

FOR THE CASE OF  
TN Department of Labor & Workforce  
Development

TRANSCRIPT OF  
Board of Boiler Rules

December 3, 2014

*Stone & George*

COURT REPORTING

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BOARD OF BOILER RULES

December 3, 2014

9:00 a.m.

Department of Labor and Workforce Development

220 French Landing Drive

Nashville, TN 37243

TOSHA HEARING ROOM

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1 APPEARANCES:

2

CHAIRMAN BRIAN MORELOCK, Board Member  
Eastman Chemical

3

4

EUGENE ROBINSON, Board Member  
Travelers

5

DOMENIC CANONICO, Board Member  
Canonico & Associates

6

7

DAVE BAUGHMAN, Board Member  
Allied Boiler & Supply

8

SAM CHAPMAN  
Assistant Chief Boiler Inspector, State of  
Tennessee

9

10

KIM Y. JEFFERSON  
Administrator, Tennessee Department of Labor  
and Workforce Development

11

12

MARK FINKS  
Assistant Administrator, Tennessee  
Department of Labor and Workforce  
Development

13

14

15

CAROLYN SHERROD  
Assistant Board Secretary, Tennessee  
Department of Labor and Workforce  
Development

16

17

SYDNA EWELL  
Legal Counsel, Tennessee Department of Labor  
and Workforce Development

18

19

BILL CAIN  
Representing University of Tennessee,  
Barham/Cain/Mynatt

20

21

ROY WOOD  
BAE Systems

22

23

CHARLIE PHILLIPS  
BAE Systems

24

25

ALLEN TRIPP  
Combustion and Control Solutions

1 APPEARANCES (Continued):

2

DAVID FLOWERS  
Combustion and Control Solutions.

4

RICHARD ENG  
Wacker Polysilicon

5

THOMAS KASTENBERGER  
Wacker Polysilicon

6

7

NEIL JACKSON  
Consultant, State of Tennessee

8

SAMMY SITZ  
Boiler Inspector, State of Tennessee

9

10

TIM HOLT  
Boiler Inspector, State of Tennessee

11

12

DEBORAH RHONE  
Supervisor, Boiler Office, State of  
Tennessee

13

14

DAN BAILEY  
Attorney, Tennessee Department of Labor

15

JAMES NEVILLE  
Neville Engineering

16

17

RYAN HERTTER  
Hertter Mechanical Services

18

MARK BONDI  
Mitsubishi Electric

19

20

STEPHEN HEATER  
UT Battelle and Oak Ridge National Life

21

DENIS ROTH  
Jack Daniels

22

23

MELANIE SANDERS  
Jack Daniels

24

DAVID HORTON  
Jack Daniels

25

1 APPEARANCES (Continued):

2

MIKE TIPPS  
Jack Daniels

3

4

RANDALL HARRIS  
Chief inspector, US Nitrogen

5

NATHAN DANIEL  
Maintenance engineer, US Nitrogen

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## I N D E X

|    |   | Page/Line |
|----|---|-----------|
| 1  |   |           |
| 2  |   |           |
| 3  |   |           |
| 4  | Call to Order .....                     | 8 2       |
| 5  | Introductions and Announcements .....   | 8 11      |
| 6  | Adoption of the Agenda .....            | 12 16     |
| 7  | Annual Conflict of Interest .....       | 14 16     |
| 8  | Policy, Acknowledgment and Disclosure   |           |
| 9  | Assistant Chief's Report .....          | 15 2      |
| 10 | Old Business .....                      | 16 1      |
| 11 | New Business - 14-12, University .....  | 16 4      |
| 12 | of Tennessee request a variance to      |           |
| 13 | operate two high-pressure boilers       |           |
| 14 | under the requirement of Chapter        |           |
| 15 | 0800-03-03-.04(22). Boilers located     |           |
| 16 | at Translational Science Research       |           |
| 17 | (TSRB) Building, 71 South Manassas      |           |
| 18 | Street, Memphis, Tennessee              |           |
| 19 | Presentation by Bill Cain .....         | 16 15     |
| 20 | New Business - 14-13, BAE Systems ..... | 34 17     |
| 21 | Ordnance Systems, Inc. request a        |           |
| 22 | variance to operate four                |           |
| 23 | high-pressure boilers under the         |           |
| 24 | requirement of Chapter                  |           |
| 25 | 0800-03-03-.04(22). Boilers located     |           |
|    | at 4509 West Stone Drive, Bldg 262,     |           |
|    | referred to as Miura Boiler House,      |           |
|    | Kingsport, Tennessee                    |           |
|    | Presentation by David Flowers, .....    | 34 23     |
|    | Roy Wood, and Charlie Phillips          |           |

