

FOR THE CASE OF  
**Board of Boiler Rules**

TRANSCRIPT OF  
**Board of Boiler Rules**

June 15, 2016

*Stone & George*

COURT REPORTING

2020 Fieldstone Pkwy

Suite 900 - PMB 234

Franklin, TN 37069

(615) 268-1244

This transcript is intended for your law firm's own use. If you wish to share this transcript with an outside law firm, log back in to your CasePlanner account and click the **Share** button.

For questions, call (615) 268-1244  
or send an email to [nangeorge@stoneandgeorge.com](mailto:nangeorge@stoneandgeorge.com)

1. STATE OF TENNESSEE  
 DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT  
 2. BOARD OF BOILER RULES  
 3.  
 4.  
 5.  
 6.  
 7.  
 8. QUARTERLY MEETING OF THE  
 STATE OF TENNESSEE  
 9. BOARD OF BOILER RULES  
 10. June 15, 2016  
 11.  
 12.  
 13.  
 14.  
 15.  
 16.  
 17.  
 18.  
 19.  
 20.  
 21.  
 22. -----  
 23. CASSANDRA M. BELING, CCR, LCR# 371  
 STONE & GEORGE COURT REPORTING  
 2020 Fieldstone Parkway  
 Suite 900 - PMB 234  
 Franklin, Tennessee 37069  
 25. 615.221.1089

1. I N D E X  
 PAGE  
 2. 16-07 Boiler Code Tech, LLC 14  
 3. 16-08 Boiler Code Tech, LLC 36  
 4. 16-09 Valero Memphis Refinery 48  
 5. 16-10 Maplehurst Bakeries, LLC 71  
 6. 16-11 U.S. Nitrogen, LLC 84  
 7.  
 8. A G E N D A  
 9. I. Call Meeting to Order  
 10. II. Introductions and Announcements  
 11. III. Adoption of the Agenda  
 12. IV. Chief Boiler Inspector's Report  
 13. V. Old Business  
 15-20 Update on the Reorganization of  
 Rule 0800-03-03  
 14. VI. New Business  
 16-07, 16-08, 16-09, 16-10, 16-11  
 16. VII. Open Discussion Items  
 17. Fall Conference Update  
 18. VIII. Rule cases & interpretations - There are no  
 rule cases and interpretations.  
 19. IX. The next Board of Boiler Rules Meeting is  
 20. scheduled for 9:00 a.m. (CT), Wednesday,  
 September 21, 2016, at the Department of  
 Labor & Workforce Development office  
 21. building located at 220 French Landing  
 22. Drive, Nashville, TN.  
 23. X. Adjournment  
 24. \*\* Reporter's Note: All names are spelled  
 phonetically unless otherwise provided to the  
 25. Reporter by the parties.

1. APPEARANCES:  
 2. Brian R. Morelock, Chairman  
 Owner-User Representative  
 3.  
 4. Eugene Robinson, Board Member  
 Insurance Representative  
 5.  
 6. Dr. Glen E. Johnson, Ph.D., P.E., Board Member  
 Mechanical Engineer Representative  
 7.  
 8. David W. Baughman, Board Member  
 Owner/User Representative  
 9.  
 10. Sam Chapman, Chief Boiler Inspector  
 11.  
 Kim Y. Jefferson, Esq.  
 12. Administrator, State of Tennessee  
 13.  
 Dan Bailey, Esq.  
 14. Legal Counsel, State of Tennessee  
 15.  
 Carlene Bennett  
 16. Board Secretary, State of Tennessee  
 17.  
 18.  
 19.  
 20.  
 21.  
 22.  
 23.  
 24.  
 25.

1. \* \* \* \* \*  
 2. CHAIRMAN MORELOCK: Good morning,  
 3. everybody. I would like to call the Tennessee  
 4. Board of Boiler Rules meeting to order.  
 5. As far as introductions and  
 6. announcements, I do have a safety item I'd like  
 7. to -- we discuss it every time but it's worth  
 8. mentioning, especially since we have new visitors  
 9. coming to our meetings. But in the event of an  
 10. emergency, a natural disaster, we do have security  
 11. personnel in the building that will instruct us to  
 12. either go to a safe place within the building or  
 13. if we need to go outside the building we would be  
 14. on the Rosa Parks side of the building. So that's  
 15. your "safety moment" for today.  
 16. As far as other announcements go, I  
 17. do have a card for Dr. Domenic Canonico. He sent  
 18. me an email, and he is not able to travel, per  
 19. doctor's orders. And so I'm going to pass this  
 20. card around, and so if you would like to write him  
 21. a note, I'll collect that at the end of the  
 22. meeting and I'll make sure that he gets that. He  
 23. is recovering from a hospital stay, and so just  
 24. remember him and his family in your prayers.  
 25. Does anybody have any other

Page 5

1. announcements?
2. (No verbal response.)
3. CHAIRMAN MORELOCK: Okay. If not,
4. let's move on to the introduction phase, and so
5. Ms. Cassandra, we'll start with you and we'll just
6. go around and let everybody introduce themselves.
7. THE REPORTER: Cassandra Beiling,
8. Stone and George Court Reporting.
9. MS. BENNETT: Carlene Bennett,
10. board secretary.
11. CHIEF INSPECTOR CHAPMAN: Sam
12. Chapman, chief inspector.
13. MR. ROBINSON: Eugene Robinson,
14. board member.
15. CHAIRMAN MORELOCK: Brian Morelock,
16. board member.
17. DR. JOHNSON: Glen Johnson, board
18. member.
19. MR. BAUGHMAN: Dave Baughman, board
20. member.
21. MS. JEFFERSON: Kim Jefferson,
22. administrator.
23. MR. BAILEY: Dan Bailey, legal
24. counsel.
25. MR. SWEZY: John Swezy, Boiler Code

Page 6

1. Tech, LLC.
2. MR. ARMSTRONG: Jeff Armstrong,
3. Nalco Chemical.
4. MR. GROSS: Jeremy Gross, Valero,
5. Memphis Refinery.
6. MR. ANTES: Steve Antes, Valero
7. Memphis Refinery.
8. MR. HARGROVE: Keith Hargrove. I'm
9. from Tennessee State University.
10. MS. RHONE: Deborah Rhone. Boiler
11. office supervisor.
12. MS. DURM: Leanne Durm, legislative
13. liaison, the Tennessee Department of Labor.
14. MS. JONES: Lori Jones, U.S.
15. Nitrogen.
16. MR. HARRIS: Randy Harris, U.S.
17. Nitrogen.
18. MR. MOON: Marty Moon, U.S.
19. Nitrogen.
20. MR. JAMES NEVILLE: James Neville,
21. Neville Engineering.
22. MR. CHARLES NEVILLE: Charles
23. Neville, Neville Engineering.
24. CHAIRMAN MORELOCK: All right.
25. Again, welcome, everybody.

Page 7

1. Our next item is the adoption of the
2. agenda. And if you don't have an agenda, they're
3. on the back table, so certainly make that
4. available to yourself.
5. And as we look at the agenda, I would
6. recommend one slot change on Item 16-11, the
7. variance -- it says that U.S. Nitrogen is
8. requesting a variance. I would like to change
9. that to they're requesting a modification to an
10. existing variance, as they have an approved
11. variance from March 2015 for three boilers, and
12. this item is going to add a fourth. So I would
13. like to state that as a modification to an
14. existing variance.
15. Are there any other additions or
16. changes to the agenda?
17. (No verbal response.)
18. CHAIRMAN MORELOCK: All right.
19. Hearing none, do I have a motion to accept?
20. MR. BAUGHMAN: So moved.
21. CHAIRMAN MORELOCK: Second?
22. DR. JOHNSON: Second.
23. CHAIRMAN MORELOCK: Second.
24. Any other discussion?
25. (No verbal response.)

Page 8

1. CHAIRMAN MORELOCK: Okay. All in
2. favor say "aye."
3. (Affirmative response.)
4. CHAIRMAN MORELOCK: Opposed?
5. (No verbal response.)
6. CHAIRMAN MORELOCK: Abstentions,
7. not voting?
8. (No verbal response.)
9. CHAIRMAN MORELOCK: We have an
10. agenda.
11. Okay. So just another announcement.
12. We will be passing around an attendance list. And
13. so when that comes by, please sign in and we'll
14. have a record of your attendance.
15. And just some housekeeping items. If
16. you do have a cell phone, we would ask that you
17. would silence that during the meeting out of
18. respect for the presenters and the discussion of
19. the items.
20. And if you have a conflict of
21. interest on these items as we get to them, I'll
22. ask -- and Carlene will keep me honest on that --
23. but if you have a conflict of interest on any of
24. the items on the agenda, please state that at the
25. beginning of the item as we present it.

Page 9

1. Okay. So old business, Item 15-20,  
2. update on the reorganization of Rule 0800-03-03 --  
3. (Off the record discussion.)  
4. CHAIRMAN MORELOCK: Oh, I'm sorry.  
5. I'm sorry.  
6. MR. BAILEY: I was going to say ...  
7. CHAIRMAN MORELOCK: Thank you,  
8. Eugene.  
9. I'm jumping here. Let me go back to  
10. Item IV and do the Chief Boiler Inspector's  
11. report.  
12. So, sorry about that, Sam.  
13. CHIEF INSPECTOR CHAPMAN: Oh,  
14. that's quite all right.  
15. Okay. For the chief's report, the  
16. number of inspections performed on the last  
17. quarter as the state inspector was 2,650. The  
18. insurance agency was 5,752, giving us a total of  
19. 8,402.  
20. The total number that are delinquent  
21. for the State is 651. The insurance agency is  
22. 447, giving us a total of 1,098.  
23. The number of code violations was 28.  
24. Uncorrected violations was 17.  
25. We do have a variance process in

Page 10

1. place. The reporting period is from January  
2. through March of 2016.  
3. Updates: Total members that have of  
4. funded boiler inspector position for the unit is  
5. 14. And the Tennessee Boiler Safety Fall  
6. Conference is scheduled for September and,  
7. upcoming, is doing this meeting.  
8. CHAIRMAN MORELOCK: Okay.  
9. CHIEF INSPECTOR CHAPMAN: And  
10. that's the chief's report.  
11. CHAIRMAN MORELOCK: All right.  
12. Thank you, sir.  
13. Any questions or comments about the  
14. chief's report?  
15. (No verbal response.)  
16. CHAIRMAN MORELOCK: Okay. Hearing  
17. none, now I'll move on to Item V, which is old  
18. business. And it's Item 15-20, Update on the  
19. Reorganization of Rule 0800-03-03.  
20. MR. BAILEY: The rules have been  
21. approved by the governor's office and the attorney  
22. general's office. I just got these this morning.  
23. They came while I was on vacation. But the A.G.'s  
24. office has approved them, so now it's a matter of  
25. submitting them to the Secretary of State's

Page 11

1. office, and then usually within 90 days after  
2. submission to the Secretary of State's office,  
3. they become effective.  
4. CHAIRMAN MORELOCK: Okay.  
5. MR. BAILEY: They'll send us a  
6. notice of the exact effective date at some point  
7. in time.  
8. Now, what we did with these is --  
9. what has been submitted so far and will be  
10. submitted to the Secretary of State's office is  
11. all the changes except the fee increases.  
12. CHAIRMAN MORELOCK: Okay.  
13. MR. BAILEY: We figured there  
14. probably wouldn't be any comments or public  
15. concern over those changes. Fees are always  
16. likely to generate comments, so we broke that out.  
17. And plus, the way the rule -- the way the statute  
18. reads on the fee increases, whenever those are  
19. approved, they do not go into effect until the  
20. following fiscal year, July 1.  
21. CHAIRMAN MORELOCK: Okay.  
22. MR. BAILEY: So given the time  
23. frame, we couldn't have got these approved and the  
24. fee go into effect July 1, 2016.  
25. CHAIRMAN MORELOCK: Okay.

Page 12

1. MR. BAILEY: So it was going to be  
2. July 1, 2017, either way.  
3. CHAIRMAN MORELOCK: Okay.  
4. MR. BAILEY: So we figured we'd  
5. separate that out and do that separately, do that  
6. by the rulemaking hearing process. So once we  
7. know these are good to go, then I'll start that  
8. process of doing a rulemaking hearing on the fee  
9. increase.  
10. CHAIRMAN MORELOCK: Okay.  
11. MR. BAILEY: That's where we're at.  
12. CHAIRMAN MORELOCK: Very good.  
13. Very good. We appreciate your efforts and all the  
14. work to get that ready for publication. Because  
15. it's going to be an improvement. It's going to  
16. make it more user friendly. And with the addition  
17. of the code references and -- it's just going to  
18. make it much easier for a new user of our rules to  
19. navigate through that, so we're pretty excited  
20. about that. So that's a great report. Thank you.  
21. Any questions about the rules?  
22. MR. GROSS: Jeremy Gross with  
23. Valero. Once the rule change has been approved  
24. and sent to the State for execution, will the  
25. owner/users like myself or others in the room be

Page 13

1. notified when that time comes?  
2. CHAIRMAN MORELOCK: So I don't  
3. know. We typically at the boiler unit handle  
4. that. I don't know if that will be a mass email  
5. or a note to check the website. The updated rules  
6. will be published to the website so you can  
7. download those, so ...  
8. MS. JEFFERSON: Yes. We have a  
9. mass email contact. I believe Carlene maintains  
10. that. We can send that to the folks on the mass  
11. email list.  
12. CHAIRMAN MORELOCK: Okay.  
13. MS. JEFFERSON: And, also, our  
14. website will be updated.  
15. CHAIRMAN MORELOCK: Yes.  
16. MS. BENNETT: If you haven't  
17. joined, you can go to our website and opt in for  
18. email notifications. And we do email-blast  
19. information like that.  
20. CHAIRMAN MORELOCK: Okay. Very  
21. good. Any other questions?  
22. (No verbal response.)  
23. CHAIRMAN MORELOCK: And for  
24. Ms. Cassandra's benefit, when you do speak, go  
25. ahead and speak up so she can hear, because she's

Page 14

1. doing a lot of work to capture everything we say.  
2. And so it's very important for her to be able to  
3. hear you and know who you are.  
4. Moving on to Item VI, which is New  
5. Business, our first item is Item 16-07. Boiler  
6. Code Tech, LLC is requesting to designate and  
7. install and operate a foreign-made, second-hand  
8. heat exchanger as a Tennessee Special. And the  
9. equipment will be installed at the Buckman  
10. Laboratories facility located in Memphis,  
11. Tennessee.  
12. So, Mr. Swezy, and for all that's  
13. getting ready to present, when you do come up to  
14. present, there's a table here. You've got a  
15. couple of chairs. If you need more, pull up more.  
16. State your name and then present your item and  
17. then we'll act upon that.  
18. So, John, come on ahead.  
19. MR. SWEZY: Again, my name is John  
20. Swezy. I'm president of Boiler Code Tech, LLC,  
21. located in Titusville, Florida. I've been engaged  
22. on behalf of Buckman Laboratories to present this  
23. request for acceptance of this heat exchanger for  
24. designation, installation, and operation as a  
25. "State Special" at their facility in Memphis,

Page 15

1. Tennessee.  
2. I've sent you-all, in advance, a  
3. package of information regarding this heat  
4. exchanger starting with a cover letter from my  
5. corporate letterhead. And it describes not only  
6. the heat exchanger but the intended use of the  
7. heat exchanger and its intended use location.  
8. This heat exchanger was originally  
9. designed and constructed in South Africa. The  
10. manufacturer of the heat exchanger, as you'll  
11. note, was LHL Engineering in South Africa. There  
12. is a certificate of construction in the pressure  
13. vessel that was included in that package, and  
14. you'll see that it was designed with the intention  
15. of compliance with ASME Section VIII, Division 1  
16. at the time of its construction in the 1995  
17. edition.  
18. According to the laws of South  
19. Africa, as stated in my cover letter, the laws in  
20. South Africa require compliance with the code with  
21. the exception of applying the ASME code civil  
22. stamp. And in addition, they also require  
23. participation by a third-party inspection agency  
24. similar to what we have here in the United States,  
25. but actually, more appropriately, along the lines

Page 16

1. of what's done under the pressure equipment  
2. directive in Europe. And so this is a  
3. notified-body organization that participated in  
4. this process. And that organization was Lloyd's  
5. Register. And so they had representatives at the  
6. facility overseeing the construction and testing  
7. and inspection of this vessel as it was being  
8. produced.  
9. Once the vessel was completed and  
10. released, it was sent to the facility owned by  
11. Buckman's Laboratory in Australia where it was  
12. installed and operated for a number of years.  
13. That facility no longer had use for that  
14. particular heat exchanger, and so the corporate  
15. ownership, I believe, decided that it would be  
16. repurposed and shipped to the Memphis facility for  
17. installation and use under a slightly different  
18. operating and systemic purpose.  
19. And so at that point in time, they  
20. shipped it with the documentation that was  
21. available. And then in the process of trying to  
22. figure out what was necessary to properly operate  
23. this piece of equipment, they contacted me for  
24. assistance in getting this presented to the State  
25. for consideration as a State Special for a number

<p style="text-align: right;">Page 17</p> <p>1. of reasons. Number 1, because it does not have an  2. ASME code stamp. And because of the fact that  3. it's being brought in from outside of the United  4. States, it was another area where they wanted to  5. make sure it was properly addressed before the  6. board so that you can properly consider its safety  7. and purpose for what is intended.  8. In this package, I included not only  9. the Certificate of Construction for the pressure  10. vessel but also the Lloyd's Register statement,  11. their certification of this vessel as it was being  12. produced.  13. You'll also find that I included a  14. copy of the second-hand permit, listing a  15. description of the actual heat exchanger itself.  16. There was also a photocopy of the photograph taken  17. of the nameplate of this vessel so you could see  18. all of its original certifications.  19. In addition to that, there's also a  20. report from an organization called Stronghold  21. Inspection that did a very detailed visual and  22. nondestructive examination inspection. The  23. nondestructive examination was limited to do a  24. UT thickness verification of the thicknesses of  25. the heat exchanger itself. And so that report is</p>	<p style="text-align: right;">Page 19</p> <p>1. as specified in the request for a second-hand  2. installation.  3. And so with that presentation, I  4. would ask that you would consider granting it  5. State Special status for installation and  6. operation pursuant to the logistical things that  7. need to be done, including the site inspections  8. and the designation and marking of the vessel  9. appropriately.  10. CHAIRMAN MORELOCK: Okay. Do I  11. have a motion?  12. MR. BAUGHMAN: Motion made.  13. CHAIRMAN MORELOCK: Okay. So I  14. have a motion. Do I have a second?  15. DR. JOHNSON: Second.  16. CHAIRMAN MORELOCK: Okay. I have a  17. second, so discussion? I'm opening the floor for  18. any questions or comments of Mr. Swezy.  19. MR. ROBINSON: Mr. Swezy, a couple  20. of questions came to mind. Unfortunately, when I  21. had gotten Lloyd's Register -- I guess it would be  22. a CFC -- mine was cropped off. But then Chairman  23. had given me his copy, and it says at the bottom,  24. "This certificate is subject to the terms and  25. conditions overleaf, which form a part of this</p>
<p style="text-align: right;">Page 18</p> <p>1. included. It shows you all of the photographs  2. that were taken. It makes note of any of the  3. conditions that were found.  4. And then there's a map of the  5. thickness readings that were taken. And you'll  6. find that all those thickness readings are then  7. recorded with those map coordinates.  8. And then following that there is a  9. set of the original ASME code calculations that  10. were performed by the design engineer at the time  11. of its design. And I have taken the liberty of  12. hopefully clarifying these calculations by going  13. through and annotating the U.S. unit equivalence  14. for all of the measurements and pressures and  15. temperatures that are shown in these calculations  16. just to make them a little bit more intuitive for  17. you as you review it. And hopefully, as you have  18. reviewed this, you've seen that everything at the  19. time of the design was acceptable and hopefully,  20. in comparison with the thickness reports that were  21. generated by Stronghold, you'll see that the  22. amount of thickness loss is very minimal and that  23. this heat exchanger is in good condition. And I  24. believe that it presents as a vessel that is  25. perfectly safe for operation at its intended use</p>	<p style="text-align: right;">Page 20</p> <p>1. certificate."  2. Is that available?  3. MR. SWEZY: It was not made  4. available to me, sir. And I think that that  5. overleaf was just a typical type of statement that  6. you find at the bottom of an ASME data report  7. where it's trying to provide a disclaimer of any  8. liability on the part of Lloyd's. All they're  9. doing is certifying compliance with the code and  10. not accepting any liability. So that's my belief  11. that that's what that overleaf contains.  12. And I apologize for your copy not  13. coming out correctly.  14. MR. ROBINSON: No, no. It's okay.  15. It's okay. And the reason for my question on that  16. is because since I really don't have any objective  17. evidence of quality, then I'm relying solely on  18. Lloyd's Register --  19. MR. SWEZY: Absolutely. I  20. understand.  21. MR. ROBINSON: -- to make my  22. opinion. And --  23. MR. SWEZY: I'm not sure if you're  24. familiar with how the pressure equipment directive  25. works.</p>

Page 21

1. MR. ROBINSON: PED?  
 2. MR. SWEZY: Yeah.  
 3. MR. ROBINSON: Yes, sir.  
 4. MR. SWEZY: Okay.  
 5. MR. ROBINSON: A little bit.  
 6. MR. SWEZY: All right. So you'll  
 7. know that the function is carried out by a third  
 8. party in the PED directive -- they call them a  
 9. notified body in the PED -- are much more invasive  
 10. than they are for ASME. And, in fact, they  
 11. require more direct involvement of the third-party  
 12. organization than ASME does. For example, they  
 13. require third-party witnessing of all of the  
 14. welding procedure qualifications, whereas ASME  
 15. does not. They only require an inspector review  
 16. of the documentation.  
 17. They also require a third-party  
 18. witnessing of the qualification demonstrations for  
 19. nondestructive examiners, whereas ASME does not.  
 20. They only require an inspector document review.  
 21. There are also additional essential  
 22. safety requirements that are over and above what  
 23. is required by ASME. So I am very confident that  
 24. the work performed by Lloyd's Register easily  
 25. meets the ASME minimum verification requirements

Page 22

1. for quality, if not exceeding.  
 2. MR. ROBINSON: Let me ask you, are  
 3. their records available to put together with this  
 4. package as a dossier?  
 5. MR. SWEZY: I do not know to what  
 6. extent such records are available. All I have is  
 7. what's been given me. I don't even know if the  
 8. original manufacturer is still in business in  
 9. South Africa. I can tell you from my personal  
 10. experience, having been to South Africa in the  
 11. last couple of years, that their economic climate  
 12. is very, very poor and it's very likely that this  
 13. manufacturer may not be in existence any longer.  
 14. So it's possible that it might be difficult to  
 15. come up with much more records than we've already  
 16. been given. And, in fact, when I was sent the  
 17. information package that I was sent, I asked the  
 18. owner if he could produce anything more at all  
 19. because, as you've recognized, probably, the  
 20. quality of this drawing is not good.  
 21. MR. ROBINSON: No, sir.  
 22. MR. SWEZY: And the quality of the  
 23. drawing that I got was the best one that they had  
 24. available.  
 25. Also, there are not a lot of

Page 23

1. historical inspection records for this vessel, as  
 2. well. And so that's why we had to rely on the  
 3. current inspection performed by Stronghold to  
 4. verify the condition of the heat exchanger. And  
 5. you, hopefully, will note that that condition  
 6. appears to be very good based on Stronghold's  
 7. inspection.  
 8. So this is a situation where this  
 9. particular vessel did not have the depth of  
 10. documentation that I would have liked to have  
 11. seen, but it's got sufficient documentation, in my  
 12. opinion, that I think that it's been verified to  
 13. be safe for operation.  
 14. MR. ROBINSON: Let me ask you, are  
 15. you guys prepared to make any PMI evaluations or  
 16. any other evaluations? I've seen where Stronghold  
 17. performed a visual but they made no reference to  
 18. welding or the volumetric capabilities of any of  
 19. the welds or anything like that.  
 20. MR. SWEZY: Typically, that kind of  
 21. additional verifications are not performed by an  
 22. organization like Stronghold. They're only really  
 23. engaged to try to gauge the current condition of  
 24. such a vessel, including the thickness inspections  
 25. and whatever document reviews they can, and

Page 24

1. examining all of the welds visually. But  
 2. generally, they don't go to the extent of doing  
 3. volumetric examination of welds unless there's  
 4. reason to suspect a need for doing so, such as --  
 5. MR. ROBINSON: Their report --  
 6. their report didn't even define if they had  
 7. performed a visual of welding. It said a visual  
 8. in a general characteristic, but not weld  
 9. inspection.  
 10. MR. SWEZY: I can understand that  
 11. that report did not go into that detail very  
 12. thoroughly because it was more concerned with  
 13. verifying thickness in terms of the actual report  
 14. process, so I don't know how to respond to that  
 15. particular comment, other than to say that it was  
 16. not readily apparent that there was a need for  
 17. further nondestructive examination to verify the  
 18. fitness for service of this vessel because of its  
 19. appearance at the time of the inspection.  
 20. MR. ROBINSON: Yes, sir. Thank  
 21. you.  
 22. CHAIRMAN MORELOCK: Any other  
 23. questions?  
 24. MR. BAUGHMAN: I don't bring a lot  
 25. to the table as far as the math and the

Page 25

1. thicknesses and what have you, but I bring concern  
2. of a 21-year-old vessel being manufactured out of  
3. the country with somewhat limited documentation.  
4. And the nomenclature or the verbiage of the  
5. exchanger was constructed generally in accordance  
6. with the requirements. That word "generally" is  
7. somewhat open-ended to me.  
8. But that was -- just having general  
9. concerns with it and so relying upon more  
10. expertise within other board members to bring some  
11. more to the table on it.  
12. DR. JOHNSON: I read it as though  
13. the word "generally" was to take into account that  
14. there was no stamp. Otherwise --  
15. MR. SWEZY: That was the  
16. intention --  
17. DR. JOHNSON: Otherwise, everything  
18. I see here is rigorous and I have seen things that  
19. have come with much less good documentation than  
20. what this one has come with.  
21. MR. SWEZY: Yeah. And if you'll  
22. note --  
23. DR. JOHNSON: We're going back to  
24. the origin of this vessel which I think is very  
25. strong.

Page 26

1. CHAIRMAN MORELOCK: Well, and to  
2. speak to that comment, even today, an owner/user  
3. of a pressure vessel in the state of Tennessee can  
4. have a vessel built to ASME code and not stamped.  
5. I mean, you can -- if it's 15 PSIG or less or  
6. 5 cubic feet or less, they can have that vessel  
7. built to ASME code. It's exempt from regulation  
8. by the State of Tennessee. And if they feel like  
9. it's going to save them some money not to code  
10. stamp it, they can get a certificate of compliance  
11. from the manufacturer saying, "We have met all the  
12. requirements of the code. We're just not putting  
13. that ASME mark on it."  
14. And so I think Mr. Swezy is trying to  
15. help us see that that's been done. And, you know,  
16. Eugene, to your concern about documentation, I  
17. agree with your comment; however, you need to  
18. realize that even under the ASME code process,  
19. this vessel was built in 1995, so the record  
20. retention requirements are long gone, you know,  
21. under any system after 21 years. So it would be  
22. nice if manufacturers would keep the records, but  
23. they're not required to keep those records, so  
24. then you're relying on this report that Mr. Swezy  
25. has presented us.

Page 27

1. So my comments are as follows: What  
2. I did -- I didn't do a rigorous analysis, but I  
3. did do a basic compressed model of this vessel,  
4. this heat exchanger, including the expansion joint  
5. and everything. I didn't put all the nozzles and  
6. stuff in because they were small, but all the  
7. primary pressure components, I did analyze, and it  
8. does satisfy the 1995 edition of the ASME code.  
9. I talked to Mr. Swezy to let him  
10. understand that in the state of Tennessee, a  
11. vessel built prior to 1998 was designed under ASME  
12. code when the design margin was 4.0. In 1998 the  
13. code was changed to allow higher allowable  
14. stresses and reduce that design margin to 3.5. So  
15. a board case was processed by this board to say,  
16. "We're not going to allow an owner/user or an  
17. agent of an owner/user to do a paper re-rate of an  
18. older pressure vessel to take advantage of higher  
19. allowable stresses.  
20. And so I wanted to let him  
21. understand. That's why he has reevaluated his  
22. work to the 1995 edition of the code, using the  
23. 4.0 design margin. My compressed model was done  
24. to the 1995 edition of the code as well.  
25. And so the thicknesses that I

Page 28

1. calculated correspond to the thicknesses that are  
2. in these original calculations, so I do feel the  
3. vessel is safe.  
4. So then it comes down to  
5. documentation. As far as documentation goes, you  
6. do have an inspection report, but that's not the  
7. end-all to this vessel. Our approval -- the  
8. Tennessee Board's approval of this vessel today  
9. must be contingent on an inspection by the chief  
10. inspector of the State of Tennessee or his  
11. designated agent, deputy inspector, whoever he  
12. chooses to physically go out and inspect that  
13. vessel. And he may even require a hydrostatic  
14. test before the unit goes into service. So our  
15. approval will be a technical approval of the  
16. documentation contingent on the boiler unit's  
17. physical inspection of the vessel and them  
18. agreeing that the vessel is safe to operate in the  
19. state of Tennessee. So I did want to state that.  
20. I guess just some grammar concerns,  
21. on page 1 of 4 of your report, in the second  
22. paragraph, it says, "The heat exchanger in  
23. question is a vertical shell and tube condenser,  
24. designed for single pass flow heat with fixed  
25. tubesheets." So you may want to work on that just

1. a little bit.

2. MR. SWEZY: This particular package

3. was put together at the last minute to try to meet

4. the submission deadline and so it was a little

5. hasty.

6. CHAIRMAN MORELOCK: Oh, I

7. understand. I understand. So you may --

8. MR. SWEZY: I apologize for that.

9. CHAIRMAN MORELOCK: That's okay.

10. You may want to clean that up just a little bit.

11. The other interesting thing about

12. this exchanger is the manufacturer penalized

13. themselves -- I hope unknowingly -- but the tubes

14. in this vessel were modeled as piping. And not to

15. get into a big, technical discussion, but when you

16. build something out of pipe, the code requires you

17. to take a 12-1/2 percent undertolerance hit on the

18. thickness. So these tubes are thicker than they

19. really need to be based on their original

20. calculations. So that's a plus on our side.

21. And then the other thing is the

22. boiler unit's inspection will also need to kind of

23. go over the vessel with a fine-tooth comb to make

24. sure that there's no repairs or alterations to the

25. vessels that are not documented.

1. Now, this is a Tennessee Special, so

2. it doesn't really -- it's not going to impede the

3. process of it being a Tennessee Special, but you

4. want to verify that the repairs were done

5. properly.

6. CHIEF INSPECTOR CHAPMAN: Right.

7. CHAIRMAN MORELOCK: And so the only

8. thing I have for you, Mr. Swezy, and to close my

9. comments, you and your client need to understand

10. the conditions of approval of a Tennessee Special.

11. ASME code pressure vessels in the state of

12. Tennessee, if they need to be repaired, they go to

13. an authorized inspection agency and work through

14. an R Stamp holder to get that done.

15. With a Tennessee Special, all

16. repairs -- if it's just fixing a cracked weld or

17. something, or a major repair -- all repairs have

18. to go through the boiler unit, through the chief

19. inspector of the State of Tennessee, for approval

20. prior to implementation of those repairs.

21. Alterations require you to come

22. before the Tennessee Board for any alteration

23. work. And that can be a hardship at times because

24. we meet quarterly, so if there was an emergency

25. alteration, it would have to come to the board.

1. And so as long as you understand those constraints

2. for a Tennessee Special, that's the extent of my

3. comments. Okay?

