there as barriers as well to be sure they have the right things done to start with.

Our system health report, I think you have seen that. Brian has it here if you'd like to talk about it in any detail about the status of our systems and our readiness for restart going farther, plans for improvements and our design basis assessment report, which John Grabnar has copies of details.

Similarly, he has information for the design programs, things like drawings, calculations. Our calculation improvement plan is in that design basis assessment report. If you want to look at actual line item activities and dates, that's where it lives, and that's a quarterly -- both of those reports are updated

quarterly, and they have metrics performance corollaries, it operates on how those programs are doing, it's a big format for us of the sustainability of the changes we have made at Davis-Besse with program ownership, and now we are going to keep them in front of us on the radar screen with performance indicators on a quarterly basis.

Lew talked about the problem-solving/decision-making process now that the plant exercised heavily during the NOP testing, learned some lessons for further improvement, and we are prepared in engineering to take it forward for the next restart activities, to the next Mode 3 as we approach normal operating pressure and then further into procedure will be in place with experienced users of it.

And program compliance reviews will continue in the future. We have got that procedure identified and in our operational improvement plan that we continue to look at --

selectively look at programs at the -- what we refer to as Phase 2 detailed program review level, latent issue review level, if you will, for programs as part of the ongoing commitment to quality of programs.

MS. PEDERSON: Question on that, Jim. Who does those types of reviews?

MR. POWERS: That's what we do. The program owner puts together a team consisting of program owner at the site, as well as his peer or other peer program owners at our other two sites, and then corporate program ownership, as well as some external influence in there as well.

MR. MYERS: Go back to the problem-solving and decision-making process. Every time we speak of all of the things that I believe at the Davis-Besse plant, you have to look at the record, but this is one of the main things that I believe would have prevented that event from taking place. We put this good problem-solving/decision-making program together and had the process been in place, I believe we

would not be sitting here today. I know that process, that is a proven process.

MR. HAGAN: The next few slides, I think we have pretty much --

MR. GROBE: Are there any questions on Slide 16 right now?

(No response.)

MR. POWERS: Slide 17 is the experienced management barrier that we are putting in place in our overall barriers to events at the plant. Some of the things we have got, most of these are currently included in the drafts, initial draft or operational improvement plan that you have.

Action to improve safety margin for our ten most risk-significant calculations. Improvement plan, I want to give a little detail on this. Currently scanning -- we are getting the calculations off the floor, scan them into our electronic retrieval what we call our calculator by the engineers, and index, going into an indexing system, electronic indexing system currently in use at the Beaver Valley

plant. And it's a very critical step for its quality for us, because this indexes, gives us the link between the calculation and procedures that maintain survey and operate the plant.

It's really that ~~54-F~~ 50.54(f) issue on how we control and promulgate that design basis into the procedure at the plant. And this index is going to give us as part of our calculations improvement project -- 4,500 calculations have already been retrieved off the floor and scanned into that process as part of the project, with an overall target goal of approximately 30 to 35,000 calculations.

So we are actively in our calc improvement project right now, and you will see details on that to go into next year as part of the operational improvement plan identifying what we call Tier 1, and most safety significant calcs support the aspects of safety set points, emergency operating procedures. Those will be Tier 1 calculations, and we will check those out to make sure they meet expectations.

MR. MYERS: When you were there, we had a lot of dialogue, Patricia, about the ability to respond to your questions quickly, you know, and it took us a long time. You found that frustrating, and I did too, and I find it frustrating every day. This is a major step forward in fixing that problem.

It's worked at the other plants, and it should work well here. It will give us the tools that we need so that we are not having to dig through paper, but we can pull something up electronically when the question is asked. So I know that was frustrating, so this is a major, major effort at our station.

MR. POWERS: We were linked up overall with FENOC's program owner equipment reliability, and we are participating so we have a common level of FENOC's equipment reliability programs. We are participating actively in that, looking at engineer change requests that we currently have for transportation of that work plan. I will touch on that in later slides.

And finally, the ATLAS Design Basis Information System. We will have the design to support what Lew is talking about with the critical 50.2 design basis information for the systems at the plant.

MR. MYERS: We put that in there at the Perry plant and we worked long hours on this, and they will monitor -- we had problems before now that we have run these, we have done the detailed latent issues review of our seven systems from a safety focus standpoint. We want to get these things in there before it degrades away. If you let it sit on the floor it degrades, so we got all the books, you see we are getting all the information in there now.

MR. POWERS: We are actually taking up five latent issues --

MR. MYERS: That's what we are doing.

MR. POWERS: And the next slide you will see additional latent issue review.

MS. PEDERSON: Before you go to the next slide, this is Cindy Pederson, can you spend just

a couple of minutes on the first bullet on Slide 17, in improving the safety margin, please?

MR. POWERS: Right, yeah. The improving safety margin has been one of the goals at the plant during the recovery. We had found that the margin had been taken out of the various systems over the course of time, and if a situation were assessed, the tendency may have been to take margin out, not build margin in.

Lew has a favorite example, that a station blackout diesel generator was installed in a plant as part of probably a blackout rule. It was installed with the capability to be connected onto the bus, and it would have been better if we had taken a further step forward with them taking some of the loads, nonsafety-related loads off of the emergency diesel generators and put them on the station blackout detail.

We had that power source sitting there, we could have taken that step. In fact, we did take that step during the outage, but the

approach that you are really looking for margin, when we requoted our obtainment goal, for example, we looked at the margin on our containment analysis right down to the thermal insulation of the ~~coding~~ coating system there with -- preventing us or giving us very little margin.

So we assessed that ~~coding~~ coating thickness to assure we had as much margin as possible. We tried to build margin of the modifications that we have made for bus modifications at the plant and demonstrate an example for the engineer to -- mainly what it means to get margin going forward is then to look at systems, the top ten risk systems with what can we do to gain further margin, and there's been a couple of -- the most significant ones, we talked about active shift service water system at the plant.

The service water system has relief valves in it that we have talked about with the CATI team inspection. They have looked critically, and we have plans there. We are

looking at that, too, from a liability perspective, a code compliance perspective. We understand all of the boundaries that we need to work within the license design basis, good engineering practice, but what can we do to improve the system in further improvements for reliability, to help us continue to improve it.

We want to look at, you know, the margin that is available in flows, for example, that the system provides.

MS. PEDERSON: Is it fair to say you'd expect out of these reviews you may see some modifications you want to install to add margin, it's not simply a calculation review.

MR. POWERS: Right. Some of the modifications -- the particular one I would point out, we talked about the electrical system coordination. It was an improvement that we made as part of overall electrical design reviews. We think we have achieved a good level of coordination at the plant, but we also think that, you know, risk basis there may be more for

to us do, that we can achieve some improved PSA numbers risk numbers by not so much the coordination area, but we have looked at risk coordination perspective, the buses, but we have looked at the contributing components that are fed by the buses. It may be better to require some portions of the buses so that the most significant components have a lower risk contribution, more fault-resistant bus arrangement with a breaker supply to them.

And that would include things like our closed ~~coc~~ cooling water pumps system. They are significant contributors, their electric power supply would be reviewed. And motor operated feed pump is another one, so that's the type of thing we are going to be looking at, laying out some plans and looking through it to see what we can do to have a focus on regaining margin, and that is in front of us as an activity so we think about it.

MR. MYERS: Let me give you my view and my practice in South Texas, I do believe you

shouldn't be doing any mods unless you are trying to gain margin. With today's technology there if you are doing a mod, you ought to be trying to gain some margin, you've got to get something out of it rather than going back to the status quo. So my -- and when I talk to our engineers at the plant, I said the words gain margin was never -- it's not -- you should always be gaining margin. The new technology gives you that ability.

MR. POWERS: I have that sign up in the office, you probably saw it, the increase safety margin. John's got it in his, too. See, we head off on design changes to keep that in front of us when we enter into that activity, then we gain from a focus.

MR. MYERS: Safety margin, operations margin, there were margins in secondary plants, and you have to have those drivers.

MR. POWERS: Effective oversight, Slide 18, is the performing additional latent issues review, detail system reviews down into the design basis planning, one a year, that we will

go into and we will take the results of that and continue to build our ATLAS Design Basis Information System.

Program compliance reviews are also part of the operational improvement plan, as well as the procedures at the site. We select several programs for detailed review each year.

Effectiveness review, problem-solving and decision-making is built into the improvement plan we will continue to look at. Are we executing on that? Independent external assessments of engineering improvement actions. And Joe touched on this with INPO ~~Impo~~, requests to do external reviews of some of the building block functions and engineering. That modification process, system engineering effectiveness, corrective action program implementation and calculations. ~~EAP~~ EAB assessments will be continuing forward as we have described, and a nuclear quality assessment. I had indicated their activities on oversight of engineering. Those will be continuing as well.

On the next slide, Slide 19 --

MS. LOUGHEED: Kind of going back to the overview you gave on 17 and 18, if I understood correctly, there were seven systems that had latent issue reviews.

MR. POWERS: Five.

MS. LOUGHEED: Only five. All five of those are going to be put into ATLAS?

MR. POWERS: Correct.

MS. LOUGHEED: And after that you are planning about one a year --

MR. POWERS: Right.

MS. LOUGHEED: -- to do the latent issues review and go into ATLAS?

MR. POWERS: That's right. Bob, you will be feeding stuff into ATLAS at the same time?

MR. SCHRAUDER: Right. The plan is since we have the ATLAS project up and running now, we are talking about we are in the initial stages of talking about how do you capture the stuff very effectively, because we have a large team going into the guts of the system design and testing,

all of that, and after you capture that and get it into this electronic retrieval program effectively, there is some efficiencies there. The whole thing will stick together quite well and will continue to build the accessibility of design basis.

MS. LOUGHEED: So you might be adding systems to ATLAS before you do the latent issues, but that is not yet decided?

MR. POWERS: There was -- well, there is an additional plan, the initial five latent issues review, then there was an additional ten, that was projects plan that -- where we are recognizing now is that latent issues reviewed, we want to sequence it appropriately I guess is what I'm saying, we want to make sure we sequence appropriately, so that's the kind of a concept I will talk about as we move into the engineering work plan.

This is a big piece for us going forward is how we sequence and plan our work, because we have been in a real fire fight at the

site over the past 20 months, covering as much ground as we can, making many improvements, as we have identified.

MR. MYERS: Which you will find. When we did this at Perry, we did a power ~~up grade~~ uprate, and we have one at Davis-Besse right now, but we are looking at a power ~~up graded~~ uprate plan now that you are going to touch all those systems anyway that sets you up to have ATLAS.

MS. LOUGHEED: One other additional question, doesn't have to be at this time, but I would like to get a list of what the ten most risk significant systems are that you are planning on restoring margin and service water, is one, but I'd like to find out the other nine.

MR. POWERS: I think we thought I couldn't recite them to you, but once we narrow them down, Pat, this isn't a good time.

Anybody else?

MS. LIPA: Christine Lipa. On Slide 18 you talk about the EAB assessments, and it has paren OI plan. I didn't find it in the OI plan. Could

you point me to a page number, or is that something you plan to add to the OI plan?

MR. POWERS: It may be something I add. I don't know if I have all the pieces of the -- pages of the OI plan handy.

MR. MYERS: It's there, it says assessment, but doesn't say independent.

MS. LIPA: Under the engineering?

MR. MYERS: Yeah, I believe it does.

MR. GROBE: It doesn't appear to be there to me either, so we will just have to -- I don't think we need to go through that now, you're going to clarify that with --

MR. MYERS: Go ahead.

MR. GROBE: The other question I had, you talk about independent assessments of effectiveness of engineering corrective -- I assume corrective action and improvement actions. And you are talking about maybe INPO ~~Impo~~ doing some of those?

That is probably challenging from our perspective, and it can be done that way. The

challenge, though, is that if you do that independent assessment, we expect to be able to see the results, and there is -- that is some relationship that you are going to have to refine with INPO ~~Impo~~, if you choose to use them to do that independent assessment that we would have access and the public would have access to the results of those assessments.