## I N D E X (Continued)

|    | Page/Line |   |
|----|-----------|---|
| 1  |           |   |
| 2  |           |   |
| 3  |           |   |
| 4  | 59 13     | New Business - 14-14, Mitsubishi .....  |
| 5  |           | Electric Power Products, Inc. request   |
| 6  |           | a variance to operate two               |
| 7  |           | high-pressure boilers under the         |
| 8  |           | requirement of Chapter                  |
| 9  |           | 0800-03-03-04(22). Boilers located      |
| 10 |           | at 2855 Riverport Road, Memphis,        |
| 11 |           | Tennessee                               |
| 12 | 59 20     | Presentation by Ryan Hertter, .....     |
| 13 |           | Hertter Mechanical Services; and Mark   |
| 14 |           | Bondi, Mitsubishi Electric              |
| 15 |           |   |
| 16 | 96 16     | New Business - 14-15, Jack Daniel ..... |
| 17 |           | Distillery request a variance to        |
| 18 |           | operate two wood-fired boilers          |
| 19 |           | under the requirement of Chapter        |
| 20 |           | 0800-03-03-04(22). Boilers located      |
| 21 |           | at 590 Lynchburg Highway, Lynchburg,    |
| 22 |           | Tennessee                               |
| 23 | 96 23     | Presentation by Mike Tipps, .....       |
| 24 |           | David Horton, and Melanie Sanders,      |
| 25 |           | Jack Daniel Distillery                  |
| 26 |           |   |
| 27 | 130 8     | New Business - 14-16, Jack Daniel ..... |
| 28 |           | Distillery request a variance to        |
| 29 |           | operate two natural gas boilers under   |
| 30 |           | the requirement of Chapter              |
| 31 |           | 0800-03-03-04(22). Boilers located      |
| 32 |           | at 590 Lynchburg Highway, Lynchburg,    |
| 33 |           | Tennessee                               |
| 34 | 130 11    | Presentation by Mike Tipps, .....       |
| 35 |           | David Horton, and Melanie Sanders,      |
| 36 |           | Jack Daniel Distillery                  |
| 37 |           |   |
| 38 | 142 17    | New Business - Item 14-17, Wacker ..... |
| 39 |           | Polysilicon                             |
| 40 |           |   |
| 41 | 142 24    | Presentation by Richard Eng and .....   |
| 42 |           | Thomas Kastenberger, Wacker             |
| 43 |           | Polysilicon                             |
| 44 |           |   |
| 45 |           |   |



I N D E X (Continued)

1  
2  
3  
4  
5  
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12  
13  
14  
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16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Page/Line

|   |     |    |
|---|-----|----|
| Open Discussion Items - Fall .....      | 169 | 14 |
| Conference Update                       |     |    |
| Remarks by Deborah Rhone .....          | 169 | 16 |
| Open Discussion Items - .....           | 172 | 22 |
| Reorganization of Rule 0800-03-03       |     |    |
| Rule Cases & Interpretations.....       | 174 | 9  |
| Schedule for next Board of Boiler ..... | 174 | 11 |
| Rules Meeting                           |     |    |
| Adjournment .....                       | 177 | 21 |

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

2                   CHAIRMAN MORELOCK: Good morning,  
3 everybody. It's 9:00, and I would like to call  
4 this quarterly meeting of the Tennessee Board of  
5 Boiler Rules to order.

6                   We have some agendas on the back  
7 table, if you don't have one. Certainly make  
8 yourself available to that.

9                   Please -- as a courtesy, please  
10 silence your cell phones while we meet.

11                  So as we get started, let's start  
12 with the introductions, please. And we'll start  
13 with our court reporter, Debbie. So if you'll  
14 start, we'll go around.