4. MR. SWEZY: Just a couple of quick

5. things I would like to say in response to

6. especially Mr. Robinson. In a previous employment

7. situation, I was a pressure safety engineer at

8. Oakridge National Laboratory. And we were tasked

9. with verifying the safety for continued operation

10. for a number of pressure vessels that were

11. installed at Oakridge. And so in the process of

12. doing so, we went through an extensive search and

13. inventory generation of all of the pressure

14. vessels. And out of all of the ones we found, we

15. found, like, 1,600 that we needed to review and

16. document. And out of those 1,600, probably

17. greater than half of them either had no code

18. stamp, no manufacturer's data report, no

19. documentation of any kind, and so we did a lot of

20. reverse engineering. And so for every one of

21. those pressure vessels -- and I mean every single

22. one -- we went through a UT thickness survey. I

23. did reverse engineering calculations, assigning

24. the most conservative, allowable stress that I

25. thought was appropriate for the materials of

1. construction, verified the remaining life of the

2. vessel, and then assigned an inspection interval

3. based upon that calculated remaining life.

4. And I went through a similar process

5. with this vessel in trying to verify its safety.

6. And, you know, I fully understand that, you know,

7. maybe the documentation isn't all that it should

8. be, but I think that we have gone to the point of

9. verifying to the best of our ability its current

10. state based on objective evidence that's presented

11. by Stronghold and by the application of these

12. calculations to make sure that it's as good as it

13. can be.

14. The other thing that I wanted to

15. point out is that whenever someone says that a

16. vessel is built in accordance with ASME with the

17. exception of applying the nameplate, that throws

18. up huge red flags for me. Okay? Having

19. previously been a staff technical expert for

20. Hartford Steam Boiler Inspection and Insurance,

21. whenever somebody said that they wanted to do

22. that, my response was always, "That's a sucker's

23. bet." Because when you don't apply a code simple

24. stamp, you don't have assurance that all aspects

25. of the code have been applied.

Page 33

1. Well, the difference in this  
 2. situation is the law of South Africa does not  
 3. require the application of a code stamp, but it  
 4. still requires the complete and full involvement  
 5. of this inspection agency to carry out all tasks  
 6. of the authorized inspector. And so that gap of  
 7. not knowing whether you may or may not have  
 8. applied all aspects of the code has been covered  
 9. because that inspection agency is now required to  
 10. certify compliance with the code. And like I  
 11. said, they do so in a manner that's more typical  
 12. of the PED, so I think it's been a more diligent  
 13. process that we may have had with the type of  
 14. inspection that's done under ASME, which is not --  
 15. you know, it's not inadequate under ASME. It's  
 16. just not as invasive.

17. So I feel pretty confident of the  
 18. condition of this exchanger, and I think that it  
 19. will be verified by the inspection, when it's done  
 20. by the state inspector for the initial  
 21. installation, that it will bear out to be  
 22. everything that we think that it is.

23. MR. ROBINSON: Thank you.

24. CHAIRMAN MORELOCK: Any other  
 25. questions or comments?

Page 34

1. MR. BAUGHMAN: The only other  
 2. comment I had, I was just asking again and making  
 3. sure that I had confirmation. There have been no  
 4. alterations on this vessel at all?

5. MR. SWEZY: None at all to this  
 6. heat exchanger.

7. MR. BAUGHMAN: Okay.

8. MR. SWEZY: It's been in good  
 9. service and not required any -- and there's no  
 10. repairs that I'm aware of either.

11. MR. BAUGHMAN: Okay.

12. MR. ROBINSON: And the skew of  
 13. nozzles were part of the design?

14. MR. SWEZY: Pardon me?

15. MR. ROBINSON: The skew of nozzles  
 16. are part of the design?

17. MR. SWEZY: Yes. They're there to  
 18. provide for adequate drainage and ullage as the  
 19. vessel is being drained or filled or whatever. So  
 20. it's part of the design of the vessel to have  
 21. those nozzles in the angles that they're at.

22. CHAIRMAN MORELOCK: Yeah. I  
 23. noticed that too.

24. Any other questions?  
 25. (No verbal response.)

Page 35

1. CHAIRMAN MORELOCK: Okay. So we  
 2. have a motion to accept this vessel as a Tennessee  
 3. Special contingent on inspection and testing  
 4. requirements from the boiler unit. So any other  
 5. discussion or comments?

6. (No verbal response.)

7. CHAIRMAN MORELOCK: I'm going to  
 8. call the question. All in favor say, "Aye."

9. DR. JOHNSON: Aye.

10. MR. BAUGHMAN: Aye.

11. CHAIRMAN MORELOCK: Opposed?

12. MR. ROBINSON: One.

13. MS. BENNETT: Conflicts?

14. CHAIRMAN MORELOCK: Thank you.  
 15. Conflicts of interest?

16. (No verbal response.)

17. CHAIRMAN MORELOCK: Okay. All  
 18. right. So opposed?

19. MR. ROBINSON: (Indicating.)

20. CHAIRMAN MORELOCK: One opposition.  
 21. Abstentions, not voting?

22. (No verbal response.)

23. CHAIRMAN MORELOCK: So we have two  
 24. yeas and one nay, and so that's not necessarily a  
 25. tie. Is that going to be sufficient, Mr. Bailey,

Page 36

1. for a passage?

2. MR. BAILEY: As long as there's a  
 3. quorum, yes.

4. CHAIRMAN MORELOCK: Okay. All  
 5. right. So this item passes.

6. Thank you.

7. MR. SWEZY: Okay.

8. CHAIRMAN MORELOCK: Okay. Our next  
 9. item is Item 16-08. (As read), "Boiler Code Tech,  
 10. LLC requests to designate, install and operate a  
 11. foreign made second-hand pressure vessel as a  
 12. Tennessee Special." Again (as read), "The  
 13. equipment will be installed at the Buckman  
 14. Laboratories Inc. facility located in Memphis,  
 15. Tennessee."

16. And so before we start this item, are  
 17. there any conflicts of interest?

18. (No verbal response.)

19. CHAIRMAN MORELOCK: All right.  
 20. Mr. Swezy?

21. MR. SWEZY: Thank you,  
 22. Mr. Chairman.

23. Again, this reactor vessel was  
 24. constructed by the same company that constructed  
 25. the heat exchanger that we just discussed. Again,

Page 37

1. a South African manufacturer manufacturing a  
2. vessel under the rules of South Africa, in  
3. accordance with ASME Section VIII, Division 1,  
4. with Lloyd's Register as the authorized inspection  
5. agency of record. And the vessel, after  
6. completion, has been shipped to Australia, to the  
7. Buckman Lab facility that's located there, and  
8. installed and operated successfully for a number  
9. of years until it was no longer considered needed.  
10. And then management decided to ship it to the  
11. Memphis facility for installation and repurposing  
12. in another application.

13. I'm happy to report that the  
14. available documentation on this vessel was much  
15. greater in depth. I have included in the package  
16. that I sent all of you inspection records for the  
17. inspections during a time that it was in service  
18. at the facility in Australia. I also have a  
19. similar report from Stronghold on its current  
20. condition in terms of its thickness and a visual  
21. inspection of the vessel itself.

22. At the same time, I also performed a  
23. Compress modeling of the vessel itself, including  
24. all of its nozzles, showing that it is perfectly  
25. acceptable and safe for its intended application.

Page 38

1. And I also went back and did some  
2. additional Compress calculations that I can  
3. provide if you'd like, or I can show you on the  
4. screen, to verify that it's very acceptable for  
5. its name plate condition in addition to the  
6. proposed conditions of operation that the  
7. manufacturer in Tennessee use, including  
8. verification that it meets the 1995 code as well.

9. And I also have the original 1995  
10. code calculations performed by the same engineer  
11. who did the design work on the heat exchanger that  
12. I did not include in the package, but I would be  
13. happy to provide those at your request as well.

14. I didn't want to make the submission  
15. package so voluminous that it would be ridiculous  
16. and unreasonable for you to be able to review and  
17. consider everything, but I'm more than happy to  
18. provide any of that documentation that you might  
19. wish.

20. So this vessel, again, is being  
21. repurposed in a new kind of a process stream with  
22. different operating parameters than it was  
23. originally designed for. The only thing that  
24. Compress did not address in the model that I  
25. prepared and included in the submission package

Page 39

1. was the half-pipe coil design which I had to do  
2. separately as a math CAT calculation. And that  
3. was included in your document package as well.

4. In addition, the quality of the  
5. drawings is much better, including -- there is a  
6. drawing included that shows the actual location  
7. where it's going to be installed and its  
8. structural considerations that have been signed  
9. off by a registered engineer in the state of  
10. Tennessee.

11. And so I think the documentation  
12. package is much more complete for this vessel.  
13. And so under those similar considerations, we  
14. propose that it be accepted for installation and  
15. operation as a Tennessee State Special.

16. CHAIRMAN MORELOCK: Okay. Do I  
17. have a motion?  
18. DR. JOHNSON: I move that we accept  
19. it.

20. CHAIRMAN MORELOCK: Okay. Do I  
21. have a second?  
22. MR. BAUGHMAN: Second.

23. CHAIRMAN MORELOCK: Okay. So I  
24. have a second. All right. So I'll open the floor  
25. for comments and discussion.

Page 40

1. MR. ROBINSON: Mr. Swezy, was the  
2. bottom head replaced?  
3. MR. SWEZY: The implication from  
4. the Stronghold inspection was that they believed  
5. that it was. I do not know for sure if it was or  
6. not. I think maybe they considered it to have  
7. been replaced based on some visual cues that they  
8. picked up when they were doing the inspection.  
9. But I have no way of knowing for sure if it was  
10. actually replaced or not.

11. MR. ROBINSON: On the external  
12. inspections performed by Mr. Maskell, did he  
13. notice that the helicoil piping had eroded?  
14. MR. SWEZY: Yes. He did indicate  
15. that he felt that the helicoil piping had eroded.  
16. The calculations that I did for the halfpipe  
17. demonstrate that the remaining thickness is more  
18. than adequate for the intended service. The  
19. actual pipe that was used when it was originally  
20. installed was well in excess of what was required,  
21. and so we still have a great deal of remaining  
22. material that's more than adequate for the  
23. intended service.

24. MR. ROBINSON: Out of the  
25. inspection reports that I've seen, I have only

Page 41

1. seen the ones that reveal external inspection.  
2. MR. SWEZY: Right.  
3. MR. ROBINSON: Were there any  
4. internal inspections performed?  
5. MR. SWEZY: If you're talking about  
6. the inspection reports that were generated by the  
7. owners when it was installed in Australia, I don't  
8. believe so because I believe it was in a service  
9. that was considered noncorrosive. And so based  
10. upon the satisfactory external inspections, they  
11. apparently did not believe it necessary to do an  
12. internal inspection.  
13. MR. ROBINSON: To your knowledge,  
14. do you know the worst-case pitting that was  
15. revealed during the internal inspection?  
16. MR. SWEZY: When it was performed  
17. by Stronghold?  
18. MR. ROBINSON: Yes, sir.  
19. MR. SWEZY: It's documented in  
20. their report. There are a couple of places where  
21. there may have been some localized thickness loss  
22. that was greater than the general thickness loss.  
23. But in the calculations that I did, I didn't  
24. consider them to be sufficient to cause it to be  
25. unsafe.

Page 42

1. MR. ROBINSON: Okay. Nothing else.  
2. CHAIRMAN MORELOCK: The first  
3. inspection was internal, but they've X'd out the  
4. external. So that was an internal inspection in  
5. '98 --  
6. MR. ROBINSON: It's difficult to  
7. see.  
8. CHAIRMAN MORELOCK: Yeah, it's very  
9. difficult. So the '98 was an internal.  
10. MR. ROBINSON: Okay. That's the  
11. only one?  
12. CHAIRMAN MORELOCK: I think that's  
13. the only one, yes.  
14. MR. ROBINSON: Okay.  
15. CHAIRMAN MORELOCK: Any other  
16. comments?  
17. (No verbal response.)  
18. CHAIRMAN MORELOCK: I want to give  
19. everybody a little time to think. My comments  
20. are, as Mr. Swezy has already addressed, again,  
21. these calculations were done to the pre-1995 -- or  
22. the pre-'98 edition of the code to check with the  
23. proper design margin.  
24. I also built a compressed model of  
25. this vessel, just the primary pressure boundary

Page 43

1. parts at the name plate, pressure temperature, to  
2. assure myself that the vessel is safe. And it is.  
3. The thickness reports exceed the  
4. minimum required thicknesses that I found in my  
5. compressed model.  
6. Like Eugene said, the Stronghold  
7. report did state that the bottom head, they felt,  
8. had been replaced.  
9. Again, if this was a code-stamped  
10. vessel, we would want to verify whether that was a  
11. documented R Stamp repair or not. But since it's  
12. a Tennessee Special, verification of the vessel  
13. thickness inspection, visual inspection to verify  
14. the condition of the vessel would suffice because  
15. it's not violating ASME code because it wasn't  
16. code stamped in the first place.  
17. And also to address, the Stronghold  
18. did note that there was considerable corrosion on  
19. the halfpipe jacket and it had thinned from .203  
20. inches to .105 inches. But again, going into  
21. Section VIII, Division 1, Appendix EE and running  
22. those calculations, the thickness -- the .105-inch  
23. thickness is more than adequate to satisfy the  
24. pressure temperature requirements for service.  
25. And, again, approval of this as a

Page 44

1. Tennessee Special would be contingent on the  
2. boiler unit and the chief inspector's inspection  
3. and testing of the unit as well as any questions  
4. that they may have concerning testing,  
5. documentation, and all that. And that's the  
6. extent of my comments.  
7. MR. SWEZY: I believe Mr. Robinson  
8. was wanting to say something else.  
9. MR. ROBINSON: Oh, I -- no. I  
10. would entertain at least performing PMI. It shows  
11. where you had 904L electrodes to be capped on the  
12. internal, and I'm sure that was probably for  
13. corrosive resistant reasons.  
14. MR. SWEZY: It could very well have  
15. been, sir. And I don't believe that the owner  
16. would have any objections to doing a PMI  
17. inspection as part of the State's inspection for  
18. acceptance. It's just something that had not been  
19. felt necessary, but I don't think there would be  
20. any objection at all.  
21. MR. ROBINSON: Okay. That's the  
22. only comments I have.  
23. CHAIRMAN MORELOCK: Okay.  
24. MR. ROBINSON: Thank you.  
25. MR. SWEZY: And let me explain why

Page 45

1. I went to the trouble of preparing a detailed  
2. Compress model for this vessel. If you'll notice,  
3. the top of the vessel is bristling with nozzles.  
4. MR. ROBINSON: Yes, sir.  
5. MR. SWEZY: And often, when people  
6. are looking at a fitness-for-service examination  
7. for a vessel, they do it quick and dirty on the  
8. head and the shell and ignore a lot of the  
9. nozzles. And I wanted to make sure all of the  
10. nozzles were good as well. And so that's why I  
11. did the full Compress model, including all of the  
12. nozzles and the re-pads and welds and everything,  
13. because I wanted to make sure everything was good,  
14. not just the head and the shells.  
15. MR. ROBINSON: Yeah. I had  
16. concerns on the flanges as well.  
17. MR. SWEZY: Yeah. And the flanges  
18. were good. The only flange I could not analyze  
19. was the flange on the manway nozzle because I  
20. didn't have enough dimensional information to be  
21. able to model it. But that's something that could  
22. be verified when the state inspection is being  
23. performed. And if we need additional calculations  
24. to support that, I would be happy to provide those  
25. as well.

Page 46

1. MR. ROBINSON: Well, during the  
2. period of 1995 was when we had really sold a lot  
3. of our raw steel to China. And intent -- we  
4. started getting flanges or forgings -- forged  
5. flanges that did not meet the ASME code.  
6. MR. SWEZY: I'm well aware of that,  
7. sir, yes.  
8. MR. ROBINSON: They were stamped  
9. appropriately but unfortunately they didn't have  
10. the strength required for ASME. So 95, hence the  
11. question regarding that.  
12. MR. SWEZY: Right. And in most  
13. cases, those flanges, I believe, were carbon  
14. steel. This one was stainless, so hopefully it  
15. wouldn't have the same concern. But again, any  
16. additional PMI or calculations based on  
17. dimensional information that came from that  
18. flange, I'd be happy to provide that, in addition,  
19. to follow up as part of the State's final  
20. inspection.  
21. MR. ROBINSON: That would be  
22. definitely outstanding. Thank you.  
23. CHAIRMAN MORELOCK: Okay. So we  
24. have a motion on the table that's been seconded to  
25. approve this vessel as a Tennessee Special

Page 47

1. contingent on the State's inspection and PMI of  
2. the vessel to verify materials of construction.  
3. Are there any other comments or  
4. questions?  
5. MR. ROBINSON: Second.  
6. CHAIRMAN MORELOCK: Okay. Hearing  
7. none, I'll call the question. All in favor say,  
8. "aye."  
9. (Affirmative response.)  
10. CHAIRMAN MORELOCK: Opposed?  
11. (No verbal response.)  
12. CHAIRMAN MORELOCK: Abstentions,  
13. not voting?  
14. (No verbal response.)  
15. CHAIRMAN MORELOCK: All right. You  
16. have an approved Tennessee Special. Again, all  
17. the constraints that we talked about on the heat  
18. exchanger will apply to the reactor as well.  
19. Repairs will have to be approved by the State of  
20. Tennessee and alterations by the Tennessee Board.  
21. MR. SWEZY: Very good.  
22. CHAIRMAN MORELOCK: All right.  
23. MR. SWEZY: Thank you for your  
24. time, gentlemen.  
25. CHAIRMAN MORELOCK: Thank you.

Page 48

1. Okay. Let's go ahead and cover  
2. Item 16-09, Valero Memphis Refinery requests  
3. approval for bi-annual boiler inspections on  
4. Boilers Number 10 and 11, located in Memphis,  
5. Tennessee.  
6. MR. GROSS: Good morning. Jeremy  
7. Gross. I'm the chief refinery inspector of the  
8. Valero Memphis Refinery.  
9. MR. ANTES: Steve Antes. I'm the  
10. operations superintendent over the boiler area.  
11. MR. ARMSTRONG: Jeff Armstrong.  
12. I'm the Nalco representative at the site.  
13. MR. GROSS: Good morning, Board and  
14. guests. We're here today to present our boiler  
15. inspection variance request per the checklist  
16. that's been put out there in the state rules.  
17. We've got two boilers, Number 10 and Number 11,  
18. that we're seeking to have our maintenance  
19. operation and inspection procedure approved to  
20. utilize that procedure. We will be actually  
21. evergreening that procedure in a system that we  
22. use at our site called Policy Tech. That Policy  
23. Tech database will maintain the training  
24. documentation going forward and the updates to  
25. this document, once approved by the board to

Page 49

1. maintain for annual certifications for the boiler  
2. operators that are in our facility as well as any  
3. modifications that may be made to this document  
4. going forward in the future.  
5.       Currently, we are maintaining our  
6. boilers at the annual frequency per state rules,  
7. and we are looking to pursue to have a bi-annual  
8. inspection frequency on our boilers at our site  
9. per the checklist form and documentation that we  
10. have generated.  
11.       I open it up to the board at this  
12. point. We sent in our variance request. It is a  
13. lengthy document, so I do appreciate your time and  
14. efforts in looking at that and researching and  
15. evaluating how our procedure looks. And I would  
16. like to open it up for comments to the board.  
17.       CHAIRMAN MORELOCK: Okay. Before  
18. we start the comment phase, do I have a motion for  
19. this item?  
20.       DR. JOHNSON: I move that we  
21. approve it.  
22.       MR. ROBINSON: Second.  
23.       CHAIRMAN MORELOCK: Okay. I have a  
24. motion and a second. So discussion. The floor is  
25. open for discussion.

Page 50

1.       MR. ROBINSON: Any conflicts?  
2.       CHAIRMAN MORELOCK: Oh, thank you.  
3. Any conflicts of interest for this  
4. item?  
5.       (No verbal response.)  
6.       CHAIRMAN MORELOCK: All right.  
7. Comments?  
8.       MR. ROBINSON: Jeremy, welcome  
9. back. It's always a pleasure to see you. Your  
10. reports are very outstanding.  
11.       MR. GROSS: Thank you.  
12.       MR. ROBINSON: I do have a few  
13. questions. If you could, define "BMS" on page 6  
14. just the first time you mention it, Boiler  
15. Management System. I think it's paragraph 1.2.  
16.       The safety switches on the boilers,  
17. you've added the third, which is over and beyond  
18. the requirements of CSD.  
19.       Are any of the switches manual type,  
20. manual lockout reset type?  
21.       MR. GROSS: I'm going to have to  
22. refer to Mr. Antes, on the report.  
23.       MR. ANTES: What page are you on?  
24.       MR. GROSS: Page 6.  
25.       MR. ROBINSON: I'm sorry. Page 6.

Page 51

1.       MR. ANTES: What section?  
2.       MR. ROBINSON: Paragraph 1.2, I  
3. believe. It's just boiler management system.  
4. You've got BMS. Just put the words "boiler  
5. management system" there.  
6.       MR. GROSS: Okay. Just take the  
7. acronym out.  
8.       CHAIRMAN MORELOCK: That's just an  
9. editorial comment.  
10.       MR. ROBINSON: It's editorial,  
11. yeah. That way it will be defined going forward.  
12.       MR. GROSS: Yes, sir.  
13.       MR. ANTES: And, I'm sorry, what  
14. was the question again?  
15.       MR. ROBINSON: On the safety  
16. switches, you've got three each, extra -- well,  
17. you've got extra redundancy.  
18.       MR. ANTES: Two out of three and  
19. two out of four, that's correct, sir.  
20.       MR. ROBINSON: But on the high and  
21. the low gas and the low-water cutoff, they're all  
22. equipped with manual reset lockouts, right?  
23.       MR. ANTES: They have switches that  
24. they can manually activate to shut the boiler  
25. down. Is that what you're asking?

Page 52

1.       MR. ROBINSON: Well, I'm looking  
2. for an independent switch, that if the boiler goes  
3. into a needed fail/safe condition, that this  
4. switch will lock out until someone comes and  
5. manually makes the reset.  
6.       MR. ANTES: There is things in the  
7. soft items in the DCS that you have to acknowledge  
8. on certain alarms. And we also have what we call  
9. maintenance bypass switches. If we're performing  
10. certain maintenance levels, steam pressure,  
11. working on those things, that we can actually flip  
12. the maintenance bypasses.  
13.       And we have -- in the policy that  
14. Jeremy was talking about, we have operating  
15. procedures and guidelines that are required to be  
16. signed off when the bypass is activated, by who,  
17. and also when it is put back into the normal  
18. position. And then that document is maintained on  
19. the site.  
20.       MR. ROBINSON: Okay. The kind of  
21. switch I was referring to would be independent of  
22. the DCS. So DCS is your operating system. Boiler  
23. is going to operate based on --  
24.       MR. ANTES: We do have an FSC,  
25. which --

1. MR. ROBINSON: Sir?

2. MR. ANTES: An FSC system.

3. MR. ROBINSON: Well, it's --

4. MR. ANTES: And SIS, which is

5. also -- that must be reset by our DCS control

6. personnel.

7. MR. ROBINSON: That's what I'm

8. looking for.

9. MR. ANTES: Okay.

10. MR. ROBINSON: And those are for

11. the low gas, high gas, and the low-water cutoff

12. especially.

13. MR. ANTES: Yes.

14. MR. ROBINSON: Very good.

15. MR. ANTES: That is all handled

16. under our DCS group. They're the only ones that

17. have access to that panel.

18. MR. ROBINSON: Very well.

19. MR. ANTES: It's locked.

20. MR. ROBINSON: Okay. I'm not

21. really certain on this question, and the reason is

22. because you guys are primarily API. And in

23. reality, you're using API in conjunction with

24. NBIC. Okay. So your risk-based program for your

25. refinery is under API, but your boilers also now

1. fall under the scope of NBIC risk base.

2. CHAIRMAN MORELOCK: For continued

3. operation, that's correct.

4. MR. GROSS: That's correct.

5. MR. ROBINSON: So you --

6. CHAIRMAN MORELOCK: But the NBIC

7. part for continued operation would be API579. 580

8. is specifically for the --

9. MR. ROBINSON: Refinery.

10. CHAIRMAN MORELOCK: Well, for

11. operation -- fitness-for-service evaluations for

12. operations to extend internal inspection

13. frequency. So that's 580, 581, which Meridium and

14. Aptech and places build software based on those

15. two documents.

16. MR. ROBINSON: Okay. So the

17. question is should it be referenced also with the

18. NBIC, because, again, we're now bringing the

19. boilers under the scope of risk base.

20. CHAIRMAN MORELOCK: Certainly you

21. can make a note that it does need to comply with

22. ASME as well as NBIC. Yes.

23. MR. GROSS: Sure. Absolutely.

24. CHAIRMAN MORELOCK: I mean, it's an

25. inherent compliance based on Tennessee law.

1. MR. GROSS: That's right.

2. CHAIRMAN MORELOCK: The rule is

3. going to force you to use NBIC.

4. MR. GROSS: That is correct.

5. MR. ROBINSON: Right. But again,

6. he was specific in saying --

7. CHAIRMAN MORELOCK: Yes. Yes.

8. MR. GROSS: I understand where

9. you're coming from, Eugene.

10. MR. ROBINSON: Thank you, Jeremy.

11. MR. GROSS: We have contractors

12. that will come from out of state --

13. MR. ROBINSON: Yes, sir.

14. MR. GROSS: -- and they'll ask me

15. the question, "Hey, we can 510 repair that,

16. right?" And I shut that down immediately and say,

17. "No. We're a code state. We have to follow NBIC

18. rules."

19. CHAIRMAN MORELOCK: Right. That's

20. right.

21. MR. GROSS: "We have to do an R-1

22. stamp." And it's very difficult when you utilize

23. contractors from Texas or Louisiana because

24. they're able to do that and they'll come in and,

25. "We'll build that machine. It's not a problem."

1. It's, like, "No. Time out. Sorry.

2. We can't do that here."

3. MR. ROBINSON: Thank you, sir.

4. MR. GROSS: I do appreciate that

5. question.

6. MR. ROBINSON: Okay. Appendix A,

7. second paragraph, second sentence, change to

8. "qualify operator." Remove the "s."

9. CHAIRMAN MORELOCK: Where is that

10. at again?

11. MR. ROBINSON: Appendix A, second

12. paragraph, second sentence, "qualified operators"

13. goes to "operator."

14. CHAIRMAN MORELOCK: Oh, yes.

15. That's an editorial.

16. MR. ROBINSON: Appendix J,

17. paragraph 2, remove "external" and add "internal."

18. I think somebody --

19. CHAIRMAN MORELOCK: Is that

20. Appendix J?

21. MR. ROBINSON: Yeah.

22. CHAIRMAN MORELOCK: Appendix J is

23. the --

24. MR. GROSS: That's my damage

25. mechanism.

1. CHAIRMAN MORELOCK: Yeah.  
 2. MR. ROBINSON: That's the  
 3. procedure.  
 4. CHAIRMAN MORELOCK: That's your  
 5. damage mechanism, is Appendix J.  
 6. MR. ROBINSON: Okay. Well, let's  
 7. see. It would be -- yes, forgive me. It was "I."  
 8. It would be Appendix I, paragraph 2. And here I'm  
 9. going to give you a copy of something I circled.  
 10. It came out of our divisional laws. This is an  
 11. expired one. The current date on here is 2014. I  
 12. couldn't pull up the newest revision. I've got it  
 13. circled. Do you see how it's worded?  
 14. MR. GROSS: Yes, sir.  
 15. MR. ROBINSON: And it talks  
 16. about --  
 17. MR. GROSS: Okay. Yeah, where  
 18. we're doing the external inspection on your  
 19. six-month intervals?  
 20. MR. ROBINSON: Right. You'll see  
 21. it.  
 22. MR. GROSS: Okay.  
 23. MR. ROBINSON: And look under A.  
 24. You'll see exactly what I'm saying, because you  
 25. guys pulled the verbiage, I believe, directly from

1. that.  
 2. MR. GROSS: So, Eugene, you're  
 3. referring to "I" in the 2.1 paragraph, is that  
 4. correct, on your application?  
 5. MR. ROBINSON: Under 1, where it  
 6. says that power boilers and high-pressure -- high-  
 7. temperature water boilers used or proposed to be  
 8. used shall receive an inspection annually -- which  
 9. is okay -- which shall be external. You've got  
 10. "external" there.  
 11. MR. GROSS: Okay.  
 12. MR. ROBINSON: It should be  
 13. "internal." And I would even go further and say  
 14. "and an external inspection while the boiler is  
 15. under normal operating conditions."  
 16. And if you read that paragraph,  
 17. you'll see where you could have got twisted a  
 18. little bit. Do you see what I mean?  
 19. MR. GROSS: Yes, sir. We can  
 20. create a modification to that.  
 21. MR. ROBINSON: Okay.  
 22. CHAIRMAN MORELOCK: Well, okay.  
 23. So -- but the variance extends that annual  
 24. internal inspection out to the owner/user's  
 25. preference to anywhere from 18 to 24 months. And

1. that's what you're asking for.  
 2. MR. GROSS: Yes, sir, that's  
 3. correct.  
 4. CHAIRMAN MORELOCK: But, now, the  
 5. certificate of inspection will be renewed  
 6. annually, correct?  
 7. CHIEF INSPECTOR CHAPMAN: That's  
 8. correct.  
 9. CHAIRMAN MORELOCK: So in that  
 10. two-year span, one of those certificate renewals  
 11. will have to be based upon an external inspection,  
 12. not an internal, because of the variance.  
 13. MR. ANTES: That's correct.  
 14. MR. ROBINSON: I was under the  
 15. impression that we were going to make adjustments  
 16. to our certificate from the normal 12-month  
 17. frequency to the 18-month frequency.  
 18. CHAIRMAN MORELOCK: And that's why  
 19. the wording is so -- F will allow that. And so  
 20. that's where I think the confusion is. So really  
 21. and truly, the certificate of inspection would be  
 22. based upon the internal, whether it's done at  
 23. 12 months, 18 months, or 24 months.  
 24. Is that right, Dan?  
 25. MR. ROBINSON: So would the

1. certificate expiration date reflect --  
 2. MS. JEFFERSON: Yes. Deborah --  
 3. MS. RHONE: Yes.  
 4. MR. ROBINSON: -- the new proposal?  
 5. MS. RHONE: Yes -- Deborah Rhone.  
 6. Yes, that's correct. The certificate  
 7. would have the expiration date for the 18 months.  
 8. CHAIRMAN MORELOCK: Yes.  
 9. MS. RHONE: Every time you get an  
 10. internal inspection, you would receive a  
 11. certificate. That would be the only time you  
 12. would be issued a certificate, is during that  
 13. internal inspection.  
 14. CHAIRMAN MORELOCK: I think that's  
 15. what was leading to the conversation.  
 16. MR. ROBINSON: So that's --  
 17. CHAIRMAN MORELOCK: So I think your  
 18. wording may be okay. Well, no, it's not. Because  
 19. in 2.1 you're going to have to fix your wording to  
 20. match the issuance of the certificate of  
 21. inspection.  
 22. MR. ROBINSON: New certificate.  
 23. Okay.  
 24. Okay. Paragraph -- okay. Stay with  
 25. Appendix I, paragraph 2.2. And Mr. Chairman had

Page 61

1. brought this one up as well. "60 months." You  
2. probably meant six months, I believe, but ...  
3. MR. GROSS: Yeah, absolutely.  
4. CHAIRMAN MORELOCK: You just put  
5. that in there to see if we'd find it, right?  
6. MR. GROSS: It's a test. No.  
7. Sorry about that.  
8. So just to let you know, so our  
9. pressure vessels, we will do an external visual  
10. inspection for -- our API guidelines is a 60-month  
11. interval, so that's a typo.  
12. MR. ROBINSON: And that's what I  
13. figured. I thought that but I was uncertain. So  
14. if you want to put a blurb in there for API,  
15. that's fine.  
16. MR. GROSS: Yes, sir.  
17. MR. ROBINSON: That's perfectly all  
18. right.  
19. Appendix I, paragraph 2.3, "Low  
20. pressure boiler shall receive a certificate  
21. inspection biannually." You want to change  
22. "biannually" to "biennially" with an "E."  
23. MR. GROSS: Got you.  
24. MR. ROBINSON: That's all I had.  
25. It was very comprehensive. A very good report.