MR. POWERS: That's a good point, and we can arrange that with the engineer assessments capability that they -- that they forward indicators to us, so --

MR. GROBE: It's just a nuance of who you choose to do your independent assessments that I wanted make sure you were clear that -- you know, that there won't be any normal type of INPO ~~Impo~~ memorandum, understanding that we currently have -- we need to be able to see the results of this, what plans were being used, what the specific results were and also probably be discussing them and printing them publicly.

MR. HAGAN: We will -- we are going to use

INPO ~~Impo~~ to coordinate, and that will be a -- really a decision, how we issue the report. It may not come out under the INPO ~~Impo~~ letterhead.

MR. GROBE: That's fine.

MR. MYERS: Number 9 is perform independent outside assessments of engineering corrective and improvement actions.

MR. GROBE: So EAB is under that?

MR. MYERS: Yeah.

MR. GROBE: I guess I was a little confused because EAB, between manager oversight, now it's independent oversight.

MS. LIPA: I think it would make it easier for me to use this document if there is a line item that said EAB.

MR. MYERS: We will add that because we are doing a revision anyway, we will add that because it's very specific what it really means, it's very specific.

MR. MYERS: We can add that.

MR. FALEVITS: This is Zelig. I'm looking at the engineering plan for Cycle 14, dated

December 4, 2003.

MR. POWERS: Yes.

MR. FALEVITS: And in there you have a lot of items that you are going to implement here, and it has to do with management initiatives, system improvements.

MR. POWERS: Right.

MR. FALEVITS: Program improvements, mods, calculations, evaluations, looking at the last one which has to do with condition reports, you have the last two items that -- Item 239 and 240, if you look at these lines, it says evaluate progress and effectiveness of the implementation, and -- which is very good. What you have to do, and here you are doing it throughout the whole cycle for three years, you are going to do it throughout the whole cycle?

MR. POWERS: Yeah.

MR. FALEVITS: Looking at the other ones, engineer variation calculations, you have one little activity at the end of the second quarter. What happens the rest of the year and a half?

MR. POWERS: Oh, the calculation has a lot of activities.

MR. FALEVITS: I am talking about this one only, evaluate progress.

MR. POWERS: Of the independent assessment of it?

Well, we have got a calculation improvement project that is going to be going through and looking at calculations. We will have Engineering Assessment Board, and all of its calculations are assessed and revised, and that -- the surveillance of calculations is the external assessments that Joe had described, so --

MR. FALEVITS: Are you sure? You don't have it here on the plan.

MR. POWERS: We can look at that and see that that is set in here appropriately. The engineering work plan basically gives us an initial structure of what we are going to see going forward and --

MR. LEININGER: Maybe I can help, this is

Jay Leininger, and the purpose when you look at the plan or when you look at the schedule, what you will see is that for each of these major engineering work areas, there is basically a logic in terms of what activities will be in terms of implementation of that -- of that work area, and then following that, there is a specific item called assess and see how we are doing in that work area.

In most of the areas that I have seen here that we have shown in the work plan is that one specific item, a little short-term activity that says assess and see how you are doing, that would put in there just the representation, which is as you go along throughout any of these work activities, you are going to be assessing and evaluating the progress, and so --

MR. FALEVITS: You are looking at progress and effectiveness of implementation, that is probably one of the most important elements you have here, in my opinion.

MR. POWERS: We are showing early in the third quarter, so basically to get the projects ongoing with a scanning capture of all the calculations, the indexing, then definition of Tier 1 calcs review and beginning of the upgraded calcs. We think that beginning of the third quarter is an appropriate time to go in and evaluate and assess the effectiveness of implementation. Line 145, 146 and 147 on the plan you have got to get some run time in there before we come in and then assess it to see --

MR. FALEVITS: I agree. But why not do anything after that? You have a year and a half after that, and it has nothing.

MR. LEININGER: Again, the intent whenever you implement --

MR. FALEVITS: That's the way I see it. I look at the chart here --

MR. LEININGER: Whenever --

MR. POWERS: I'm sure it could, I'm sure it could.

MR. FALEVITS: Well, look at it. We're

going to do it for you, but you need to do a lot of it too.

MR. POWERS: That's a good comment, we can sure do that.

MR. FALEVITS: That is an extremely important activity, to see how effective is the program.

MR. POWERS: Right, right, I appreciate that comment. We will add that in.

Let me go into the work plan, it's a good transition. I'd like to start with Slide 20. We are a bit out of order, but Slide 20 is the best place to start. The purpose of the engineering work plan --

MR. GROBE: This is Jack Grobe. Sorry to interrupt you for just a second. I believe Bill ~~Reuland~~ Ruland stated that he had extended the video conference until 2:00 o'clock eastern, which is 1:00 o'clock central. Bill, is that our current limit?

MR. ~~Reuland~~ Ruland: As a matter of fact, you might have seen I was just on the phone and we

have extended our conference until 5:00 eastern, 4:00 central. Of course we have been going through the slides at one slide every 45 minutes. At that rate it will be 4:00 a.m.

MR. POWERS: I have a lot of good stuff.

MR. ~~Reuland~~ Ruland: But that's about, I guess, when the office starts closing, so -- but we are okay until 5:00 eastern now. That's three more hours.

MR. GROBE: Okay, good. Thank you, very much.

MR. HOPKINS: What we are going -- are we going to cancel the 2:00 o'clock call we normally have?

MR. GROBE: Yeah, we will take that as an action to call FirstEnergy ~~First Energy~~ and cancel that call.

MR. MYERS: Most of us are here.

MR. GROBE: But that call was still going to happen.

MR. GROBE: On Slides 20, 19 and 21, could we kind of zip through those?

MR. POWERS: Yes.

MR. GROBE: Thank you.

MR. POWERS: The purpose of the work plan was to give us the overall direction of engineer for the upcoming cycle, which Cycle 14 for us. It lays out the considerations of what remains on the plate to get done following the restart of the unit, and what is our plan going to be to get that done. And one of the principle pieces of it was to define to the corporate management one of the resources to get it done, get the handle around that, because there is a corporate commitment to us at the site to maintain resources available to resolve the remaining workload for not only engineering, but for maintenance in the plants.

And there is just a number of things that are going to follow along that we need to get done, so the work plan laid that out, and the intent is to assure that engineering organization has proper resources, Zelig, as you have pointed out, and the schedule, that there is a Microsoft project based schedule in here that

lays out conceptually how we will see this going.

There is approximately 240 line items on that schedule for various activities, and so we have gone to a fairly low level for your initial cut on what we see needs to be gotten done.

If I back up to Slide 19 then, there was a total 8,500 engineering workload items identified, and that could be drawing updates, system description updates, calculation updates, corrective actions that have been taken out, that a calc needs to be updated to reflect a certain condition, all the activities and the corrective action programs are in there, plus a consideration of the influx of continued problem identification and condition reports are built into this.

The operational improvement plan that we have described is in there, and the considerations of that and so we have tried to integrate in one place everything that we think engineering needs to do over the next cycle,

including perhaps the mid-cycle outage and refueling outage and have that in one place.

What we did, to put it in a nutshell, is categorize the items into the categories you see on Slide No. 19, the major areas, and then we punched through what we felt were estimates of the resource requirements, the personnel hours, if you will, required to do each type of minor mods, major mods, calculation updates, CR investigations for root cause, apparent cause, fixed level CRs, took a stab at estimating that, multiplied by all of the personnel hours required and came up with a bottom line number, that's what it would take hours-wise, convert that to dollars-wise to get our work done.

We compared the hours requirement to the hours available to us with the engineering staff at the site, we determined what the delta was in terms of excess hours above those which we could work, and then we converted that into money for the company to assess.

MR. GROBE: When you say you compared -- this is Jack Grobe -- compared to the hours available, I would assume that your site staff is structured to support a routine operating plan?

MR. POWERS: Correct.

MR. GROBE: So this is all above and beyond?

MR. POWERS: This is incremental. What it is looking at, this is an integrated plan, so this is everything, operational support, workload, work of outage preparations, operational improvement plan, it's all in there.

MR. GROBE: So some of those activities would be part of your normal engineering staff activities?

MR. POWERS: Right. So we tried to sum up, you know, here's all of the activities that we are going to be doing, if we compared the hours associated with those, to the hours available to the staff and for that we comparatively said, well, in a 50-hour work week we expect to continue to be working diligently at the site

over the cycle, but not as far as we have been because we want to make sure the staff there have an opportunity to rejuvenate and rest a bit after the -- after this long outage, but continue to move forward now.

The 50 hours is a sign in terms of how much is specified as assigned work, and 60 percent, in the case of the plant engineering system engineers, because they have emergent issues at the Davis-Besse plant, so 60 percent of the tasks are assigned scheduled work. In the case of the design engineers it's 80 percent because they have more fixed activities, whether it's design programs, CR dispositions.

So that was an assumption that was built into the resource numbers. We determined if we had an approximately seven million dollar delta, the studies state that would be required for us for resource perspective in 2004, and probably about five million dollars in 2005, and so that characterized the level of support that we think that we need that is being delivered to

corporate through Joe to Gary Leidich, our president, that has been set aside for Davis-Besse in the budget.

And this document gives us our definitization of that so we can go and ask for what engineering needs of the budget that's been set aside for Davis-Besse. So that's the intent of the document and to give us a plan. It also gives you a perspective on the many things that we are going to be working on over the course of the cycle to continue improvement at the plant.

MR. GROBE: So these dollars are part of an already-allocated FY or CY '04, CY '05 budget allocation, or is this additional board commitment?

MR. POWERS: It's part of the budget allocation.

MR. HAGAN: It's already been budgeted.

MR. GROBE: It's in the budget?

MR. HAGAN: It's in the budget. This is the engineering portion of that budget, so money above and beyond this that the engineering

portion has been allocated based on that, and it is -- I believe they meant dollars above normal activity.

MR. GROBE: Okay. Why don't we drive the level of depth of your continuing dialogue on this topic area. Any questions? I think I heard one from headquarters.

MR. HOPKINS: Yeah. Look at Slide 19, actually the top two dashes. How do the 8,500 engineering items coincide with, you know, the previous statement about the expected workload to go down post-restart, and this is specifically -- it's specifically referred to the question that had to do with the burden or the requirements for EAB review. I think Lew Myers suggested that that demand would go down, and if it appears that if you are working 8,500 engineering items, it's not clear to me that, in fact, the workload will go down. I'd like you to touch on that a little bit.

MR. POWERS: The 8,500 items consist of a -- there is a multitude of different types of

tasks. For example, if you look at the categories on Slide 19, there are things like drawing updates, which EAB doesn't really look at, the drawing updates incorporating, changing document updates, system updates to incorporate a change from modification or a corrective action.

EAB doesn't look at that many -- that routine level, engineering work equipment reliability, items like preventive maintenance optimization, predictive maintenance tasks and plans, methodologies, EAB may sample in those areas, but there is not a principle throughput to them.

They are looking at modifications, calculations, operability evaluations, significant root cause and apparent causes and corrective action area, so not all of the 8,500 is included in that throughput. The other piece of it is the 8,500 items are spread through the work plan over the two-year period of the cycle and the first quarter of 2004 really is a period of planning and prioritization for us.

We really want to pull the current emergent forced outage environment at the site and get into a careful planning and prioritization process here to make sure we utilize these resources most effectively, and we don't find ourselves in situations where, for example, somebody's updating a calculation in one group, someone else is making a change in another group and you find out you've wasted your effort because you have to update the calculations again.

We want to carefully integrate what we are going to do, and we want to do it principally focused at the ten risk significant systems. We wanted to identify those and then look at our workload and target the prioritization towards those ten systems as a way of initial prioritization.

Also, in our system health report, the systems that are graded yellow and if they need more attention both in work orders completion in the field to continue improvement

and material condition as well as if there is modifications that are required to support that continued improvement plan, we want to target that by priorities. So not everything of this 8,500 items will happen in the beginning of the year. We will plan carefully and get into it on a basis that is going to make sure we are effective and efficient in resolving them. That's really the fundamental premise of the plan, both from an EAB workload as well as the individual employees at the plant, their workload and how we levelize that.