15                  THE REPORTER: I'm Debbie Watson,  
16 Court Reporter.

17                  MR. CHAPMAN: I'm Sam Chapman,  
18 Assistant Chief Boiler Inspector.

19                  MR. ROBINSON: I'm Eugene Robinson,  
20 Board Member, Boiler Board Member.

21                  CHAIRMAN MORELOCK: Brian Morelock,  
22 Board Member.

23                  DR. CANONICO: Domenic Canonico,  
24 Board Member.

25                  MR. BAUGHMAN: Dave Baughman, Board

1 Member.

2 MS. EWELL: Sydn  Ewell, Legal  
3 Counsel.

4 CHAIRMAN MORELOCK: We'll start  
5 with our . . .

6 MR. CAIN: Bill Cain,  
7 Barham/Cain/Mynatt, representing University of  
8 Tennessee.

9 MR. WOOD: Roy Wood. I'm with BAE  
10 Systems.

11 MR. PHILLIPS: Charlie Phillips,  
12 BAE Systems.

13 MR. TRIPP: Allen Tripp with  
14 Combustion and Control Solutions.

15 MR. FLOWERS: David Flowers,  
16 Combustion and Control Solutions.

17 MR. ENG: Richard Eng, Wacker  
18 Polysilicon.

19 MR. KASTENBERGER: Thomas  
20 Kastenberger with Wacker Polysilicon.

21 MR. JACKSON: Neil Jackson,  
22 consultant to the State of Tennessee.

23 MR. SITZ: Sammy Sitz, State of  
24 Tennessee Boiler Inspectors.

25 MR. HOLT: Tim Holt, State Boiler

1 Inspector.

2 MS. RHONE: Deborah Rhone, Boiler  
3 Office Supervisor.

4 MR. BAILEY: Dan Bailey. I'm an  
5 attorney with the Tennessee Department of Labor.

6 MR. NEVILLE: James Neville,  
7 Neville Engineering.

8 MR. HERTTER: Ryan Hertter, Hertter  
9 Mechanical Services.

10 MR. BONDI: Mark Bondi with  
11 Mitsubishi Electric.

12 MR. HEATER: Stephen Heater with UT  
13 Battelle and Oak Ridge National Life.

14 MR. ROTH: Denis Roth, Jack  
15 Daniels.

16 MS. SANDERS: Melanie Sanders, Jack  
17 Daniels.

18 MR. HORTON: David Horton, Jack  
19 Daniels.

20 MR. TIPPS: Mike Tipps, Jack  
21 Daniels.

22 CHAIRMAN MORELOCK: All right.  
23 Well, welcome again, everybody. And we do have an  
24 attendance sheet that we'll be circulating, so  
25 please make sure that you sign that when it comes

1 through, please.

2 Our next item is announcements, and  
3 we just have a few. The first one will be related  
4 to kind of -- to a safety item. In the event that  
5 we would have an emergency or a natural disaster  
6 during the -- during our meeting time today, just  
7 be aware that there are alarms in the building and  
8 security personnel that will direct you, the  
9 attendees, and us either to a safe location in the  
10 building or, if need be, we would be asked to exit  
11 the building on the Rosa Parks side of the  
12 building. So just be aware of that.

13 And we're -- we miss Carlene this  
14 morning. From what I understand, she's out sick,  
15 so just remember her today. And I also wanted to  
16 let you know that -- some of you may remember Bob  
17 Elliott. He's a former Tennessee board member and  
18 past chair of this board. Next week on December  
19 the 10th, he'll be having some cancer surgery at  
20 UVA Medical Center, so just please remember him.

21 And I wanted to -- SydnÃ©, does  
22 anybody from the State want to make a short report  
23 on the results of the Sunset hearing, or do you  
24 want me to report that?

25 MS. EWELL: You may report it.

1 That would be fine.

2 CHAIRMAN MORELOCK: Okay. This  
3 board is -- goes through a review process every  
4 four years, and on November the 19th, Mr. Dave  
5 Baughman and Mr. Eugene Robinson represented the  
6 Tennessee board and made their presentation, and  
7 so we have been reapproved for another four-year  
8 cycle, so we're very thankful for that. And we  
9 want to thank these gentlemen for their time and  
10 preparation to attend that meeting.

11 And you did a good job, so thank  
12 you for that.

13 And that's all the announcements I  
14 have. Does anybody else have an announcement they  
15 want to make before we move on with the agenda?

16 All right. Hearing none, our next  
17 item is the adoption of the agenda. Like I said,  
18 they're on the back table for our visitors and  
19 guests, if you don't have one. And board members  
20 should have those, so do we have any items we want  
21 to add to the agenda?

22 Yes, sir.

23 MR. ENG: Yes, I would like to  
24 comment to add the Wacker Polysilicon mechanical  
25 integrity and RBI technical package for today's

1 open discussion, please.

2 CHAIRMAN MORELOCK: Okay. Do we  
3 have a package for that?

4 MR. CHAPMAN: I have it upstairs.

5 CHAIRMAN MORELOCK: You have it  
6 upstairs?

7 MR. CHAPMAN: Yeah. When we take a  
8 break, I'll run up and get it.

9 CHAIRMAN MORELOCK: Okay. All  
10 right. So let me add that to the agenda as -- is  
11 this just for information or for vote?