Page 62

1. Thank you.  
2. CHAIRMAN MORELOCK: Any other  
3. comments?  
4. MR. BAUGHMAN: So why do you think  
5. this is in the best interest?  
6. MR. GROSS: So, David, what we're  
7. looking to do is create less cycles on our  
8. downtime for our equipment as far as being shut  
9. down, and put that 18-to-24-month interval out  
10. just to create that less cycling effect.  
11. Obviously -- typically, your instances occur when  
12. you're shutting down or starting up units,  
13. equipment, fired equipment.  
14. So for us, we also feel like, from a  
15. safety standpoint, that this would take away  
16. susceptibility for a safety incident during a  
17. startup or shutdown or characterization of our  
18. boiler during those events. So by doing that, it  
19. would put us to the 18- or 24-month intervals  
20. where we're lowering our susceptibility for an  
21. incident during a startup or shutdown scenario.  
22. MR. BAUGHMAN: So you think, based  
23. on what you've found previously within Number 10  
24. and Number 11 boilers, that this would actually  
25. keep as status quo or increase the safety?

Page 63

1. MR. GROSS: From a cycling of the  
2. equipment, yes, sir. And then also from a  
3. startup/shutdown scenario of an incident occurring  
4. during the characterization.  
5. MR. BAUGHMAN: In just looking over  
6. the boiler maintenance work orders, there was no  
7. unscheduled repairs that had had to be performed;  
8. is that correct?  
9. MR. GROSS: That's correct.  
10. MR. BAUGHMAN: So things as far as  
11. the burner throats, the weld repairs and so forth  
12. that came about, was that known before the  
13. shutdown came about that those needed to be done,  
14. or were those identified at the time the boiler  
15. was inspected?  
16. MR. GROSS: Those were identified  
17. at the time the boiler was being inspected. That  
18. is correct.  
19. MR. BAUGHMAN: Okay. So you think  
20. that that's not a critical component? If we  
21. extend that out, that those repairs, i.e., the  
22. boiler repair -- it was found at the time of  
23. inspection -- so you think that by extending it to  
24. a longer period of time, that that's good.  
25. MR. GROSS: So from an equipment

Page 64

1. degradation standpoint, no, sir, I do not think  
2. that would be a positive from increasing your  
3. interval except for when we're down and we're  
4. maintaining those items through that work order  
5. process. We feel like we can maintain those in a  
6. safe condition. I think that was Number 10 that  
7. you were looking at, that is our older boiler.  
8. And our Number 11 is our newer boiler at this  
9. time.  
10. We are able to shut down these,  
11. David, at any time and do any maintenance work  
12. that would be required if we had an issue from an  
13. operational standpoint.  
14. We would go through a steam shedding  
15. procedure. But we'd be able to shut down a few of  
16. our other process units that are our big steam  
17. consumers and make those necessary repairs.  
18. However, through the monitoring and the  
19. maintenance that we are performing on these, we  
20. feel like we can sustain that 24-month interval.  
21. MR. BAUGHMAN: Okay. Can any of  
22. the switches be remotely reset?  
23. MR. ANTES: Only by our maintenance  
24. bypass keys that we have in the buildings. And  
25. those are only used when we're actually doing

1. maintenance on them ourselves.  
 2. Of course, if you have a -- like I  
 3. was talking about before, we have to have FSC and  
 4. the SIS systems that our ACS group has to reset.  
 5. And then, of course, if the boiler trips itself,  
 6. you have a reset switch on the panel that is  
 7. required to be pushed. And then everything must  
 8. be satisfied before it goes into a sequence to  
 9. start up.  
 10. MR. BAUGHMAN: That panel being  
 11. located where?  
 12. MR. ANTES: On the front of each  
 13. boiler.  
 14. MR. BAUGHMAN: Very good.  
 15. MR. ANTES: Also, on boiler 11,  
 16. there is also a DCS screen out there for the  
 17. outside operator to look. It is a read only. So  
 18. he can actually see what's going on, what the  
 19. operator inside is looking at, as far as water  
 20. level and all that.  
 21. CHAIRMAN MORELOCK: Any other  
 22. comments?  
 23. (No verbal response.)  
 24. CHAIRMAN MORELOCK: All right.  
 25. Well, I've got just a few. One is just some

1. advice. It would be good to include the checklist  
 2. in your manual so that whether you or the State or  
 3. anybody looks at the manual, they can kind of look  
 4. at the checklist and see how you've addressed all  
 5. of the components of the variance and kind of keep  
 6. everything up to date.  
 7. MR. GROSS: Mr. Chairman, would you  
 8. prefer that in an appendices or do you want to put  
 9. it in the front section?  
 10. CHAIRMAN MORELOCK: An appendices  
 11. in the back would be fine.  
 12. I do have a couple of questions.  
 13. One, does this variance manual state that  
 14. operating under the variance, Tennessee Code  
 15. Annotated 68-122-110(f), that it shall have  
 16. internal inspections every six months, and if the  
 17. boiler or boilers fail this external inspection,  
 18. it will be required to be immediately shut down  
 19. and the variance will be rescinded? That's  
 20. checklist Items Number 5 and 6. So you need to  
 21. put that verbiage in your manual.  
 22. The next item would be checklist Item  
 23. Number 9. Does this manual state these boilers  
 24. shall be fully attended per the boiler attendant  
 25. rule and Rule 800-03-03.04, Rule 22? So you also

1. need to stay -- I know you've got a DCS system and  
 2. all, so you're providing basically 100 percent?  
 3. MR. GROSS: Yes, sir. And we have  
 4. an outside assistant that makes a round less  
 5. than -- at 20-minute intervals every day on each  
 6. shift, day and night. Just indicate that?  
 7. CHAIRMAN MORELOCK: Just put it in  
 8. writing, because we know it but it just helps to  
 9. have it in writing.  
 10. MR. GROSS: Yes, sir.  
 11. CHAIRMAN MORELOCK: And on page 3,  
 12. paragraph 5, you're stating, "The individual  
 13. responsible for implementing the provisions of  
 14. this program and the variance is the chief  
 15. inspector, technical department."  
 16. My question is does this individual  
 17. also have responsibility for the RBI program, the  
 18. water treatment program? Because the checklist  
 19. requires that you provide addresses, phone  
 20. numbers, and fax numbers for the responsible  
 21. individuals.  
 22. MR. GROSS: Yes, sir.  
 23. CHAIRMAN MORELOCK: So just clarify  
 24. that. Okay?  
 25. MR. GROSS: Yes, sir.

1. CHAIRMAN MORELOCK: And that's the  
 2. extent of my comments.  
 3. Anything else?  
 4. MR. BAUGHMAN: Who is the  
 5. inspection --  
 6. MR. GROSS: Are you talking  
 7. about -- our insurance inspection agency is Arise.  
 8. Mr. Ken Watson is our AI that comes out and does  
 9. our external visual, our boiler inspection. He's  
 10. the former state of Mississippi chief boiler  
 11. inspector.  
 12. MR. BAUGHMAN: It was mentioned  
 13. that they also agree with the extension.  
 14. MR. GROSS: Okay. Yes, sir. Dave.  
 15. MR. BAUGHMAN: I know that's listed  
 16. in here or was discussed verbally, but I didn't  
 17. know if there was a letter, as such, that they  
 18. would possibly produce saying that they --  
 19. MR. GROSS: Right. We can provide  
 20. that. Mr. Watson was actually supposed to be here  
 21. but his schedule didn't allow him to show up. He  
 22. was actually going to show up today and give his  
 23. consent verbally. But we can get it in an email  
 24. or a letter, a certified letter, to put in here as  
 25. well.

Page 69

1. CHAIRMAN MORELOCK: Any other  
2. comments?  
3. (No verbal response.)  
4. CHAIRMAN MORELOCK: Okay. So we  
5. have a motion and a second on the table to approve  
6. Valero's boiler internal inspection frequency  
7. variance contingent on, again, the chief inspector  
8. and the boiler unit inspecting the vessels, the  
9. boilers, reviewing your manual, making sure --  
10. we're completing a technical review but they're  
11. going to actually make sure that what's on paper  
12. is actually what they're going to see in the  
13. field. And they'll complete that. So your  
14. approval of the variance is contingent on their  
15. inspection and review of the manual and making  
16. sure that it all works.  
17. MR. GROSS: We'll schedule that  
18. with Sam --  
19. CHAIRMAN MORELOCK: Okay.  
20. MR. GROSS: -- for this upcoming  
21. October, November.  
22. CHAIRMAN MORELOCK: Okay.  
23. MR. GROSS: I do have one question.  
24. So we're working these boilers -- you know, 10 and  
25. Number 11 is later this fall -- if we do the first

Page 70

1. boiler and we can get approval from the chief  
2. boiler inspector to implement that, are we able to  
3. utilize the variance for the existing boiler that  
4. will be later this year? Or do we need to look at  
5. both boilers first and execute our procedure to  
6. gain our frequency?  
7. CHIEF INSPECTOR CHAPMAN: It would  
8. be both.  
9. MR. GROSS: Okay. We'll get both?  
10. CHIEF INSPECTOR CHAPMAN: Yes.  
11. MR. GROSS: No. problem.  
12. MR. BAUGHMAN: And again, that  
13. frequency is -- how long are we extending it?  
14. CHAIRMAN MORELOCK: Basically it  
15. will go from an annual to a 24 month.  
16. MR. BAUGHMAN: So we're asking for  
17. 24 month. That's good. Okay. I just want to  
18. make sure.  
19. CHAIRMAN MORELOCK: Okay. Any  
20. other questions or comments?  
21. (No verbal response.)  
22. CHAIRMAN MORELOCK: I'm going to  
23. call the question. All in favor say, "Aye."  
24. (Affirmative response.)  
25. CHAIRMAN MORELOCK: Opposed?

Page 71

1. (No verbal response.)  
2. CHAIRMAN MORELOCK: Abstentions,  
3. not voting.  
4. (No verbal response.)  
5. CHAIRMAN MORELOCK: Gentlemen, you  
6. have an approved boiler internal inspection  
7. frequency variance.  
8. MR. GROSS: Thank you very much.  
9. CHAIRMAN MORELOCK: Thank you-all.  
10. Okay. I'm going to give everybody  
11. a -- let's take a 13-minute break. That would get  
12. us to 10:30. You've been gracious to sit with us  
13. for over an hour, almost an hour and a half, so  
14. we'll reconvene at 10:30.  
15. (Recess observed.)  
16. CHAIRMAN MORELOCK: We are on  
17. Item 16-10, Maplehurst Bakeries, LLC requests a  
18. variance to Boiler and Unfired Pressure Vessel  
19. Rules and Regulations, paragraph  
20. 0800-03-03-.04(22) for two high-pressure boilers  
21. located in Lebanon, Tennessee. So if you'll  
22. introduce yourselves ...  
23. Are there any conflicts of interest?  
24. (No verbal response.)  
25. CHAIRMAN MORELOCK: Okay. Good.

Page 72

1. MR. JAMES NEVILLE: James Neville,  
2. Neville Engineering.  
3. MR. JONES: I'm Michael Jones, the  
4. recently hired plant manager for Maplehurst  
5. Bakeries plant in Lebanon.  
6. MS. LeVAN: I'm Wendy LeVan and I'm  
7. an account manager with Boiler Supply.  
8. MR. JAMES NEVILLE: We would like  
9. to request a variance on two Cleaver Brooks flex  
10. tube boilers that have recently been installed in  
11. Lebanon. Those boilers are up and running.  
12. In our site plan, on Figure 1, it  
13. shows the location of the boiler room and the  
14. remote station where we would like to monitor  
15. these boilers from, which is approximately  
16. 100 feet away.  
17. That remote station, the name on that  
18. is the maintenance lead and ammonia engineer  
19. control room. That's where they plan on  
20. monitoring the boilers while on the variance.  
21. There is a change. They have decided  
22. to put this on their SCADA system, which is a  
23. control panel in that control room. And so they  
24. will have a dedicated screen for these two boilers  
25. on that SCADA system. So I do have a handout that

Page 73

1. there's a modification to the variance that we  
 2. have in front of you. I would like to pass that  
 3. out because that shows the most updated control  
 4. scheme.  
 5.       The individuals that will be  
 6. monitoring these boilers, both at the remote  
 7. station and as boiler attendants, their job titles  
 8. are the shift maintenance team leader and the  
 9. maintenance technician. So those will be at the  
 10. remote station and will be -- the boiler  
 11. attendants will be monitoring the boilers at the  
 12. beginning of the shift and the end of the shift.  
 13.       In Appendix A, there were two items  
 14. that needed to be updated. And that was the  
 15. national board number. I do have those numbers  
 16. now. For Boiler 1, that number is 16250. And the  
 17. built date on that was January 21, 2016.  
 18.       And for Boiler 2, the national board  
 19. number is 16261. And the date built is  
 20. January 26, 2016.  
 21.       Another thing to note is the boiler  
 22. feed system. That is an atmospheric boiler feed  
 23. system. And the controls on this will be the  
 24. Hawk 4000, and that utilizes a Cleaver Brooks 780E  
 25. burner control.

Page 74

1.       If there are any questions ...  
 2.       CHAIRMAN MORELOCK: Okay. So do we  
 3. have a motion for this item?  
 4.       MR. ROBINSON: Motion to approve.  
 5.       CHAIRMAN MORELOCK: Okay. I have a  
 6. motion. Do I have a second?  
 7.       DR. JOHNSON: Second.  
 8.       CHAIRMAN MORELOCK: Okay. So  
 9. discussion?  
 10.       MR. BAUGHMAN: James?  
 11.       MR. JAMES NEVILLE: Yes?  
 12.       MR. BAUGHMAN: These boilers were  
 13. provided by Boiler Supply?  
 14.       MR. JAMES NEVILLE: Yes.  
 15.       MR. BAUGHMAN: And what type of  
 16. boilers are they, Wendy?  
 17.       MS. LeVAN: Flex boilers.  
 18.       MR. BAUGHMAN: Which are what type  
 19. of boiler?  
 20.       (No verbal response.)  
 21.       MR. BAUGHMAN: Water tube? Fire  
 22. tube?  
 23.       MS. LeVAN: Water tube.  
 24.       MR. BAUGHMAN: Okay. Note under  
 25. "Type" it says "Fire tube."

Page 75

1.       MS. LeVAN: Okay.  
 2.       MR. BAUGHMAN: Under Appendix A.  
 3.       CHAIRMAN MORELOCK: Any other  
 4. comments?  
 5.       MR. BAUGHMAN: The other question  
 6. that I've got, James, is the Hawk 4000, our codes  
 7. require by CSD-1 that all components be UL listed.  
 8.       MR. JAMES NEVILLE: Yeah. They  
 9. are.  
 10.       MR. BAUGHMAN: The 780 is UL  
 11. listed. At the heart of the system is a UL listed  
 12. control, but I didn't know if the total system  
 13. itself is UL listed. I don't see any nomenclature  
 14. on that that addresses that. I see where the  
 15. 780 -- the CB780 is but not the complete 4000.  
 16.       MR. JAMES NEVILLE: I can get  
 17. information on that. I believe that is UL listed,  
 18. but ...  
 19.       MS. LeVAN: It's possible that the  
 20. documentation was not updated by the manufacturer  
 21. because that UL listing just came about within the  
 22. past two years.  
 23.       MR. BAUGHMAN: UL listing was just  
 24. in the past two years?  
 25.       MS. LeVAN: I believe so. Am I

Page 76

1. correct?  
 2.       MR. JAMES NEVILLE: I believe -- I  
 3. can get the information on that, the Hawk 4000, on  
 4. the UL listing of that.  
 5.       MR. BAUGHMAN: Because if that's  
 6. the case, that's interesting because we've been  
 7. approving these systems for a number of years.  
 8.       MS. LeVAN: Forgive me. I may have  
 9. misspoke.  
 10.       MR. JAMES NEVILLE: Now, if you  
 11. look at B1 under Equipment Description, on the  
 12. burner controller it says, "At the heart of the  
 13. Hawk 4000 is the dedicated UL."  
 14.       MR. BAUGHMAN: 780?  
 15.       MR. JAMES NEVILLE: The 780, yes.  
 16.       MR. BAUGHMAN: The 780 is just the  
 17. programmer, though, on that system.  
 18.       MR. JAMES NEVILLE: Correct.  
 19.       MR. BAUGHMAN: And so what we've  
 20. got is a total system, being the 4000. That total  
 21. system needs to be UL listed instead of just one  
 22. specific component in it. And that's something we  
 23. need to identify.  
 24.       MR. JAMES NEVILLE: Okay.  
 25.       CHAIRMAN MORELOCK: Any other

Page 77

1. comments?  
2. I just have a couple. They're  
3. editorial-type comments. It's a comment we make  
4. quite often but make sure the text of your manual  
5. with the job titles and the organizational chart  
6. match. Sometimes there's slight discrepancies,  
7. and you-all know it but we don't. So just make  
8. sure all that text matches.  
9. The other thing is in Appendix G.  
10. These job descriptions, they do list the duties  
11. for the training of the remote monitor, but I just  
12. didn't see clearly any detail for the training and  
13. the duties for the trained and qualified boiler  
14. attendant. So if you can add that, that would be  
15. most helpful.  
16. MR. JAMES NEVILLE: Okay. There  
17. are training classes that are -- being a part of  
18. that, those job descriptions, we will update their  
19. official training.  
20. CHAIRMAN MORELOCK: Yeah. If you  
21. will just add that so we'll know that, and that  
22. will be just fine.  
23. And that's all the comments I had.  
24. MR. BAUGHMAN: I have one other  
25. comment. And it just comes down to, on page 10,

Page 78

1. the emergency procedures.  
2. MR. JAMES NEVILLE: Yes.  
3. MR. BAUGHMAN: It leaves off at  
4. Number 5, which is calling. "Repeat Items 2  
5. through 5 until acknowledgment is received." But  
6. it ends there. And so the remote station makes  
7. the call, says, "Boiler is in alarm status," and  
8. that's where it ends. And if I'm sitting in the  
9. remote station and this is what I'm going by, and  
10. so I've made a call and I put the boiler to the  
11. off position and -- I've made my phone calls. Now  
12. what?  
13. CHAIRMAN MORELOCK: I think the  
14. detail you're looking for is on page 6.  
15. MR. BAUGHMAN: Page 6?  
16. CHAIRMAN MORELOCK: Yes.  
17. MR. BAUGHMAN: Okay.  
18. MR. JAMES NEVILLE: Right. So --  
19. MR. BAUGHMAN: But this is actually  
20. the placard.  
21. CHAIRMAN MORELOCK: Right. That's  
22. the placard.  
23. MR. BAUGHMAN: So the placard is  
24. what they're going by. They're not going by and  
25. picking up and going to page 6. Nothing refers,

Page 79

1. on the placard, to page 6. So the placard is in  
2. there; the personnel are looking at this; they've  
3. made their phone calls; that's the end of it.  
4. This needs to have more detail to it  
5. to describe to the remote station personnel what  
6. the next step is after I make the call.  
7. MR. JAMES NEVILLE: As far as  
8. clearing the alarm?  
9. MR. BAUGHMAN: As far as anything.  
10. All they've done is they've made the phone call.  
11. They've turned the switch to the off position.  
12. They've made the call. Now -- that's all that's  
13. been dictated to them. Is there not procedures  
14. further, after that, that get dictated? In other  
15. words, personnel, they would call them back and  
16. say they've gone and made the clearing at the  
17. boiler room itself and now it's okay to put the  
18. boiler back to the on position and so forth.  
19. MR. JAMES NEVILLE: Right. So as  
20. far as the -- you know, once the boiler operator  
21. has been notified, when they return to the boiler  
22. room, then they must communicate with the remote  
23. station to reset.  
24. MR. BAUGHMAN: Oh, I agree. I  
25. understand that. You and I understand it. The

Page 80

1. remote station personnel may not understand that,  
2. though. There's no protocol listed on what  
3. happens after that phone call is made.  
4. CHAIRMAN MORELOCK: Well, but I  
5. think the disconnect I'm seeing is this: Once the  
6. boiler is shut down and the calls have been made,  
7. are you still in an emergency situation? Right?  
8. Is that kind of what you're thinking?  
9. MR. JAMES NEVILLE: That was why he  
10. hadn't -- we just put --  
11. CHAIRMAN MORELOCK: Because then,  
12. once the boiler is shut down, the emergency is  
13. over. Then they're back to their regular remote  
14. monitoring boiler attendant duties, right? Is  
15. that what you're thinking?  
16. MR. JAMES NEVILLE: That was the  
17. thinking on, you know, keeping the emergency part  
18. of it -- just, you know, shut it down --  
19. CHAIRMAN MORELOCK: Right.  
20. MR. JAMES NEVILLE: -- call those  
21. with responsibility to the boilers and ...  
22. CHAIRMAN MORELOCK: Well -- or you  
23. could copy Item 3 and 4 from page 6 onto the  
24. yellow page and you're good to go. Either way  
25. will work.

Page 81

1. MR. BAUGHMAN: I just feel like if  
 2. this is the only placard they've got and this is  
 3. the placard that's being posted, this is what  
 4. they've got to refer to, it falls a little bit  
 5. short.  
 6. CHAIRMAN MORELOCK: Okay.  
 7. MR. BAUGHMAN: That's my two cents'  
 8. worth. That's open for discussion, but ...  
 9. How do you feel as a plant manager?  
 10. MR. JONES: I'm in agreement with  
 11. you. And as the Chairman has spoken, maybe we  
 12. need to take a 3 and 4 and we need to add it to it  
 13. and let us review it and make sure that we've got  
 14. our ducks in a row. Because we want to make sure  
 15. that we're in a safe condition.  
 16. CHAIRMAN MORELOCK: I mean, you  
 17. don't want to negate the fact that you've trained  
 18. them, per the manual.  
 19. MR. JONES: Right.  
 20. CHAIRMAN MORELOCK: So they're  
 21. going to know what to do beyond 5; it's just not  
 22. written down. But excellent point. I take no  
 23. issue with your comment. I agree with you.  
 24. MR. JAMES NEVILLE: We'll add a 6  
 25. and a 7 and refer back to page 6. I think that

Page 82

1. will tie the loop.  
 2. CHAIRMAN MORELOCK: Okay. Any  
 3. other comments?  
 4. (No verbal response.)  
 5. CHAIRMAN MORELOCK: Okay. Hearing  
 6. none, we have a motion and a second on the table  
 7. to approve this variance to the Rule 22 attendant  
 8. rule. If there's no other questions or comments,  
 9. I'm going to call the question. All in favor say  
 10. "aye."  
 11. MR. BAUGHMAN: I'm sorry. I would  
 12. make that contingent upon the UL approval of the  
 13. controller itself.  
 14. CHAIRMAN MORELOCK: Good point.  
 15. Good point. Well, contingent on that, as well as  
 16. the site inspection by the chief boiler inspector,  
 17. as well. All these are always contingent on their  
 18. inspection of the facility, so -- okay.  
 19. MS. BENNETT: And did you do the  
 20. conflict already?  
 21. CHAIRMAN MORELOCK: Yes. Eugene  
 22. kept me honest.  
 23. Okay. So we have a motion to approve  
 24. based on contingency of verification of the UL on  
 25. the 4000 unit and site inspection by the chief

Page 83

1. boiler inspector. So all in favor say "aye."  
 2. (Affirmative response.)  
 3. CHAIRMAN MORELOCK: Opposed?  
 4. (No verbal response.)  
 5. CHAIRMAN MORELOCK: Abstentions,  
 6. not voting?  
 7. (No verbal response.)  
 8. CHAIRMAN MORELOCK: You have an  
 9. approved variance.  
 10. MR. JONES: Thank you.  
 11. CHAIRMAN MORELOCK: Thank you.  
 12. And so to help out our chief  
 13. inspector, when the site visit comes, if you can  
 14. have the comments we've given you implemented into  
 15. your manual, that would be a big help to the  
 16. State.  
 17. MR. JAMES NEVILLE: And we  
 18. typically list those at the back of Appendix I.  
 19. CHAIRMAN MORELOCK: Yes.  
 20. MR. JAMES NEVILLE: We'll have  
 21. those updated for you.  
 22. MR. JONES: Just one question. As  
 23. we are a new facility and we're growing and we  
 24. haven't gotten to our full staff yet, so if we  
 25. make adjustments on contact persons, like,

Page 84

1. currently we're using our most experienced boiler  
 2. attendant as our site contact, but I've recently  
 3. been added to the staff so I'd like to change that  
 4. to at least include me to ensure that we have a  
 5. clear communication line. So when we make those  
 6. changes, do we just incorporate that too or do you  
 7. need to know that now?  
 8. CHAIRMAN MORELOCK: Well, any  
 9. technical change to your monitoring system in your  
 10. boiler operation would come to the board.  
 11. MR. JONES: Okay.  
 12. CHAIRMAN MORELOCK: But editorial  
 13. changes and adjusting your organization charts and  
 14. some things like that, send it to the State of  
 15. Tennessee, to the Boiler Unit, and they'll approve  
 16. that.  
 17. MR. JONES: Thank you.  
 18. CHAIRMAN MORELOCK: You're very  
 19. welcome. Thank you.  
 20. Okay. Our next item is 16-11,  
 21. U.S. Nitrogen, LLC requests a modification to the  
 22. variance, an existing variance, for four  
 23. high-pressure boilers located in Greenville,  
 24. Tennessee.  
 25. MR. BAUGHMAN: I will list a

1. conflict.

2. CHAIRMAN MORELOCK: Okay.

3. Conflicts of interest? Any?

4. MR. BAUGHMAN: Myself.

5. CHAIRMAN MORELOCK: Okay. So we do

6. have one conflict.

7. MR. JAMES NEVILLE: Again, James

8. Neville with Neville Engineering.

9. MR. MOON: Marty Moon.

10. U.S. Nitrogen operations manager.

11. MR. HARRIS: Randy Harris.

12. U.S. Nitrogen chief inspector.

13. CHAIRMAN MORELOCK: Welcome. Go

14. ahead and present your case.

15. MR. JAMES NEVILLE: Today we're

16. adding one waste heat boiler in Appendix A. That

17. is the fourth column that's identified as E3404.

18. That was manufactured by Struthers Wells Gulfport,

19. Inc. The date that that was built was 1987.

20. And I would like Marty to go over the

21. operations of that boiler and explain the -- as

22. far as the process -- the waste heat that they're

23. using.

24. MR. MOON: The waste heat is

25. generated by the oxidation of ammonia and air in

1. the presence of a platinum gauze upstream of the

2. boiler. It generates about 1600 degrees

3. Fahrenheit processed gas temp. That is passed

4. through the boiler through tubes and then on down

5. into the rest of our exchanger tray.

6. The loss of ammonia to that reaction

7. immediately would extinguish the heat source to

8. that boiler. It's about that simple, I guess is

9. the way to say it. Are there questions about it?

10. CHAIRMAN MORELOCK: Before we open

11. that, do I have a motion for this item?

12. MR. ROBINSON: Yes. Motion made.

13. CHAIRMAN MORELOCK: So moved. And

14. second?

15. DR. JOHNSON: Second.

16. CHAIRMAN MORELOCK: Okay.

17. Discussion?

18. MR. ROBINSON: This is a prior

19. approval?

20. (No verbal response.)

21. MR. ROBINSON: Is this a prior

22. approval? Do you have three other units?

23. MR. JAMES NEVILLE: Yes.

24. MR. ROBINSON: So right now you're

25. operating under an existing variance?

1. MR. JAMES NEVILLE: Yes -- well --

2. MR. MOON: Well, we have the

3. variance but we're still doing the 20-minute

4. rounds.

5. MR. ROBINSON: For the other three

6. units you're using.

7. MR. MOON: Yes.

8. MR. ROBINSON: Maybe I'll reword

9. the question.

10. MR. MOON: Yeah.

11. MR. ROBINSON: Forgive me. For the

12. other three units, you're operating a variance?

13. MR. MOON: Well, one of the units

14. is currently operational and the other two haven't

15. started yet. But we're still operating on the

16. 20-minute rounds because we were wanting to get

17. them all inspected together.

18. MR. HARRIS: My understanding in

19. communications with the State is that all four of

20. these have to be operational because it's under

21. one variance.

22. MR. ROBINSON: Okay. So you

23. haven't yet to have --

24. MR. HARRIS: So we are still using

25. 20-minute attendants.

1. MR. ROBINSON: So you haven't had

2. your audit.

3. MR. HARRIS: Yeah. Correct.

4. CHAIRMAN MORELOCK: Any other

5. comments?

6. MR. BAUGHMAN: Page 7, Boiler

7. Attendant Procedures, it says, "The boiler

8. attendant is a trained, qualified individual who

9. is designated to operate and monitor the boilers."

10. What training and under what

11. qualification does that fall under?

12. MR. MOON: Let me look for that

13. further because I can't remember the name of the

14. outfit, but we hired a company to come in and do

15. our boiler training for all of our outside

16. operators for the auxiliary boilers and the waste

17. heat boilers. It was about a week-long course. I

18. remember the training was about 40 hours.

19. In addition to that baseline

20. training, so to speak, to be qualified to be an

21. outside operator/boiler attendee, they have to be

22. qualified in the procedures to run that boiler.

23. And in this case, they would also have to be

24. qualified in the variance when we get that.

25. CHAIRMAN MORELOCK: Just to

1. piggy-back off your comment, I went back and went  
 2. through our March 2015 meeting minutes, and that  
 3. was one of the comments, was that in Appendix G  
 4. you need to show that the operating shift  
 5. supervisor duties as being a boiler attendant.  
 6. What about the operator as well?  
 7. In March of 2015, the comment we gave  
 8. was receive one week of training on boiler  
 9. operations, specific equipment procedures and how  
 10. to monitor the boilers; be required to have  
 11. on-the-job orientation and training. And so that  
 12. comment was never implemented after our meeting in  
 13. March of 2015. So we need to add that to the  
 14. manual.  
 15. MR. JAMES NEVILLE: We will add  
 16. that to the -- under the -- for the operator under  
 17. the knowledge part. We'll add that as their  
 18. boiler training.  
 19. CHAIRMAN MORELOCK: And so what you  
 20. can do is go out to the state website, pull the  
 21. minutes up, and Cassandra has every bit of that  
 22. typed out for you perfectly.  
 23. MR. JAMES NEVILLE: Yes. Okay. We  
 24. will add that to both the operator and the  
 25. operating shift supervisor.

1. CHAIRMAN MORELOCK: Yes. And while  
 2. you're doing that, on page 1 of this manual, which  
 3. again is a modification to the manual you  
 4. presented March of 2015, it stated that -- page 1  
 5. states Randall Harris is responsible to implement  
 6. the variance, and Appendix K states that Marty is  
 7. responsible for the variance, so you need to fix  
 8. that comment, too.  
 9. On page C-12 and C-1, you did update  
 10. the manual to add the list of alarm codes, which  
 11. is great, and you also added words about the  
 12. safety control parameters being password  
 13. protected, so that was good. So those changes  
 14. were made, so I thank you for those.  
 15. On page 1, the second sentence states  
 16. that you're currently under construction. So are  
 17. you still currently under construction or are you  
 18. operating?  
 19. MR. MOON: We are -- we have the  
 20. ability to operate the acid plant where the boiler  
 21. in question is. And the auxillary boiler is  
 22. operational. The additional two waste heat  
 23. boilers and the ammonia plants are not currently  
 24. operational, although they are dangerously close.  
 25. CHAIRMAN MORELOCK: All right.