MR. HOPKINS: I understand, thank you.

MR. GROBE: Are there other questions on Slide 19, 20 and 21?

(No response.)

MR. GROBE: Why don't you go into Slide 22.

MR. POWERS: Okay. 22 is a slide that gives an indication of how our operational improvement plan, the initial issue of it appears in the engineering area. Engineering is No. 6 area, kind of a total of, I think, ten areas that

we have detailed plans, owners and completion time frames listed out for both ourselves, as well as your review. In regulatory review perspective our plans going forward following restart of the site.

Now, as we show one page of two that are in the engineering area as an example, but the bullets I talked through to this point, some of them are already existing, some are going to be added by the revision that Lew and I have described, which is going to be forthcoming prior to restart, so this is the way it will appear, and that is just for information.

MR. THOMAS: Just real quick, does that mean you will have under 1-C through the fourth quarter of '05?

MR. POWERS: Yes, because there is a number of block walls that are going to be analyzed, Scott. We have an operability evaluation in place at this time, and as we work through that process to resolve all of them, that is going to take us time to go through with a rigor of

analysis for that scope.

MR. THOMAS: Additionally, Service Water 3, Cycle 14, I guess I was under the impression that those calculations were going to be revised.

MR. POWERS: Well, there is a number of improvements in service water.

MR. GRABNAR: I can address this. This is John Grabnar. On the walls, for example, we have the big process for that currently in bids, something currently out to get that resolved, so it's going to take us some time to do that, which is the basis for this date on here, but we are not waiting to get started on getting those things resolved. So we currently have underway the request for proposal was issued a week or so ago, and we have actively -- in fact, yesterday there was one of our prime contractors on site reviewing some of those calculations to actually scope that job, so I mean the wheels are turning to get this work done. But in that case there is, I think, over 100 calculations, for example, that are involved. So it will take some time to

get resolved, but we're working on it.

MR. POWERS: And part of the consideration, Scott, is that in this time frame if we identify that we need to do a modification for block wall, and it could be a refueling outage significant mod for reinforcement, we probably would want to do it during the refueling, so that's why it would be at the end of the cycle. Sometimes that is just the thinking in terms of something that is going to be resolved in cycle and by the end, so these are -- this gives a relative time frame assessment of how we can get that done.

In the case of service water calculation, our initial calculations relative to operability evaluation on the service water system are expected to be completed in the first quarter, but there is other improvements that we want to make as well by support assessments, a number of things that we want to do, and then they will be ongoing through the cycle. I'd say there's some systems where we want to regain margin in the plant, so that will be an ongoing process.

MR. FALEVITS: One more question. This is Zelig. Item 1-B, can you elaborate a little bit on this one? And looks like the date is the end of 2005.

MR. POWERS: Same reasoning, Zelig, in terms of we are going to be looking at our electrical system coordination regrouping on what the highest valve activities are that we can do to improve our electrical system, both coordination and analysis.

As we mentioned earlier, we are looking at it really even more so from a risk perspective. What we found from the PSA analyst is the way that it's configured from some of our more risk-significant components, we may achieve more benefit by reconfiguring the electrical supply to those components and by coordination. So what we are doing is stepping back, reassessing it, and then as we go I will have modifications.

Those likely may be refueling outage -- again, refueling outage modifications,

so that's why it's -- I show fourth quarter 2005 because that would be near the end of the operating cycle, ready for the refuel outage.

MR. FALEVITS: These are not issues that came out of the EAB, these are issues that you were evaluating right now. These are not problems that you know of, or potential problems?

MR. POWERS: No, it's improvement.

MR. FALEVITS: It's an improvement?

MR. POWERS: Yeah.

MR. FALEVITS: Okay.

MR. HAGAN: That's for the electrical distribution system?

MR. POWERS: Yeah,.

MR. FALEVITS: Okay.

MR. POWERS: So I'd like to summarize in the engineering area, we have certainty covered a lot of material, and I think we have a lot of good things to bring to the table, a lot of decisive action has been taken as a result of CATI team inspections feedback to us in engineering.

I think that based on what I have described with our checks and balances and reviews, that engineering quality supports the restart of the plant, and we believe continuous improvement is ensured through the operational improvement plan that we talked about, revising that to incorporate even the levels of detail we talked through today to assure that the engineering and its operational support at the plant continues to improve.

We gave details on the commitment on resources that are required for us to continue that improvement effectively and deal with our workload that we currently have at the plant and the post-restart time frame calculations are being improved, calculations were a major item that we received feedback from, both from CATI, our own assessments as well as the latent issues review process calculations was an area earlier on during latent issues review that collective significance indicated we had an issue with, so we have known that we have to deal with

calculation quality at the plant, we have been dealing within the corrective action plans since, and we have an improvement plan. Now, that has been given input to by our independent assessment that we had performed most recently after the CATI inspection, so all this information we have collected over the past 20 months is really rolled into the calculations improvement project, and that is actively ongoing.

And finally changing our approach to problem-solving and engineering, I think of all the input that I have gotten from the ~~3750~~ 0350 panel, from the CATI team, as well as some of the other reviews that we have done, both our Engineering Assessment Board, the external review by INPO ~~Impo~~, engineering capability reviews, how we go about solving problems is our most important activity.

As engineers we are striving to change the way that engineers approach problems so when a question is asked that we approach it with an open mind, they don't leap to conclusions

on what the likely solution is and then try to defend it, and we are anchoring changes in the approach to problem-solving by engineering both in the problem-solving process that we have in place and our new technical issues resolution procedure which we currently have drafted and we will have issued shortly.

And so with that, that concludes my presentation. Are there any further questions? If not, I will turn it over to Bob Schrauder, our director of support services, who will talk in detail on the corrective action.

MR. BOLES: There was a question earlier that was asked that we kind of deferred until later, and Patricia had asked -- this is Brian Boles -- what our current system health was, and I think we deferred that to later. Before we go to Bob's, I thought I'd give you a real brief summary.

The system health report is done on a quarterly basis. It typically takes about a week to ten days of engineer selection of data is

simply that, analyzing that and making a report. So we issued the report on October 29th, and I believe Lew Myers probably brought it here, and on November 3rd, we were still doing some final adjustments, and we supplied what we called Rev 00, when our intent to issue Rev 1, that allows a backlog assessment. We did that November 19th.

The first health report you saw 21 system programs on it that were yellow and/or red, the Rev 1 then was issued and the 19 -- we reanalyzed some of the data, we had 20 systems and programs that we called yellow or red as of the third quarter.

16 of those were systems, four were programs. Of those 16 systems, 11 were red because they were 50.65 ~~Parted~~ A-1 maintenance program A-1 was driving them to a red condition color.

One was a material condition color because of a number of large outstanding work items, and four were yellow of those 16 systems, and that was due to remaining outage work --

large number of open work documents.

That leaves of the original 20 that there ~~was~~ were four programs. All four of those programs were rated yellow, and they were all due to a number of uncompleted items that still required completion required at outage end.

So while we have been talking here, I don't typically -- I will go and keep monitoring the status of those, but to actually have a roll-up of what is the health today, that would be a subjective evaluation based on my part of what we have completed, and then some type of speculation as to how much work has come in and what the roll-up of that means.

But I will tell you that my review of the system health report, which obviously was when it was written, I was the final reviewer of those systems, that we had 12 that were red. Remember, I told you 11 were A-1 and one had many open items. Six of those 12 today would be considered yellow today based on all the items being completed and/or the A-1 action plans being

completed. Three of the 12 are still red today, but I would expect them to be not red next week, and they included items such as our safety features actuation system, power supplies which are being replaced this week at the station.

MR. MYERS: Two of those?

MR. BOLES: Right. So there are -- we have testing that still has not been completed that will close out some other items, so I expect three more this week and next week, and there is actually three that I would surmise at this point that would be red. Two of those are A-1 and then freeze protection, which I told you I think we had members at the ROP meeting and we talked about freeze protection. The other one would be x-ray monitor. We have to make sure that we are complying with that. So that would be two on the A-1 perspective.

On the 480 volt distribution system, we have a lot of work that we are completing right now with our coordination issues, but as a result of that we have

identified a lot more work that needs to be conducted in the whole electrical distribution system, which Joe had mentioned, you know, due to the large number of items that we will want to finish, we believe that we would leave that as a red color to drive performance. That's just my estimate right now.

The programs, I told you there was four that were yellow at the end of the third quarter. If I were to grade them today, one would be yellow, and that would be -- as I mentioned at the ROP meeting, that would be the boric acid program, which we want to have a period of run time and make sure that we have confidence that the operator and the RP technicians, the maintenance technicians will maintain the pressure hold, identify boric acid leaks at the level that they should be identified and make sure the program is properly implemented with routine follow-ups and adequate repairs of those types of things.

So that would be my answer,

Patricia, to your question.

MS. LOUGHEED: Thank you.

MR. POWERS: And one more point, I'd like to get to Bill ~~Reuland~~ Ruland's question of operability, whether or not that is currently included in the engineer qual card. We called back to the site, Bill, and got that information.

It is included as part of the engineer's qual card. However, it's being considered to make it its own stand-alone qual card since it is a major function, systematic approach to training review, we want to establish a separate qual card for that skill.

MR. GROBE: Okay. Other questions before we finish our dialogue on engineering?

MR. FALEVITS: Just a quick one. Is this the first system health report this year?

MR. BOLES: This is the first system health report since the fourth quarter of 2001.

MR. FALEVITS: Are you comparing, or there is no need to compare the two?

MS. LOUGHEED: No.

MR. BOLES: There is a comparison in the report, but I don't really know it.

MR. MYERS: We looked at it as we came down to the outage and we have addressed the stuff that was there. I mean, we have done all that, so every one of those things, the long-standing problems we have addressed. I mean, that's been done during this outage. We had the system failure in the monitoring system and the freeze protection. I personally brought that down myself, and we are taking actions there, but we have addressed the stuff that was included in the outage and that was over and above, in a lot of cases, the building blocks.

MR. GROBE: Okay. Any other questions?

(No response.)

MR. GROBE: Cindy?

MS. PEDERSON: No.

MR. GROBE: Very good. It's currently 17 minutes after 1:00 central time. Let's break until 25 after and then get started on the corrective action program. I would encourage

you, Bob, to let the questions guide the detail on your presentation.

MR. SCHRAUDER: Okay.

MR. GROBE: And I'd appreciate that. So let's take a break until 25 after.

(Whereupon, a recess was had, after which the meeting resumed as follows:)

MR. SCHRAUDER: I'm Bob Schrauder, director of support services, and I'm going to address some of the actions we have taken to improve the corrective action program at Davis-Besse. Many of the items that I'm going to talk about we have already covered at some of the monthly meetings, but maybe this will pull it all together and give you an opportunity to just ask questions and go into depth, as Jack said.

We have an understanding about some improvements that we are doing for the program, but what specifically are you trying to improve? Both the CATI inspections and our

self-assessments found that we had made improvements in the corrective action program, but certainly identified several areas where there are opportunities for continued improvement in the program.

A lot of the comments that came from the corrective action team inspection centered around apparent cause evaluations I think is where a lot of them were around, so we have a significant initiative under way right now to improve the apparent cause process or the evaluations.

The specific items that were identified were that some of the evaluations or the evaluators were seen to have a preconceived notion of what the cause was and didn't get much beyond that. The evaluators didn't always address the problems that were stated, and I'd say an adjunct to that is that sometimes the problem statements were not very clearly articulated on the condition report themselves, and then the evaluator did take the time to get

back to the originator to make sure they fully understood the problem, and if necessary restate the problem in order to effectively evaluate what the problem was.

A lot of comments and evaluations and some actions taken were not very well documented, so when the team came in and our folks came in too and tried to pick up a condition report and read it and understand what was done, how you evaluate it, the remedial actions that you would take had to frequently resort to interviews with the evaluator in order to get the full picture of everything that had been, well, done. So they were not well documented.