12 MR. ENG: It's no voting. It's  
13 open discussion and our presentation of the  
14 package to the board.

15 CHAIRMAN MORELOCK: Okay. Let's  
16 add that as Item 14-17, and we'll let -- we'll let  
17 Assistant Chief Chapman get that package to the  
18 board members. We'll take a break this morning  
19 and give you time to bring that down to us so we  
20 can at least have it before the board.

21 MR. ENG: Thank you.

22 MS. EWELL: He said open  
23 discussion, not new business.

24 CHAIRMAN MORELOCK: Yeah, we're not  
25 going to vote it. We're just going to add it as

1 an item to the agenda, but we won't vote it,  
2 so . . .

3 Okay. Any other items?

4 All right. Hearing none, then, do  
5 I have a motion to accept the agenda?

6 MR. ROBINSON: So be it.

7 DR. CANONICO: Second.

8 CHAIRMAN MORELOCK: Second?

9 Any more discussion?

10 I'll call the question. All in  
11 favor say, "Aye."

12 IN UNISON: Aye.

13 CHAIRMAN MORELOCK: All opposed?  
14 Abstentions, not voting?

15 All right. We have an agenda.

16 Board members will be required to  
17 complete Conflict of Interest statements and turn  
18 that in today before we leave. And so you should  
19 have those before you, so please fill those out,  
20 and we'll get those to the board unit.

21 And any items today, as we go  
22 through the agenda, if you have a conflict of  
23 interest with any of these items, please make that  
24 known before we discuss the item, and I'll do my  
25 best to remind everyone of that on each item. So



1 bear that in mind.

2 Okay. Next item is the chief's  
3 report.

4 MR. CHAPMAN: Okay. Number and  
5 inspection done for this quarter was \$9,045.  
6 Total delinquent is \$912 from the State inspector,  
7 \$1,105 from the insurance and agency, which is a  
8 total of \$2,017.

9 The number of code violations found  
10 was 13, and 5 was uncorrected.

11 QC review performed was three, and  
12 one boiler variance inspector was done. This is  
13 as of July 2014 in September. This is just some  
14 information that was put out on it. We're still  
15 looking for a chief inspector, and we did  
16 interviews for the Montgomery County for a Boiler  
17 Inspector 1. And all the training from the  
18 national board have been completed by all the  
19 state inspectors.

20 And that's all as for the chief  
21 report.

22 CHAIRMAN MORELOCK: Any questions  
23 of Mr. Chapman? Comments?

24 All right. Hearing none, then, we  
25 will move on.

1                   We have no old business on the  
2 agenda, so we'll go on to Item 7, which is new  
3 business.

4                   And the first item we have will be  
5 14-12 from the University of Tennessee for their  
6 request for a boiler attendant variance. And just  
7 so everybody knows: When it's your turn, we'll  
8 call you up, and you get to sit in these two hot  
9 seats up here and make your presentation.

10                   And so when you come forward,  
11 introduce yourselves so Debbie can get that into  
12 the minutes, and then present your item. Okay?

13                   All right. So 14-12, University of  
14 Tennessee, you're up.

15                   MR. CAIN: I'm Bill Cain with  
16 Barham/Cain/Mynatt, engineers, representing the  
17 University of Tennessee.

18                   And the university has two new  
19 boilers that they're requesting an operator  
20 variance on, as indicated in our systems operation  
21 manual. These boilers are located at the  
22 Translational Science Research Building there on  
23 the campus.

24                   The university already has several  
25 other boilers that they currently have a variance

1 on and they monitor, and this boiler would be  
2 monitored in the same location as the other  
3 boilers at the central plant or the central energy  
4 facility on South Dunlap Street. The existing  
5 staff would be in charge of monitoring the  
6 boilers.

7                   There's the building right next to  
8 it, which is the basic clinical science building  
9 or cancer research building, currently has two  
10 boilers that are being monitored, and just a few  
11 steps away from this building.

12                   I'm not sure what other information  
13 you would need at this time, --

14                   CHAIRMAN MORELOCK: Well --

15                   THE WITNESS: -- this being my  
16 first trip up.

17                   CHAIRMAN MORELOCK: Yeah, being  
18 your first time. What we're really shooting for  
19 is to just discuss what normal operation of the  
20 boiler is going to look like, how the monitoring  
21 station is going to operate, who is going to  
22 attend the boiler actually in the field, and how  
23 will the remote station interact with the boiler  
24 attendant, and how will you handle emergencies.

25                   MR. CAIN: The boilers, there's a

1 list of operating personnel that the University of  
2 Tennessee put together for us. They -- the  
3 boilers will have -- be monitored with a HAWK  
4 system, and then that HAWK system is integrated  
5 into a building management system, a Johnson  
6 Controls building management system. It has all  
7 of the alarms and safeties monitored at the remote  
8 location.