1. We'll still leave that currently under  
 2. construction, then.  
 3. MR. MOON: Okay.  
 4. CHAIRMAN MORELOCK: And I think  
 5. that's the extent of my comments. So any other  
 6. comments or questions?  
 7. MR. ROBINSON: No.  
 8. MR. BAUGHMAN: So with the waste  
 9. heat boiler, with the emergency procedure of --  
 10. it's different than with the fuel fire boilers,  
 11. but yet we're -- it's talking about shutting the  
 12. boiler down -- how do we shut the heat source off  
 13. in an emergency situation with it?  
 14. MR. MOON: There's an e-stop trip  
 15. button that's within the vicinity of the boiler  
 16. and the vicinity of the converter cone where the  
 17. heat is made. If you hit that button, it  
 18. automatically discontinues the ammonia flow to the  
 19. process and that automatically shuts off the heat  
 20. level.  
 21. CHAIRMAN MORELOCK: So could the  
 22. remote monitor shut it down as well?  
 23. MR. MOON: He absolutely can.  
 24. CHAIRMAN MORELOCK: Okay.  
 25. MR. MOON: He's got a button in the

1. control room.  
 2. CHAIRMAN MORELOCK: Okay.  
 3. MR. MOON: Or he can shut it off on  
 4. the DCS.  
 5. CHAIRMAN MORELOCK: Okay.  
 6. MR. BAUGHMAN: Other apparatus,  
 7. they could shut it down? Are there low waters, I  
 8. take it, that do the exact same thing, are tied  
 9. into that same circuit?  
 10. MR. MOON: Absolutely.  
 11. MR. BAUGHMAN: Okay.  
 12. Over-pressurization?  
 13. MR. MOON: Yeah.  
 14. MR. BAUGHMAN: Okay.  
 15. MR. MOON: And we even have a high  
 16. level because, for other reasons, we can impinge  
 17. water against our turbine, which is additionally  
 18. as bad. So yeah, those controls are all set  
 19. together.  
 20. MR. BAUGHMAN: So if you cut the  
 21. fuel source off, the feed water is a modulating  
 22. feed water on this particular unit?  
 23. MR. MOON: Yeah. Feed water is  
 24. supplied to outside battery limits and it's set up  
 25. on a control valve. So if you trip the boiler,

1. you'll lose the heat but you won't necessarily  
 2. lose feed water. It will just maintain a level.  
 3. MR. BAUGHMAN: Okay. So the feed  
 4. water modulating control is independent, and if  
 5. you hit the e-stop, it's not going to kill the  
 6. power to the modulating control valve?  
 7. MR. MOON: (Shakes head.)  
 8. MR. BAUGHMAN: Okay. Good.  
 9. CHAIRMAN MORELOCK: Any other  
 10. comments?  
 11. MR. ROBINSON: And if you hit the  
 12. e-stop, all of your fans or cooling apparatuses  
 13. will continue to run?  
 14. MR. MOON: Absolutely. Yeah, this  
 15. boiler doesn't have an FD or an ID, but the  
 16. cooling water system is still --  
 17. MR. ROBINSON: It'll still cycle.  
 18. MR. MOON: Uh-huh.  
 19. CHAIRMAN MORELOCK: Anything else?  
 20. (No verbal response.)  
 21. CHAIRMAN MORELOCK: Hearing none,  
 22. we've got a motion to approve the modification to  
 23. U.S. Nitrogen, the existing variance to add this  
 24. fourth waste heat boiler contingent on -- really  
 25. contingent on the site visit for all four boilers

1. and to check the operation.  
 2. And so with that, I'll call the  
 3. question. All in favor say "aye."  
 4. (Affirmative response.)  
 5. CHAIRMAN MORELOCK: Opposed?  
 6. (No verbal response.)  
 7. CHAIRMAN MORELOCK: Abstentions,  
 8. not voting?  
 9. MR. BAUGHMAN: I had a conflict on  
 10. that, so I retract that vote.  
 11. CHAIRMAN MORELOCK: So I will vote  
 12. in your absence to make sure we -- so I will vote  
 13. for.  
 14. And so you have an approved variance.  
 15. MR. JAMES NEVILLE: Thank you.  
 16. CHAIRMAN MORELOCK: That concludes  
 17. our new business.  
 18. Item IX is Open Discussion Items, and  
 19. Ms. Deborah Rhone is going to give us an update on  
 20. the fall conference.  
 21. MS. RHONE: The update for the  
 22. September 19th through the 23rd fall conference is  
 23. exciting. We're happy to say that plans are  
 24. ongoing to host that. And, of course, it's going  
 25. to be held here in the Nashville area, in this

1. building with the Tennessee Department of Labor,  
 2. the first floor, in the Pearl Room. And I'm not  
 3. sure if you-all have had the opportunity, all of  
 4. you all, but it is going to be in this building to  
 5. all of our guests.  
 6. The conference committee, as well as  
 7. a subcommittee, was formed to secure specific  
 8. information regarding the budget, financing,  
 9. presenters, marketing, things of that nature. The  
 10. host hotel is going to be the Millenium Maxwell  
 11. House. We have a projection of approximately  
 12. 150 persons in attendance.  
 13. Currently, the hotel contract is in  
 14. review by our legal division prior to signature.  
 15. We are preparing -- we have prepared, rather, a  
 16. draft agenda. We've had assistance from board  
 17. members for topics of interest. We've got room on  
 18. the agenda, of course, for any additional items.  
 19. We do have some exciting things planned, but we  
 20. are going to solicit if you guys would like to add  
 21. anything to the agenda.  
 22. To announce the conference, of  
 23. course, we will have the information on our  
 24. website. We'll be sending out documents with our  
 25. outgoing correspondence, like, with our

1. certificates and our invoices. Any type of  
 2. outgoing correspondence will include the  
 3. announcement. But, of course, we're going to have  
 4. to limit it to 150 participants.  
 5. The conference is going to be five  
 6. days. We'll have receptions and different things  
 7. planned. So we are very excited to announce this  
 8. and that the plans are underway.  
 9. CHAIRMAN MORELOCK: So Monday will  
 10. be the registration day?  
 11. MS. RHONE: Right, Monday. Most of  
 12. the participants will probably come in Monday  
 13. after their workday, and we'll have a registration  
 14. table available, and then Tuesday with the actual  
 15. conference and things kicking off.  
 16. CHAIRMAN MORELOCK: So you'll have  
 17. the conference kickoff on Tuesday, then the board  
 18. meeting on Wednesday --  
 19. MS. RHONE: Yes.  
 20. CHAIRMAN MORELOCK: -- and then  
 21. some additional, maybe, training or presenters on  
 22. Thursday?  
 23. MS. RHONE: Right. We will have  
 24. presenters for the training. Again, there's a  
 25. request for any national or ASME trainers to come

1. in and present to the audience as well.  
 2. CHAIRMAN MORELOCK: Okay.  
 3. MS. RHONE: And then we'll have --  
 4. the banquet will be that Thursday night. And then  
 5. that Friday we'll have a session, but it should  
 6. end around noon.  
 7. CHAIRMAN MORELOCK: Okay. Very  
 8. good.  
 9. MS. RHONE: So you'll all be  
 10. hearing from me.  
 11. CHAIRMAN MORELOCK: Does anybody  
 12. have any questions or comments?  
 13. MR. BAUGHMAN: You had mentioned  
 14. that we're going to limit it to 150 participants.  
 15. Is that correct, what I heard?  
 16. MS. RHONE: Right now, yes. Yes.  
 17. MR. BAUGHMAN: Okay. How are we  
 18. going to do that? I mean, first come first  
 19. served? You said --  
 20. MS. RHONE: Exactly. We're going  
 21. to put it out on the website as well as the  
 22. fliers, but, you know, we're going to have to  
 23. limit it.  
 24. MR. BAUGHMAN: Are we limiting it  
 25. to in-state personnel? I know in the past we've

1. had surrounding states, but I'm just trying to get  
 2. a grasp on our limitations of personnel, because  
 3. that would get -- I would anticipate that would  
 4. get booked up pretty quick.  
 5. MS. RHONE: No. We're not limiting  
 6. this to in-state. You know, in the past, we have  
 7. had some of the participants from the surrounding  
 8. states which has really been good. So no, we're  
 9. not limiting it.  
 10. MR. BAUGHMAN: Okay.  
 11. MS. JEFFERSON: And the reason why,  
 12. just to be clear, is because we're utilizing the  
 13. Pearl Room. We've had lots of really nice  
 14. functions in that room. We can fix it up, you  
 15. know, how we want it, conference style. Because  
 16. you all came and we had the "horseshoe" that  
 17. particular day. But we've had some really nice  
 18. events in that particular room, and we want to  
 19. utilize that. The capacity is 300, I believe.  
 20. CHAIRMAN MORELOCK: I think 150 is  
 21. about the max we've had in the past anyway.  
 22. MS. RHONE: It's a good average.  
 23. CHAIRMAN MORELOCK: It's actually  
 24. clever marketing because if you say it's limited  
 25. to 150, it will get people off the dime to

1. register.  
 2. MR. BAUGHMAN: So that would be 150  
 3. not including people like ourselves?  
 4. MS. RHONE: Yes.  
 5. MR. BAUGHMAN: Very good. Okay.  
 6. CHAIRMAN MORELOCK: All right.  
 7. Anything else?  
 8. MR. ROBINSON: Any prearrangements  
 9. for the hotel accommodations?  
 10. MS. RHONE: Yes. That's the  
 11. contract that's being reviewed now.  
 12. CHAIRMAN MORELOCK: Okay.  
 13. MS. RHONE: And once that's --  
 14. MR. ROBINSON: So are you going to  
 15. designate --  
 16. MS. RHONE: A block.  
 17. MR. ROBINSON: You're going to have  
 18. them -- yeah, a block of --  
 19. MS. RHONE: Yes, we'll designate a  
 20. block of rooms and then we'll be able to announce  
 21. that cut-off date and everything in the flier.  
 22. CHAIRMAN MORELOCK: Okay.  
 23. MR. ROBINSON: Okay.  
 24. MR. BAUGHMAN: Have we worked out a  
 25. cost?

1. MS. RHONE: Did you want to address  
 2. that?  
 3. MS. JEFFERSON: Sure. I think you  
 4. have the budget.  
 5. MS. RHONE: Oh, yeah, I've got the  
 6. budget.  
 7. MS. JEFFERSON: Are you talking  
 8. about the total cost?  
 9. MS. RHONE: Or are you talking  
 10. about the cost per --  
 11. MR. BAUGHMAN: No. Just the cost  
 12. for individuals.  
 13. MS. JEFFERSON: Oh.  
 14. MS. RHONE: Oh.  
 15. MR. BAUGHMAN: Not so much the  
 16. rooms, but for the participants.  
 17. MS. JEFFERSON: Oh, well, actually,  
 18. this will be a nice little treat to you all  
 19. because the Department will be paying for it.  
 20. That's why --  
 21. MR. ROBINSON: A hundred percent?  
 22. MS. JEFFERSON: Yes. We'll be  
 23. paying for it. And simply because we have to be  
 24. careful. We've talked about that before.  
 25. CHAIRMAN MORELOCK: Yes.

Page 101

1. MS. JEFFERSON: I know Dr. Johnson  
2. was really concerned, we have to be careful, you  
3. know, how we do things. And if there's no rule  
4. that requires a registration fee, we're not  
5. supposed to request a registration fee from the  
6. public. So since we don't have a rule or anything  
7. that addresses that, then the Department will be  
8. paying that expense.  
9. CHAIRMAN MORELOCK: For all  
10. 150 participants?  
11. MS. JEFFERSON: (Nods head.)  
12. CHAIRMAN MORELOCK: Wow. That is a  
13. gift.  
14. MR. ROBINSON: That is really nice.  
15. MS. JEFFERSON: It's just part of  
16. our training.  
17. CHAIRMAN MORELOCK: Wow. Well,  
18. that will definitely speed up the registration  
19. process.  
20. MS. RHONE: Thank you.  
21. CHAIRMAN MORELOCK: Thank you,  
22. Deborah. That was excellent. And thank you all  
23. for the work you've done. That's pretty  
24. phenomenal.  
25. MR. BAUGHMAN: This is big for us.

Page 102

1. CHAIRMAN MORELOCK: Yeah, it is.  
2. MS. JEFFERSON: We're looking  
3. forward to it.  
4. CHAIRMAN MORELOCK: Very, very  
5. good.  
6. Okay. Item XI -- or X is we have no  
7. rule cases or interpretations today.  
8. And our next meeting will be at the  
9. fall conference, so we've already discussed that.  
10. So before we adjourn, we have some  
11. very important business to take care of that we  
12. kept off the agenda, even though he knows because  
13. he knows everything. But we want to take a few  
14. minutes to honor Dr. Johnson. This will be his  
15. last meeting with us, unfortunately. We had our  
16. sad goodbyes in 2012.  
17. And Dr. Judges had served faithfully  
18. for 11 years, up until then, from 2002 to 2012,  
19. and then he came back in '15 and '16 for a couple  
20. more. So he has served with us for 13 years very  
21. faithfully. We certainly appreciate his expertise  
22. representing academia.  
23. I personally am thankful for his  
24. friendship and mentorship. It's always good to  
25. have colleagues and friends that are good enough

Page 103

1. friends with you to call out your blind spots and  
2. say, "What are you doing?" And, you know, it's  
3. good to have that great accountability.  
4. Dr. Johnson got his BSME, Bachelor of  
5. Science in Mechanical Engineering, from Worcester  
6. Polytechnic Institute in 1973. He went on to  
7. Georgia Institute of Technology in 1974 and got  
8. his master's degree. And then he finished up in  
9. 1978 at Vanderbilt to get his Ph.D. So this man  
10. is very well educated. And I went through his  
11. resume but, man, he's done it all. I mean, it  
12. would take another two hours to go through his  
13. many, many, many accomplishments. So he's very  
14. accomplished and we're so thankful to have him on  
15. our board. We do hate to lose you, but we  
16. certainly understand life goes on and life moves  
17. on.  
18. But some things I did want to say -- and  
19. I'm going to let Kim and Sam and the board -- the  
20. State come up and actually make a presentation to  
21. you. But one thing that I really wanted you to  
22. know, that Dr. Johnson is an ASME fellow. And  
23. you're thinking, "So what? What is that?"  
24. Well, when you put that into context, of  
25. all ASME members, that only 2 to 4 percent of the

Page 104

1. membership will ever achieve an ASME fellow  
2. status, that's very significant. And he received  
3. that in 2001.  
4. He worked at Eastman Chemical Company  
5. for a few years, from 1974 to 1976. And the  
6. balance of his tenure has been in academia at  
7. various universities, currently residing at  
8. Tennessee Tech, where I went to college. I  
9. actually just last week celebrated 31 years of  
10. graduating from there myself.  
11. And so with all of his work, mentoring  
12. young minds and pouring into young people and  
13. challenging them to be all they can be, we're  
14. indebted for your service. So thank you very  
15. much.  
16. DR. JOHNSON: Thank you.  
17. (Applause.)  
18. CHAIRMAN MORELOCK: So I'll let you  
19. step around there and they've got some gifts to  
20. give you.  
21. MS. JEFFERSON: Well, Dr. Johnson,  
22. I think you know how much we appreciate you. And  
23. on behalf of the Department, Commissioner Burns  
24. Phillips -- unfortunately he couldn't come down  
25. because he's in another meeting -- but we wanted

1. to give you this. This is just a small token of  
 2. our appreciation for everything that you've done,  
 3. because we know all the board members are unpaid.  
 4. You-all don't receive any moneys for what you do.  
 5. You take time out of your own schedules to help us  
 6. and to provide your expertise and your skills.  
 7. And we really appreciate it. And so this is just  
 8. a small token.  
 9. Deborah, do you want to read this?  
 10. MS. RHONE: Presented to Dr. Glen  
 11. Johnson in appreciation for 12 years of service as  
 12. a member of the Tennessee Board of Boiler Rules on  
 13. this day, June 15th, 2016.  
 14. DR. JOHNSON: Thank you very much.  
 15. I'm not one for long speeches but I do appreciate  
 16. the collegiality that I've experienced with this  
 17. group. I've made good friends, and I think the  
 18. idea of the citizens board, where there is no  
 19. conversation but rather a love for service and a  
 20. desire to give back, is a very important part of  
 21. government. And I've enjoyed the time I've been  
 22. able to give.  
 23. MS. JEFFERSON: And, actually,  
 24. Carlene was very instrumental in assisting to  
 25. attain this certificate. It's a certificate of

1. appreciation.  
 2. Carlene, if you could just read a  
 3. little bit of that.  
 4. MS. BENNETT: Okay. The State  
 5. Capital by Bill Haslam, Governor, "By virtue of  
 6. the authority vested in me, I hereby confer upon  
 7. Dr. Glen E. Johnson the Certificate of  
 8. Appreciation in recognition of outstanding service  
 9. in the best interest and in the highest traditions  
 10. of the state of Tennessee."  
 11. DR. JOHNSON: Thank you. And thank  
 12. you, Governor Haslam.  
 13. MS. JEFFERSON: I would like to  
 14. take a picture and so we would like to have the  
 15. board come up as well.  
 16. CHAIRMAN MORELOCK: We are  
 17. officially adjourned.  
 18.  
 19. END OF THE PROCEEDINGS.  
 20.  
 21.  
 22.  
 23.  
 24.  
 25.

1. CERTIFICATE  
 2. STATE OF TENNESSEE )  
 3. COUNTY OF WILLIAMSON )  
 4. I, Cassandra M. Beiling, a Notary Public  
 5. in the State of Tennessee, do hereby certify:  
 6.  
 7. That the within is a true and accurate  
 8. transcript of the proceedings taken before the  
 9. Board and the Chief Inspector or the Chief  
 10. Inspector's Designee, Tennessee Department of  
 11. Labor & Workforce Development, Division of  
 12. Workplace Regulations and Compliance, Boiler Unit,  
 13. on the 15th day of June, 2016.  
 14.  
 15. I further certify that I am not related to  
 16. any of the parties to this action, by blood or  
 17. marriage, and that I am in no way interested in  
 18. the outcome of this matter.  
 19.  
 20. IN WITNESS WHEREOF, I have hereunto set my  
 21. hand this 8th day of July, 2016.  
 22.  
 23.  
 24. \_\_\_\_\_  
 25. Cassandra M. Beiling, CCR, LCR# 371  
 Notary Public State at Large  
 My commission expires: 3/15/2020

A				
<b>ability</b> 32:9 90:20	<b>actually</b> 15:25 40:10 48:20 52:11 62:24 64:25 65:18 68:20 68:22 69:11 69:12 78:19 98:23 100:17 103:20 104:9 105:23	<b>after</b> 11:1 26:21 37:5 79:6 79:14 80:3 89:12 96:13	70:23 71:9 75:7 77:7 77:8 77:23 79:10 79:12 82:9 82:17 83:1 87:17 87:19 88:15 90:25 92:18 93:12 93:25 94:3 95:3 95:3 95:4 95:5 97:9 98:16 99:6 100:18 101:9 101:22 103:11 103:25 104:11 104:13 105:3 105:4	51:1 51:13 51:18 51:23 52:6 52:24 53:2 53:4 53:9 53:13 53:15 53:19 59:13 64:23 65:12 65:15
<b>able</b> 4:18 14:2 38:16 45:21 55:24 64:10 64:15 70:2 99:20 105:22	<b>add</b> 7:12 56:17 77:14 77:21 81:12 81:24 89:13 89:15 89:17 89:24 90:10 93:23 95:20	<b>again</b> 6:25 14:19 34:2 36:12 36:23 36:25 38:20 42:20 43:9 43:20 43:25 46:15 47:16 51:14 54:18 55:5 56:10 69:7 70:12 85:7 90:3 96:24	<b>allow</b> 27:13 27:16 59:19 68:21	<b>anticipate</b> 98:3
<b>above</b> 21:22	<b>added</b> 50:17 84:3 90:11	<b>agency</b> 9:18 9:21 15:23 30:13 33:5 33:9 37:5 68:7	<b>allowable</b> 27:13 27:19 31:24	<b>anybody</b> 4:25 66:3 97:11
<b>absence</b> 94:12	<b>adding</b> 85:16	<b>agenda</b> 3:11 7:2 7:2 7:5 7:16 8:10 8:24 95:16 95:18 95:21 102:12	<b>almost</b> 71:13	<b>anything</b> 22:18 23:19 68:3 79:9 93:19 95:21 99:7 101:6
<b>absolutely</b> 20:19 54:23 61:3 91:23 92:10 93:14	<b>addition</b> 12:16 15:22 17:19 38:5 39:4 46:18 88:19	<b>against</b> 92:17	<b>along</b> 15:25	<b>anyway</b> 98:21
<b>abstentions</b> 8:6 35:21 47:12 71:2 83:5 94:7	<b>additional</b> 21:21 23:21 38:2 45:23 46:16 90:22 95:18 96:21	<b>agent</b> 27:17 28:11	<b>already</b> 22:15 42:20 82:20 102:9	<b>anywhere</b> 58:25
<b>academia</b> 102:22 104:6	<b>address</b> 38:24 43:17 100:1	<b>agree</b> 26:17 68:13 79:24 81:23	<b>alteration</b> 30:22 30:25	<b>api</b> 53:22 53:23 53:25 61:10 61:14
<b>accept</b> 7:19 35:2 39:18	<b>additionally</b> 92:17	<b>agreeing</b> 28:18	<b>alterations</b> 29:24 30:21 34:4 47:20	<b>api579</b> 54:7
<b>acceptable</b> 18:19 37:25 38:4	<b>additions</b> 7:15	<b>agreement</b> 81:10	<b>always</b> 11:15 32:22 50:9 82:17 102:24	<b>apologize</b> 20:12 29:8
<b>acceptance</b> 14:23 44:18	<b>addressed</b> 17:5 42:20 66:4	<b>ahead</b> 13:25 14:18 48:1 85:14	<b>ammonia</b> 72:18 85:25 86:6 90:23 91:18	<b>apparatus</b> 92:6
<b>accepted</b> 39:14	<b>addresses</b> 67:19 75:14 101:7	<b>ai</b> 68:8	<b>amount</b> 18:22	<b>apparatuses</b> 93:12
<b>accepting</b> 20:10	<b>adequate</b> 34:18 40:18 40:22 43:23	<b>air</b> 85:25	<b>analysis</b> 27:2	<b>apparent</b> 24:16
<b>access</b> 53:17	<b>adjourn</b> 102:10	<b>alarm</b> 78:7 79:8 90:10	<b>analyze</b> 27:7 45:18	<b>apparently</b> 41:11
<b>accommodations</b> 99:9	<b>adjourned</b> 106:17	<b>alarms</b> 52:8	<b>angles</b> 34:21	<b>appearance</b> 24:19
<b>accomplished</b> 103:14	<b>adjournment</b> 3:23	<b>all</b> 3:24 6:24 7:18 8:1 9:14 10:11 11:11 12:13 14:12 15:2 17:18 18:1 18:6 18:14 20:8 21:6 21:13 22:6 22:18 24:1 26:11 27:5 27:6 28:7 30:15 30:17 31:13 31:14 32:7 32:24 33:5 33:8 34:4 34:5 35:8 35:17 36:4 36:19 37:16 37:24 39:24 44:5 44:20 45:9 45:11 47:7 47:15 47:16 47:22 50:6 51:21 53:15 61:17 61:24 65:20 65:24 66:4 67:2 69:16	<b>ammonia</b> 72:18 85:25 86:6 90:23 91:18	<b>appearances</b> 2:1
<b>accomplishments</b> 103:13	<b>adjusting</b> 84:13		<b>amount</b> 18:22	<b>appears</b> 23:6
<b>accordance</b> 25:5 32:16 37:3	<b>adjustments</b> 59:15 83:25		<b>analyze</b> 27:7 45:18	<b>appendices</b> 66:8 66:10
<b>according</b> 15:18	<b>administrator</b> 2:12 5:22		<b>announced</b> 95:22 96:7 99:20	<b>appendix</b> 43:21 56:6 56:11 56:16 56:20 56:22 57:5 57:8 60:25 61:19 73:13 75:2 77:9 83:18 85:16 89:3 90:6
<b>account</b> 25:13 72:7	<b>adoption</b> 3:11 7:1		<b>announcing</b> 18:13	<b>applause</b> 104:17
<b>accountability</b> 103:3	<b>advance</b> 15:2		<b>announce</b> 95:22 96:7 99:20	<b>application</b> 32:11 33:3 37:12 37:25 58:4
<b>accurate</b> 107:7	<b>advantage</b> 27:18		<b>announcement</b> 8:11 96:3	<b>applied</b> 32:25 33:8
<b>achieve</b> 104:1	<b>advice</b> 66:1		<b>announcements</b> 3:10 4:6 4:16 5:1	<b>apply</b> 32:23 47:18
<b>acid</b> 90:20	<b>affirmative</b> 8:3 47:9 70:24 83:2 94:4		<b>annual</b> 48:3 49:1 49:6 49:7 58:23 70:15	<b>applying</b> 15:21 32:17
<b>acknowledge</b> 52:7	<b>africa</b> 15:9 15:11		<b>annually</b> 58:8 59:6	<b>appreciate</b> 12:13 49:13 56:4 102:21 104:22 105:7 105:15
<b>acknowledgment</b> 78:5	<b>afraid</b> 15:19 15:20 22:9 22:10 33:2 37:2		<b>another</b> 8:11 17:4 37:12 73:21 103:12 104:25	<b>appreciation</b> 105:2 105:11 106:1 106:8
<b>acronym</b> 51:7	<b>african</b> 37:1		<b>antes</b> 6:6 6:6 48:9 48:9 50:22 50:23	<b>appropriate</b> 31:25 <b>appropriately</b> 15:25 19:9 46:9
<b>acs</b> 65:4				
<b>act</b> 14:17				
<b>action</b> 107:16				
<b>activate</b> 51:24				
<b>activated</b> 52:16				
<b>actual</b> 17:15 24:13 39:6 40:19 96:14				

<b>approval</b> 28:7 28:8 28:15 28:15 30:10 30:19 43:25 48:3 69:14 70:1 82:12 86:19 86:22	<b>attain</b> 105:25 <b>attendance</b> 8:12 8:14 95:12 <b>attendant</b> 66:24 77:14 80:14 82:7 84:2 88:7 88:8 89:5	<b>banquet</b> 97:4 <b>base</b> 54:1 54:19 <b>based</b> 23:6 29:19 32:3 32:10 40:7 41:9 46:16 52:23 53:24 54:14 54:25 59:11 59:22 62:22 82:24	<b>before</b> 17:5 28:14 30:22 36:16 49:17 63:12 65:3 65:8 86:10 100:24 102:10 107:8 <b>beginning</b> 8:25 73:12 <b>behalf</b> 14:22 104:23 <b>beiling</b> 1:22 5:7 107:4 107:24 <b>being</b> 16:7 17:3 17:11 25:2 30:3 34:19 38:20 45:22 62:8 63:17 65:10 76:20 77:17 81:3 89:5 90:12 99:11	2:8 2:16 3:19 4:4 5:10 5:14 5:16 5:17 5:19 17:6 25:10 27:15 27:15 28:8 30:22 30:25 47:20 48:13 48:25 49:11 49:16 73:15 73:18 84:10 95:16 96:17 103:15 103:19 105:3 105:12 105:18 106:15 107:9 <b>body</b> 16:3 21:9 <b>boiler</b> 1:2 1:9 2:10 3:2 3:3 3:12 3:19 4:4 5:25 6:10 9:10 10:4 10:5 13:3 14:5 14:20 28:16 29:22 30:18 32:20 35:4 36:9 44:2 48:3 48:10 48:14 49:1 50:14 51:3 51:4 51:24 52:2 52:22 58:14 61:20 62:18 63:6 63:14 63:17 63:22 64:7 64:8 65:5 65:13 65:15 66:17 66:24 68:9 68:10 69:6 69:8 70:1 70:2 70:3 71:6 71:18 72:7 72:13 73:7 73:10 73:16 73:18 73:21 73:22 74:13 74:19 77:13 78:7 78:10 79:17 79:18 79:20 79:21 80:6 80:12 80:14 82:16 83:1 84:1 84:10 84:15 85:16 85:21 86:2 86:4 86:8 88:6 88:7 88:15 88:21 88:22 89:5 89:8 89:18 90:20 90:21 91:9 91:12 91:15 92:25 93:15 93:24 105:12 107:12 <b>boilers</b> 7:11 48:4 48:17 49:6 49:8 50:16 53:25 54:19 58:6 58:7 62:24
<b>approve</b> 46:25 49:21 69:5 74:4 82:7 82:23 84:15 93:22	<b>attendants</b> 73:7 73:11 87:25 <b>attended</b> 66:24 <b>attendee</b> 88:21 <b>attorney</b> 10:21 <b>audience</b> 97:1 <b>audit</b> 88:2 <b>australia</b> 16:11 37:6 37:18 41:7 <b>authority</b> 106:6 <b>authorized</b> 30:13 33:6 37:4 <b>automatically</b> 91:18 91:19 <b>auxillary</b> 88:16 90:21	<b>baseline</b> 88:19 <b>basic</b> 27:3 <b>basically</b> 67:2 70:14 <b>battery</b> 92:24 <b>baughman</b> 2:8 5:19 5:19 7:20 19:12 24:24 34:1 34:7 34:11 35:10 39:22 62:4 62:22 63:5 63:10 63:19 64:21 65:10 65:14 68:4 68:12 68:15 70:12 70:16 74:10 74:12 74:15 74:18 74:21 74:24 75:2 75:5 75:10 75:23 76:5 76:14 76:16 76:19 77:24 78:3 78:15 78:17 78:19 78:23 79:9 79:24 81:1 81:7 82:11 84:25 85:4 88:6 91:8 92:6 92:11 92:14 92:20 93:3 93:8 94:9 97:13 97:17 97:24 98:10 99:2 99:5 99:24 100:11 100:15 101:25	<b>belief</b> 20:10 <b>believe</b> 13:9 16:15 18:24 41:8 41:8 41:11 44:7 44:15 46:13 51:3 57:25 61:2 75:17 75:25 76:2 98:19 <b>believed</b> 40:4 <b>benefit</b> 13:24 <b>bennett</b> 2:15 5:9 5:9 13:16 35:13 82:19 106:4 <b>best</b> 22:23 32:9 62:5 106:9 <b>bet</b> 32:23 <b>better</b> 39:5 <b>beyond</b> 50:17 81:21 <b>bi</b> 48:3 49:7 <b>biannually</b> 61:21 61:22 <b>biennially</b> 61:22 <b>big</b> 29:15 64:16 83:15 101:25 <b>bill</b> 106:5 <b>bit</b> 18:16 21:5 29:1 29:10 58:18 81:4 89:21 106:3 <b>blast</b> 13:18 <b>blind</b> 103:1 <b>block</b> 99:16 99:18 99:20 <b>blood</b> 107:16 <b>blurb</b> 61:14 <b>bms</b> 50:13 51:4 <b>board</b> 1:2 1:9 2:4 2:6	<b>available</b> 7:4 16:21 20:2 20:4 22:3 22:6 22:24 37:14 96:14 <b>average</b> 98:22 <b>aware</b> 34:10 46:6 <b>away</b> 62:15 72:16 <b>aye</b> 8:2 35:8 35:9 35:10 47:8 70:23 82:10 83:1 94:3
<b>approving</b> 76:7 <b>approximately</b> 72:15 95:11 <b>aptech</b> 54:14 <b>area</b> 17:4 48:10 94:25 <b>arise</b> 68:7 <b>armstrong</b> 6:2 6:2 48:11 48:11 <b>around</b> 4:20 5:6 8:12 97:6 104:19 <b>ask</b> 8:16 8:22 19:4 22:2 23:14 55:14 <b>asked</b> 22:17 <b>asking</b> 34:2 51:25 59:1 70:16 <b>asme</b> 15:15 15:21 17:2 18:9 20:6 21:10 21:12 21:14 21:19 21:23 21:25 26:4 26:7 26:13 26:18 27:8 27:11 30:11 32:16 33:14 33:15 37:3 43:15 46:5 46:10 54:22 96:25 103:22 103:25 104:1 <b>aspects</b> 32:24 33:8 <b>assigned</b> 32:2 <b>assigning</b> 31:23 <b>assistance</b> 16:24 95:16 <b>assistant</b> 67:4 <b>assisting</b> 105:24 <b>assurance</b> 32:24 <b>assure</b> 43:2 <b>atmospheric</b> 73:22	<b>B</b> <b>b1</b> 76:11 <b>bachelor</b> 103:4 <b>back</b> 7:3 9:9 25:23 38:1 50:9 52:17 66:11 79:15 79:18 80:13 81:25 83:18 89:1 89:1 102:19 105:20 <b>bad</b> 92:18 <b>bailey</b> 2:13 5:23 5:23 9:6 10:20 11:5 11:13 11:22 12:1 12:4 12:11 35:25 36:2 <b>bakeries</b> 3:5 71:17 72:5 <b>balance</b> 104:6	<b>bear</b> 33:21 <b>become</b> 11:3 <b>been</b> 10:20 11:9 12:23 14:21 22:7 22:10 22:16 23:12 26:15 32:19 32:25 33:8 33:12 34:3 34:8 37:6 39:8 40:7 41:21 43:8 44:15 44:18 46:24 48:16 71:12 72:10 76:6 79:13 79:21 80:6 84:3 98:8 104:6 105:21	<b>believed</b> 40:4 <b>benefit</b> 13:24 <b>bennett</b> 2:15 5:9 5:9 13:16 35:13 82:19 106:4 <b>best</b> 22:23 32:9 62:5 106:9 <b>bet</b> 32:23 <b>better</b> 39:5 <b>beyond</b> 50:17 81:21 <b>bi</b> 48:3 49:7 <b>biannually</b> 61:21 61:22 <b>biennially</b> 61:22 <b>big</b> 29:15 64:16 83:15 101:25 <b>bill</b> 106:5 <b>bit</b> 18:16 21:5 29:1 29:10 58:18 81:4 89:21 106:3 <b>blast</b> 13:18 <b>blind</b> 103:1 <b>block</b> 99:16 99:18 99:20 <b>blood</b> 107:16 <b>blurb</b> 61:14 <b>bms</b> 50:13 51:4 <b>board</b> 1:2 1:9 2:4 2:6	<b>boilers</b> 7:11 48:4 48:17 49:6 49:8 50:16 53:25 54:19 58:6 58:7 62:24