And some of the evaluations seemed to lack technical accuracy in the evaluation and management involvement in evaluations, and corrective actions were not always as strong as they needed to be. Things like too frequent delegation of signature authority, which process does allow, but fundamentally we want managers

reviewing and approving the majority of the things coming out of their sections.

MR. GROBE: Before you -- this is Jack Grobe. Before you go on to the next slide, nine months ago I could have substituted the word operability evaluations for apparent cause and these would be the exact same factors. I'd like you to think about this, and I don't need an answer today, but get me an answer as to whether or not there are other areas in plant performance where you could also today substitute another phrase as far as activities that are going on. This is uncannily similar.

MR. MYERS: We think we can answer that. If you look, we were working on root cause operability evaluation. What we are doing is not surprising, we find some of the same type of issues. We are going to level down and we are doing that in a lot of areas. You are seeing us do that at the engineering being a level down, apparent cause is a level down, so we are going a level down, and after addressing some of the

similar type issues, and it was other areas.

MR. GROBE: Is it possible I could put ALARA reviews in here, or I could come up with probably a dozen other topics. I'm just concerned --

MR. MYERS: Yeah.

MR. GROBE: -- whether or not there is other --

MR. SCHRAUDER: We don't know of any right now or we'd be working on them is what I would say. And our ongoing self-assessment program, trending reports and things, that should point us in that direction in the future. There were --

MR. MYERS: I will give you a good example. We had the SRO issues, you know, we went back and looked. We also found issues that we hadn't thought about, like the non-licensed operator, so prior to start-up we have also not only addressed the licensed operator, we addressed non-licensed operator, so it's going to that next level down and we are constantly doing that, Jack.

MR. GROBE: Let me address the question a

little bit more directly, Bob. I think you are correct that if you had an activity trending program, and if you had an effective self-assessment program, that these things would be flushing up.

MR. MYERS: Right.

MR. GROBE: But just recently, within the last two months, you ranked self-assessment as red, and you have taken a number of significant actions to enhance in that area. Within the last couple of months you just reinitiated your trending program, so I'd like you to reflect on the question a little bit and get back to me whenever you've had a chance.

MR. MYERS: Okay.

MR. LARA: I have a question. The items you have listed here are items that the CATI identified. Is that too narrow of a look, given that quality assurance also had similar or more concerns in this particular area?

MR. SCHRAUDER: I would categorize it as really a combination of CATI and self-assessment.

After the CATI team came in, we had an industry peer group come in and look at our corrective action process also, so this is kind of an aggregate of all of those things that we looked at, and most of the different looks didn't see a lot of different things.

MR. MYERS: Let me -- if you go and look also, this program -- corrective action program is just one program, you know, we have got things going on, not only do we have things going on at the Davis-Besse plant, there are things going on at other plants that -- we have a team working right now on the corrective action program that we were not addressing here and now, so there is always things going on in those programs that are shared amongst our plants. There are some other areas that we have that we have being worked on right now. This addressed Davis-Besse specifically.

MR. GROBE: Since Lew and Bob appear to be the principal speakers right now, could you move that microphone back down to the end of the

table, and if one of you guys down there needs to make a comment, shout out. Thanks.

MR. LARA: Okay.

MR. SCHRAUDER: Some other areas we are looking at for improvement evaluations and corrective actions are not always timely. This situation has been exacerbated I'd say by the long outage and the large number of condition reports going through the process, but I'd also say that it's -- and I don't want to underplay it, but it is somewhat mitigated in that timeliness is certainly commensurate with the level of safety, so as we identify the problems and the -- you know, the plant shutdown, the systems are out of service.

We did have some issues with ~~where~~ were we are getting to reportability issues quick enough, and I think we have turned a corner on that, and I think we are doing much better in that regard, but we do have some timeliness issues. We are certainly outside the bounds right now or the range for the default values of

where are we like to identify and evaluate and resolve the problems, and we are working to correct that.

We found that some corrective actions were closed to other documents. Our process doesn't allow that. That was a procedural violation, if you will. Things like the corrective action would have to go fix something, the corrective action was closed when the work order was written versus when the work order was completed, where we'd do an engineering change, the corrective action was closed. When the request for engineering change~~d, that~~ was written rather than the action taken to complete that.

And then we found some instances where corrective actions were not completed as defined. That is the corrective action would say do A and the implementer would go out and do B, and then there was not a good documentation or rationale behind why did you do something different to what the corrective action said, and

yet you closed the corrective action anyway. So that is another area for improvement that we are looking at.

The rollover process as of its use caused a great deal of confusion, I think, both -- just about everybody that came in and looked at it, not just your team, but others that looked at it. And it's fundamentally not a bad process, you know, it's reverse, kind of, utilization. If you are looking at the same problem that's been identified in a number of different areas, you want to be able to look at them together, not, you know, to six, seven, eight different evaluations from the same problem.

What we had was problems, though, following where the issue was actually done in the rollover, and that was -- I will tell you, it was cumbersome. Typically we found that if you followed it long enough with few exceptions, you found it, you got to it, it was there, but it was a very cumbersome process. So we have made some changes in the rollover process.

MR. FALEVITS: I think we also identified some problems with rollovers, where when you have rolled over a corrective action item, it was either not done or they got lost or you will have to --

MR. MYERS: We did 100 percent review. You will have at least three examples in the reports that will show you where, and I think you have initiated about 14 or 15 condition reports against rollovers at the time we were there, so it's not just confusing, it's also a problem --

MR. SCHRAUDER: I think there was some problems, but -- okay. I will accept that you found a few that maybe -- but there weren't very many, and we did go back and look at all of them. I'm not saying that none of them ever disappeared, but our review showed that typically you could find that -- again, not necessarily 100 percent, so --

MR. LARA: I was struck that you commented that the CATI team and others found this process confusing when they came in to look at it.

MR. SCHRAUDER: Right.

MR. LARA: Are you saying that the staff, your line organization engineers do not find it confusing?

MR. SCHRAUDER: I'd probably say they don't find it confusing, they were the ones that are rolling the stuff.

MR. MYERS: Before you all came in, we had done our own assessment, we had issues with it, we thought we had it bounded, but the rollover process normally doesn't cause you a lot of concern because we were not generating at the rate we were generating when it was discovered tying things together, so it was not causing us a lot of grief before, but in this extended outage, it did cause us many issues.

I just saw a piece a while ago, if we look at the error rate, we found it was less than three percent, and, you know, we discussed that in a lot of detail. We never heard anything that -- I don't think anybody ever disagreed with that error rate.

MR. SCHRAUDER: Did you --

MR. FALEVITS: Pardon me?

MR. MYERS: We went through 100 percent, we look at error rates. We found that there was about a three percent error rate, and I don't think you all ever disagreed with that at all.

MS. LOUGHEED: I don't think --

MR. FALEVITS: We didn't assess your error rate, but when we looked at it, especially when we started the inspection it took us two to three days to try to determine if the corrective actions were implemented properly.

MR. SCHRAUDER: We accept that finding.

MR. FALEVITS: The same problem occurred with your staff too, Bob.

MR. MYERS: We accept that 100 percent.

MR. FALEVITS: And that's what we were told by your individuals, by your supervisors and so on, so it's not just -- I just want to make sure we are characterizing it correctly. It's not just confusion, it's potential for problems, even in the future when you look at effectiveness of

implementation of all of these corrective -- you had thousands of corrective action items. When you go look at effectiveness and six months to twelve months, hopefully you won't have any problems that were rolled over all over the place. That's all I'm trying to tell you.

MR. POWERS: We have curtailed the use of that, put restrictions on it.

MR. SCHRAUDER: Effectively you can only roll a condition report one time, and there is very strict guidance to the procedure.

MR. FALEVITS: That is correct today, after you revised the procedure in March, but prior to that you could rollover as many as you wanted.

MR. MYERS: We are agreeing with you.

MR. SCHRAUDER: That's why we changed the process to not eliminate the potential to do that, but to restrict it significantly and provide additional guidance as to when it was appropriate and what steps needed to be walked through to be able to do it so it would not be confusing and things would not get lost.

The vast majority of those condition reports that were rolled over occurred in the containment health department where there was a lot of boric acid inspections. That is not the only place, but I would say 60 percent of the rollovers were in containment health is where they were used predominantly.

MR. MYERS: What I keep going back to is that when the issue came up, I wanted to make sure that we responded properly and promptly. We sat down and put a dedicated team together and went through 100 percent of the rollovers, 100 percent.

MR. GROBE: I understand.

MR. FALEVITS: Okay.

MS. LOUGHEED: Actually, Bob -- this is Patricia Lougheed. I would like to hear -- you said something about that you had made some improvements to the process and put some restrictions on it?

MR. MYERS: We will share those with you.

MS. LOUGHEED: Could you go into a little

more detail on that and when those changes were made?

MR. SCHRAUDER: Brian, do you --

MR. HENNESSY: We sent Zelig the paper shortly after that. This a Brian Hennessy. Just shortly thereafter on March 1st, April 1st when a new revision, scaled-out revision to the procedure. We put some strengthening guidance in there. We also put in our expectations for this practice at Davis-Besse, that you are only to roll it once.

One of the things that we were seeing is once you started rolling it with the current -- the previous process allowed you to roll it again and then roll it again because it allowed rollovers, but what happened is that once you rolled it, you didn't have to address it in that evaluation. That all went in after, I think, April 1st.

MS. LOUGHEED: So you --

MR. FALEVITS: March 1st.

MS. LOUGHEED: So you have not made any

additional changes?

MR. HENNESSY: Nothing since then.

MR. FALEVITS: That's fine.

MR. HENNESSY: And typically -- Bob touched on it -- this was the result of the volume that was being put in at one time, and of course we were not seeing the volume. We were getting a lot of CRs in the same area, so by virtue of not having the opportunity, we have a better handle on it.

MR. MYERS: What you hear too is when you are in the meetings you don't hear a lot of the word rollover, we haven't heard the word rollover in ages. We don't hear it anymore.

MR. GUDGER: Very few if any at all. This is Dave Gudger.

MR. MYERS: This was a common word we were hearing. Now I don't remember the last time I heard it.

MR. GROBE: Good, thanks.

MS. LOUGHEED: Thank you.

MR. SCHRAUDER: And then as was identified,

the trending of condition reports was suspended, and that was a conscious decision that was made based on the large number of latent issue type things and walkdown type areas, and so we did suspend trending, but trending has been resumed.

The first trend report came out about six weeks ago, six or seven weeks ago, and there is another one for -- that one covered from the suspended period up through the second quarter of 2003. The third quarter report should be out next week for the third quarter of 2003, so our trending report is back in action, and I'd say it's an area that I still want to continue to look at, the quality of the trending report, whether it meets current industry standards, so we are doing some benchmarking in that area to make sure we are getting out of that trend report what we need to get out of it.

MR. MYERS: Let me comment on this issue. We keep using the suspended word. When we got into the ~~350~~ 0350 process, we wrote the restart plan, and what we told you is that we were going to

substitute, I would use the word substitute, these performance indicators in lieu of the other stuff, because it didn't do us any good at that time.

We had considered our corrective action program based on the calc that we wrote to do trends, so we came up with a -- Brian came up with a group of restart indicators that we would use until we rolled back into our new programs, and we have done that. We have followed our plan, so --

MR. GUDGER: I'd like to expand on that. This is Dave Gudger. In fact, our procedure allows us to suspend trending during long shutdown periods, and we utilize that procedure. However, we didn't fully communicate that up through management, so there was not that awareness, and it wasn't fully planned and organized in that manner.

But the procedure has provisions in there for suspending trending work. How we got where we got is in some cases irrelevant

today. The fact is it was suspended. What is important is that it is an important piece of the program for us, we understand that we recognize it, it has been reinstituted. In fact, a large part of the program -- why are you shaking your head, Zelig, you don't think it is?