9           There's a person permanently at  
10 that remote monitoring station 24/7. At the end  
11 of his -- end of his shift, he goes over and  
12 actually lays eyes on the boilers and looks at  
13 them. If there is an emergency, there's -- in the  
14 operation manual -- which there is a copy there at  
15 the facility, a copy at the remote monitoring  
16 facility, and a copy at the central plant. It has  
17 a tab for emergency procedures. They've got a  
18 boiler emergency call list on -- person to call if  
19 there is an emergency. And the operating  
20 personnel, like I said, will look at the boilers  
21 every four hours.

22           Let's see what else they have. I  
23 think each one of the operating personnel, they do  
24 have training, and with some training checkoff  
25 sheets in the back of the operator's manual.

1 They've got a list of the boiler plant operators  
2 in Appendix E-1 of the operation manual, which  
3 they list in -- two, four, six, eight, ten plant  
4 operators were in charge of looking at this  
5 facility.

6 Any newly hired employees were --  
7 will have to go through the training before they  
8 start work.

9 The HVAC operations supervisor is  
10 responsible for all aspects of training.

11 Like I said, there is a training  
12 log in the operation manual in Appendix H.

13 CHAIRMAN MORELOCK: Okay. All  
14 right. Before we go any further, are there any  
15 conflicts of interest?

16 Hearing none, I'll open the floor  
17 for discussion. So what comments do you have?

18 MR. ROBINSON: Mr. Cain, this  
19 question -- I'm going to direct this question to  
20 Mr. Jackson.

21 I notice that he's got several of  
22 the boilers on premises, and it shows that they  
23 possibly were activated from 2003 through 2007.  
24 Have we performed a renewal site visit?

25 MR. JACKSON: I was sitting here,

1 the same thing in my mind. I've been doing it for  
2 seven years, and I don't remember these people,  
3 about going and looking at their program.

4 MR. ROBINSON: Mr. Cain --

5 MR. JACKSON: I don't know if their  
6 certificates are current.

7 MR. ROBINSON: Mr. Cain, you  
8 understand what we're talking about, right?

9 MR. CAIN: Yes, sir.

10 MR. ROBINSON: What it is, is we  
11 put in place a three-year requirement that once an  
12 existing variance has been granted, then what we  
13 do is we reevaluate -- will audit that program  
14 process three years later. And what we've just  
15 revealed is that there's a good possibility that  
16 you had not had an audit for those existing units  
17 since possibly '03. I guess the point to the  
18 board is that we need to make a recommendation to  
19 at least have Mr. Jackson perform a site survey so  
20 they can become up-to-date when you perform this  
21 variance based on if it's approved or not.

22 MR. JACKSON: Sam, do we have a  
23 current manual on it?

24 MR. CHAPMAN: We have a new one.

25 MR. JACKSON: Yeah. But not for

1 the existing?

2 MR. CHAPMAN: Not for the existing  
3 one.

4 MR. JACKSON: We'll need a manual.

5 CHAIRMAN MORELOCK: Well, just as,  
6 I guess, a point of order, we certainly need to  
7 check the existing variances, but we're voting the  
8 current variance for these boilers in this manual,  
9 so it's a point well-taken.

10 MR. CAIN: That's good to know.  
11 Yeah, I need to tell Bruce Stiles at the  
12 University of Tennessee to be sure and get the  
13 manuals up here. I was under the impression he  
14 had them. So if he doesn't, he needs to get them  
15 up here.

16 CHAIRMAN MORELOCK: He may very  
17 well have them. Every three years, they're  
18 renewed. So yeah, but that would be your other  
19 variances.

20 MR. ROBINSON: I'm kind of putting  
21 the cart before the horse, Mr. Cain. Thank you  
22 for your -- coming to meet with us today.

23 In looking over your manual, it  
24 looks pretty good. I was unsure -- just a few  
25 questions. And one of the questions I had was:

1 Are you -- is this a conception, as far as your  
2 installation of a microprocessor, or have you  
3 already had it installed?

4 MR. CAIN: It is already installed.  
5 And right now, the contractor is in the -- working  
6 on his punch list, getting everything ready for  
7 the project to be turned over to the owner for  
8 substantial completion. Both boilers are  
9 operating right now.

10 MR. ROBINSON: And they're using  
11 the microprocessor right now?

12 MR. CAIN: They're not using it for  
13 remote operation. They have a boiler operator  
14 there on-site, but they do have it up and running,  
15 yes, sir.