66:17 66:23 69:9 69:24 70:5 71:20 72:10 72:11 72:15 72:20 72:24 73:6 73:11 74:12 74:16 74:17 80:21 84:23 88:9 88:16 88:17 89:10 90:23 91:10 93:25 <b>booked</b> 98:4 <b>both</b> 70:5 70:8 70:9 73:6 89:24 <b>bottom</b> 19:23 20:6 40:2 43:7 <b>boundary</b> 42:25 <b>break</b> 71:11 <b>brian</b> 2:2 5:15 <b>bring</b> 24:24 25:1 25:10 <b>bringing</b> 54:18 <b>bristling</b> 45:3 <b>broke</b> 11:16 <b>brooks</b> 72:9 73:24 <b>brought</b> 17:3 61:1 <b>bsme</b> 103:4 <b>buckman</b> 14:9 14:22 16:11 36:13 37:7 <b>budget</b> 95:8 100:4 100:6 <b>build</b> 29:16 54:14 55:25 <b>building</b> 3:21 4:11 4:12 4:13 4:14 95:1 95:4 <b>buildings</b> 64:24 <b>built</b> 26:4 26:7 26:19 27:11 32:16 42:24 73:17 73:19 85:19 <b>burner</b> 63:11 73:25 76:12 <b>burns</b> 104:23 <b>business</b> 3:13 3:15 9:1 10:18 14:5 22:8 94:17 102:11 <b>button</b> 91:15 91:17 91:25 <b>bypass</b> 52:9 52:16 64:24 <b>bypasses</b> 52:12	<b>C</b>	<b>cents</b> 81:7 <b>certain</b> 52:8 52:10 53:21 <b>certainly</b> 7:3 54:20 102:21 103:16 <b>certificate</b> 15:12 17:9 19:24 20:1 26:10 59:5 59:10 59:16 59:21 60:1 60:6 60:11 60:12 60:20 60:22 61:20 105:25 105:25 106:7 <b>certificates</b> 96:1 <b>certification</b> 17:11 <b>certifications</b> 17:18 49:1 <b>certified</b> 68:24 <b>certify</b> 33:10 107:5 107:15 <b>certifying</b> 20:9 <b>cfc</b> 19:22 <b>chairman</b> 2:2 4:2 5:3 5:15 6:24 7:18 7:21 7:23 8:1 8:4 8:6 8:9 9:4 9:7 10:8 10:11 10:16 11:4 11:12 11:21 11:25 12:3 12:10 12:12 13:2 13:12 13:15 13:20 13:23 19:10 19:13 19:16 19:22 24:22 26:1 29:6 29:9 30:7 33:24 34:22 35:1 35:7 35:11 35:14 35:17 35:20 35:23 36:4 36:8 36:19 36:22 39:16 39:20 39:23 42:2 42:8 42:12 42:15 42:18 44:23 46:23 47:6 47:10 47:12 47:15 47:22 47:25 49:17 49:23 50:2 50:6 51:8 54:2 54:6 54:10 54:20 54:24 55:2 55:7 55:19 56:9 56:14 56:19 56:22 57:1 57:4 58:22 59:4 59:9 59:18 60:8 60:14	60:17 60:25 61:4 62:2 65:21 65:24 66:7 66:10 67:7 67:11 67:23 68:1 69:1 69:4 69:19 69:22 70:14 70:19 70:22 70:25 71:2 71:5 71:9 71:16 71:25 74:2 74:5 74:8 75:3 76:25 77:20 78:13 78:16 78:21 80:4 80:11 80:19 80:22 81:6 81:11 81:16 81:20 82:2 82:5 82:14 82:21 83:3 83:5 83:8 83:11 83:19 84:8 84:12 84:18 85:2 85:5 85:13 86:10 86:13 86:16 88:4 88:25 89:19 90:1 90:25 91:4 91:21 91:24 92:2 92:5 93:9 93:19 93:21 94:5 94:7 94:11 94:16 96:9 96:16 96:20 97:2 97:7 97:11 98:20 98:23 99:6 99:12 99:22 100:25 101:9 101:12 101:17 101:21 102:1 102:4 104:18 106:16 <b>chairs</b> 14:15 <b>challenging</b> 104:13 <b>change</b> 7:6 7:8 12:23 56:7 61:21 72:21 84:3 84:9 <b>changed</b> 27:13 <b>changes</b> 7:16 11:11 11:15 84:6 84:13 90:13 <b>chapman</b> 2:10 5:11 5:12 9:13 10:9 30:6 59:7 70:7 70:10 <b>characteristic</b> 24:8 <b>characterization</b> 62:17 63:4 <b>charles</b> 6:22 6:22 <b>chart</b> 77:5	<b>charts</b> 84:13 <b>check</b> 13:5 42:22 94:1 <b>checklist</b> 48:15 49:9 66:1 66:4 66:20 66:22 67:18 <b>chemical</b> 6:3 104:4 <b>chief</b> 2:10 3:12 5:11 5:12 9:10 9:13 9:15 10:9 10:10 10:14 28:9 30:6 30:18 44:2 48:7 59:7 67:14 68:10 69:7 70:1 70:7 70:10 82:16 82:25 83:12 85:12 107:9 107:9 <b>china</b> 46:3 <b>chooses</b> 28:12 <b>circled</b> 57:9 57:13 <b>circuit</b> 92:9 <b>citizens</b> 105:18 <b>civil</b> 15:21 <b>clarify</b> 67:23 <b>clarifying</b> 18:12 <b>classes</b> 77:17 <b>clean</b> 29:10 <b>clear</b> 84:5 98:12 <b>clearing</b> 79:8 79:16 <b>clearly</b> 77:12 <b>cleaver</b> 72:9 73:24 <b>clever</b> 98:24 <b>client</b> 30:9 <b>climate</b> 22:11 <b>close</b> 30:8 90:24 <b>code</b> 3:2 3:3 5:25 9:23 12:17 14:6 14:20 15:20 15:21 17:2 18:9 20:9 26:4 26:7 26:9 26:12 26:18 27:8 27:12 27:13 27:22 27:24 29:16 30:11 31:17 32:23 32:25 33:3 33:8 33:10 36:9 38:8 38:10 42:22 43:9 43:15 43:16 46:5 55:17 66:14 <b>codes</b> 75:6 90:10 <b>coil</b> 39:1 <b>colleagues</b> 102:25
---	----------	--	---	--

<p><b>collect</b> 4:21  <b>college</b> 104:8  <b>collegiality</b> 105:16  <b>column</b> 85:17  <b>comb</b> 29:23  <b>comes</b> 8:13 13:1 28:4  52:4 68:8 77:25  83:13  <b>coming</b> 4:9 20:13  55:9  <b>comment</b> 24:15 26:2  26:17 34:2 49:18  51:9 77:3 77:25  81:23 89:1 89:7  89:12 90:8  <b>comments</b> 10:13  11:14 11:16 19:18  27:1 30:9 31:3  33:25 35:5 39:25  42:16 42:19 44:6  44:22 47:3 49:16  50:7 62:3 65:22  68:2 69:2 70:20  75:4 77:1 77:3  77:23 82:3 82:8  83:14 88:5 89:3  91:5 91:6 93:10  97:12  <b>commission</b> 107:25  <b>commissioner</b>  104:23  <b>committee</b> 95:6  <b>communicate</b> 79:22  <b>communication</b> 84:5  <b>communications</b>  87:19  <b>company</b> 36:24  88:14 104:4  <b>comparison</b> 18:20  <b>complete</b> 33:4 39:12  69:13 75:15  <b>completed</b> 16:9  <b>completing</b> 69:10  <b>completion</b> 37:6  <b>compliance</b> 15:15  15:20 20:9 26:10  33:10 54:25 107:12  <b>comply</b> 54:21  <b>component</b> 63:20  76:22</p>	<p><b>components</b> 27:7  66:5 75:7  <b>comprehensive</b>  61:25  <b>compress</b> 37:23 38:2  38:24 45:2 45:11  <b>compressed</b> 27:3  27:23 42:24 43:5  <b>concern</b> 11:15 25:1  26:16 46:15  <b>concerned</b> 24:12  101:2  <b>concerning</b> 44:4  <b>concerns</b> 25:9 28:20  45:16  <b>concludes</b> 94:16  <b>condenser</b> 28:23  <b>condition</b> 18:23 23:4  23:5 23:23 33:18  37:20 38:5 43:14  52:3 64:6 81:15  <b>conditions</b> 18:3  19:25 30:10 38:6  58:15  <b>cone</b> 91:16  <b>confer</b> 106:6  <b>conference</b> 3:17 10:6  94:20 94:22 95:6  95:22 96:5 96:15  96:17 98:15 102:9  <b>confident</b> 21:23  33:17  <b>confirmation</b> 34:3  <b>conflict</b> 8:20 8:23  82:20 85:1 85:6  94:9  <b>conflicts</b> 35:13 35:15  36:17 50:1 50:3  71:23 85:3  <b>confusion</b> 59:20  <b>conjunction</b> 53:23  <b>consent</b> 68:23  <b>conservative</b> 31:24  <b>consider</b> 17:6 19:4  38:17 41:24  <b>considerable</b> 43:18  <b>consideration</b> 16:25  <b>considerations</b> 39:8  39:13  <b>considered</b> 37:9 40:6</p>	<p>41:9  <b>constraints</b> 31:1  47:17  <b>constructed</b> 15:9  25:5 36:24 36:24  <b>construction</b> 15:12  15:16 16:6 17:9  32:1 47:2 90:16  90:17 91:2  <b>consumers</b> 64:17  <b>contact</b> 13:9 83:25  84:2  <b>contacted</b> 16:23  <b>contains</b> 20:11  <b>context</b> 103:24  <b>contingency</b> 82:24  <b>contingent</b> 28:9  28:16 35:3 44:1  47:1 69:7 69:14  82:12 82:15 82:17  93:24 93:25  <b>continue</b> 93:13  <b>continued</b> 31:9 54:2  54:7  <b>contract</b> 95:13 99:11  <b>contractors</b> 55:11  55:23  <b>control</b> 53:5 72:19  72:23 72:23 73:3  73:25 75:12 90:12  92:1 92:25 93:4  93:6  <b>controller</b> 76:12  82:13  <b>controls</b> 73:23 92:18  <b>conversation</b> 60:15  105:19  <b>converter</b> 91:16  <b>cooling</b> 93:12 93:16  <b>coordinates</b> 18:7  <b>copy</b> 17:14 19:23  20:12 57:9 80:23  <b>corporate</b> 15:5 16:14  <b>correct</b> 51:19 54:3  54:4 55:4 58:4 59:3  59:6 59:8 59:13  60:6 63:8 63:9  63:18 76:1 76:18  88:3 97:15  <b>correctly</b> 20:13</p>	<p><b>correspond</b> 28:1  <b>correspondence</b>  95:25 96:2  <b>corrosion</b> 43:18  <b>corrosive</b> 44:13  <b>cost</b> 99:25 100:8  100:10 100:11  <b>couldn</b> 11:23 57:12  104:24  <b>counsel</b> 2:14 5:24  <b>country</b> 25:3  <b>county</b> 107:3  <b>couple</b> 14:15 19:19  22:11 31:4 41:20  66:12 77:2 102:19  <b>course</b> 65:2 65:5  88:17 94:24 95:18  95:23 96:3  <b>court</b> 1:23 5:8  <b>cover</b> 15:4 15:19  48:1  <b>covered</b> 33:8  <b>cracked</b> 30:16  <b>create</b> 58:20 62:7  62:10  <b>critical</b> 63:20  <b>cropped</b> 19:22  <b>csd</b> 50:18 75:7  <b>ct</b> 3:20  <b>cubic</b> 26:6  <b>cues</b> 40:7  <b>current</b> 23:3 23:23  32:9 37:19 57:11  <b>currently</b> 49:5 84:1  87:14 90:16 90:17  90:23 91:1 95:13  104:7  <b>cut</b> 92:20 99:21  <b>cutoff</b> 51:21 53:11  <b>cycle</b> 93:17  <b>cycles</b> 62:7  <b>cycling</b> 62:10 63:1</p>	<p>60:7 66:6 73:17  73:19 85:19 99:21  <b>dave</b> 5:19 68:14  <b>david</b> 2:8 62:6 64:11  <b>day</b> 67:5 67:6 96:10  98:17 105:13  107:13 107:21  <b>days</b> 11:1 96:6  <b>dcs</b> 52:7 52:22 52:22  53:5 53:16 65:16  67:1 92:4  <b>deadline</b> 29:4  <b>deal</b> 40:21  <b>deborah</b> 6:10 60:2  60:5 94:19 101:22  105:9  <b>decided</b> 16:15 37:10  72:21  <b>dedicated</b> 72:24  76:13  <b>define</b> 24:6 50:13  <b>defined</b> 51:11  <b>definitely</b> 46:22  101:18  <b>degradation</b> 64:1  <b>degree</b> 103:8  <b>degrees</b> 86:2  <b>delinquent</b> 9:20  <b>demonstrate</b> 40:17  <b>demonstrations</b>  21:18  <b>department</b> 1:1 3:20  6:13 67:15 95:1  100:19 101:7  104:23 107:10  <b>depth</b> 23:9 37:15  <b>deputy</b> 28:11  <b>describe</b> 79:5  <b>describes</b> 15:5  <b>description</b> 17:15  76:11  <b>descriptions</b> 77:10  77:18  <b>design</b> 18:10 18:11  18:19 27:12 27:14  27:23 34:13 34:16  34:20 38:11 39:1  42:23  <b>designate</b> 14:6 36:10  99:15 99:19</p>
--	--	--	---	---

---

**D**


---

<p><b>designated</b> 28:11 88:9</p> <p><b>designation</b> 14:24 19:8</p> <p><b>designed</b> 15:9 15:14 27:11 28:24 38:23</p> <p><b>designee</b> 107:10</p> <p><b>desire</b> 105:20</p> <p><b>detail</b> 24:11 77:12 78:14 79:4</p> <p><b>detailed</b> 17:21 45:1</p> <p><b>development</b> 1:1 3:21 107:11</p> <p><b>dictated</b> 79:13 79:14</p> <p><b>didn</b> 24:6 27:2 27:5 38:14 41:23 45:20 46:9 68:16 68:21 75:12 77:12</p> <p><b>difference</b> 33:1</p> <p><b>different</b> 16:17 38:22 91:10 96:6</p> <p><b>difficult</b> 22:14 42:6 42:9 55:22</p> <p><b>diligent</b> 33:12</p> <p><b>dime</b> 98:25</p> <p><b>dimensional</b> 45:20 46:17</p> <p><b>direct</b> 21:11</p> <p><b>directive</b> 16:2 20:24 21:8</p> <p><b>directly</b> 57:25</p> <p><b>dirty</b> 45:7</p> <p><b>disaster</b> 4:10</p> <p><b>disclaimer</b> 20:7</p> <p><b>disconnect</b> 80:5</p> <p><b>discontinues</b> 91:18</p> <p><b>discrepancies</b> 77:6</p> <p><b>discuss</b> 4:7</p> <p><b>discussed</b> 36:25 68:16 102:9</p> <p><b>discussion</b> 3:16 7:24 8:18 9:3 19:17 29:15 35:5 39:25 49:24 49:25 74:9 81:8 86:17 94:18</p> <p><b>division</b> 15:15 37:3 43:21 95:14 107:11</p> <p><b>divisional</b> 57:10</p> <p><b>doctor</b> 4:19</p> <p><b>document</b> 21:20</p>	<p>23:25 31:16 39:3 48:25 49:3 49:13 52:18</p> <p><b>documentation</b> 16:20 21:16 23:10 23:11 25:3 25:19 26:16 28:5 28:5 28:16 31:19 32:7 37:14 38:18 39:11 44:5 48:24 49:9 75:20</p> <p><b>documented</b> 29:25 41:19 43:11</p> <p><b>documents</b> 54:15 95:24</p> <p><b>doesn</b> 30:2 93:15</p> <p><b>doing</b> 10:7 12:8 14:1 20:9 24:2 24:4 31:12 40:8 44:16 57:18 62:18 64:25 87:3 90:2 103:2</p> <p><b>domenic</b> 4:17</p> <p><b>don</b> 7:2 13:2 13:4 20:16 22:7 24:2 24:14 24:24 32:23 32:24 41:7 44:15 44:19 75:13 77:7 81:17 101:6 105:4</p> <p><b>done</b> 16:1 19:7 26:15 27:23 30:4 30:14 33:14 33:19 42:21 59:22 63:13 79:10 101:23 103:11 105:2</p> <p><b>dossier</b> 22:4</p> <p><b>down</b> 28:4 51:25 55:16 62:9 62:12 64:3 64:10 64:15 66:18 77:25 80:6 80:12 80:18 81:22 86:4 91:12 91:22 92:7 104:24</p> <p><b>download</b> 13:7</p> <p><b>downtime</b> 62:8</p> <p><b>dr</b> 2:6 4:17 5:17 7:22 19:15 25:12 25:17 25:23 35:9 39:18 49:20 74:7 86:15 101:1 102:14 102:17 103:4</p>	<p>103:22 104:16 104:21 105:10 105:14 106:7 106:11</p> <p><b>draft</b> 95:16</p> <p><b>drainage</b> 34:18</p> <p><b>drained</b> 34:19</p> <p><b>drawing</b> 22:20 22:23 39:6</p> <p><b>drawings</b> 39:5</p> <p><b>drive</b> 3:22</p> <p><b>ducks</b> 81:14</p> <p><b>during</b> 8:17 37:17 41:15 46:1 60:12 62:16 62:18 62:21 63:4</p> <p><b>durm</b> 6:12 6:12</p> <p><b>duties</b> 77:10 77:13 80:14 89:5</p> <hr/> <p style="text-align: center;"><b>E</b></p> <hr/> <p><b>e3404</b> 85:17</p> <p><b>each</b> 51:16 65:12 67:5</p> <p><b>easier</b> 12:18</p> <p><b>easily</b> 21:24</p> <p><b>eastman</b> 104:4</p> <p><b>economic</b> 22:11</p> <p><b>edition</b> 15:17 27:8 27:22 27:24 42:22</p> <p><b>editorial</b> 51:9 51:10 56:15 77:3 84:12</p> <p><b>educated</b> 103:10</p> <p><b>ee</b> 43:21</p> <p><b>effect</b> 11:19 11:24 62:10</p> <p><b>effective</b> 11:3 11:6</p> <p><b>efforts</b> 12:13 49:14</p> <p><b>either</b> 4:12 12:2 31:17 34:10 80:24</p> <p><b>electrodes</b> 44:11</p> <p><b>else</b> 42:1 44:8 68:3 93:19 99:7</p> <p><b>email</b> 4:18 13:4 13:9 13:11 13:18 13:18 68:23</p> <p><b>emergency</b> 4:10 30:24 78:1 80:7 80:12 80:17 91:9 91:13</p>	<p><b>employment</b> 31:6</p> <p><b>end</b> 4:21 28:7 73:12 79:3 97:6 106:19</p> <p><b>ended</b> 25:7</p> <p><b>ends</b> 78:6 78:8</p> <p><b>engaged</b> 14:21 23:23</p> <p><b>engineer</b> 2:6 18:10 31:7 38:10 39:9 72:18</p> <p><b>engineering</b> 6:21 6:23 15:11 31:20 31:23 72:2 85:8 103:5</p> <p><b>enjoyed</b> 105:21</p> <p><b>enough</b> 45:20 102:25</p> <p><b>ensure</b> 84:4</p> <p><b>entertain</b> 44:10</p> <p><b>equipment</b> 14:9 16:1 16:23 20:24 36:13 62:8 62:13 62:13 63:2 63:25 76:11 89:9</p> <p><b>equipped</b> 51:22</p> <p><b>equivalence</b> 18:13</p> <p><b>eroded</b> 40:13 40:15</p> <p><b>especially</b> 4:8 31:6 53:12</p> <p><b>esq</b> 2:11 2:13</p> <p><b>essential</b> 21:21</p> <p><b>eugene</b> 2:4 5:13 9:8 26:16 43:6 55:9 58:2 82:21</p> <p><b>europe</b> 16:2</p> <p><b>evaluating</b> 49:15</p> <p><b>evaluations</b> 23:15 23:16 54:11</p> <p><b>even</b> 22:7 24:6 26:2 26:18 28:13 58:13 92:15 102:12</p> <p><b>event</b> 4:9</p> <p><b>events</b> 62:18 98:18</p> <p><b>ever</b> 104:1</p> <p><b>evergreening</b> 48:21</p> <p><b>every</b> 4:7 31:20 31:21 60:9 66:16 67:5 89:21</p> <p><b>everybody</b> 4:3 5:6 6:25 42:19 71:10</p> <p><b>everything</b> 14:1 18:18 25:17 27:5</p>	<p>33:22 38:17 45:12 45:13 65:7 66:6 99:21 102:13 105:2</p> <p><b>evidence</b> 20:17 32:10</p> <p><b>exact</b> 11:6 92:8</p> <p><b>exactly</b> 57:24 97:20</p> <p><b>examination</b> 17:22 17:23 24:3 24:17 45:6</p> <p><b>examiners</b> 21:19</p> <p><b>examining</b> 24:1</p> <p><b>example</b> 21:12</p> <p><b>exceed</b> 43:3</p> <p><b>exceeding</b> 22:1</p> <p><b>excellent</b> 81:22 101:22</p> <p><b>except</b> 11:11 64:3</p> <p><b>exception</b> 15:21 32:17</p> <p><b>excess</b> 40:20</p> <p><b>exchanger</b> 14:8 14:23 15:4 15:6 15:7 15:8 15:10 16:14 17:15 17:25 18:23 23:4 25:5 27:4 28:22 29:12 33:18 34:6 36:25 38:11 47:18 86:5</p> <p><b>excited</b> 12:19 96:7</p> <p><b>exciting</b> 94:23 95:19</p> <p><b>execute</b> 70:5</p> <p><b>execution</b> 12:24</p> <p><b>exempt</b> 26:7</p> <p><b>existence</b> 22:13</p> <p><b>existing</b> 7:10 7:14 70:3 84:22 86:25 93:23</p> <p><b>expansion</b> 27:4</p> <p><b>expense</b> 101:8</p> <p><b>experience</b> 22:10</p> <p><b>experienced</b> 84:1 105:16</p> <p><b>expert</b> 32:19</p> <p><b>expertise</b> 25:10 102:21 105:6</p> <p><b>expiration</b> 60:1 60:7</p> <p><b>expired</b> 57:11</p> <p><b>expires</b> 107:25</p> <p><b>explain</b> 44:25 85:21</p> <p><b>extend</b> 54:12 63:21</p>
--	---	--	---	--

<p><b>extending</b> 63:23 70:13</p> <p><b>extends</b> 58:23</p> <p><b>extension</b> 68:13</p> <p><b>extensive</b> 31:12</p> <p><b>extent</b> 22:6 24:2 31:2 44:6 68:2 91:5</p> <p><b>external</b> 40:11 41:1 41:10 42:4 56:17 57:18 58:9 58:10 58:14 59:11 61:9 66:17 68:9</p> <p><b>extinguish</b> 86:7</p> <p><b>extra</b> 51:16 51:17</p> <hr/> <p style="text-align: center;"><b>F</b></p> <hr/> <p><b>facility</b> 14:10 14:25 16:6 16:10 16:13 16:16 36:14 37:7 37:11 37:18 49:2 82:18 83:23</p> <p><b>fact</b> 17:2 21:10 22:16 81:17</p> <p><b>fahrenheit</b> 86:3</p> <p><b>fail</b> 52:3 66:17</p> <p><b>faithfully</b> 102:17 102:21</p> <p><b>fall</b> 3:17 10:5 54:1 69:25 88:11 94:20 94:22 102:9</p> <p><b>falls</b> 81:4</p> <p><b>familiar</b> 20:24</p> <p><b>family</b> 4:24</p> <p><b>fans</b> 93:12</p> <p><b>far</b> 4:5 4:16 11:9 24:25 28:5 62:8 63:10 65:19 79:7 79:9 79:20 85:22</p> <p><b>favor</b> 8:2 35:8 47:7 70:23 82:9 83:1 94:3</p> <p><b>fax</b> 67:20</p> <p><b>fd</b> 93:15</p> <p><b>fee</b> 11:11 11:18 11:24 12:8 101:4 101:5</p> <p><b>feed</b> 73:22 73:22 92:21 92:22 92:23 93:2 93:3</p> <p><b>feel</b> 26:8 28:2 33:17 62:14 64:5 64:20</p>	<p>81:1 81:9</p> <p><b>fees</b> 11:15</p> <p><b>feet</b> 26:6 72:16</p> <p><b>fellow</b> 103:22 104:1</p> <p><b>felt</b> 40:15 43:7 44:19</p> <p><b>few</b> 50:12 64:15 65:25 102:13 104:5</p> <p><b>field</b> 69:13</p> <p><b>fieldstone</b> 1:23</p> <p><b>figure</b> 16:22 72:12</p> <p><b>figured</b> 11:13 12:4 61:13</p> <p><b>filled</b> 34:19</p> <p><b>final</b> 46:19</p> <p><b>financing</b> 95:8</p> <p><b>find</b> 17:13 18:6 20:6 61:5</p> <p><b>fine</b> 29:23 61:15 66:11 77:22</p> <p><b>finished</b> 103:8</p> <p><b>fire</b> 74:21 74:25 91:10</p> <p><b>fired</b> 62:13</p> <p><b>first</b> 14:5 42:2 43:16 50:14 69:25 70:5 95:2 97:18 97:18</p> <p><b>fiscal</b> 11:20</p> <p><b>fitness</b> 24:18 45:6 54:11</p> <p><b>five</b> 96:5</p> <p><b>fix</b> 60:19 90:7 98:14</p> <p><b>fixed</b> 28:24</p> <p><b>fixing</b> 30:16</p> <p><b>flags</b> 32:18</p> <p><b>flange</b> 45:18 45:19 46:18</p> <p><b>flanges</b> 45:16 45:17 46:4 46:5 46:13</p> <p><b>flex</b> 72:9 74:17</p> <p><b>flier</b> 99:21</p> <p><b>fliers</b> 97:22</p> <p><b>flip</b> 52:11</p> <p><b>floor</b> 19:17 39:24 49:24 95:2</p> <p><b>florida</b> 14:21</p> <p><b>flow</b> 28:24 91:18</p> <p><b>folks</b> 13:10</p> <p><b>follow</b> 46:19 55:17</p> <p><b>following</b> 11:20 18:8</p> <p><b>follows</b> 27:1</p>	<p><b>force</b> 55:3</p> <p><b>foreign</b> 14:7 36:11</p> <p><b>forged</b> 46:4</p> <p><b>forgings</b> 46:4</p> <p><b>forgive</b> 57:7 76:8 87:11</p> <p><b>form</b> 19:25 49:9</p> <p><b>formed</b> 95:7</p> <p><b>former</b> 68:10</p> <p><b>forth</b> 63:11 79:18</p> <p><b>forward</b> 48:24 49:4 51:11 102:3</p> <p><b>found</b> 18:3 31:14 31:15 43:4 62:23 63:22</p> <p><b>four</b> 51:19 84:22 87:19 93:25</p> <p><b>fourth</b> 7:12 85:17 93:24</p> <p><b>frame</b> 11:23</p> <p><b>franklin</b> 1:24</p> <p><b>french</b> 3:21</p> <p><b>frequency</b> 49:6 49:8 54:13 59:17 59:17 69:6 70:6 70:13 71:7</p> <p><b>friday</b> 97:5</p> <p><b>friendly</b> 12:16</p> <p><b>friends</b> 102:25 103:1 105:17</p> <p><b>friendship</b> 102:24</p> <p><b>front</b> 65:12 66:9 73:2</p> <p><b>fsc</b> 52:24 53:2 65:3</p> <p><b>fuel</b> 91:10 92:21</p> <p><b>full</b> 33:4 45:11 83:24</p> <p><b>fully</b> 32:6 66:24</p> <p><b>function</b> 21:7</p> <p><b>functions</b> 98:14</p> <p><b>funded</b> 10:4</p> <p><b>further</b> 24:17 58:13 79:14 88:13 107:15</p> <p><b>future</b> 49:4</p> <hr/> <p style="text-align: center;"><b>G</b></p> <hr/> <p><b>gain</b> 70:6</p> <p><b>gap</b> 33:6</p> <p><b>gas</b> 51:21 53:11 53:11 86:3</p> <p><b>gauge</b> 23:23</p> <p><b>gauze</b> 86:1</p>	<p><b>gave</b> 89:7</p> <p><b>general</b> 10:22 24:8 25:8 41:22</p> <p><b>generally</b> 24:2 25:5 25:6 25:13</p> <p><b>generate</b> 11:16</p> <p><b>generated</b> 18:21 41:6 49:10 85:25</p> <p><b>generates</b> 86:2</p> <p><b>generation</b> 31:13</p> <p><b>gentlemen</b> 47:24 71:5</p> <p><b>george</b> 1:23 5:8</p> <p><b>georgia</b> 103:7</p> <p><b>get</b> 8:21 12:14 26:10 29:15 30:14 60:9 68:23 70:1 70:9 71:11 75:16 76:3 79:14 87:16 88:24 98:1 98:3 98:4 98:25 103:9</p> <p><b>gets</b> 4:22</p> <p><b>getting</b> 14:13 16:24 46:4</p> <p><b>gift</b> 101:13</p> <p><b>gifts</b> 104:19</p> <p><b>give</b> 42:18 57:9 68:22 71:10 94:19 104:20 105:1 105:20 105:22</p> <p><b>given</b> 11:22 19:23 22:7 22:16 83:14</p> <p><b>giving</b> 9:18 9:22</p> <p><b>glen</b> 2:6 5:17 105:10 106:7</p> <p><b>go</b> 4:12 4:13 4:16 5:6 9:9 11:19 11:24 12:7 13:17 13:24 24:2 24:11 28:12 29:23 30:12 30:18 48:1 58:13 64:14 70:15 80:24 85:13 85:20 89:20 103:12</p> <p><b>goes</b> 28:5 28:14 52:2 56:13 65:8 103:16</p> <p><b>going</b> 4:19 7:12 9:6 12:1 12:15 12:15 12:17 18:12 25:23 26:9 27:16 30:2 35:7 35:25 39:7</p>	<p>43:20 48:24 49:4 50:21 51:11 52:23 55:3 57:9 59:15 60:19 65:18 68:22 69:11 69:12 70:22 71:10 78:9 78:24 78:24 78:25 81:21 82:9 93:5 94:19 94:24 95:4 95:10 95:20 96:3 96:5 97:14 97:18 97:20 97:22 99:14 99:17 103:19</p> <p><b>gone</b> 26:20 32:8 79:16</p> <p><b>good</b> 4:2 12:7 12:12 12:13 13:21 18:23 22:20 23:6 25:19 32:12 34:8 45:10 45:13 45:18 47:21 48:6 48:13 53:14 61:25 63:24 65:14 66:1 70:17 71:25 80:24 82:14 82:15 90:13 93:8 97:8 98:8 98:22 99:5 102:5 102:24 102:25 103:3 105:17</p> <p><b>goodbyes</b> 102:16</p> <p><b>got</b> 10:22 11:23 14:14 22:23 23:11 48:17 51:4 51:16 51:17 57:12 58:9 58:17 61:23 65:25 67:1 75:6 76:20 81:2 81:4 81:13 91:25 93:22 95:17 100:5 103:4 103:7 104:19</p> <p><b>gotten</b> 19:21 83:24</p> <p><b>government</b> 105:21</p> <p><b>governor</b> 10:21 106:5 106:12</p> <p><b>gracious</b> 71:12</p> <p><b>graduating</b> 104:10</p> <p><b>grammar</b> 28:20</p> <p><b>granting</b> 19:4</p> <p><b>grasp</b> 98:2</p> <p><b>great</b> 12:20 40:21</p>
--	---	--	---	---