MR. FALEVITS: I'm amazed that you are telling me that because you have a trending procedure that required you do trending, and it was in effect when we were there. That's why I'm amazed you are telling me you have another procedure.

MR. GUDGER: There is a provision within the procedure that provides guidance to the staff for suspending trending for special cases.

MR. FALEVITS: But when we discussed this, you did not say anything about any provisions, you said that it was a conscious decision you made to suspend it, and we even discussed the fact that the procedure required it and you did not do it.

MR. GUDGER: You wrote a condition report

that explained that procedure allowed it, and we did not fully communicate that through management to get management awareness and approval for suspension of it, and --

MR. FALEVITS: We will discuss it after the meeting maybe. It's important.

MR. GUDGER: Okay.

MR. FALEVITS: What about self-assessment?

MR. MYERS: I want to go back again. I would tell you on the budget that we gave you, the performance indicators that we were going to use for the outage --

MR. GROBE: I don't think there's any question that we were aware of this. The issue is not a trending program. When you are generating a thousand CRs a month, that doesn't have a lot of meaning. The issue wasn't the fact that you have suspended it, discovery by and large was complete at the end of 2002, early in 2003 you were still doing some discovery activities in the design area and the calculations area, but it was the lengthy time

that was delayed after you finished the majority of your discovery activities that causes concern.

MR. MYERS: That's a fair question.

MR. GROBE: And it gives us pause as you approached a concept of restart that your trending program has not been demonstrated to be effective because the trending program is what is going to give you early precursors of more significant problems, and it's been back in effect now for a month or six weeks maybe, something like that, and you are clearly committed to having it in effect, but we haven't been able to assess its effectiveness, and neither have you.

MR. MYERS: I would just push back on that somewhat. Our trending program is identical to the same trending program at the other two plants, it's a common process, you always assess that, all the time.

MR. GROBE: So is your corrective action ~~is~~ at all three plants, the question is how it's being implemented and how it's been corrected, and we

haven't had an opportunity to assess that and neither have you.

MR. FALEVITS: One more.

MR. MYERS: The improvements --

MR. FALEVITS: Your own assessments identified that you stopped it and issued another condition report. Your trending engineer identified it in December of 2002, that you stopped it, and he issued a condition report. So you have two condition reports that you issued yourselves on trending. Same thing happened with self-assessments, self-assessments and self-variations stopped also, and you do have guidance and all of that to do it because it's a good thing to do, identify first trend. Are you doing self-assessments, have you started the self-assessments?

MR. MYERS: Absolutely.

MR. FALEVITS: When did that start?

MR. SCHRAUDER: When was what started?

MR. FALEVITS: Self-assessments, self-evaluations, because you stopped that too.

MR. SCHRAUDER: I would contend that we have done self-assessments for two years at the Davis-Besse plant.

MR. FALEVITS: I'm talking about organizational self-assessment.

MR. MYERS: Our self-assessment program was ~~layed~~ laid out now for the second year, we implemented it again.

MR. FALEVITS: Well, from what I understand, you stopped the self-evaluations. Brian, am I correct?

MR. HENNESSY: That is correct.

MR. SCHRAUDER: We stopped what we were doing as self-assessments, that is correct. We were at a period of doing nothing but assessing the condition of the plant.

MR. FALEVITS: Right, you did not initiate, report or trend and so on. The reason you are doing self-assessments is to identify first trends in your organization.

MR. GROBE: Let me make sure I understand. You suspended what would normally be

characterized as a normal line management assessment program, but the entire return to service plan is a self-assessment program?

MR. MYERS: That is correct.

MR. GROBE: More comprehensive, detailed and broad and deep than any normal self-assessment program?

MR. MYERS: Right.

MR. GROBE: Again, the issue is not so much that we were all aware of what you were doing, it's that at some point in time you needed to get back into what would be characterized as a normal mode of operation. I think you recognized that and made self-assessment a red in your own internal safety culture assessment.

MR. MYERS: That's right.

MR. GROBE: And I think INPO ~~Impo~~, when they came in about six weeks or two months ago, recognized that you had not effectively made a transition back to a normal operating organization and that affected your work management, maintenance activities, operations

focus, line management, self-assessments, essentially you hadn't made that transition from a complicated maintenance outage organization to an operating organization.

MR. MYERS: Right.

MR. GROBE: So -- but you have now reinstituted self-assessment, and why don't you just characterize a little bit of what your expectations are, Bob, and of each organization, how much, how many assessments they do and what kind of assessments they are, and --

MR. SCHRAUDER: I don't have the numbers. I know that they are required to have a schedule out for the year. Who they were -- if anybody knows -- I don't know if it's one per quarter.

MR. GUDGER: I think it's two per year. Brian Hennessy is the department --

MR. HENNESSY: Brian Hennessy. The department, each section has an evaluation. We don't call it self-assessment. They are built into new business practice. That just went effective on Monday, and part of that process is

twice a year at a minimum, they will do an aggregate review. So this is -- that assessment process is built into the company's self-assessment process, of which you might pick to do -- say I just want to go look at programs, it's part of that process now.

MR. GROBE: In addition to that, I believe there was a concern regarding isolationism which contributed to the problems that occurred, and isn't there some expectation in your self-assessment process that it include some sort of benchmarking or outside influence? Can you talk a little bit about that?

MR. HENNESSY: You pretty much -- it is that expectation that do you that, and it can be either through bringing other people to the site or yourself going out to get information in addition to that, it's looking at your internal assessments to see what they have looked at and seen. In addition to that, any external documents that you have received, so it's really pretty much an aggregate, it's not just a look at

the corrective action program.

MR. GUDGER: One more point for education on trending. that decision was made based on two reasons. One, we were in an outage and we knew that the reviews that we were conducting were providing much more data than we could assess. Essentially everything was a trend.

Secondly, we were developing the performance indicators that Lew referred to and our performance indicators were focused on human performance associated with site culture problems that we were having. We want you to understand the corrective action program was coming back from a behavior point of view, so all of our resources were focused in that direction, knowing that we were going to have to reestablish trending when the plant got closer to restart. It was a plan, best planned approach we could take at the time.

MR. MYERS: I will leave it alone. I guess your question is, did we do that early enough.

MS. LOUGHEED: This is Patricia Lougheed.

Brian, this is a question for you, just to follow up on what you said on the self-evaluations or self-assessments. Is that each department will do approximately two a year?

MR. HENNESSY: Section.

MS. LOUGHEED: Each section?

MR. HENNESSY: Yes.

MS. LOUGHEED: So the mechanical section of design engineering would do -- are there any overviews?

MR. HENNESSY: It would be design engineering, plant engineering, performance improvement section manager.

MS. LOUGHEED: Okay.

MR. FALEVITS: In the past you had a quarterly, if I remember correctly, right?

MR. HENNESSY: Yes, yes, at Davis-Besse it's quarterly.

MR. FALEVITS: Right, at Davis-Besse. On ~~Pat~~ Patricia's follow-up, is there going to be an overall assessment?

MR. MYERS: There ~~is~~ are two kinds of

assessments, departmental assessments and then there is our self-assessments program. That is a combined self-assessment program between all of our sites. That will lay out a schedule, we go look at tag-outs maybe at Davis-Besse, then we will do a review or full review at our other plants. And that is our corporate self-assessment program. There is a name for it.

Following up into that is another collective significance review, and every one of those things is approved at the corporate level, and then we would do collective significance review to see what those self-assessments and other performance is telling us. And we do that at a site, okay, unless somebody has changed the procedure without me looking at it in the last month.

MR. SCHRAUDER: I can tell you that the corrective action program is one of the focused self-assessments, I believe is the second quarter focused self-assessment. Any other questions?

We will move on. The next slide

just shows some of the things that kind of goes back to the beginning of the outage that we have gone through. We can go through those quickly.

We did do a detailed Phase II program review that resulted in a more dramatic root cause evaluation and implementation. We revised the FENOC procedure and we talked to a lot of boards, industry standard, a root cause, apparent cause and affixed increased management involvement by way of the fact that a director level chairs the Corrective Action Review Board.

We have more involvement at the management review board now, more challenging going on there and better participation in the CARB by the management side. The CATI team that initially debriefed us on their findings, what they were seeing, we did do a lessons learned training, and we talked about the lower level process being more restrictive and had additional guidance provided on the business practice.

The board -- corrective action review boards actually reviewed an apparent cause

evaluation, now we put that in place because we had somewhat anticipated some learning curve and coming up with apparent cause in that, you know, some of the apparent causes that I think the CATI teamed looked at were under the old process and some were under the new process.

In fact, it was a change in apparent cause from the old process to the new process where an apparent cause was really much more subjective, didn't use much of an analysis technique. It was judgmental in nature. And so we wanted have the CARB looking at the apparent cause to make sure they were coming up.

So apparent cause went more towards a root cause. It's not a root cause, but it's supposed to use a simplified analytical method for it as opposed to just judgment on what is the appearance of the cause.

And so that has been working for us, and we did see a -- we started off at around, I think, about a 65 percent acceptance rate on the CARB for apparent cause, and that's now

steadily improved, and we are seeing about a 90 percent acceptance rate in the CARB, either accepted or accepted with comment on apparent cause evaluations that are coming.

MS. PEDERSON: If I could, Cindy Pederson, we talked when we were talking about engineering issues in the EAB looking at apparent cause or some sampling. Now you're talking about CARB reviews and apparent causes as well. Can you give us kind of an assessment when you talk a little bit about engineering quality and so on, what kind of quality are you seeing in the other kinds of disciplines and those apparent cause? Is it similar to engineering, different?

MR. SCHRAUDER: Like I said, the quality is up to about a 90 percent acceptance rate right now, so everybody is doing better, and most of them are up. Now, to be real honest with you, the most recent ones coming in, let's say from design engineering, are much better, probably higher on average than some of the other organizations.

I'd say that operations still needs to improve with some of their apparent causes. Maintenance has done very well in their recent apparent causes that have come in front of the CARB, so -- I don't have all the statistics in front of me, but I'm the chairman of the Corrective Action Review Board, so I see them coming in, and I can tell the quality went up.

But part of what's in the workload or what CARB looked at are apparent causes that were done quite a while ago, because CARB review of apparent causes is not a procedural requirement, it's a compensatory measure that we are doing so we make sure we look at root causes first, you know. When they're available, That's what we're looking at, and we are probably looking at about I'm going to say 10 to 15 apparent causes a week right now. We do about eight of them in a meeting and we typically have two meetings a week.

MR. FALEVITS: How many do you initiate every week?

MR. SCHRAUDER: Apparent causes under the new process, it's say -- apparent causes right now, if you average it out over a year, I'm going to say we are probably going to be at the 250 a year range for apparent causes, so that is about five a week, sometimes we have more, sometimes we have less. But what I'm anticipating is about 200 to 250 apparent causes.

Now, our self-assessment team that came in, you know, with industry peers told us that in their mind we are still looking at too many apparent cause level, and I think that they commented actually on our most recent ones. There are some that are more recent than the stuff you have guys are looking at, but they felt that they were pretty good relative to industry standards, that they had seen far more recent ones let's say in the July and beyond kind of time frame.

I think we are coming up, but nonetheless I'm going to talk a little bit in the future -- here in the future slides on the

training program that we have put together for our apparent cause evaluators, and we have initiated that program. Let's talk about what we are doing with apparent causes. The approach really is to reduce the number of people that are going to apparent cause evaluations similar to reducing the number of people that are doing root cause evaluations and the population for doing apparent cause evaluations is going to be -- we will have about 50 of them trained by the end of this year, and then there will probably be another 20 that are at the next -- first quarter of next year.

We have a population of about 70 qualified apparent cause evaluators. Qualifications consist of more than just initial training, requires that they go through this. It's a two-day training course, they will have a qualification card. So we went through the systematic approach to training for this to develop their training, initial training. Then they will have to do a qualification apparent

cause evaluation that the CARB will review. And that says that, you know, it meets the quality of what we went out of apparent cause now.