16 MR. ROBINSON: When do you  
17 anticipate that being ready?

18 MR. CAIN: I think it's ready now.

19 MR. ROBINSON: Okay. Where you  
20 made a notation on the first page, you had  
21 indicated GEB. And I -- this is just editorial,  
22 but I had a -- if you moved the actual definition  
23 for GEB to the second sentence, it would help.  
24 Because I looked for it, I saw it in the  
25 abbreviation, and I kind of got stuck, and I



1 started chasing around other stuff after that.

2 MR. CAIN: Okay.

3 MR. ROBINSON: On page 3, you have  
4 the boiler attendant classification. What it is,  
5 you said -- you had two different terms you used  
6 on that. You had one term you used as a senior  
7 power plant operator on page 4. So the boiler  
8 attendant, is he, slash, the senior power plant  
9 operator also?

10 MR. CAIN: Yes, sir.

11 MR. ROBINSON: Okay. On page 3,  
12 you just called him the senior plant operator or  
13 HVAC supervisor. I kind of -- it would be great  
14 if you would have had that a little bit before,  
15 because then I would have known that that was the  
16 actual guy that's going to be there operating the  
17 boiler as well. A definition of some sort.

18 MR. CAIN: Okay.

19 CHAIRMAN MORELOCK: That's one of  
20 the things that we stress to the -- to all the  
21 manual holders is: Your job titles and  
22 nomenclature and all needs to be consistent  
23 throughout the manuals, your job descriptions and  
24 all that, because we don't know your facility like  
25 you do, so it can lead to a little bit of

1 confusion.

2 MR. ROBINSON: I saw in the work  
3 scope somewhere that you guys were also going  
4 to -- it looked like you had gotten a quote for  
5 propane. Are you using propane, slash, gas on  
6 this boiler?

7 MR. CAIN: No, sir. It's No. 2  
8 fuel oil, diesel.

9 MR. ROBINSON: No gas?

10 MR. CAIN: It's gas or No. 2 fuel  
11 oil.

12 MR. ROBINSON: And not propane?

13 MR. CAIN: And not propane, yes,  
14 sir.

15 MR. ROBINSON: Are you planning on  
16 monitoring the boiler operation 24 hours?

17 MR. CAIN: Yes, sir.

18 MR. ROBINSON: And who is going to  
19 do that?

20 MR. CAIN: The University of  
21 Tennessee, the power -- senior power plant  
22 operator.

23 MR. ROBINSON: That's in the  
24 manual?

25 MR. CAIN: Yes, sir.

1 MR. ROBINSON: Can you kind of -- I  
2 looked for it. I didn't see it. I probably  
3 overlooked it.

4 MR. CAIN: On page 3, personnel  
5 type at remote stations, the remote station will  
6 be continuously staffed by senior power plant  
7 operators.

8 MR. ROBINSON: Very well. Thank  
9 you.

10 On your log, I think you had a note  
11 for low-water test, but then you had indication of  
12 remote. Are you testing a low-water cutoff  
13 remotely?

14 MR. CAIN: No, sir.

15 MR. ROBINSON: Let me take -- let's  
16 take a look at that. At the bottom where it said  
17 "Remote tests," then next to it, it has "Column  
18 blowdown" and "Boiler blowdown."

19 MR. CAIN: I'm sorry. Which page  
20 are you on?

21 MR. ROBINSON: F1, the appendices.

22 MR. CAIN: Okay.

23 I believe -- well, the first shift,  
24 second shift, and third shift have to sign off on  
25 their blowdowns, as they do there at the site.

1 That's at the -- actually at the boiler.

2 CHAIRMAN MORELOCK: So is the  
3 remote tests, is that just a sign-off for each  
4 shift where you do the remote -- you're doing a  
5 test of the remote station? And that's not  
6 specifically for a blowdown or -- a column  
7 blowdown or a boiler blowdown?

8 MR. CAIN: No, I believe this is  
9 for the column blowdown and the boiler blowdown  
10 that's done at the boilers.

11 CHAIRMAN MORELOCK: Okay.

12 MR. ROBINSON: Could you dress that  
13 up a little bit and either -- you use the word  
14 "believe." You used it. I didn't say it.

15 MR. CAIN: Yes, sir. That is  
16 correct.

17 MR. ROBINSON: Thank you.

18 I'm very happy Shelby County -- you  
19 guys, you offer first class training licenses.  
20 Are there any other prerequisites that you guys  
21 are doing over there that we don't do over here  
22 beside --

23 MR. CAIN: I'm not -- I don't know  
24 for sure.

25 MR. ROBINSON: Okay. One last

1 question, Mr. Cain. How does your mechanical  
2 organization chart fit into the charts in G1 and  
3 service specialists? Because it -- they are two  
4 different names.