90:11 103:3 <b>greater</b> 31:17 37:15 41:22 <b>greenville</b> 84:23 <b>gross</b> 6:4 6:4 12:22 12:22 48:6 48:7 48:13 50:11 50:21 50:24 51:6 51:12 54:4 54:23 55:1 55:4 55:8 55:11 55:14 55:21 56:4 56:24 57:14 57:17 57:22 58:2 58:11 58:19 59:2 61:3 61:6 61:16 61:23 62:6 63:1 63:9 63:16 63:25 66:7 67:3 67:10 67:22 67:25 68:6 68:14 68:19 69:17 69:20 69:23 70:9 70:11 71:8 <b>group</b> 53:16 65:4 105:17 <b>growing</b> 83:23 <b>guess</b> 19:21 28:20 86:8 <b>guests</b> 48:14 95:5 <b>guidelines</b> 52:15 61:10 <b>gulfport</b> 85:18 <b>guys</b> 23:15 53:22 57:25 95:20	85:11 85:11 87:18 87:24 88:3 90:5 <b>hartford</b> 32:20 <b>haslam</b> 106:5 106:12 <b>hasty</b> 29:5 <b>hate</b> 103:15 <b>haven</b> 13:16 83:24 87:14 87:23 88:1 <b>having</b> 22:10 25:8 32:18 <b>hawk</b> 73:24 75:6 76:3 76:13 <b>head</b> 40:2 43:7 45:8 45:14 93:7 101:11 <b>hear</b> 13:25 14:3 <b>heard</b> 97:15 <b>hearing</b> 7:19 10:16 12:6 12:8 47:6 82:5 93:21 97:10 <b>heart</b> 75:11 76:12 <b>heat</b> 14:8 14:23 15:3 15:6 15:7 15:8 15:10 16:14 17:15 17:25 18:23 23:4 27:4 28:22 28:24 34:6 36:25 38:11 47:17 85:16 85:22 85:24 86:7 88:17 90:22 91:9 91:12 91:17 91:19 93:1 93:24 <b>held</b> 94:25 <b>helicoil</b> 40:13 40:15 <b>help</b> 26:15 83:12 83:15 105:5 <b>helpful</b> 77:15 <b>helps</b> 67:8 <b>hence</b> 46:10 <b>hereby</b> 106:6 107:5 <b>hereunto</b> 107:20 <b>hey</b> 55:15 <b>high</b> 51:20 53:11 58:6 58:6 71:20 84:23 92:15 <b>higher</b> 27:13 27:18 <b>highest</b> 106:9 <b>hired</b> 72:4 88:14 <b>historical</b> 23:1 <b>hit</b> 29:17 91:17 93:5 93:11	<b>holder</b> 30:14 <b>honest</b> 8:22 82:22 <b>honor</b> 102:14 <b>hope</b> 29:13 <b>hopefully</b> 18:12 18:17 18:19 23:5 46:14 <b>horseshoe</b> 98:16 <b>hospital</b> 4:23 <b>host</b> 94:24 95:10 <b>hotel</b> 95:10 95:13 99:9 <b>hour</b> 71:13 71:13 <b>hours</b> 88:18 103:12 <b>house</b> 95:11 <b>housekeeping</b> 8:15 <b>how</b> 20:24 24:14 49:15 57:13 66:4 70:13 81:9 89:9 91:12 97:17 98:15 101:3 104:22 <b>however</b> 26:17 64:18 <b>huge</b> 32:18 <b>hundred</b> 100:21 <b>hydrostatic</b> 28:13	<b>inadequate</b> 33:15 <b>inc</b> 36:14 85:19 <b>inch</b> 43:22 <b>inches</b> 43:20 43:20 <b>incident</b> 62:16 62:21 63:3 <b>include</b> 38:12 66:1 84:4 96:2 <b>included</b> 15:13 17:8 17:13 18:1 37:15 38:25 39:3 39:6 <b>including</b> 19:7 23:24 27:4 37:23 38:7 39:5 45:11 99:3 <b>incorporate</b> 84:6 <b>increase</b> 12:9 62:25 <b>increases</b> 11:11 11:18 <b>increasing</b> 64:2 <b>indebted</b> 104:14 <b>independent</b> 52:2 52:21 93:4 <b>indicate</b> 40:14 67:6 <b>indicating</b> 35:19 <b>individual</b> 67:12 67:16 88:8 <b>individuals</b> 67:21 73:5 100:12 <b>information</b> 13:19 15:3 22:17 45:20 46:17 75:17 76:3 95:8 95:23 <b>inherent</b> 54:25 <b>initial</b> 33:20 <b>inside</b> 65:19 <b>inspect</b> 28:12 <b>inspected</b> 63:15 63:17 87:17 <b>inspecting</b> 69:8 <b>inspection</b> 15:23 16:7 17:21 17:22 23:1 23:3 23:7 24:9 24:19 28:6 28:9 28:17 29:22 30:13 32:2 32:20 33:5 33:9 33:14 33:19 35:3 37:4 37:16 37:21 40:4 40:8 40:25 41:1 41:6 41:12 41:15 42:3	42:4 43:13 43:13 44:2 44:17 44:17 45:22 46:20 47:1 48:15 48:19 49:8 54:12 57:18 58:8 58:14 58:24 59:5 59:11 59:21 60:10 60:13 60:21 61:10 61:21 63:23 66:17 68:5 68:7 68:9 69:6 69:15 71:6 82:16 82:18 82:25 <b>inspections</b> 9:16 19:7 23:24 37:17 40:12 41:4 41:10 48:3 66:16 <b>inspector</b> 2:10 3:12 5:11 5:12 9:10 9:13 9:17 10:4 10:9 21:15 21:20 28:10 28:11 30:6 30:19 33:6 33:20 44:2 48:7 59:7 67:15 68:11 69:7 70:2 70:7 70:10 82:16 83:1 83:13 85:12 107:9 107:10 <b>install</b> 14:7 36:10 <b>installation</b> 14:24 16:17 19:2 19:5 33:21 37:11 39:14 <b>installed</b> 14:9 16:12 31:11 36:13 37:8 39:7 40:20 41:7 72:10 <b>instances</b> 62:11 <b>instead</b> 76:21 <b>institute</b> 103:6 103:7 <b>instruct</b> 4:11 <b>instrumental</b> 105:24 <b>insurance</b> 2:4 9:18 9:21 32:20 68:7 <b>intended</b> 15:6 15:7 17:7 18:25 37:25 40:18 40:23 <b>intent</b> 46:3 <b>intention</b> 15:14 25:16 <b>interest</b> 8:21 8:23 35:15 36:17 50:3
<hr/> <b>H</b> <hr/> <b>hadn</b> 80:10 <b>half</b> 31:17 39:1 71:13 <b>halfpipe</b> 40:16 43:19 <b>hand</b> 14:7 17:14 19:1 36:11 107:21 <b>handle</b> 13:3 <b>handled</b> 53:15 <b>handout</b> 72:25 <b>happens</b> 80:3 <b>happy</b> 37:13 38:13 38:17 45:24 46:18 94:23 <b>hardship</b> 30:23 <b>hargrove</b> 6:8 6:8 <b>harris</b> 6:16 6:16		<hr/> <b>I</b> <hr/> <b>id</b> 93:15 <b>idea</b> 105:18 <b>identified</b> 63:14 63:16 85:17 <b>identify</b> 76:23 <b>ignore</b> 45:8 <b>ii</b> 3:10 <b>iii</b> 3:11 <b>immediately</b> 55:16 66:18 86:7 <b>impede</b> 30:2 <b>impinge</b> 92:16 <b>implement</b> 70:2 90:5 <b>implementation</b> 30:20 <b>implemented</b> 83:14 89:12 <b>implementing</b> 67:13 <b>implication</b> 40:3 <b>important</b> 14:2 102:11 105:20 <b>impression</b> 59:15 <b>improvement</b> 12:15		

62:5 71:23 85:3 95:17 106:9 <b>interested</b> 107:17 <b>interesting</b> 29:11 76:6 <b>internal</b> 41:4 41:12 41:15 42:3 42:4 42:9 44:12 54:12 56:17 58:13 58:24 59:12 59:22 60:10 60:13 66:16 69:6 71:6 <b>interpretations</b> 3:18 3:18 102:7 <b>interval</b> 32:2 61:11 62:9 64:3 64:20 <b>intervals</b> 57:19 62:19 67:5 <b>introduce</b> 5:6 71:22 <b>introduction</b> 5:4 <b>introductions</b> 3:10 4:5 <b>intuitive</b> 18:16 <b>invasive</b> 21:9 33:16 <b>inventory</b> 31:13 <b>invoices</b> 96:1 <b>involvement</b> 21:11 33:4 <b>isn</b> 32:7 <b>issuance</b> 60:20 <b>issue</b> 64:12 81:23 <b>issued</b> 60:12 <b>item</b> 4:6 7:1 7:6 7:12 8:25 9:1 9:10 10:17 10:18 14:4 14:5 14:5 14:16 36:5 36:9 36:9 36:16 48:2 49:19 50:4 66:22 66:22 71:17 74:3 80:23 84:20 86:11 94:18 102:6 <b>items</b> 3:16 8:15 8:19 8:21 8:24 52:7 64:4 66:20 73:13 78:4 94:18 95:18 <b>itself</b> 17:15 17:25 37:21 37:23 65:5 75:13 79:17 82:13 <b>iv</b> 3:12 9:10 <b>ix</b> 3:19 94:18	<hr/> <b>J</b> <hr/> <b>jacket</b> 43:19 <b>james</b> 6:20 6:20 72:1 72:1 72:8 74:10 74:11 74:14 75:6 75:8 75:16 76:2 76:10 76:15 76:18 76:24 77:16 78:2 78:18 79:7 79:19 80:9 80:16 80:20 81:24 83:17 83:20 85:7 85:7 85:15 86:23 87:1 89:15 89:23 94:15 <b>january</b> 10:1 73:17 73:20 <b>jeff</b> 6:2 48:11 <b>jefferson</b> 2:11 5:21 5:21 13:8 13:13 60:2 98:11 100:3 100:7 100:13 100:17 100:22 101:1 101:11 101:15 102:2 104:21 105:23 106:13 <b>jeremy</b> 6:4 12:22 48:6 50:8 52:14 55:10 <b>job</b> 73:7 77:5 77:10 77:18 89:11 <b>john</b> 5:25 14:18 14:19 <b>johnson</b> 2:6 5:17 5:17 7:22 19:15 25:12 25:17 25:23 35:9 39:18 49:20 74:7 86:15 101:1 102:14 103:4 103:22 104:16 104:21 105:11 105:14 106:7 106:11 <b>joined</b> 13:17 <b>joint</b> 27:4 <b>jones</b> 6:14 6:14 72:3 72:3 81:10 81:19 83:10 83:22 84:11 84:17	<b>judges</b> 102:17 <b>july</b> 11:20 11:24 12:2 107:21 <b>jumping</b> 9:9 <b>june</b> 1:10 105:13 107:13 <b>just</b> 4:23 5:5 8:11 8:15 10:22 12:17 18:16 20:5 25:8 26:12 28:20 28:25 29:10 30:16 31:4 33:16 34:2 36:25 42:25 44:18 45:14 50:14 51:3 51:4 51:6 51:8 61:4 61:8 62:10 63:5 65:25 65:25 67:6 67:7 67:8 67:23 70:17 75:21 75:23 76:16 76:21 77:2 77:7 77:11 77:21 77:22 77:25 80:10 80:18 81:1 81:21 83:22 84:6 88:25 93:2 98:1 98:12 100:11 101:15 104:9 105:1 105:7 106:2 <hr/> <b>K</b> <hr/> <b>keep</b> 8:22 26:22 26:23 62:25 66:5 <b>keeping</b> 80:17 <b>keith</b> 6:8 <b>ken</b> 68:8 <b>kept</b> 82:22 102:12 <b>keys</b> 64:24 <b>kicking</b> 96:15 <b>kickoff</b> 96:17 <b>kill</b> 93:5 <b>kim</b> 2:11 5:21 103:19 <b>kind</b> 23:20 29:22 31:19 38:21 52:20 66:3 66:5 80:8 <b>know</b> 12:7 13:3 13:4 14:3 21:7 22:5 22:7 24:14 26:15 26:20 32:6 32:6 33:15 40:5 41:14 61:8 67:1 67:8 68:15 68:17 69:24 75:12	77:7 77:21 79:20 80:17 80:18 81:21 84:7 97:22 97:25 98:6 98:15 101:1 101:3 103:2 103:22 104:22 105:3 <b>knowing</b> 33:7 40:9 <b>knowledge</b> 41:13 89:17 <b>known</b> 63:12 <b>knows</b> 102:12 102:13 <hr/> <b>L</b> <hr/> <b>lab</b> 37:7 <b>labor</b> 1:1 3:21 6:13 95:1 107:11 <b>laboratories</b> 14:10 14:22 36:14 <b>laboratory</b> 16:11 31:8 <b>landing</b> 3:21 <b>large</b> 107:24 <b>last</b> 9:16 22:11 29:3 102:15 104:9 <b>later</b> 69:25 70:4 <b>law</b> 33:2 54:25 <b>laws</b> 15:18 15:19 57:10 <b>lcr</b> 1:22 107:24 <b>lead</b> 72:18 <b>leader</b> 73:8 <b>leading</b> 60:15 <b>leanne</b> 6:12 <b>least</b> 44:10 84:4 <b>leave</b> 91:1 <b>leaves</b> 78:3 <b>lebanon</b> 71:21 72:5 72:11 <b>legal</b> 2:14 5:23 95:14 <b>legislative</b> 6:12 <b>lengthy</b> 49:13 <b>less</b> 25:19 26:5 26:6 62:7 62:10 67:4 <b>let</b> 5:4 5:6 9:9 22:2 23:14 27:9 27:20 44:25 48:1 57:6 61:8 71:11 81:13 88:12 103:19 104:18 <b>letter</b> 15:4 15:19	68:17 68:24 68:24 <b>letterhead</b> 15:5 <b>levan</b> 72:6 72:6 74:17 74:23 75:1 75:19 75:25 76:8 <b>level</b> 65:20 91:20 92:16 93:2 <b>levels</b> 52:10 <b>lhl</b> 15:11 <b>liability</b> 20:8 20:10 <b>liaison</b> 6:13 <b>liberty</b> 18:11 <b>life</b> 32:1 32:3 103:16 103:16 <b>like</b> 4:3 4:6 4:20 7:8 7:13 12:25 13:19 23:19 23:22 26:8 31:5 31:15 33:10 38:3 43:6 49:16 56:1 62:14 64:5 64:20 65:2 72:8 72:14 73:2 81:1 83:25 84:3 84:14 85:20 95:20 95:25 99:3 106:13 106:14 <b>liked</b> 23:10 <b>likely</b> 11:16 22:12 <b>limit</b> 96:4 97:14 97:23 <b>limitations</b> 98:2 <b>limited</b> 17:23 25:3 98:24 <b>limiting</b> 97:24 98:5 98:9 <b>limits</b> 92:24 <b>line</b> 84:5 <b>lines</b> 15:25 <b>list</b> 8:12 13:11 77:10 83:18 84:25 90:10 <b>listed</b> 68:15 75:7 75:11 75:11 75:13 75:17 76:21 80:2 <b>listing</b> 17:14 75:21 75:23 76:4 <b>little</b> 18:16 21:5 29:1 29:4 29:10 42:19 58:18 81:4 100:18 106:3 <b>ll</b> 4:21 4:22 5:5 5:5 8:13 8:21 10:17
--	--	---	---	---

11:5 12:7 14:17 15:10 15:14 17:13 18:5 18:21 21:6 25:21 39:24 45:2 47:7 55:14 55:24 55:25 57:20 57:24 58:17 69:13 69:17 70:9 71:14 71:21 77:21 81:24 83:20 84:15 87:8 89:17 91:1 93:1 93:17 94:2 95:24 96:6 96:13 96:16 97:3 97:5 97:9 99:19 99:20 100:22 104:18 <b>llc</b> 3:2 3:3 3:5 3:6 6:1 14:6 14:20 36:10 71:17 84:21 <b>lloyd</b> 16:4 17:10 19:21 20:8 20:18 21:24 37:4 <b>localized</b> 41:21 <b>located</b> 3:21 14:10 14:21 36:14 37:7 48:4 65:11 71:21 84:23 <b>location</b> 15:7 39:6 72:13 <b>lock</b> 52:4 <b>locked</b> 53:19 <b>lockout</b> 50:20 <b>lockouts</b> 51:22 <b>logistical</b> 19:6 <b>long</b> 26:20 31:1 36:2 70:13 88:17 105:15 <b>longer</b> 16:13 22:13 37:9 63:24 <b>look</b> 7:5 57:23 65:17 66:3 70:4 76:11 88:12 <b>looking</b> 45:6 49:7 49:14 52:1 53:8 62:7 63:5 64:7 65:19 78:14 79:2 102:2 <b>looks</b> 49:15 66:3 <b>loop</b> 82:1 <b>lori</b> 6:14 <b>lose</b> 93:1 93:2 103:15	<b>loss</b> 18:22 41:21 41:22 86:6 <b>lot</b> 14:1 22:25 24:24 31:19 45:8 46:2 <b>lots</b> 98:13 <b>louisiana</b> 55:23 <b>love</b> 105:19 <b>low</b> 51:21 51:21 53:11 53:11 61:19 92:7 <b>lowering</b> 62:20 <hr/> <b>M</b> <hr/> <b>machine</b> 55:25 <b>made</b> 14:7 19:12 20:3 23:17 36:11 49:3 78:10 78:11 79:3 79:10 79:12 79:16 80:3 80:6 86:12 90:14 91:17 105:17 <b>maintain</b> 48:23 49:1 64:5 93:2 <b>maintained</b> 52:18 <b>maintaining</b> 49:5 64:4 <b>maintains</b> 13:9 <b>maintenance</b> 48:18 52:9 52:10 52:12 63:6 64:11 64:19 64:23 65:1 72:18 73:8 73:9 <b>major</b> 30:17 <b>make</b> 4:22 7:3 12:16 12:18 17:5 18:16 20:21 23:15 29:23 32:12 38:14 45:9 45:13 54:21 59:15 64:17 69:11 70:18 77:3 77:4 77:7 79:6 81:13 81:14 82:12 83:25 84:5 94:12 103:20 <b>makes</b> 18:2 52:5 67:4 78:6 <b>making</b> 34:2 69:9 69:15 <b>man</b> 103:9 103:11 <b>management</b> 37:10 50:15 51:3 51:5	<b>manager</b> 72:4 72:7 81:9 85:10 <b>manner</b> 33:11 <b>manual</b> 50:19 50:20 51:22 66:2 66:3 66:13 66:21 66:23 69:9 69:15 77:4 81:18 83:15 89:14 90:2 90:3 90:10 <b>manually</b> 51:24 52:5 <b>manufactured</b> 25:2 85:18 <b>manufacturer</b> 15:10 22:8 22:13 26:11 29:12 31:18 37:1 38:7 75:20 <b>manufacturers</b> 26:22 <b>manufacturing</b> 37:1 <b>manway</b> 45:19 <b>many</b> 103:13 103:13 103:13 <b>map</b> 18:4 18:7 <b>maplehurst</b> 3:5 71:17 72:4 <b>march</b> 7:11 10:2 89:2 89:7 89:13 90:4 <b>margin</b> 27:12 27:14 27:23 42:23 <b>mark</b> 26:13 <b>marketing</b> 95:9 98:24 <b>marking</b> 19:8 <b>marriage</b> 107:17 <b>marty</b> 6:18 85:9 85:20 90:6 <b>maskell</b> 40:12 <b>mass</b> 13:4 13:9 13:10 <b>master</b> 103:8 <b>match</b> 60:20 77:6 <b>matches</b> 77:8 <b>material</b> 40:22 <b>materials</b> 31:25 47:2 <b>math</b> 24:25 39:2 <b>matter</b> 10:24 107:18 <b>max</b> 98:21 <b>maxwell</b> 95:10 <b>may</b> 22:13 28:13 28:25 29:7 29:10	33:7 33:7 33:13 41:21 44:4 49:3 60:18 76:8 80:1 <b>maybe</b> 32:7 40:6 81:11 87:8 96:21 <b>me</b> 4:18 8:22 9:9 16:23 19:23 20:4 22:2 22:7 23:14 25:7 32:18 34:14 44:25 55:14 57:7 76:8 82:22 84:4 87:11 88:12 97:10 106:6 <b>mean</b> 26:5 31:21 54:24 58:18 81:16 97:18 103:11 <b>meant</b> 61:2 <b>measurements</b> 18:14 <b>mechanical</b> 2:6 103:5 <b>mechanism</b> 56:25 57:5 <b>meet</b> 29:3 30:24 46:5 <b>meeting</b> 1:8 3:9 3:19 4:4 4:22 8:17 10:7 89:2 89:12 96:18 102:8 102:15 104:25 <b>meetings</b> 4:9 <b>meets</b> 21:25 38:8 <b>member</b> 2:4 2:6 2:8 5:14 5:16 5:18 5:20 105:12 <b>members</b> 10:3 25:10 95:17 103:25 105:3 <b>membership</b> 104:1 <b>memphis</b> 3:4 6:5 6:7 14:10 14:25 16:16 36:14 37:11 48:2 48:4 48:8 <b>mention</b> 50:14 <b>mentioned</b> 68:12 97:13 <b>mentioning</b> 4:8 <b>mentoring</b> 104:11 <b>mentorship</b> 102:24 <b>meridium</b> 54:13 <b>met</b> 26:11 <b>michael</b> 72:3 <b>might</b> 22:14 38:18	<b>millenium</b> 95:10 <b>mind</b> 19:20 <b>minds</b> 104:12 <b>mine</b> 19:22 <b>minimal</b> 18:22 <b>minimum</b> 21:25 43:4 <b>minute</b> 29:3 67:5 71:11 87:3 87:16 87:25 <b>minutes</b> 89:2 89:21 102:14 <b>mississippi</b> 68:10 <b>misspoke</b> 76:9 <b>model</b> 27:3 27:23 38:24 42:24 43:5 45:2 45:11 45:21 <b>modeled</b> 29:14 <b>modeling</b> 37:23 <b>modification</b> 7:9 7:13 58:20 73:1 84:21 90:3 93:22 <b>modifications</b> 49:3 <b>modulating</b> 92:21 93:4 93:6 <b>moment</b> 4:15 <b>monday</b> 96:9 96:11 96:12 <b>money</b> 26:9 <b>moneys</b> 105:4 <b>monitor</b> 72:14 77:11 88:9 89:10 91:22 <b>monitoring</b> 64:18 72:20 73:6 73:11 80:14 84:9 <b>month</b> 57:19 59:16 59:17 61:10 62:9 62:19 64:20 70:15 70:17 <b>months</b> 58:25 59:23 59:23 59:23 60:7 61:1 61:2 66:16 <b>moon</b> 6:18 6:18 85:9 85:9 85:24 87:2 87:7 87:10 87:13 88:12 90:19 91:3 91:14 91:23 91:25 92:3 92:10 92:13 92:15 92:23 93:7 93:14 93:18 <b>more</b> 12:16 14:15
---	---	---	--	--

14:15 15:25 18:16 21:9 21:11 22:15 22:18 24:12 25:9 25:11 33:11 33:12 38:17 39:12 40:17 40:22 43:23 79:4 102:20 <b>morelock</b> 2:2 4:2 5:3 5:15 5:15 6:24 7:18 7:21 7:23 8:1 8:4 8:6 8:9 9:4 9:7 10:8 10:11 10:16 11:4 11:12 11:21 11:25 12:3 12:10 12:12 13:2 13:12 13:15 13:20 13:23 19:10 19:13 19:16 24:22 26:1 29:6 29:9 30:7 33:24 34:22 35:1 35:7 35:11 35:14 35:17 35:20 35:23 36:4 36:8 36:19 39:16 39:20 39:23 42:2 42:8 42:12 42:15 42:18 44:23 46:23 47:6 47:10 47:12 47:15 47:22 47:25 49:17 49:23 50:2 50:6 51:8 54:2 54:6 54:10 54:20 54:24 55:2 55:7 55:19 56:9 56:14 56:19 56:22 57:1 57:4 58:22 59:4 59:9 59:18 60:8 60:14 60:17 61:4 62:2 65:21 65:24 66:10 67:7 67:11 67:23 68:1 69:1 69:4 69:19 69:22 70:14 70:19 70:22 70:25 71:2 71:5 71:9 71:16 71:25 74:2 74:5 74:8 75:3 76:25 77:20 78:13 78:16 78:21 80:4 80:11 80:19 80:22 81:6 81:16 81:20 82:2 82:5 82:14 82:21 83:3 83:5 83:8 83:11 83:19	84:8 84:12 84:18 85:2 85:5 85:13 86:10 86:13 86:16 88:4 88:25 89:19 90:1 90:25 91:4 91:21 91:24 92:2 92:5 93:9 93:19 93:21 94:5 94:7 94:11 94:16 96:9 96:16 96:20 97:2 97:7 97:11 98:20 98:23 99:6 99:12 99:22 100:25 101:9 101:12 101:17 101:21 102:1 102:4 104:18 106:16 <b>morning</b> 4:2 10:22 48:6 48:13 <b>most</b> 31:24 46:12 73:3 77:15 84:1 96:11 <b>motion</b> 7:19 19:11 19:12 19:14 35:2 39:17 46:24 49:18 49:24 69:5 74:3 74:4 74:6 82:6 82:23 86:11 86:12 93:22 <b>move</b> 5:4 10:17 39:18 49:20 <b>moved</b> 7:20 86:13 <b>moves</b> 103:16 <b>moving</b> 14:4 <b>mr</b> 5:13 5:19 5:23 5:25 6:2 6:4 6:6 6:8 6:16 6:18 6:20 6:22 7:20 9:6 10:20 11:5 11:13 11:22 12:1 12:4 12:11 12:22 14:12 14:19 19:12 19:18 19:19 19:19 20:3 20:14 20:19 20:21 20:23 21:1 21:2 21:3 21:4 21:5 21:6 22:2 22:5 22:21 22:22 23:14 23:20 24:5 24:10 24:20 24:24 25:15 25:21 26:14 26:24 27:9 29:2 29:8 30:8 31:4 31:6 33:23	34:1 34:5 34:7 34:8 34:11 34:12 34:14 34:15 34:17 35:10 35:12 35:19 35:25 36:2 36:7 36:20 36:21 36:22 39:22 40:1 40:1 40:3 40:11 40:12 40:14 40:24 41:2 41:3 41:5 41:13 41:16 41:18 41:19 42:1 42:6 42:10 42:14 42:20 44:7 44:7 44:9 44:14 44:21 44:24 44:25 45:4 45:5 45:15 45:17 46:1 46:6 46:8 46:12 46:21 47:5 47:21 47:23 48:6 48:9 48:11 48:13 49:22 50:1 50:8 50:11 50:12 50:21 50:22 50:23 50:24 50:25 51:1 51:2 51:6 51:10 51:12 51:13 51:15 51:18 51:20 51:23 52:1 52:6 52:20 52:24 53:1 53:2 53:3 53:4 53:7 53:9 53:10 53:13 53:14 53:15 53:18 53:19 53:20 54:4 54:5 54:9 54:16 54:23 55:1 55:4 55:5 55:8 55:10 55:11 55:13 55:14 55:21 56:3 56:4 56:6 56:11 56:16 56:21 56:24 57:2 57:6 57:14 57:15 57:17 57:20 57:22 57:23 58:2 58:5 58:11 58:12 58:19 58:21 59:2 59:13 59:14 59:25 60:4 60:16 60:22 60:25 61:3 61:6 61:12 61:16 61:17 61:23 61:24 62:4 62:6 62:22 63:1 63:5 63:9 63:10	63:16 63:19 63:25 64:21 64:23 65:10 65:12 65:14 65:15 66:7 66:7 67:3 67:10 67:22 67:25 68:4 68:6 68:8 68:12 68:14 68:15 68:19 68:20 69:17 69:20 69:23 70:9 70:11 70:12 70:16 71:8 72:1 72:3 72:8 74:4 74:10 74:11 74:12 74:14 74:15 74:18 74:21 74:24 75:2 75:5 75:8 75:10 75:16 75:23 76:2 76:5 76:10 76:14 76:15 76:16 76:18 76:19 76:24 77:16 77:24 78:2 78:3 78:15 78:17 78:18 78:19 78:23 79:7 79:9 79:19 79:24 80:9 80:16 80:20 81:1 81:7 81:10 81:19 81:24 82:11 83:10 83:17 83:20 83:22 84:11 84:17 84:25 85:4 85:7 85:9 85:11 85:15 85:24 86:12 86:18 86:21 86:23 86:24 87:1 87:2 87:5 87:7 87:8 87:10 87:11 87:13 87:18 87:22 87:24 88:1 88:3 88:6 88:12 89:15 89:23 90:19 91:3 91:7 91:8 91:14 91:23 91:25 92:3 92:6 92:10 92:11 92:13 92:14 92:15 92:20 92:23 93:3 93:7 93:8 93:11 93:14 93:17 93:18 94:9 94:15 97:13 97:17 97:24 98:10 99:2 99:5 99:8 99:14 99:17 99:23 99:24 100:11 100:15	100:21 101:14 101:25 <b>ms</b> 5:5 5:9 5:21 6:10 6:12 6:14 13:8 13:13 13:16 13:24 35:13 60:2 60:3 60:5 60:9 72:6 74:17 74:23 75:1 75:19 75:25 76:8 82:19 94:19 94:21 96:11 96:19 96:23 97:3 97:9 97:16 97:20 98:5 98:11 98:22 99:4 99:10 99:13 99:16 99:19 100:1 100:3 100:5 100:7 100:9 100:13 100:14 100:17 100:22 101:1 101:11 101:15 101:20 102:2 104:21 105:10 105:23 106:4 106:13 <b>much</b> 12:18 21:9 22:15 25:19 37:14 39:5 39:12 71:8 100:15 104:15 104:22 105:14 <b>must</b> 28:9 53:5 65:7 79:22 <b>my</b> 14:19 15:4 15:19 20:10 20:15 20:21 22:9 23:11 27:1 27:23 30:8 31:2 32:22 42:19 43:4 44:6 56:24 67:16 68:2 78:11 81:7 87:18 91:5 107:20 107:25 <b>myself</b> 12:25 43:2 85:4 104:10 <hr/> <b>N</b> <hr/> <b>nalco</b> 6:3 48:12 <b>name</b> 14:16 14:19 38:5 43:1 72:17 88:13 <b>nameplate</b> 17:17 32:17 <b>names</b> 3:24
---	--	--	--	---