Then they have to do proficiency in apparent causes, so they will have to do a certain number of apparent causes every year to maintain their proficiency. We haven't set that number yet. Part of that and -- part of that may shrink the population even further if we are really in the 200 to 250 range. If we've got 50 evaluators, that means each one might see four in a year, and so that's about as many as you want to see to see if they are being proficient in that area. So we may wind up shrinking that population as we go forward to make sure we maintain the qualifications. And then we will have continuing training as well.

MR. GROBE: I have lost a little bit track of where you are. Are you in the middle of Slide 28?

MR. SCHRAUDER: We kind of got --

MR. GROBE: It looks to me like --

MR. SCHRAUDER: I'm in the reduce and improve training of apparent cause evaluation.

MR. GROBE: I just want to make sure we're all on the same slide.

MR. SCHRAUDER: The purpose of training that we developed, and I have the training mod, actually it's two days, full two-day course is to improve the quality of apparent cause evaluations, and improve of the quality of corrective actions, provide baseline knowledge of apparent cause evaluator tasks, duties and responsibilities and provide practice for some basic investigation of evaluation skills.

It's a five-module course that looks at gathering -- data gathering skills, evaluation methodology skills and goes into a couple of types of methods that you can use, corrective action development skills, trends, coding skills and interviewing skills to develop your information.

It also spends quite a bit of time on what I will call generic implications and

extent of condition, how you do an effective one of those. It takes the evaluator through both the CREST system that allows you to do a search, and it also takes you through the INPO ~~Impo~~ Web page and the process for doing industry searches on INPO ~~Impo~~.

Like I said, we have one more class going, I believe the 11th and 12th of this month. We have had several classes already completed and we have gotten very good feedback from the participants in the training, it says some of the best training they've had in the corrective action program.

The future of this will be, like I said, not a qualified apparent cause evaluator simply by getting the training. However, we are going to take this training, and it's also going to be given to the assistants to the line managers for looking at their condition reports, making sure they are meeting all the procedural requirements covering all of the bases, so they will get this training. Managers, supervisors

will get this training probably in the first quarter of next year, which will mean the CARB members will be trained in the new level of training, as the CARB members consist of managers, so -- but it really is a good training. I have not gone through the training yet, but I have looked through the entire training module, and it's good. So that's where we're going with apparent cause evaluations.

Another interim method or interim measure that I'm taking is we are rotating a very small group, about five individuals that are getting this training, have gotten this training, and for condition reports coming in now for apparent causes, a very small, select group is going to be doing them, and they have been rotated into our organization performance improvement, while we do the evaluations and the proficiency looks at the other apparent cause evaluators. And I would suspect that that small group will stay in place for maybe a quarter or four months, then we will be moving apparent

cause evaluations back into the line management, but they will be a very small, select group of people doing those evaluations for a period of time. The people have been identified and are getting training now.

One of the things we just recently did is manager review of open CR and corrective actions as part of our look at the backlog off all work at the site, each section manager looked at every open condition report that he has and every open corrective action, assess them for are they appropriate in the aggregate, are they appropriate, do they have appropriate resources to be able to deal with these next year after the plant comes up, because our goal for the most part is to be able to get to what we call workload level, that is what you'd expect to be your normal group, but coming in evaluate and resolved.

Right now we have a larger than normal workload. By the end of next year, for most sections, we would like them to have down to

their normal throughput, so I can say the backlog is done and you are in workload now.

Some of the sections, most notably a couple of them here, may go beyond design and system engineering, have a large, much larger population, and they have yet to schedule out to assess where they will be, when they will be able to get all of those worked out.

And then we also looked at -- I told you we changed the procedure and definition of apparent causes. Many of the non-restart condition reports that are apparent causes that still need to be evaluated were categorized under the old procedure, so we have been bringing them back into the management review board and categorizing them in accordance with the new procedure.

Many of them are being, I will say, downgraded to a fixed condition report, which is they are very -- should be more appropriately evaluated so it will help us with resource allocation also.

MR. MYERS: Had that taken place at the time the team was there, procedure had changed, but we hadn't --

MR. SCHRAUDER: The procedure had changed in March, so I think they were probably -- they had a mix of apparent causes that were under the old procedure and some that were under the new procedure, and they had comments on both that was -- I would say -- is that ~~Pat~~ Patricia nodding?

And then we did talk about trending and that we have reviewed trending. Questions on this? I won't go into it again. One good point on trending is that we have statistical process controlled interface, it's CREST, which allowed us to see, you know, take an example like procedure, not compliance by the nature of our business, that's where you are going to get condition reports in that area. What you want to know is are you getting outside statistical norm for procedure violations. And so this is a part of the software within CREST now that we are just learning how to use.

MR. GROBE: Just one quick question on 29, FENOC manager of equipment reliability, is that a new position?

MR. SCHRAUDER: Yes, it was new.

MR. HAGAN: Within the past year.

MR. GROBE: Within the past year. And is that an -- that's a corporate level position?

MR. HAGAN: Corporate level position.

MR. GROBE: And who is filling that?

MR. HAGAN: Ken Krabos.

MR. GROBE: Okay. Thank you.

MR. SCHRAUDER: And then the last bullet there is section assessments are expected to begin next year and those take the individual condition reports that come in to a section, and they bend them and look at them to see what they are seeing on a section level, and then you look at being broader on your big trending -- quarterly trend report across the site, but that helps you look at --

MR. HOPKINS: Excuse me, Bob, could you talk about CREST a little bit?

MR. GROBE: What it is and what is the acronym and what the system does?

MR. SCHRAUDER: CREST is the -- thanks, John. CREST is the software that is used for the corrective action program, so you initiate within that system a condition report, you document within it, it's a tracking mechanism, gives you your due dates, and it is the software basically that condition reports are maintained in and trended.

MR. HOPKINS: So the statistical process control, this is a new method to search that software then or something?

MR. SCHRAUDER: Yes, it's add-on software that is a trending type interface with that system.

MR. HOPKINS: Thank you.

MR. SCHRAUDER: This is just a sample of --

MR. GROBE: Slide 30?

MR. SCHRAUDER: Yes, Slide 30, thank you. Our corrective action improvement, in the operations plan, some things have been added in

that and we will be making additional revisions to our plan also when the revision comes in. Many of these actions have already been completed. And on 31 I just want to point out that Item No. 5 should be 2004. Self-assessment is identified in there to occur in the second quarter of 2004.

Additional questions?

MS. LIPA: This is Christine. On Slide 31 and 30 it's different than the version we already have. Do you want to include that in the update?

MR. SCHRAUDER: Yes. These will be included in the update, and there will be other changes besides the ones that are in here by the time we submit that.

MS. LOUGHEED: This is Patricia Lougheed. You commented that you were on Slide 30, I believe or may have been Slide 31, about that you were going to the -- going back and looking at some of the post-restart CRs and recategorizing them?

MR. SCHRAUDER: Yes.

MS. LOUGHEED: What sorts of controls do you have on that?

MR. SCHRAUDER: They come back into the management review board, which is the board that categorizes them in the first place. They are printed out and we go through them. The package -- the condition reports -- the way they come to the board, they are printed out and they come back in to the board and the manager of the section then walks through why he believes it's correct.

MS. LOUGHEED: I phrased the question wrong. What sort of rules, steps, procedures do you have to document when something is a fix versus when something is an apparent cause versus when something is a root cause?

MR. SCHRAUDER: The guidelines are in the procedure within the -- not 2001 -- where that guidance is provided.

MR. MYERS: We did have a 5 category, 5 or 4.

MR. GUDGER: 5 down to 4.

MR. MYERS: 5 to 4. So, you know, so we clear all the stuff out, we are running basically two different sets of standards. We have got to clear out and get them all in the program, okay?

MR. FALEVITS: I have a couple of questions that -- before we get off the slides, all right? This is Zelig, I have a couple more questions before we get off. One of them is you had scheduled an effectiveness review for a lot of corrective actions that were implemented, and some of them were scheduled for 2004.

Where are you standing on those?

MR. SCHRAUDER: They will be done in 2004. A lot of those effectiveness reviews won't make any sense to do until you can get up and see and run the plant.

MR. FALEVITS: Right. But they actually -- what you are trying to do is you are trying to see if you have addressed the causes that create these problems originally, and I understand you need six months to twelve months basically to assess it, but how -- do you feel comfortable

that these causes have been assessed and that you are in good shape now, or --

MR. SCHRAUDER: Yes.

MR. FALEVITS: Why?

MR. SCHRAUDER: Based on what we see at the plant, and improvements that have been made. I mean, are we perfect now? No. Are we greatly improved? I'd say yes. And so I feel very confident that for the most part we have addressed those issues and the condition reports, particularly root causes, and we will be doing the effectiveness review. But if you are asking me my confidence level? Confidence level is, yes, we have addressed them and I feel relatively good about where the plant is at.

MR. HAGAN: This is Joe Hagan. Let me add something from the standpoint of CARB. I mean, the evaluation you do, you prove that you get -- CARB is based on what you know, you analyze, what is at the time the effect of the period, the measure period is to get the fuel run time to see whether you have actually solved the problem. Go

back and do a review.

Additionally what we have in place now with the CARB is a much higher level of review, a much more intensive level of review to test those assumptions before you actually approve them. So in terms of comparing what is in place now versus what was in place 12 months ago.

MR. FALEVITS: When you say now, what do you mean compared to what, 12 months ago?

MR. HAGAN: 12 months ago? Was the CARB like 12 months ago, 18 months ago?

MR. FALEVITS: Why is it different, how is the CARB different today from 12 months ago?

MR. SCHRAUDER: 12 months ago it was not a whole lot different. Since the shutdown, though, we have upgraded the level of who chairs CARB. It's now required that a director chair the CARB, better participation by managers on CARB when a manager's condition report comes to a CARB that the manager is required to be at the CARB.

MR. FALEVITS: I attended quite a few CARB

meetings, if you remember, and I think you are doing a pretty good job in the CARB. My concern is not the CARB, but what happens with a -- when you implement a corrective action and you have had thousands of corrective actions basically, how do you know that you have addressed the issue? After you implement it in the field and it's all done, how do you know it's not going to come back? You need to do those effectiveness reviews to really assure yourselves that you have addressed root causes and it's not recurring. That is the purpose of the --

MR. POWERS: We fully agree with you.

MR. SCHRAUDER: And they are scheduled in 2004.

MR. MYERS: Wait a second, let's also talk about this. What confidence do we have? Well, we have scrubbed all the root causes that come to the service leadership team, make sure we understand the root causes. We have scrubbed all the CRs vertically and horizontally, the managers have all scrubbed them and their organization

system engineering has looked at them. Each manager has looked at them. You have had outside groups look at CRs.

So we have good confidence that there is nothing in our backlog or nothing that we have corrected that would -- and then we have come up and physically tested the plants during the NOPT test to calibrate every piece of equipment, every component that we could to operate properly based on that evaluation, you know. The plant's performed fairly -- we had very good ~~lead time~~ leak tightness, containment systems appeared to be leak tight, the systems outside appeared to be leak tight, so all of that gives us good confidence.

MR. FALEVITS: Well, it's not just equipment, it's people performing procedures, things like that.

MR. MYERS: And when we did assessments, that whole time, we were in there 13 days and we did assessments, we learned some things from that, we came back and took corrective actions

from those assessments.

MR. FALEVITS: Okay. Thank you. One more question. What is the status of the three collective significance CRs that you have issued?

MR. POWERS: Based on the CATI review, we rolled up the issues into three collective significant areas that we looked at, and, John, why don't you give us a summary for Zelig.

MR. GRABNAR: They have all been completed. In fact, I have draft copies here with me of -- the three subjects were calculations, quality, from that collective significance report is driven our calculation improvement plan, which has been included in our design basis assessment report. The design control issues collective significance review is resulting in a whole series of corrective actions, basically resulted in the need for additional training, which our training organization has accepted.