5 CHAIRMAN MORELOCK: Yeah, I had  
6 that question as well. The organizational charts,  
7 E1, G1, and G2 need to match. That's the basic  
8 concern. Because you've got three organizational  
9 charts in the manual.

10 MR. CAIN: The chart E1 is for the  
11 UT facility, but it lists all the personnel.

12 CHAIRMAN MORELOCK: And Appendix G  
13 where you have your job descriptions, you've got  
14 two organizational charts in there as well, G1 and  
15 G2. Just, you just need to make sure that all  
16 those agree.

17 MR. CAIN: Yes.

18 MR. ROBINSON: Just keep the terms  
19 the same. It's an editorial comment. So when  
20 Mr. Jackson -- I'll tell you what's going to  
21 happen. Mr. Jackson is going to take your  
22 procedure, after you put those comments in there,  
23 and he is going to verify that you say what you do  
24 and you do what you say.

25 MR. CAIN: Yes.

1 MR. ROBINSON: That's all I have.

2 CHAIRMAN MORELOCK: Any other

3 comments?

4 DR. CANONICO: The only question I

5 had is training of operating personnel on page 7.

6 I don't know if I'm missing something, but it says

7 (as read): The basic training instrument will be

8 a copy of this systems operation manual.

9 For some reason, that strikes me as  
10 not much training.

11 MR. CAIN: Yeah, that's --

12 DR. CANONICO: Middle paragraph on  
13 page 7.

14 MR. CAIN: Yes, sir. I see that.

15 Basic training instrument. I think what is meant

16 there is that the -- each boiler operator will

17 have this manual with them when they go through

18 their training. I'd have to verify that for sure.

19 DR. CANONICO: What other training  
20 do they get besides reading the manual?

21 MR. ROBINSON: Explain -- like, you  
22 guys are certified class 1 boiler operators. What  
23 kind of training is there?

24 MR. CAIN: I would have to go back  
25 and ask them to give me a list of everything that

1 they specifically do in their training, because I  
2 don't have that in front of me right now.

3 CHAIRMAN MORELOCK: Well, I mean,  
4 you could just make a statement in the manual that  
5 obviously this systems manual, in conjunction with  
6 the training required to maintain that licensure,  
7 is your training program. Do you agree with that?

8 DR. CANONICO: In Memphis? They  
9 get their certified --

10 MR. ROBINSON: Class 1 operators.

11 CHAIRMAN MORELOCK: Yeah. I think  
12 that would satisfy.

13 DR. CANONICO: That would take care  
14 of it. Thank you.

15 MR. CAIN: Thank you.

16 CHAIRMAN MORELOCK: Any other  
17 questions or comments?

18 MR. BAUGHMAN: Yes, sir.

19 CHAIRMAN MORELOCK: Go right ahead.

20 MR. BAUGHMAN: And I -- we get on  
21 the training end of it because there is so much  
22 lack of training out there that we discuss  
23 throughout the year at various meetings, so one of  
24 the things I look at in particular, too, is just  
25 going over -- even though it's not included in the

1 variance, but you've got a DA system for your  
2 feedwater that's feeding water to the systems.  
3 And looking at it, it's -- is any of the  
4 monitoring tied into the DA itself? I notice that  
5 some of the log sheets attend to tank level, tank  
6 temperature, but I didn't know if it was actually  
7 tied in on your system or not.

8                   And it's not a requirement, but I  
9 was curious.

10                   MR. CAIN: That's a good question,  
11 because I'm not sure -- I'd have to look on this  
12 side. Alarm points.

13                   MR. BAUGHMAN: And one of the  
14 reasons, Mr. Cain, that I ask is that we had an  
15 incident back a few years ago concerning a DA, and  
16 it very much has the same potential power to  
17 relocate the building as what the boilers do,  
18 so -- but it looking -- in looking at it, the  
19 operating pressure of the DA is 60 psi. The  
20 safety valve setting is 150. And I did not see  
21 the design criteria DA itself. But it's got an  
22 internal steam heater for 30 to 250 psi, maximum  
23 steam supply, 100 psi, but I did not see the  
24 design criteria for the DA itself. I see what the  
25 valve settings are, the operating pressure, and so



1     forth. And it just gave me a little bit of  
2     question on it as far as any of the information  
3     that may be available for that.

4                   MR. CAIN: Just going through the  
5     list of the alarm points for the HAWK system, I do  
6     not see anything on the DA system that's being  
7     monitored.