<b>nashville</b> 3:22 94:25	101:14	67:20 73:15	88:9 90:20	25:2 28:12 29:16
<b>national</b> 31:8 73:15 73:18 96:25	<b>night</b> 67:6 97:4	<hr/>	<b>operated</b> 16:12 37:8	31:14 31:16 32:15
<b>natural</b> 4:10	<b>nitrogen</b> 3:6 6:15 6:17 6:19 7:7 84:21	<b>O</b>	<b>operating</b> 16:18 38:22 52:14 52:22	33:5 33:21 40:24
<b>nature</b> 95:9	85:10 85:12 93:23	<b>oakridge</b> 31:8 31:11	58:15 66:14 86:25	42:3 48:16 51:7
<b>navigate</b> 12:19	<b>nods</b> 101:11	<b>objection</b> 44:20	87:12 87:15 89:4	51:18 51:19 52:4
<b>nay</b> 35:24	<b>nomenclature</b> 25:4 75:13	<b>objections</b> 44:16	89:25 90:18	55:12 56:1 57:10
<b>nbic</b> 53:24 54:1 54:6 54:18 54:22 55:3 55:17	<b>noncorrosive</b> 41:9	<b>objective</b> 20:16 32:10	<b>operation</b> 14:24 18:25 19:6 23:13	58:24 62:9 63:21
<b>necessarily</b> 35:24 93:1	<b>nondestructive</b> 17:22 17:23 21:19 24:17	<b>observed</b> 71:15	31:9 38:6 39:15	65:16 68:8 73:3
<b>necessary</b> 16:22 41:11 44:19 64:17	<b>none</b> 7:19 10:17 34:5 47:7 82:6 93:21	<b>obviously</b> 62:11	48:19 54:3 54:7	83:12 89:20 89:22
<b>need</b> 4:13 14:15 19:7 24:4 24:16 26:17 29:19 29:22 30:9 30:12 45:23 54:21 66:20 67:1 70:4 76:23 81:12 81:12 84:7 89:4 89:13 90:7	<b>noon</b> 97:6	<b>occur</b> 62:11	54:11 84:10 94:1	95:24 97:21 99:24 103:1 105:5
<b>needed</b> 31:15 37:9 52:3 63:13 73:14	<b>normal</b> 52:17 58:15 59:16	<b>occurring</b> 63:3	<b>operational</b> 64:13 87:14 87:20 90:22 90:24	<b>outcome</b> 107:18
<b>needs</b> 76:21 79:4	<b>notary</b> 107:4 107:24	<b>october</b> 69:21	<b>operations</b> 48:10 54:12 85:10 85:21 89:9	<b>outfit</b> 88:14
<b>negate</b> 81:17	<b>note</b> 3:24 4:21 13:5 15:11 18:2 23:5 25:22 43:18 54:21 73:21 74:24	<b>off</b> 9:3 19:22 39:9 52:16 78:3 78:11 79:11 89:1 91:12 91:19 92:3 92:21 96:15 98:25 99:21 102:12	<b>operator</b> 56:8 56:13 65:17 65:19 79:20	<b>outgoing</b> 95:25 96:2
<b>never</b> 89:12	<b>nothing</b> 42:1 78:25	<b>office</b> 3:21 6:11 10:21 10:22 10:24 11:1 11:2 11:10	88:21 89:6 89:16 89:24	<b>outside</b> 4:13 17:3 65:17 67:4 88:15 88:21 92:24
<b>neville</b> 6:20 6:20 6:21 6:22 6:23 6:23 72:1 72:1 72:2 72:8 74:11 74:14 75:8 75:16 76:2 76:10 76:15 76:18 76:24 77:16 78:2 78:18 79:7 79:19 80:9 80:16 80:20 81:24 83:17 83:20 85:7 85:8 85:8 85:15 86:23 87:1 89:15 89:23 94:15	<b>notice</b> 11:6 40:13 45:2	<b>official</b> 77:19	<b>operators</b> 49:2 56:12 88:16	<b>outstanding</b> 46:22 50:10 106:8
<b>new</b> 3:15 4:8 12:18 14:4 38:21 60:4 60:22 83:23 94:17	<b>noticed</b> 34:23	<b>officially</b> 106:17	<b>opinion</b> 20:22 23:12	<b>over</b> 11:15 21:22 29:23 48:10 50:17 63:5 71:13 80:13 85:20 92:12
<b>newer</b> 64:8	<b>notifications</b> 13:18	<b>often</b> 45:5 77:4	<b>opportunity</b> 95:3	<b>overleaf</b> 19:25 20:5 20:11
<b>newest</b> 57:12	<b>notified</b> 13:1 16:3 21:9 79:21	<b>old</b> 3:13 9:1 10:17 25:2	<b>opposed</b> 8:4 35:11 35:18 47:10 70:25 83:3 94:5	<b>own</b> 105:5
<b>next</b> 3:19 7:1 36:8 66:22 79:6 84:20 102:8	<b>nozzle</b> 45:19	<b>older</b> 27:18 64:7	<b>opposition</b> 35:20	<b>owned</b> 16:10
<b>nice</b> 26:22 98:13 98:17 100:18	<b>nozzles</b> 27:5 34:13 34:15 34:21 37:24 45:3 45:9 45:10 45:12	<b>once</b> 12:6 12:23 16:9 48:25 79:20 80:5 80:12 99:13	<b>opt</b> 13:17	<b>owner</b> 2:2 2:8 12:25 22:18 26:2 27:16 27:17 44:15 58:24
	<b>number</b> 9:16 9:20 9:23 16:12 16:25 17:1 31:10 37:8 48:4 48:17 48:17 62:23 62:24 64:6 64:8 66:20 66:23 69:25 73:15 73:16 73:19 76:7 78:4	<b>one</b> 7:6 22:23 25:20 31:20 31:22 35:12 35:20 35:24 42:11 42:13 46:14 57:11 59:10 61:1 65:25 66:13 69:23 76:21 77:24 83:22 85:6 85:16 87:13 87:21 89:3 89:8 103:21 105:15	<b>order</b> 3:9 4:4 64:4	<b>ownership</b> 16:15
	<b>numbers</b> 67:20	<b>ones</b> 31:14 41:1 53:16	<b>orders</b> 4:19 63:6	<b>oxidation</b> 85:25
		<b>ongoing</b> 94:24	<b>organization</b> 16:3 16:4 17:20 21:12 23:22 84:13	<hr/>
		<b>open</b> 3:16 25:7 39:24 49:11 49:16 49:25 81:8 86:10 94:18	<b>organizational</b> 77:5	<b>P</b>
		<b>opening</b> 19:17	<b>orientation</b> 89:11	<b>package</b> 15:3 15:13 17:8 22:4 22:17 29:2 37:15 38:12 38:15 38:25 39:3 39:12
		<b>operate</b> 14:7 16:22 28:18 36:10 52:23	<b>origin</b> 25:24	<b>pads</b> 45:12
			<b>original</b> 17:18 18:9 22:8 28:2 29:19 38:9	<b>page</b> 3:1 28:21 50:13 50:23 50:24 50:25 67:11 77:25 78:14 78:15 78:25 79:1 80:23 80:24 81:25 88:6 90:2 90:4 90:9 90:15
			<b>ourselves</b> 65:1 99:3	<b>panel</b> 53:17 65:6
			<b>out</b> 8:17 11:16 12:5 16:22 20:13 21:7	

65:10 72:23 <b>paper</b> 27:17 69:11 <b>paragraph</b> 28:22 50:15 51:2 56:7 56:12 56:17 57:8 58:3 58:16 60:24 60:25 61:19 67:12 71:19 <b>parameters</b> 38:22 90:12 <b>pardon</b> 34:14 <b>parks</b> 4:14 <b>parkway</b> 1:23 <b>part</b> 19:25 20:8 34:13 34:16 34:20 44:17 46:19 54:7 77:17 80:17 89:17 101:15 105:20 <b>participants</b> 96:4 96:12 97:14 98:7 100:16 101:10 <b>participated</b> 16:3 <b>participation</b> 15:23 <b>particular</b> 16:14 23:9 24:15 29:2 92:22 98:17 98:18 <b>parties</b> 3:25 107:16 <b>parts</b> 43:1 <b>party</b> 15:23 21:8 21:11 21:13 21:17 <b>pass</b> 4:19 28:24 73:2 <b>passage</b> 36:1 <b>passed</b> 86:3 <b>passes</b> 36:5 <b>passing</b> 8:12 <b>password</b> 90:12 <b>past</b> 75:22 75:24 97:25 98:6 98:21 <b>paying</b> 100:19 100:23 101:8 <b>pearl</b> 95:2 98:13 <b>ped</b> 21:1 21:8 21:9 33:12 <b>penalized</b> 29:12 <b>people</b> 45:5 98:25 99:3 104:12 <b>per</b> 4:18 48:15 49:6 49:9 66:24 81:18 100:10 <b>percent</b> 29:17 67:2	100:21 103:25 <b>perfectly</b> 18:25 37:24 61:17 89:22 <b>performed</b> 9:16 18:10 21:24 23:3 23:17 23:21 24:7 37:22 38:10 40:12 41:4 41:16 45:23 63:7 <b>performing</b> 44:10 52:9 64:19 <b>period</b> 10:1 46:2 63:24 <b>permit</b> 17:14 <b>personal</b> 22:9 <b>personally</b> 102:23 <b>personnel</b> 4:11 53:6 79:2 79:5 79:15 80:1 97:25 98:2 <b>persons</b> 83:25 95:12 <b>ph</b> 2:6 103:9 <b>phase</b> 5:4 49:18 <b>phenomenal</b> 101:24 <b>phillips</b> 104:24 <b>phone</b> 8:16 67:19 78:11 79:3 79:10 80:3 <b>phonetically</b> 3:24 <b>photocopy</b> 17:16 <b>photograph</b> 17:16 <b>photographs</b> 18:1 <b>physical</b> 28:17 <b>physically</b> 28:12 <b>picked</b> 40:8 <b>picking</b> 78:25 <b>picture</b> 106:14 <b>piece</b> 16:23 <b>piggy</b> 89:1 <b>pipe</b> 29:16 39:1 40:19 <b>pipng</b> 29:14 40:13 40:15 <b>pitting</b> 41:14 <b>placard</b> 78:20 78:22 78:23 79:1 79:1 81:2 81:3 <b>place</b> 4:12 10:1 43:16 <b>places</b> 41:20 54:14 <b>plan</b> 72:12 72:19 <b>planned</b> 95:19 96:7	<b>plans</b> 94:23 96:8 <b>plant</b> 72:4 72:5 81:9 90:20 <b>plants</b> 90:23 <b>plate</b> 38:5 43:1 <b>platinum</b> 86:1 <b>please</b> 8:13 8:24 <b>pleasure</b> 50:9 <b>plus</b> 11:17 29:20 <b>pmb</b> 1:24 <b>pmi</b> 23:15 44:10 44:16 46:16 47:1 <b>point</b> 11:6 16:19 32:8 32:15 49:12 81:22 82:14 82:15 <b>policy</b> 48:22 48:22 52:13 <b>polytechnic</b> 103:6 <b>poor</b> 22:12 <b>position</b> 10:4 52:18 78:11 79:11 79:18 <b>positive</b> 64:2 <b>possible</b> 22:14 75:19 <b>possibly</b> 68:18 <b>posted</b> 81:3 <b>pouring</b> 104:12 <b>power</b> 58:6 93:6 <b>prayers</b> 4:24 <b>pre</b> 42:21 42:22 <b>prearrangements</b> 99:8 <b>prefer</b> 66:8 <b>preference</b> 58:25 <b>prepared</b> 23:15 38:25 95:15 <b>preparing</b> 45:1 95:15 <b>presence</b> 86:1 <b>present</b> 8:25 14:13 14:14 14:16 14:22 48:14 85:14 97:1 <b>presentation</b> 19:3 103:20 <b>presented</b> 16:24 26:25 32:10 90:4 105:10 <b>presenters</b> 8:18 95:9 96:21 96:24 <b>presents</b> 18:24 <b>president</b> 14:20 <b>pressure</b> 15:12 16:1	17:9 20:24 26:3 27:7 27:18 30:11 31:7 31:10 31:13 31:21 36:11 42:25 43:1 43:24 52:10 58:6 61:9 61:20 71:18 71:20 84:23 <b>pressures</b> 18:14 <b>pressurization</b> 92:12 <b>pretty</b> 12:19 33:17 98:4 101:23 <b>previous</b> 31:6 <b>previously</b> 32:19 62:23 <b>primarily</b> 53:22 <b>primary</b> 27:7 42:25 <b>prior</b> 27:11 30:20 86:18 86:21 95:14 <b>probably</b> 11:14 22:19 31:16 44:12 61:2 96:12 <b>problem</b> 55:25 70:11 <b>procedure</b> 21:14 48:19 48:20 48:21 49:15 57:3 64:15 70:5 91:9 <b>procedures</b> 52:15 78:1 79:13 88:7 88:22 89:9 <b>proceedings</b> 106:19 107:8 <b>process</b> 9:25 12:6 12:8 16:4 16:21 24:14 26:18 30:3 31:11 32:4 33:13 38:21 64:5 64:16 85:22 91:19 101:19 <b>processed</b> 27:15 86:3 <b>produce</b> 22:18 68:18 <b>produced</b> 16:8 17:12 <b>program</b> 53:24 67:14 67:17 67:18 <b>programmer</b> 76:17 <b>projection</b> 95:11 <b>proper</b> 42:23 <b>properly</b> 16:22 17:5 17:6 30:5 <b>proposal</b> 60:4 <b>propose</b> 39:14 <b>proposed</b> 38:6 58:7	<b>protected</b> 90:13 <b>protocol</b> 80:2 <b>provide</b> 20:7 34:18 38:3 38:13 38:18 45:24 46:18 67:19 68:19 105:6 <b>provided</b> 3:24 74:13 <b>providing</b> 67:2 <b>provisions</b> 67:13 <b>psig</b> 26:5 <b>public</b> 11:14 101:6 107:4 107:24 <b>publication</b> 12:14 <b>published</b> 13:6 <b>pull</b> 14:15 57:12 89:20 <b>pulled</b> 57:25 <b>purpose</b> 16:18 17:7 <b>pursuant</b> 19:6 <b>pursue</b> 49:7 <b>pushed</b> 65:7 <b>put</b> 22:3 27:5 29:3 48:16 51:4 52:17 61:4 61:14 62:9 62:19 66:8 66:21 67:7 68:24 72:22 78:10 79:17 80:10 97:21 103:24 <b>putting</b> 26:12 <hr/> <b>Q</b> <hr/> <b>qualification</b> 21:18 88:11 <b>qualifications</b> 21:14 <b>qualified</b> 56:12 77:13 88:8 88:20 88:22 88:24 <b>qualify</b> 56:8 <b>quality</b> 20:17 22:1 22:20 22:22 39:4 <b>quarter</b> 9:17 <b>quarterly</b> 1:8 30:24 <b>question</b> 20:15 28:23 35:8 46:11 47:7 51:14 53:21 54:17 55:15 56:5 67:16 69:23 70:23 75:5 82:9 83:22 87:9 90:21 94:3 <b>questions</b> 10:13
---	---	--	---	---

12:21 13:21 19:18 19:20 24:23 33:25 34:24 44:3 47:4 50:13 66:12 70:20 74:1 82:8 86:9 91:6 97:12 <b>quick</b> 31:4 45:7 98:4 <b>quite</b> 9:14 77:4 <b>quo</b> 62:25 <b>quorum</b> 36:3	105:9 106:2 <b>readily</b> 24:16 <b>readings</b> 18:5 18:6 <b>reads</b> 11:18 <b>ready</b> 12:14 14:13 <b>reality</b> 53:23 <b>realize</b> 26:18 <b>reason</b> 20:15 24:4 53:21 98:11 <b>reasons</b> 17:1 44:13 92:16 <b>receive</b> 58:8 60:10 61:20 89:8 105:4 <b>received</b> 78:5 104:2 <b>recently</b> 72:4 72:10 84:2 <b>receptions</b> 96:6 <b>recess</b> 71:15 <b>recognition</b> 106:8 <b>recognized</b> 22:19 <b>recommend</b> 7:6 <b>reconvene</b> 71:14 <b>record</b> 8:14 9:3 26:19 37:5 <b>recorded</b> 18:7 <b>records</b> 22:3 22:6 22:15 23:1 26:22 26:23 37:16 <b>recovering</b> 4:23 <b>red</b> 32:18 <b>reduce</b> 27:14 <b>redundancy</b> 51:17 <b>reevaluated</b> 27:21 <b>refer</b> 50:22 81:4 81:25 <b>reference</b> 23:17 <b>referenced</b> 54:17 <b>references</b> 12:17 <b>referring</b> 52:21 58:3 <b>refers</b> 78:25 <b>refinery</b> 3:4 6:5 6:7 48:2 48:7 48:8 53:25 54:9 <b>reflect</b> 60:1 <b>regarding</b> 15:3 46:11 95:8 <b>register</b> 16:5 17:10 19:21 20:18 21:24 37:4 99:1 <b>registered</b> 39:9	<b>registration</b> 96:10 96:13 101:4 101:5 101:18 <b>regular</b> 80:13 <b>regulation</b> 26:7 <b>regulations</b> 71:19 107:12 <b>related</b> 107:15 <b>released</b> 16:10 <b>rely</b> 23:2 <b>relying</b> 20:17 25:9 26:24 <b>remaining</b> 32:1 32:3 40:17 40:21 <b>remember</b> 4:24 88:13 88:18 <b>remote</b> 72:14 72:17 73:6 73:10 77:11 78:6 78:9 79:5 79:22 80:1 80:13 91:22 <b>remotely</b> 64:22 <b>remove</b> 56:8 56:17 <b>renewals</b> 59:10 <b>renewed</b> 59:5 <b>reorganization</b> 3:13 9:2 10:19 <b>repair</b> 30:17 43:11 55:15 63:22 <b>repaired</b> 30:12 <b>repairs</b> 29:24 30:4 30:16 30:17 30:20 34:10 47:19 63:7 63:11 63:21 64:17 <b>repeat</b> 78:4 <b>replaced</b> 40:2 40:7 40:10 43:8 <b>report</b> 3:12 9:11 9:15 10:10 10:14 12:20 17:20 17:25 20:6 24:5 24:6 24:11 24:13 26:24 28:6 28:21 31:18 37:13 37:19 41:20 43:7 50:22 61:25 <b>reporter</b> 3:24 3:25 5:7 <b>reporting</b> 1:23 5:8 10:1 <b>reports</b> 18:20 40:25	41:6 43:3 50:10 <b>representative</b> 2:2 2:4 2:6 2:8 48:12 <b>representatives</b> 16:5 <b>representing</b> 102:22 <b>repurposed</b> 16:16 38:21 <b>repurposing</b> 37:11 <b>request</b> 14:23 19:1 38:13 48:15 49:12 72:9 96:25 101:5 <b>requesting</b> 7:8 7:9 14:6 <b>requests</b> 36:10 48:2 71:17 84:21 <b>require</b> 15:20 15:22 21:11 21:13 21:15 21:17 21:20 28:13 30:21 33:3 75:7 <b>required</b> 21:23 26:23 33:9 34:9 40:20 43:4 46:10 52:15 64:12 65:7 66:18 89:10 <b>requirements</b> 21:22 21:25 25:6 26:12 26:20 35:4 43:24 50:18 <b>requires</b> 29:16 33:4 67:19 101:4 <b>rescinded</b> 66:19 <b>researching</b> 49:14 <b>reset</b> 50:20 51:22 52:5 53:5 64:22 65:4 65:6 79:23 <b>residing</b> 104:7 <b>resistant</b> 44:13 <b>respect</b> 8:18 <b>respond</b> 24:14 <b>response</b> 5:2 7:17 7:25 8:3 8:5 8:8 10:15 13:22 31:5 32:22 34:25 35:6 35:16 35:22 36:18 42:17 47:9 47:11 47:14 50:5 65:23 69:3 70:21 70:24 71:1 71:4 71:24 74:20 82:4 83:2 83:4 83:7 86:20	93:20 94:4 94:6 <b>responsibility</b> 67:17 80:21 <b>responsible</b> 67:13 67:20 90:5 90:7 <b>rest</b> 86:5 <b>resume</b> 103:11 <b>retention</b> 26:20 <b>retract</b> 94:10 <b>return</b> 79:21 <b>reveal</b> 41:1 <b>revealed</b> 41:15 <b>reverse</b> 31:20 31:23 <b>review</b> 18:17 21:15 21:20 31:15 38:16 69:10 69:15 81:13 95:14 <b>reviewed</b> 18:18 99:11 <b>reviewing</b> 69:9 <b>reviews</b> 23:25 <b>revision</b> 57:12 <b>reword</b> 87:8 <b>rhone</b> 6:10 6:10 60:3 60:5 60:5 60:9 94:19 94:21 96:11 96:19 96:23 97:3 97:9 97:16 97:20 98:5 98:22 99:4 99:10 99:13 99:16 99:19 100:1 100:5 100:9 100:14 101:20 105:10 <b>ridiculous</b> 38:15 <b>right</b> 6:24 7:18 9:14 10:11 21:6 30:6 35:18 36:5 36:19 39:24 41:2 46:12 47:15 47:22 50:6 51:22 55:1 55:5 55:16 55:19 55:20 57:20 59:24 61:5 61:18 65:24 68:19 78:18 78:21 79:19 80:7 80:14 80:19 81:19 86:24 90:25 96:11 96:23 97:16 99:6 <b>rigorous</b> 25:18 27:2 <b>risk</b> 53:24 54:1 54:19
<b>R</b>				
<b>randall</b> 90:5 <b>randy</b> 6:16 85:11 <b>rate</b> 27:17 <b>rather</b> 95:15 105:19 <b>raw</b> 46:3 <b>rbi</b> 67:17 <b>re</b> 7:2 7:9 12:11 12:19 20:8 20:23 23:22 25:23 26:12 26:23 26:24 27:16 27:17 34:17 34:21 41:5 45:12 48:14 48:18 51:21 51:25 52:9 53:16 53:23 54:18 55:9 55:17 55:24 57:18 58:2 59:1 60:19 62:6 62:12 62:20 64:3 64:3 64:25 67:2 67:12 69:10 69:10 69:12 69:24 70:16 77:2 78:14 78:24 78:24 80:8 80:13 80:15 80:24 81:15 81:20 83:23 84:1 84:18 85:15 85:22 86:24 87:3 87:6 87:12 87:15 90:2 90:16 91:11 94:23 96:3 97:14 97:20 97:22 98:5 98:8 98:12 99:17 101:4 102:2 103:14 103:23 104:13 <b>reaction</b> 86:6 <b>reactor</b> 36:23 47:18 <b>read</b> 25:12 36:9 36:12 58:16 65:17				

<p><b>robinson</b> 2:4 5:13 5:13 19:19 20:14 20:21 21:1 21:3 21:5 22:2 22:21 23:14 24:5 24:20 31:6 33:23 34:12 34:15 35:12 35:19 40:1 40:11 40:24 41:3 41:13 41:18 42:1 42:6 42:10 42:14 44:7 44:9 44:21 44:24 45:4 45:15 46:1 46:8 46:21 47:5 49:22 50:1 50:8 50:12 50:25 51:2 51:10 51:15 51:20 52:1 52:20 53:1 53:3 53:7 53:10 53:14 53:18 53:20 54:5 54:9 54:16 55:5 55:10 55:13 56:3 56:6 56:11 56:16 56:21 57:2 57:6 57:15 57:20 57:23 58:5 58:12 58:21 59:14 59:25 60:4 60:16 60:22 61:12 61:17 61:24 74:4 86:12 86:18 86:21 86:24 87:5 87:8 87:11 87:22 88:1 91:7 93:11 93:17 99:8 99:14 99:17 99:23 100:21 101:14</p> <p><b>room</b> 12:25 72:13 72:19 72:23 79:17 79:22 92:1 95:2 95:17 98:13 98:14 98:18</p> <p><b>rooms</b> 99:20 100:16</p> <p><b>rosa</b> 4:14</p> <p><b>round</b> 67:4</p> <p><b>rounds</b> 87:4 87:16</p> <p><b>row</b> 81:14</p> <p><b>rule</b> 3:14 3:18 3:18 9:2 10:19 11:17 12:23 55:2 66:25 66:25 66:25 82:7 82:8 101:3 101:6</p>	<p>102:7</p> <p><b>rulemaking</b> 12:6 12:8</p> <p><b>rules</b> 1:2 1:9 3:19 4:4 10:20 12:18 12:21 13:5 37:2 48:16 49:6 55:18 71:19 105:12</p> <p><b>run</b> 88:22 93:13</p> <p><b>running</b> 43:21 72:11</p> <hr/> <p style="text-align: center;"><b>S</b></p> <hr/> <p><b>sad</b> 102:16</p> <p><b>safe</b> 4:12 18:25 23:13 28:3 28:18 37:25 43:2 52:3 64:6 81:15</p> <p><b>safety</b> 4:6 4:15 10:5 17:6 21:22 31:7 31:9 32:5 50:16 51:15 62:15 62:16 62:25 90:12</p> <p><b>said</b> 24:7 32:21 33:1 43:6 97:19</p> <p><b>sam</b> 2:10 5:11 9:12 69:18 103:19</p> <p><b>same</b> 36:24 37:22 38:10 46:15 92:8 92:9</p> <p><b>satisfactory</b> 41:10</p> <p><b>satisfied</b> 65:8</p> <p><b>satisfy</b> 27:8 43:23</p> <p><b>save</b> 26:9</p> <p><b>say</b> 8:2 9:6 14:1 24:15 27:15 31:5 35:8 44:8 47:7 55:16 58:13 70:23 79:16 82:9 83:1 86:9 94:3 94:23 98:24 103:2 103:18</p> <p><b>saying</b> 26:11 55:6 57:24 68:18</p> <p><b>says</b> 7:7 19:23 28:22 32:15 58:6 74:25 76:12 78:7 88:7</p> <p><b>scada</b> 72:22 72:25</p> <p><b>scenario</b> 62:21 63:3</p> <p><b>schedule</b> 68:21 69:17</p> <p><b>scheduled</b> 3:20 10:6</p> <p><b>schedules</b> 105:5</p>	<p><b>scheme</b> 73:4</p> <p><b>science</b> 103:5</p> <p><b>scope</b> 54:1 54:19</p> <p><b>screen</b> 38:4 65:16 72:24</p> <p><b>search</b> 31:12</p> <p><b>second</b> 7:21 7:22 7:23 14:7 17:14 19:1 19:14 19:15 19:17 28:21 36:11 39:21 39:22 39:24 47:5 49:22 49:24 56:7 56:7 56:11 56:12 69:5 74:6 74:7 82:6 86:14 86:15 90:15</p> <p><b>seconded</b> 46:24</p> <p><b>secretary</b> 2:16 5:10 10:25 11:2 11:10</p> <p><b>section</b> 15:15 37:3 43:21 51:1 66:9</p> <p><b>secure</b> 95:7</p> <p><b>security</b> 4:10</p> <p><b>see</b> 15:14 17:17 18:21 25:18 26:15 42:7 50:9 57:7 57:13 57:20 57:24 58:17 58:18 61:5 65:18 66:4 69:12 75:13 75:14 77:12</p> <p><b>seeing</b> 80:5</p> <p><b>seeking</b> 48:18</p> <p><b>seen</b> 18:18 23:11 23:16 25:18 40:25 41:1</p> <p><b>send</b> 11:5 13:10 84:14</p> <p><b>sending</b> 95:24</p> <p><b>sent</b> 4:17 12:24 15:2 16:10 22:16 22:17 37:16 49:12</p> <p><b>sentence</b> 56:7 56:12 90:15</p> <p><b>separate</b> 12:5</p> <p><b>separately</b> 12:5 39:2</p> <p><b>september</b> 3:20 10:6 94:22</p> <p><b>sequence</b> 65:8</p> <p><b>served</b> 97:19 102:17 102:20</p>	<p><b>service</b> 24:18 28:14 34:9 37:17 40:18 40:23 41:8 43:24 45:6 54:11 104:14 105:11 105:19 106:8</p> <p><b>session</b> 97:5</p> <p><b>set</b> 18:9 92:18 92:24 107:20</p> <p><b>shakes</b> 93:7</p> <p><b>shall</b> 58:8 58:9 61:20 66:15 66:24</p> <p><b>shedding</b> 64:14</p> <p><b>shell</b> 28:23 45:8</p> <p><b>shells</b> 45:14</p> <p><b>shift</b> 67:6 73:8 73:12 73:12 89:4 89:25</p> <p><b>ship</b> 37:10</p> <p><b>shipped</b> 16:16 16:20 37:6</p> <p><b>short</b> 81:5</p> <p><b>show</b> 38:3 68:21 68:22 89:4</p> <p><b>showing</b> 37:24</p> <p><b>shown</b> 18:15</p> <p><b>shows</b> 18:1 39:6 44:10 72:13 73:3</p> <p><b>shut</b> 51:24 55:16 62:8 64:10 64:15 66:18 80:6 80:12 80:18 91:12 91:22 92:3 92:7</p> <p><b>shutdown</b> 62:17 62:21 63:3 63:13</p> <p><b>shuts</b> 91:19</p> <p><b>shutting</b> 62:12 91:11</p> <p><b>side</b> 4:14 29:20</p> <p><b>sign</b> 8:13</p> <p><b>signature</b> 95:14</p> <p><b>signed</b> 39:8 52:16</p> <p><b>significant</b> 104:2</p> <p><b>silence</b> 8:17</p> <p><b>similar</b> 15:24 32:4 37:19 39:13</p> <p><b>simple</b> 32:23 86:8</p> <p><b>simply</b> 100:23</p> <p><b>since</b> 4:8 20:16 43:11 101:6</p> <p><b>single</b> 28:24 31:21</p> <p><b>sir</b> 10:12 20:4 21:3</p>	<p>22:21 24:20 41:18 44:15 45:4 46:7 51:12 51:19 53:1 55:13 56:3 57:14 58:19 59:2 61:16 63:2 64:1 67:3 67:10 67:22 67:25 68:14</p> <p><b>sis</b> 53:4 65:4</p> <p><b>sit</b> 71:12</p> <p><b>site</b> 19:7 48:12 48:22 49:8 52:19 72:12 82:16 82:25 83:13 84:2 93:25</p> <p><b>sitting</b> 78:8</p> <p><b>situation</b> 23:8 31:7 33:2 80:7 91:13</p> <p><b>six</b> 57:19 61:2 66:16</p> <p><b>skew</b> 34:12 34:15</p> <p><b>skills</b> 105:6</p> <p><b>slight</b> 77:6</p> <p><b>slightly</b> 16:17</p> <p><b>slot</b> 7:6</p> <p><b>small</b> 27:6 105:1 105:8</p> <p><b>soft</b> 52:7</p> <p><b>software</b> 54:14</p> <p><b>sold</b> 46:2</p> <p><b>solely</b> 20:17</p> <p><b>solicit</b> 95:20</p> <p><b>somebody</b> 32:21 56:18</p> <p><b>someone</b> 32:15 52:4</p> <p><b>something</b> 29:16 30:17 44:8 44:18 45:21 57:9 76:22</p> <p><b>sometimes</b> 77:6</p> <p><b>somewhat</b> 25:3 25:7</p> <p><b>sorry</b> 9:4 9:5 9:12 50:25 51:13 56:1 61:7 82:11</p> <p><b>source</b> 86:7 91:12 92:21</p> <p><b>south</b> 15:9 15:11 15:18 15:20 22:9 22:10 33:2 37:1 37:2</p> <p><b>span</b> 59:10</p> <p><b>speak</b> 13:24 13:25 26:2 88:20</p>
--	---	---	--	---