And there is a whole host of corrective actions to file the systematic approach to training, develop the right lesson

plans to the needs assessment and provide design control and design basis training to our entire technical staff. And then we had the corrective action program implementation corrective significance, and that concluded again very similar to the types of issues that Bob talked about that were here, and that focuses on the -- addresses the existing corrective actions that we have in place, a number of them not yet implemented in terms of our section level self-assessments, making sure we're doing exactly what you are talking about, monitoring the effectiveness of those, making sure we are doing an independent review.

One item we did in design engineering is we had a group of senior engineers, I think you are probably one of this review, one of our restart-related condition reports and corrective actions looking for very much the same kinds of issues that the CATI team was looking at. And we have rolled that into a condition report, and we are addressing those

that were, you know, identified to fall short. We are addressing those as well. So those three directives have been completed, they have not yet been presented to service management, but they have been completed in the -- some of the reports have been approved through me and corrective actions have been developed and accepted.

MR. FALEVITS: Can you please give us a copy when you sign this?

MR. GRABNAR: Sure, yep.

MR. FALEVITS: The last question I have --

MR. GROBE: Before you go on, when will that be?

MR. GRABNAR: I will get you that tomorrow.

MR. GROBE: Tomorrow is good.

MR. FALEVITS: The last question I have is in Q.A. You did a great job, I think, and the team I think agrees they identified a lot of the issues we identified, they have rated the corrective action program implementation as either marginal or unsatisfactory in the last year and a half or so. It's still marginal

today, the last one still calls it marginal. I'd like to know what are your plans to turn that around and go above marginal in the future?

MR. MYERS: I think we shared a lot of those with you today. Apparent cause is a big issue for us, and we are going after those and I think any of the issues that we did raise also.

MR. SCHRAUDER: Well, monitor timeliness, notice corrective actions, we have a good set of performance indicators that we are looking at. We are continuing to train people, continuing to apply management attention to the program and to the indicators and we are retraining people on cause analysis and shrinking the population of people that are doing cause evaluations and improving their qualifications and then monitoring their proficiency in performing the corrective actions.

MR. FALEVITS: Thank you, that's all I have.

MR. MYERS: I think that's an interesting -- we rated ourselves and our safety culture

assessment, I don't know if it was red or yellow because we haven't been timely. We have certain goals in the corrective action program, we made management decisions to slide some out based on the start-up scale, and so we didn't meet those kind of things, so we did deferrals. We still rated ourselves low in that area for not hitting our goals, and it's because of the schedule, and we have made these decisions, right or wrong we made these decisions, and we think they are good decisions, but it still doesn't meet the goal. So we need to make sure we correct that, and we are doing that as we start up.

MR. FALEVITS: That is one element they identified, a lot of other issues that are similar to what we are going to find.

MR. MYERS: But I'm telling you what we just did ourselves, too. There is another question you asked earlier and I tried to answer it and had some help, but I think you deserve an honest answer from my perspective anyway. I never considered that we suspended the corrective

action program performance indicators, I know about every CR that was written, I seen every CR that was written.

In my mind what I thought was that we substituted a group of performance indicators that we used for restart before we looked at the backlogs and trends and all that, before that a set of performance indicators and we shared that with you, Jack, and your team back when we made that decision, but I never really thought about -- I never used the word suspended and I substituted those for those and went back to the normal performance indicators. That's my honest thought there, and I may be wrong, but it's my honest thought.

MR. FALEVITS: We were told in our inspection it was suspended.

MR. MYERS: We use that word all the time.

MR. FALEVITS: Mr. Myers, I don't think that doing what you did can substitute for trending. You have an excellent guy that knows how to do trends, and it's a very excellent tool

that you have in your CREST system, and it's good if you use it, so --

MR. MYERS: We are reinstituting it now.

MR. FALEVITS: The procedure says you need to do it.

MR. MYERS: We reinstated that now, we made that decision, use the restart performance indicators, all the public meetings in my mind, we substituted those for the normal ones, and I never used the suspended word personally. Everybody else may use that word, but I never used it.

MR. FALEVITS: I didn't say you did.

MR. MYERS: Okay.

MR. FALEVITS: Thank you.

MR. LARA: Just so I understand in case I didn't hear you correctly, you're performing a review of all CRs for mode restraints to verify that they are properly characterized.

MR. SCHRAUDER: The mode restraints have been reviewed ongoing, and this is -- we had restart station review board that identified

those condition reports that needed to be evaluated and are required for restart, and population that could be resolved post restart. What we did was went back and looked now at all of the post restart condition reports, assessed them in their aggregate, that they weren't a problem, that there was sufficient resources to deal with the workloads in the upcoming year, that there were knowledge of those condition reports that in hindsight now should be brought forward and made a restart -- a condition report, so a final scrub on that and finally a categorization in accordance with the current procedure.

MR. LARA: And where are in you that process?

MR. SCHRAUDER: The section managers, nearly all of them have completed their reviews. I'm in the process of doing one-on-one interviews with each one of them so that they can go through, tell me what they found, what they did, and there is a sign-off sheet that they provide

that formats how we expect them to go through it, so I think there is only one or two managers that are not complete with that, and I'm about halfway through.

MR. LARA: I asked because I know Mr. Howard and I have talked about 3 on our list and not 4, and we disagreed with the categorization and we are still waiting on feedback.

MR. POWERS: Right, restart, post-restart, we have got a lot of good work going on, we are going to be communicating with you on some of that testing work, some re-evaluation clarification of what work has been previously provided. I'm hoping tomorrow when we get back to the site that the staff has made great progress and report on that back to you.

MR. LARA: Thank you.

MR. SCHRAUDER: Then our summary and conclusion is that we have a strong program, which is an industry standard program. Improvements we made and continuing enhancement, we intend to improve implementation of that

program and we believe the corrective action program supports restart and safe operation of the Davis-Besse facility.

MR. GROBE: Any other questions from staff on the corrective action program?

MS. LOUGHEED: Many, yes. This is Patricia Lougheed. I'm going back to Slides 25 and 26, which are the ones that are areas for improvement.

MR. SCHRAUDER: Yes.

MS. LOUGHEED: And I'm trying to correlate everything that I have heard this afternoon back against those issues where you say you have areas for improvement, and the only additional action that I have heard being taken is that you are going to have apparent cause training.

MR. SCHRAUDER: No, we have had increased management involvement looking at the indicators, timeliness, references are routinely discussed at the management review meeting, timeliness being by way of -- first of all, there is a daily condition report meeting right now that the

vice-president needs to approve extensions on condition reports required for restart. We talked about the timeliness in several different areas, one is how quickly is it getting to the SRO for his review, how quickly does the supervisor review it once an initiator identifies the problem.

We discussed those gains in statistics, of our expectations is those two steps occur within 24 hours, the initiation supervisor gets 24 hours, and then the RO review of the condition report gets 24 hours.

We talked about the rollover process, we have raised that we reinstituted trending, we have provided guidance and discussions with the organization on procedural requirements, that you cannot close a condition adverse to quality corrective action to another document that the --

MS. LOUGHEED: And that is --

MR. SCHRAUDER: That quality remains open.

MS. LOUGHEED: That is in the same revision

to the collective action procedure that we had when we were on-site?

MR. SCHRAUDER: Yes, I believe it is.

MS. LOUGHEED: So that in other words that is not a new corrective action, that is something that has already occurred?

MR. SCHRAUDER: Right. And we are seeing good improvements there too.

MS. LOUGHEED: Okay. So you are saying your program had already addressed that?

MR. HENNESSY: And we addressed proper approval, so you don't have the same names now. We are getting additional review approval. We have enhanced the procedure requirements and given a letter of guidance on documents, corrective actions, and we have also included that in the training. That is part of what your team found is that the whole story wasn't in the evaluation and in the corrective action taken, so we have done some improvements in that area, and we are seeing good results in that area, and that self-assessment team kind of validated that,

seemed to be working really well.

MS. LOUGHEED: I guess part of what my problem may be is that obviously there is a lag between when the procedure revision went into effect until when that is seen in some of the evaluations, and I know a lot of the evaluations that we looked at were ones done prior to. However, what I'm hearing, just so you understand where I'm coming from, what I'm hearing is that since the team, the CATI team completed their inspection you have not taken any additional corrective actions.

MR. SCHRAUDER: We had lesson learned training.

MS. LOUGHEED: You are saying what was in the procedure at the time of the exit is satisfactory to move the program forward?

MR. SCHRAUDER: From a procedural -- from a grammatic aspect, that is correct, the guidance is there, you're not allowed to close it to another document, no more procedural guidance that I can give to specify that.

MR. GROBE: If I understand what you're saying, there were instances of nonconformance with that procedure?

MR. SCHRAUDER: That is correct.

MR. GROBE: And you are saying -- I think I heard you say, and correct me if I'm wrong, that you are seeing those instances reduced?

MR. SCHRAUDER: That's right. And we are looking for them also, you know, that people are not doing that and correcting it. For instance, performance improvement is reviewing closed condition reports as they come through also to make sure that they are appropriately closed. That in my mind was not a programmatic issue, it was an implementation issue.

MS. LOUGHEED: True.

MR. SCHRAUDER: Human performance deficiencies.

MS. LOUGHEED: But when you were talking about what your actions were, they were going back to the programmatic --

MR. SCHRAUDER: We talked about the

training that we provided people immediately after you left that. We did raise these issues with people and re-emphasized the need for fixing shortcomings that we were seeing, we also did that.

MR. GROBE: Bill, do you folks have any questions from headquarters?

MR. HOPKINS: No, we have no questions here.

MR. GROBE: Great. Other questions here in the room?

(No response.)

MR. GROBE: Okay. Lew, did you have some remarks you wanted to make?

MR. MYERS: I think if you look at today, we focused on engineering, you know, back at the beginning we got into -- we focused on building blocks, high level actions that we needed to take to resolve some of the design issues that were very complex, and we focused on those and got those things done. In fact, a lot of areas were very unique.

The reason we have taken actions to go down to the cancellations area, more quality in the operational action plans in place over the next year that ensure not only the performance stayed, but improve the EAB, provide the quality oversight and monitors performance for the engineering director, and you are looking now at a lot of things that we weren't looking at before like better guidance in the corrective action program, we think we just implemented a good program, I think it was in March.

We have really benchmarked the industry and looked at our program compared to all the major players. Our software is as good as any. That CREST software is pretty good software. We trained all of our people on root cause, we trained like 100 people this outage, and now we have gone back to, based on comments we have seen, we have gone back and focusing on apparent causes and we demonstrated that in the training here, not only that we are reviewing all the apparent causes, we have got the acceptance

rate up about 100 percent, so we believe that we are fully ready to restart the plant.

It doesn't mean we have totally arrived, but we believe that our performance is ready to restart the plant, and I will leave it at that.

Thank you.

MR. GROBE: Very good, thank you. Cindy, any thoughts?

MS. PEDERSON: Just a couple of comments. We appreciate you coming in and spending time on the issues. These issues are obviously very important to us. And I think you did provide a lot of additional detail, things we are aware of and needed to consider just from a big picture, quality of engineering work plan, effective corrective action program are both very fundamental to the safe operation of your facility, and so we, throughout the examination, felt we were intrusive in looking and finding, and so we needed to ensure we have a level of confidence that you and your program will be

equally or more intrusive in the future to that same level of acceptability.

So we will digest what you have told us and may have a few follow-up questions after, and we would be asking them promptly.

MR. MYERS: Thank you.

MR. GROBE: Thanks, Cindy.

I have just one or two observations. That the level of detail we needed to get into today is clearly reflective, as Cindy just stated, of the importance of these two areas to us. We are in the final stages of preparing for issuance of the corrective action team inspection reports. We discussed the results of that inspection with you in I believe it was September, and in early November we discussed it publicly. In November the panel has met on -- internally on four occasions to evaluate those results and try to determine whether checklist item 3A was ready for closure from our perspective.

Prior to today we did not have

enough information to conclude that it was. This has been a very detailed dialogue, it's been very helpful to us.

As Cindy indicated, should we need further information, we will get a hold of you promptly. But there is one document that we still need, and that is this updated Cycle 14 operational improvement plan.

And I noticed -- I wanted to make up -- I noticed in Section 9 in the corrective action area you gave a number of things that are recent improvements, fourth quarter '03. You have also made some recent changes to the Engineering Assurance Board, I believe in fourth quarter of '03. It may make sense to document those in the engineering section just so it's clear that those are very recent changes, it's not part of the Cycle 14 improvement plan. Of course, because we are already well into the fourth quarter and you are not in Cycle 14 yet, but it would make sense to me that you capture those regarding the scope of the EAB's

responsibilities and how it implements those responsibilities as -- and some expectations regarding the makeup of the Engineering Assurance Board.

And the other comment I'd like to make is that we really need to see that before the restart meeting. The restart meeting is currently scheduled on the 18th, I believe, at 6:00 o'clock in the evening. That of course will be dependent upon at lot of inspections that are currently ongoing and activities that are ongoing, and could be delayed depending on the accomplishments of those activities and inspections. But it's currently scheduled for next Thursday evening, the 18th, at 6:00 o'clock at Camp Perry, so I would expect to see the revision to the Cycle 14 plan before that meeting so that we can have a dialogue regarding it, if necessary, at that meeting.

MR. MYERS: All right.

MR. GROBE: With that I'd like to thank you for coming in and being tenacious in your

willingness to respond to all of our questions, and you equal our tenaciousness in asking questions. I want to emphasize that as Cindy indicated that we have not made any decisions in this area, and we will be considering all the information you have provided as well as our inspection results in making further determinations.

At this time I'd like to adjourn the business portion of the meeting. And we have no members of the public here. I'd like to just move right into public questioning and comment session.

John, is Dan Horner or other members of the public still with you at headquarters?

MR. HOPKINS: No, he's not here anymore, he may have joined on the phone line, however.

MR. GROBE: Okay. Do you have any other members of the public there?

MR. HOPKINS: No, we do not.

MR. GROBE: At this time why don't we go to

the phone lines and ask the operator to see if there were any questions or comments from members of the public who have remained on the phone.

THE OPERATOR: If there is anyone who wishes to ask a question, press Star 1 on your telephone touch pad. I have a question or comment coming from John Funk.

MR. FUNK: Yes, I have a question -- a couple of questions. When you -- when First Energy reengineered the CAC and also the sump, there were problems with both. I realize there was with the sump, it was with assumptions that were made from the original calcs, and with the CACs that had to do with actual placement of the machinery in the building.

I'm wondering if those two projects were reviewed by the engineering board that you have talked so much about this afternoon?

MR. GROBE: John, the -- I'm not sure exactly what you're talking about with respect to the containment air coolers.

MR. FUNK: Well, they had to take them out after they started putting them in, and, you know, based on risk engineering, I understand that.

MR. GROBE: You may be referring to the service water trees that support the containment air coolers.

MR. FUNK: Yes, sir, that's it.

MR. GROBE: Lew, do you want to -- or, Jim Powers, do you want to answer the question regarding whether EAB reviewed those activities?

MR. POWERS: I'd like to address John's question both on the containment air cooler project. When we initially began installation of those service water trees, we did have to do field rework, there was problems with the welding in the field and controlling the distortion of the stainless steel headers that required us to do some rework there.

Similarly, when we installed our containment emergency sump, there was -- there is detailed field interference and stuff that needs

to be resolved when you go down and actually start construction interface. What the EAB would look at for those projects is do we meet our license basis -- we appropriately design them to be bounded by the sustained analysis, did the ~~50-5059~~ 50.59 ~~considering~~ regulatory review requirements satisfy the completeness and rigor that would be required, were there calculations prepared and in place to support the design basis for it, but our Engineering Assessment Board of senior reviewers does not take individual design packages and walk down out into the field, for example, to see if a given pipe support or pipe routing could possibly have interference with local structures or components, you know, you get into levels of detail and the crafts at the site in maintenance to begin installation.

You get into another level of detail with actual hardware installation that is beyond or below what the EAB would review, so that is really a distinction there, and I would say that this type of field resolution of

detailed follow-ups was very typical during the construction of these plants, and is typical for the scaling of construction projects that we have undertaken for the improvement of Davis-Besse, it's not unusual for that type of dialogue to occur with the installation craft and the engineering organization.

MR. GROBE: John, do you have any questions for the NRC?

MR. FUNK: Well, I have one other question on the corrective action I'd like to ask first.

MR. GROBE: If it's concerning a question for FirstEnergy ~~First Energy~~, you have your normal channels that you would go through for that. This is an opportunity for you to ask questions of us.

MR. FUNK: All right. Questions of you. When you said you haven't made up any -- you have been very careful it seems that you haven't made decisions or in any way come towards making a final decision. I guess I'm still wondering if you got the information that you needed this afternoon? You have talked about maybe you have

to go back and get more information.

MR. GROBE: Well, John, at this point we have no further questions for FirstEnergy ~~First Energy~~, so as best we can think right now, we have no further need for information. If in reflecting on this and discussing it further, evaluating what we have heard, we need additional information, we will get back to FirstEnergy ~~First Energy~~ and get that information.

MR. FUNK: One other question.

MR. GROBE: Sure.

MR. FUNK: Your members seem shocked the trending function had been put in abeyance for a while.

MR. GROBE: That is not the case. We were well aware of what sort of performance indicators -- as a matter of fact, I get them on a weekly basis on what activities are being conducted at the plant. The question that was -- or the issue that came up was the fact that the trending program was put in abeyance, or -- those are your terms, and not reinstituted at a time when they

were ready to reinstitute it. It has only recently, within the last quarter, been put back in place, and FirstEnergy ~~First Energy~~, as well as the N.R.C., will be monitoring its effectiveness.

MR. GROBE: Any other questions, John, before we move on to somebody else?

MR. FUNK: No, that's fine.

MR. GROBE: Great, thanks.

Operator, do you have any other questions?

THE OPERATOR: The next question comes from Dan Horner.

MR. HORNER: This is Dan Horner, from McGraw-Hill. I have a broad question with a couple of parts to it, kind of questions about a couple of parts I didn't quite catch. The broad question is what was the genesis for this meeting, and part of -- partly at the November, '03 I recall -- I actually remember the actual discussion or side discussion, it was sort of a generation of the remaining public meetings that had to take place for restart, and the meeting

was -- restart meeting was mentioned, whatever, however many three, four, I don't recall this one being mentioned. Is that a memory lapse on my part, or is this newly added, or where did this meeting come from?

MR. GROBE: No, it's certainly not a memory lapse, and the meeting came from the need to have additional information. The panel is going through -- let me step back just a bit.

With all of our oversight activities, those activities cannot occur until the licensee has completed their work, so our inspections at various activities cannot occur until the licensee is ready for those inspections.

In the case of the corrective action program effectiveness, which is the inspection area that Zelig was leading, the inspection occurred over a lengthy period of time, beginning late spring of 2003 and completing in the early fall.

And the N.R.C. internally has been

going through a series of evaluations of those inspection results. We presented the inspection results publicly and discussed them at some length on -- during the November public meetings. I think those were November 12th, if I recall.

MR. HORNER: That's right.

MR. GROBE: And the company provided some activities in broad terms in these two areas that we discussed today. In addition to that, the company submitted in late November, the 24th, a restart readiness report that included a Cycle 14 operational improvement program that also addresses several of these areas.

In continuing our evaluation internally, the panel and the corrective action team inspections evaluation internally, we found that we didn't have sufficient information to fully understand what FirstEnergy ~~First Energy~~ was thinking as far as the details to flesh out what was provided to us in the November meeting, and the November -- the late November submittal. So we requested, I think it was last Friday evening,

requested that FirstEnergy ~~First Energy~~ join us and provide some additional information, and we wanted to ensure that we made that meeting -- this meeting -- available to the public. Even though we weren't giving our normal 10-day notice, which is our goal, we wanted to make sure that we had it available both telephonically and video conferencing-wise to headquarters.

So the genesis of the meeting was the need for to us gain some additional information and clarity, and I was not sufficiently clairvoyant when I shared with you what I thought was the remaining spate of public meetings to anticipate this one.

MR. HORNER: Okay. Now, on that point, on that 10-day notice, I think you have been -- I don't know about every single one, but I think pretty close to every single one you have adhered to that pretty rigorously on meetings of the panel. What was the need to get this one done with only, what was it, I think two day's public notice? That wasn't until Monday; is that right?

MR. GROBE: The reason that we provide public notice is to give people an opportunity to attend the meeting. Since there was no need to travel and you could get to the meeting just from your own home or office, wherever you were, we didn't see that it was necessary to provide 10-days notice. FirstEnergy ~~First Energy~~ was available to provide the information.

This is information that could have been shared in the context of an inspection activity, which would not be publicly accessible whatsoever. Our inspections are not conducted under the public eye, but I felt this was an important enough topic that we provide the information or receive the information and question the details publicly, and it was important enough that we make it accessible, so we arranged for the video teleconference and audio conference.

MR. HORNER: Okay. Thank you for the clarification.

There was a part, I think, during

the second part of the meeting where someone from FirstEnergy ~~First Energy~~, I think it was Jim Powers, I could be wrong about that, referred to the length of the work week and going down to 50 hours rather than 60 hours, and I didn't quite hear whether that applied to the work that is across the plants, and when would that begin, and does that include the holidays and so on? If N.R.C. or FENOC could clarify that.

MR. GROBE: I will try to address it. The context of the question was in how you establish a dollar figure associated with costing out work that is going to be projected into the future. What FirstEnergy ~~First Energy~~ shared with us was how much work activity they anticipate, how they personally loaded the activities and that's how they estimated the cost that, you know, the dollar cost of that human effort, and they were sharing essentially budgets with us.

What is important to us is that they go through that effort, and that the board of directors is clearly committed, that these are

additional costs above a routine operating plant cost, and they shared with us clearly that this was a delta, that it was above and beyond normal operating plant activities, and that the corporate office had already committed those resources.

And just to refresh your memory, it was 12 million dollars over two years and five million in 2005, and that's a very significant commitment on the part of FirstEnergy ~~First Energy~~ to --

MR. HORNER: I'm sorry, that 12 million is additional dollars over what baseline?

MR. GROBE: That is over two years, I don't have the baseline budget.

MR. HORNER: I mean is it for additional activities or additional work they are doing to demonstrate the operation, or what is it going for?

MR. GROBE: This was money to address work activities that are being deferred until after restart.

MR. HORNER: Okay.

MR. GROBE: Between now and the end of Operating Cycle 14, and it's one of their commitments in the Cycle 14 operation improvement plan that they personally load those activities, prioritize them. It's commonly referred to as the backlog, and ensure only that they have a focused plan to finish those activities in such a way that it doesn't interfere with the safe, routine operation of the plant.

Do you have any other questions before we move on to someone else?

MR. HORNER: Yes. You mentioned the December 18th date, it still could be moved. At what point that can we assume it's a firm date and --

MR. GROBE: As of right now, it's a firm date. If it needs to be delayed, we will let you know, and you can be confident at 6:00 clock on December 18th when the meeting starts that it has started.

MR. HORNER: That's not helpful if somebody is contemplating buying plane tickets.

MR. GROBE: I'd like to give somebody else a chance.

Is there anybody else?

THE OPERATOR: I see no further persons.

MR. GROBE: Very good. Once again, I appreciate FirstEnergy's ~~First Energy's~~ participation in this meeting, and also the members of the public that stayed on the line.

And with that, this meeting is adjourned. Thank you.

(Which were all the proceedings had and testimony taken in the above-entitled matter at the time and place aforesaid.)

STATE OF ILLINOIS)
) SS.
COUNTY OF KANE)

I, ELLEN E. PICCONY, a Notary Public duly qualified and commissioned for the State of Illinois, County of Kane, do hereby certify that subject to the usual terms and conditions of County Court Reporters, Inc., reported in shorthand the proceedings had and testimony taken at the meeting of the above-entitled cause, and that the foregoing transcript is a true, correct and complete report of the entire testimony so taken at the time and place hereinabove set forth.

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