<p><b>special</b> 14:8 14:25 16:25 19:5 30:1 30:3 30:10 30:15 31:2 35:3 36:12 39:15 43:12 44:1 46:25 47:16</p> <p><b>specific</b> 55:6 76:22 89:9 95:7</p> <p><b>specifically</b> 54:8</p> <p><b>specified</b> 19:1</p> <p><b>speeches</b> 105:15</p> <p><b>speed</b> 101:18</p> <p><b>spelled</b> 3:24</p> <p><b>spoken</b> 81:11</p> <p><b>spots</b> 103:1</p> <p><b>staff</b> 32:19 83:24 84:3</p> <p><b>stainless</b> 46:14</p> <p><b>stamp</b> 15:22 17:2 25:14 26:10 30:14 31:18 32:24 33:3 43:11 55:22</p> <p><b>stamped</b> 26:4 43:9 43:16 46:8</p> <p><b>standpoint</b> 62:15 64:1 64:13</p> <p><b>start</b> 5:5 12:7 36:16 49:18 65:9</p> <p><b>started</b> 46:4 87:15</p> <p><b>starting</b> 15:4 62:12</p> <p><b>startup</b> 62:17 62:21 63:3</p> <p><b>state</b> 1:1 1:8 2:12 2:14 2:16 6:9 7:13 8:24 9:17 9:21 10:25 11:2 11:10 12:24 14:16 14:25 16:24 16:25 19:5 26:3 26:8 27:10 28:10 28:19 28:19 30:11 30:19 32:10 33:20 39:9 39:15 43:7 44:17 45:22 46:19 47:1 47:19 48:16 49:6 55:12 55:17 66:2 66:13 66:23 68:10 83:16 84:14 87:19 89:20 97:25 98:6 103:20 106:4 106:10 107:2</p>	<p>107:5 107:24</p> <p><b>stated</b> 15:19 90:4</p> <p><b>statement</b> 17:10 20:5</p> <p><b>states</b> 15:24 17:4 90:5 90:6 90:15 98:1 98:8</p> <p><b>stating</b> 67:12</p> <p><b>station</b> 72:14 72:17 73:7 73:10 78:6 78:9 79:5 79:23 80:1</p> <p><b>status</b> 19:5 62:25 78:7 104:2</p> <p><b>statute</b> 11:17</p> <p><b>stay</b> 4:23 60:24 67:1</p> <p><b>steam</b> 32:20 52:10 64:14 64:16</p> <p><b>steel</b> 46:3 46:14</p> <p><b>step</b> 79:6 104:19</p> <p><b>steve</b> 6:6 48:9</p> <p><b>still</b> 22:8 33:4 40:21 80:7 87:3 87:15 87:24 90:17 91:1 93:16 93:17</p> <p><b>stone</b> 1:23 5:8</p> <p><b>stop</b> 91:14 93:5 93:12</p> <p><b>stream</b> 38:21</p> <p><b>strength</b> 46:10</p> <p><b>stress</b> 31:24</p> <p><b>stresses</b> 27:14 27:19</p> <p><b>strong</b> 25:25</p> <p><b>stronghold</b> 17:20 18:21 23:3 23:6 23:16 23:22 32:11 37:19 40:4 41:17 43:6 43:17</p> <p><b>structural</b> 39:8</p> <p><b>struthers</b> 85:18</p> <p><b>stuff</b> 27:6</p> <p><b>style</b> 98:15</p> <p><b>subcommittee</b> 95:7</p> <p><b>subject</b> 19:24</p> <p><b>submission</b> 11:2 29:4 38:14 38:25</p> <p><b>submitted</b> 11:9 11:10</p> <p><b>submitting</b> 10:25</p> <p><b>successfully</b> 37:8</p> <p><b>sucker</b> 32:22</p>	<p><b>suffice</b> 43:14</p> <p><b>sufficient</b> 23:11 35:25 41:24</p> <p><b>suite</b> 1:24</p> <p><b>superintendent</b> 48:10</p> <p><b>supervisor</b> 6:11 89:5 89:25</p> <p><b>supplied</b> 92:24</p> <p><b>supply</b> 72:7 74:13</p> <p><b>support</b> 45:24</p> <p><b>supposed</b> 68:20 101:5</p> <p><b>sure</b> 4:22 17:5 20:23 29:24 32:12 34:3 40:5 40:9 44:12 45:9 45:13 54:23 69:9 69:11 69:16 70:18 77:4 77:8 81:13 81:14 94:12 95:3 100:3</p> <p><b>surrounding</b> 98:1 98:7</p> <p><b>survey</b> 31:22</p> <p><b>susceptibility</b> 62:16 62:20</p> <p><b>suspect</b> 24:4</p> <p><b>sustain</b> 64:20</p> <p><b>swezy</b> 5:25 5:25 14:12 14:19 14:20 19:18 19:19 20:3 20:19 20:23 21:2 21:4 21:6 22:5 22:22 23:20 24:10 25:15 25:21 26:14 26:24 27:9 29:2 29:8 30:8 31:4 34:5 34:8 34:14 34:17 36:7 36:20 36:21 40:1 40:3 40:14 41:2 41:5 41:16 41:19 42:20 44:7 44:14 44:25 45:5 45:17 46:6 46:12 47:21 47:23</p> <p><b>switch</b> 52:2 52:4 52:21 65:6 79:11</p> <p><b>switches</b> 50:16 50:19 51:16 51:23 52:9 64:22</p>	<p><b>system</b> 26:21 48:21 50:15 51:3 51:5 52:22 53:2 67:1 72:22 72:25 73:22 73:23 75:11 75:12 76:17 76:20 76:21 84:9 93:16</p> <p><b>systemic</b> 16:18</p> <p><b>systems</b> 65:4 76:7</p> <hr/> <p style="text-align: center;"><b>T</b></p> <hr/> <p><b>table</b> 7:3 14:14 24:25 25:11 46:24 69:5 82:6 96:14</p> <p><b>take</b> 25:13 27:18 29:17 51:6 62:15 71:11 81:12 81:22 92:8 102:11 102:13 103:12 105:5 106:14</p> <p><b>taken</b> 17:16 18:2 18:5 18:11 107:8</p> <p><b>talked</b> 27:9 47:17 100:24</p> <p><b>talking</b> 41:5 52:14 65:3 68:6 91:11 100:7 100:9</p> <p><b>talks</b> 57:15</p> <p><b>tasked</b> 31:8</p> <p><b>tasks</b> 33:5</p> <p><b>team</b> 73:8</p> <p><b>tech</b> 3:2 3:3 6:1 14:6 14:20 36:9 48:22 48:23 104:8</p> <p><b>technical</b> 28:15 29:15 32:19 67:15 69:10 84:9</p> <p><b>technician</b> 73:9</p> <p><b>technology</b> 103:7</p> <p><b>tell</b> 22:9</p> <p><b>temp</b> 86:3</p> <p><b>temperature</b> 43:1 43:24 58:7</p> <p><b>temperatures</b> 18:15</p> <p><b>tennessee</b> 1:1 1:8 1:24 2:12 2:14 2:16 4:3 6:9 6:13 10:5 14:8 14:11 15:1 26:3 26:8 27:10 28:8 28:10 28:19</p>	<p>30:1 30:3 30:10 30:12 30:15 30:19 30:22 31:2 35:2 36:12 36:15 38:7 39:10 39:15 43:12 44:1 46:25 47:16 47:20 47:20 48:5 54:25 66:14 71:21 84:15 84:24 95:1 104:8 105:12 106:10 107:2 107:5 107:10</p> <p><b>tenure</b> 104:6</p> <p><b>terms</b> 19:24 24:13 37:20</p> <p><b>test</b> 28:14 61:6</p> <p><b>testing</b> 16:6 35:3 44:3 44:4</p> <p><b>texas</b> 55:23</p> <p><b>text</b> 77:4 77:8</p> <p><b>thank</b> 9:7 10:12 12:20 24:20 33:23 35:14 36:6 36:21 44:24 46:22 47:23 47:25 50:2 50:11 55:10 56:3 62:1 71:8 71:9 83:10 83:11 84:17 84:19 90:14 94:15 101:20 101:21 101:22 104:14 104:16 105:14 106:11 106:11</p> <p><b>thankful</b> 102:23 103:14</p> <p><b>their</b> 14:25 17:11 22:3 22:11 24:5 24:6 29:19 41:20 69:14 72:22 73:7 77:18 79:3 80:13 82:17 89:17 96:13</p> <p><b>them</b> 8:21 10:24 10:25 18:16 21:8 26:9 28:17 31:17 41:24 65:1 79:13 79:15 81:18 87:17 99:18 104:13</p> <p><b>themselves</b> 5:6 29:13</p> <p><b>they</b> 7:2 7:9 7:10 10:23 11:3 11:5</p>
---	---	---	---	--

<p>11:19 15:22 16:5 16:19 16:23 17:4 20:8 21:8 21:10 21:10 21:12 21:15 21:17 21:20 22:23 23:17 23:22 23:25 24:2 24:6 26:6 26:8 26:10 26:23 27:6 29:18 30:12 30:12 32:21 33:11 34:17 34:21 40:4 40:6 40:7 40:8 41:10 42:3 43:7 44:4 45:7 46:8 46:9 51:21 51:23 51:24 53:16 55:14 55:24 55:24 66:3 68:13 68:17 68:18 69:10 69:12 69:13 72:19 72:21 72:23 74:16 75:8 77:2 77:10 78:24 78:24 79:2 79:10 79:10 79:11 79:12 79:15 79:16 79:21 79:22 80:13 81:2 81:4 81:20 84:15 85:22 88:21 88:23 90:24 92:7 104:13 104:19 <b>thicker</b> 29:18 <b>thickness</b> 17:24 18:5 18:6 18:20 18:22 23:24 24:13 29:18 31:22 37:20 40:17 41:21 41:22 43:3 43:13 43:22 43:23 <b>thicknesses</b> 17:24 25:1 27:25 28:1 43:4 <b>thing</b> 29:11 29:21 30:8 32:14 38:23 73:21 77:9 92:8 103:21 <b>things</b> 19:6 25:18 31:5 52:6 52:11 63:10 84:14 95:9 95:19 96:6 96:15 101:3 103:18 <b>think</b> 20:4 23:12 25:24 26:14 32:8 33:12 33:18 33:22</p>	<p>39:11 40:6 42:12 42:19 44:19 50:15 56:18 59:20 60:14 60:17 62:4 62:22 63:19 63:23 64:1 64:6 78:13 80:5 81:25 91:4 98:20 100:3 104:22 105:17 <b>thinking</b> 80:8 80:15 80:17 103:23 <b>thinned</b> 43:19 <b>third</b> 15:23 21:7 21:11 21:13 21:17 50:17 <b>thoroughly</b> 24:12 <b>thought</b> 31:25 61:13 <b>three</b> 7:11 51:16 51:18 86:22 87:5 87:12 <b>throats</b> 63:11 <b>through</b> 10:2 12:19 18:13 30:13 30:18 30:18 31:12 31:22 32:4 64:4 64:14 64:18 78:5 86:4 86:4 89:2 94:22 103:10 103:12 <b>throws</b> 32:17 <b>thursday</b> 96:22 97:4 <b>tie</b> 35:25 82:1 <b>tied</b> 92:8 <b>time</b> 4:7 11:7 11:22 13:1 15:16 16:19 18:10 18:19 24:19 37:17 37:22 42:19 47:24 49:13 50:14 56:1 60:9 60:11 63:14 63:17 63:22 63:24 64:9 64:11 105:5 105:21 <b>times</b> 30:23 <b>titles</b> 73:7 77:5 <b>titusville</b> 14:21 <b>tn</b> 3:22 <b>today</b> 4:15 26:2 28:8 48:14 68:22 85:15 102:7 <b>together</b> 22:3 29:3 87:17 92:19</p>	<p><b>token</b> 105:1 105:8 <b>tooth</b> 29:23 <b>top</b> 45:3 <b>topics</b> 95:17 <b>total</b> 9:18 9:20 9:22 10:3 75:12 76:20 76:20 100:8 <b>traditions</b> 106:9 <b>trained</b> 77:13 81:17 88:8 <b>trainers</b> 96:25 <b>training</b> 48:23 77:11 77:12 77:17 77:19 88:10 88:15 88:18 88:20 89:8 89:11 89:18 96:21 96:24 101:16 <b>transcript</b> 107:8 <b>travel</b> 4:18 <b>tray</b> 86:5 <b>treat</b> 100:18 <b>treatment</b> 67:18 <b>trip</b> 91:14 92:25 <b>trips</b> 65:5 <b>trouble</b> 45:1 <b>true</b> 107:7 <b>truly</b> 59:21 <b>try</b> 23:23 29:3 <b>trying</b> 16:21 20:7 26:14 32:5 98:1 <b>tube</b> 28:23 72:10 74:21 74:22 74:23 74:25 <b>tubes</b> 29:13 29:18 86:4 <b>tubesheets</b> 28:25 <b>tuesday</b> 96:14 96:17 <b>turbine</b> 92:17 <b>turned</b> 79:11 <b>twisted</b> 58:17 <b>two</b> 35:23 48:17 51:18 51:19 54:15 59:10 71:20 72:9 72:24 73:13 75:22 75:24 81:7 87:14 90:22 103:12 <b>type</b> 20:5 33:13 50:19 50:20 74:15 74:18 74:25 77:3 96:1</p>	<p><b>typed</b> 89:22 <b>typical</b> 20:5 33:11 <b>typically</b> 13:3 23:20 62:11 83:18 <b>typo</b> 61:11</p> <hr/> <p style="text-align: center;"><b>U</b></p> <hr/> <p><b>ul</b> 75:7 75:10 75:11 75:13 75:17 75:21 75:23 76:4 76:13 76:21 82:12 82:24 <b>ullage</b> 34:18 <b>uncertain</b> 61:13 <b>uncorrected</b> 9:24 <b>under</b> 16:1 16:17 26:18 26:21 27:11 33:14 33:15 37:2 39:13 53:16 53:25 54:1 54:19 57:23 58:5 58:15 59:14 66:14 74:24 75:2 76:11 86:25 87:20 88:10 88:11 89:16 89:16 90:16 90:17 91:1 <b>understand</b> 20:20 24:10 27:10 27:21 29:7 29:7 30:9 31:1 32:6 55:8 79:25 79:25 80:1 103:16 <b>understanding</b> 87:18 <b>undertolerance</b> 29:17 <b>underway</b> 96:8 <b>unfired</b> 71:18 <b>unfortunately</b> 19:20 46:9 102:15 104:24 <b>unit</b> 10:4 13:3 18:13 28:14 28:16 29:22 30:18 35:4 44:2 44:3 69:8 82:25 84:15 92:22 107:12 <b>united</b> 15:24 17:3 <b>units</b> 62:12 64:16 86:22 87:6 87:12 87:13 <b>universities</b> 104:7 <b>university</b> 6:9 <b>unknowingly</b> 29:13 <b>unless</b> 3:24 24:3</p>	<p><b>unpaid</b> 105:3 <b>unreasonable</b> 38:16 <b>unsafe</b> 41:25 <b>unscheduled</b> 63:7 <b>until</b> 11:19 37:9 52:4 78:5 102:18 <b>up</b> 13:25 14:13 14:15 22:15 29:10 32:18 40:8 46:19 49:11 49:16 57:12 61:1 62:12 65:9 66:6 68:21 68:22 72:11 78:25 89:21 92:24 98:4 98:14 101:18 102:18 103:8 103:20 106:15 <b>upcoming</b> 10:7 69:20 <b>update</b> 3:13 3:17 9:2 10:18 77:18 90:9 94:19 94:21 <b>updated</b> 13:5 13:14 73:3 73:14 75:20 83:21 <b>updates</b> 10:3 48:24 <b>upon</b> 14:17 25:9 32:3 41:10 59:11 59:22 82:12 106:6 <b>upstream</b> 86:1 <b>us</b> 4:11 9:18 9:22 11:5 26:15 26:25 62:14 62:19 71:12 71:12 81:13 94:19 101:25 102:15 102:20 105:5 <b>use</b> 15:6 15:7 16:13 16:17 18:25 38:7 48:22 55:3 <b>used</b> 40:19 58:7 58:8 64:25 <b>user</b> 2:2 2:8 12:16 12:18 26:2 27:16 27:17 58:24 <b>users</b> 12:25 <b>using</b> 27:22 53:23 84:1 85:23 87:6 87:24 <b>usually</b> 11:1 <b>ut</b> 17:24 31:22 <b>utilize</b> 48:20 55:22 70:3 98:19</p>
---	--	--	--	---

<b>utilizes</b> 73:24	83:7 86:20 93:20	<b>visual</b> 17:21 23:17	<b>weld</b> 24:8 30:16	33:19 33:21 36:13
<b>utilizing</b> 98:12	94:6	24:7 24:7 37:20	63:11	47:18 47:19 48:20
<hr/> <b>V</b> <hr/>	<b>verbally</b> 68:16 68:23	40:7 43:13 61:9	<b>welding</b> 21:14 23:18	48:23 51:11 52:4
<b>vacation</b> 10:23	<b>verbiage</b> 25:4 57:25	68:9	24:7	55:12 59:5 59:11
<b>valero</b> 3:4 6:4 6:6	66:21	<b>visually</b> 24:1	<b>welds</b> 23:19 24:1	59:19 61:9 66:18
12:23 48:2 48:8	<b>verification</b> 17:24	<b>volumetric</b> 23:18	24:3 45:12	66:19 70:4 70:15
69:6	21:25 38:8 43:12	24:3	<b>wells</b> 85:18	72:24 73:5 73:9
<b>valve</b> 92:25 93:6	82:24	<b>voluminous</b> 38:15	<b>wendy</b> 72:6 74:16	73:10 73:11 73:23
<b>vanderbilt</b> 103:9	<b>verifications</b> 23:21	<b>vote</b> 94:10 94:11	<b>went</b> 31:12 31:22	77:18 77:21 77:22
<b>variance</b> 7:7 7:8 7:10	<b>verified</b> 23:12 32:1	94:12	32:4 38:1 45:1 89:1	80:25 82:1 84:25
7:11 7:14 9:25	33:19 45:22	<b>voting</b> 8:7 35:21	89:1 103:6 103:10	89:15 89:24 93:2
48:15 49:12 58:23	<b>verify</b> 23:4 24:17	47:13 71:3 83:6	104:8	93:13 94:11 94:12
59:12 66:5 66:13	30:4 32:5 38:4	94:8	<b>whatever</b> 23:25	95:23 96:2 96:9
66:14 66:19 67:14	43:10 43:13 47:2	<hr/> <b>W</b> <hr/>	34:19	96:12 96:23 97:4
69:7 69:14 70:3	<b>verifying</b> 24:13 31:9	<b>want</b> 28:19 28:25	<b>when</b> 8:13 13:1	98:25 100:18
71:7 71:18 72:9	32:9	29:10 30:4 38:14	13:24 14:13 19:20	100:19 101:7
72:20 73:1 82:7	<b>vertical</b> 28:23	42:18 43:10 61:14	22:16 27:12 29:15	101:18 102:8
83:9 84:22 84:22	<b>vessel</b> 15:13 16:7	61:21 66:8 70:17	32:23 33:19 40:8	102:14 104:1
86:25 87:3 87:12	16:9 17:10 17:11	81:14 81:17 98:15	40:19 41:7 41:16	<b>williamson</b> 107:3
87:21 88:24 90:6	17:17 18:24 19:8	98:18 100:1 102:13	45:5 45:22 46:2	<b>wish</b> 38:19
90:7 93:23 94:14	23:1 23:9 23:24	103:18 105:9	52:16 52:17 55:22	<b>within</b> 4:12 11:1
<b>various</b> 104:7	24:18 25:2 25:24	<b>wanted</b> 17:4 27:20	62:11 64:3 64:25	25:10 62:23 75:21
<b>ve</b> 14:14 14:21 15:2	26:3 26:4 26:6	32:14 32:21 45:9	79:21 83:13 84:5	91:15 107:7
18:18 22:15 22:19	26:19 27:3 27:11	45:13 103:21	88:24 103:24	<b>witness</b> 107:20
23:16 40:25 42:3	27:18 28:3 28:7	104:25	<b>whenever</b> 11:18	<b>witnessing</b> 21:13
48:17 50:17 51:4	28:8 28:13 28:17	<b>wanting</b> 44:8 87:16	32:15 32:21	21:18
51:16 51:17 57:12	28:18 29:14 29:23	43:15	<b>where</b> 12:11 16:11	<b>won</b> 93:1
58:9 62:23 65:25	32:2 32:5 32:16	<b>wasn</b> 43:15	17:4 20:7 23:8	<b>worchester</b> 103:5
66:4 67:1 71:12	34:4 34:19 34:20	<b>waste</b> 85:16 85:22	23:16 39:7 41:20	<b>word</b> 25:6 25:13
75:6 76:6 76:19	35:2 36:11 36:23	85:24 88:16 90:22	44:11 55:8 56:9	<b>worded</b> 57:13
78:10 78:11 79:2	37:2 37:5 37:14	91:8 93:24	57:17 58:5 58:17	<b>wording</b> 59:19 60:18
79:10 79:10 79:11	37:21 37:23 38:20	<b>water</b> 51:21 53:11	59:20 62:20 65:11	60:19
79:12 79:16 81:2	39:12 42:25 43:2	58:7 65:19 67:18	72:14 72:19 75:14	<b>words</b> 51:4 79:15
81:4 81:13 81:17	43:10 43:12 43:14	74:21 74:23 92:17	78:8 90:20 91:16	90:11
83:14 84:2 93:22	45:2 45:3 45:7	92:21 92:22 92:23	104:8 105:18	<b>work</b> 12:14 14:1
95:16 95:17 97:25	46:25 47:2 71:18	93:2 93:4 93:16	<b>whereas</b> 21:14 21:19	21:24 27:22 28:25
98:13 98:17 98:21	<b>vessels</b> 29:25 30:11	<b>waters</b> 92:7	<b>whereof</b> 107:20	30:13 30:23 38:11
100:5 100:24	31:10 31:14 31:21	<b>watson</b> 68:8 68:20	<b>whether</b> 33:7 43:10	63:6 64:4 64:11
101:23 102:9	61:9 69:8	<b>way</b> 11:17 11:17 12:2	59:22 66:2	80:25 101:23
104:19 105:2	<b>vested</b> 106:6	40:9 51:11 80:24	<b>who</b> 14:3 38:11	104:11
105:16 105:17	<b>vi</b> 3:15 14:4	86:9 107:17	52:16 68:4 88:8	<b>workday</b> 96:13
105:21 105:21	<b>vicinity</b> 91:15 91:16	<b>website</b> 13:5 13:6	<b>whoever</b> 28:11	<b>worked</b> 99:24 104:4
<b>verbal</b> 5:2 7:17 7:25	<b>vii</b> 3:16	13:14 13:17 89:20	<b>why</b> 23:2 27:21	<b>workforce</b> 1:1 3:21
8:5 8:8 10:15 13:22	<b>viii</b> 3:18 15:15 37:3	95:24 97:21	44:25 45:10 59:18	107:11
34:25 35:6 35:16	43:21	<b>wednesday</b> 3:20	62:4 80:9 98:11	<b>working</b> 52:11 69:24
35:22 36:18 42:17	<b>violating</b> 43:15	96:18	100:20	<b>workplace</b> 107:12
47:11 47:14 50:5	<b>violations</b> 9:23 9:24	<b>week</b> 88:17 89:8	<b>will</b> 4:11 8:12 8:22	<b>works</b> 20:25 69:16
65:23 69:3 70:21	<b>virtue</b> 106:5	104:9	11:9 12:24 13:4	<b>worst</b> 41:14
71:1 71:4 71:24	<b>visit</b> 83:13 93:25	<b>welcome</b> 6:25 50:8	13:6 13:14 14:9	<b>worth</b> 4:7 81:8
74:20 82:4 83:4	<b>visitors</b> 4:8	84:19 85:13	23:5 28:15 29:22	<b>wouldn</b> 11:14 46:15

<p><b>wow</b> 101:12 101:17  <b>write</b> 4:20  <b>writing</b> 67:8 67:9  <b>written</b> 81:22</p> <hr/> <p style="text-align: center;"><b>X</b></p> <hr/> <p><b>xi</b> 102:6</p> <hr/> <p style="text-align: center;"><b>Y</b></p> <hr/> <p><b>yeah</b> 21:2 25:21  34:22 42:8 45:15  45:17 51:11 56:21  57:1 57:17 61:3  75:8 77:20 87:10  88:3 92:13 92:18  92:23 93:14 99:18  100:5 102:1  <b>year</b> 11:20 25:2  59:10 70:4  <b>years</b> 16:12 22:11  26:21 37:9 75:22  75:24 76:7 102:18  102:20 104:5 104:9  105:11  <b>yeas</b> 35:24  <b>yellow</b> 80:24  <b>young</b> 104:12 104:12  <b>yourselves</b> 71:22</p> <hr/> <p style="text-align: center;"><b>0</b></p> <hr/> <p><b>00</b> 3:20  <b>03</b> 3:14 3:14 9:2 9:2  10:19 10:19 66:25  66:25 71:20 71:20  <b>04</b> 66:25 71:20  <b>07</b> 3:2 3:15 14:5  <b>08</b> 3:3 3:15 36:9  <b>0800</b> 3:14 9:2 10:19  71:20  <b>09</b> 3:4 3:15 48:2  <b>098</b> 9:22</p> <hr/> <p style="text-align: center;"><b>1</b></p> <hr/> <p><b>10</b> 3:5 3:15 48:4  48:17 62:23 64:6  69:24 71:12 71:14  71:17 77:25  <b>100</b> 67:2 72:16  <b>105</b> 43:20 43:22  <b>1089</b> 1:25</p>	<p><b>11</b> 3:6 3:15 7:6 48:4  48:17 62:24 64:8  65:15 69:25 84:20  102:18  <b>110</b> 66:15  <b>12</b> 29:17 59:16 59:23  90:9 105:11  <b>122</b> 66:15  <b>13</b> 71:11 102:20  <b>14</b> 3:2 10:5  <b>15</b> 1:10 3:13 9:1  10:18 26:5 102:19  107:25  <b>150</b> 95:12 96:4 97:14  98:20 98:25 99:2  101:10  <b>15th</b> 105:13 107:13  <b>16</b> 3:2 3:3 3:4 3:5 3:6  3:15 3:15 3:15 3:15  3:15 7:6 14:5 36:9  48:2 71:17 84:20  102:19  <b>1600</b> 86:2  <b>16250</b> 73:16  <b>16261</b> 73:19  <b>17</b> 9:24  <b>18</b> 58:25 59:17 59:23  60:7 62:9 62:19  <b>1973</b> 103:6  <b>1974</b> 103:7 104:5  <b>1976</b> 104:5  <b>1978</b> 103:9  <b>1987</b> 85:19  <b>1995</b> 15:16 26:19  27:8 27:22 27:24  38:8 38:9 42:21  46:2  <b>1998</b> 27:11 27:12  <b>19th</b> 94:22</p> <hr/> <p style="text-align: center;"><b>2</b></p> <hr/> <p><b>20</b> 3:13 9:1 10:18  67:5 87:3 87:16  87:25  <b>2001</b> 104:3  <b>2002</b> 102:18  <b>2012</b> 102:16 102:18  <b>2014</b> 57:11  <b>2015</b> 7:11 89:2 89:7  89:13 90:4</p>	<p><b>2016</b> 1:10 3:20 10:2  11:24 73:17 73:20  105:13 107:13  107:21  <b>2017</b> 12:2  <b>2020</b> 1:23 107:25  <b>203</b> 43:19  <b>21</b> 3:20 25:2 26:21  73:17  <b>22</b> 66:25 71:20 82:7  <b>220</b> 3:21  <b>221</b> 1:25  <b>234</b> 1:24  <b>23rd</b> 94:22  <b>24</b> 58:25 59:23 62:9  62:19 64:20 70:15  70:17  <b>26</b> 73:20  <b>28</b> 9:23</p> <hr/> <p style="text-align: center;"><b>3</b></p> <hr/> <p><b>30</b> 71:12 71:14  <b>300</b> 98:19  <b>31</b> 104:9  <b>36</b> 3:3  <b>37069</b> 1:24  <b>371</b> 1:22 107:24</p> <hr/> <p style="text-align: center;"><b>4</b></p> <hr/> <p><b>40</b> 88:18  <b>4000</b> 73:24 75:6  75:15 76:3 76:13  76:20 82:25  <b>402</b> 9:19  <b>447</b> 9:22  <b>48</b> 3:4</p> <hr/> <p style="text-align: center;"><b>5</b></p> <hr/> <p><b>510</b> 55:15  <b>580</b> 54:7 54:13  <b>581</b> 54:13</p> <hr/> <p style="text-align: center;"><b>6</b></p> <hr/> <p><b>60</b> 61:1 61:10  <b>600</b> 31:15 31:16  <b>615</b> 1:25  <b>650</b> 9:17  <b>651</b> 9:21  <b>68</b> 66:15</p>	<p style="text-align: center;"><b>7</b></p> <hr/> <p><b>71</b> 3:5  <b>752</b> 9:18  <b>780</b> 75:10 75:15  76:14 76:15 76:16  <b>780e</b> 73:24</p> <hr/> <p style="text-align: center;"><b>8</b></p> <hr/> <p><b>800</b> 66:25  <b>84</b> 3:6  <b>8th</b> 107:21</p> <hr/> <p style="text-align: center;"><b>9</b></p> <hr/> <p><b>90</b> 11:1  <b>900</b> 1:24  <b>904I</b> 44:11  <b>95</b> 46:10  <b>98</b> 42:5 42:9 42:22</p>	
--	---	---	---	--