8                   MR. BAUGHMAN: Do you have a  
9     Level-Master controller?

10                  MR. CAIN: We do monitor the water  
11    level in the boilers, yeah.

12                  MR. BAUGHMAN: Okay. Do you know  
13    what kind of -- there's no -- the Level Master  
14    isn't tied back in or we don't have another system  
15    control on the DA itself, though?

16                  MR. CAIN: I'd have to go back and  
17    verify that to see if that was the case.

18                  MR. BAUGHMAN: Okay. But just  
19    offhand, you're just not familiar with it?

20                  MR. CAIN: I'm not familiar with  
21    that part of it, no.

22                  MR. BAUGHMAN: Okay. Are all the  
23    personnel that are listed here for the variance  
24    training for operators, are they still at the  
25    facility?

1 MR. CAIN: Yes.

2 MR. BAUGHMAN: That's it.

3 CHAIRMAN MORELOCK: Okay. The only  
4 other comments I would add to what's already been  
5 stated is just -- just some for-your-information  
6 items is, in your manual, you list specific names  
7 as opposed to just job titles. And that's  
8 perfectly fine, but just be aware if you ever have  
9 a personnel change, that's going to require you to  
10 have to modify your manual and get it reapproved.  
11 So just bear that in mind.

12 MR. CAIN: Okay.

13 CHAIRMAN MORELOCK: And that's all  
14 the comments I have. So with that said, just know  
15 as well, our approval of your variance today was  
16 contingent upon a site inspection by Deputy  
17 Inspector Jackson, and his inspection will  
18 basically be a demonstration of what your manual  
19 says, make sure that what you're saying is  
20 actually what you're doing, and the incorporation  
21 of comments that are presented this morning in  
22 this meeting. So -- just so you know that as  
23 well.

24 So with that, do I have a motion  
25 for this item?

1 MR. JACKSON: Mr. Chairman?

2 CHAIRMAN MORELOCK: Yes.

3 MR. JACKSON: Is this boiler tied  
4 into the same alarm system and control as the  
5 existing ones under the variance program?

6 MR. CAIN: Yes.

7 CHAIRMAN MORELOCK: It is?

8 MR. CAIN: At the central  
9 monitoring station, yes.

10 CHAIRMAN MORELOCK: Okay. All  
11 right. And I guess Mr. Jackson's question, then,  
12 is: How does that affect the overall monitoring  
13 of the boilers under variance today?

14 So just bear that in mind as well,  
15 too.

16 Okay. Any other questions or  
17 comments? Do I have a motion?

18 MR. ROBINSON: Motion to approve.

19 CHAIRMAN MORELOCK: I have a motion  
20 to approve, contingent upon site inspection by  
21 Deputy Inspector Jackson. Do I have a second?

22 MR. BAUGHMAN: Second.

23 CHAIRMAN MORELOCK: I have a  
24 second? Okay. Good.

25 All right. I'll call for the

1 question then. All in favor say, "Aye."

2 MR. ROBINSON: Aye.

3 MR. BAUGHMAN: Aye.

4 CHAIRMAN MORELOCK: Opposed?

5 Abstentions?

6 DR. CANONICO: (Raising hand.)

7 CHAIRMAN MORELOCK: One abstention,

8 not voting. All right. So we have an approved

9 variance.

10 MR. CAIN: Thank you.

11 CHAIRMAN MORELOCK: You're welcome

12 to stay and -- or you're welcome to leave if you

13 need. But you are welcome to stay and -- stay and

14 visit with us a little longer.

15 MR. CAIN: Okay. Thank you.

16 CHAIRMAN MORELOCK: Thank you.

17 All right. Our next item is Item

18 14-13, which is BAE Systems Ordnance, and they're

19 requesting a variance as well for four

20 high-pressure boilers.

21 Gentlemen, if you'll introduce

22 yourselves again and present your manual.

23 MR. FLOWERS: I'm David Flowers.

24 I'm with Combustion and Control Solutions. We're

25 located in Chattanooga, Tennessee. We are a

1 vendor of BAE Systems.

2 This is Roy Wood. He is a manager  
3 of utilities for BAE Systems located in Kingsport,  
4 Tennessee, 4509 West Stone Drive.

5 With us also is Charlie Phillips  
6 who is the control systems engineering specialist  
7 with BAE Systems, and Allen Tripp who is the owner  
8 and president of Combustion and Control Solutions.

9 As stated in our cover letter, this  
10 is a request for a new variance for four boilers  
11 for a Miura 300 horsepower high-pressure boiler --

12 THE REPORTER: Sir, would you slow  
13 down and speak up for me?

14 MR. FLOWERS: Yes.

15 Okay. This is a request for a new  
16 variance. I appreciate the time of the board to  
17 consider this.

18 BAE Systems is located at 4509 West  
19 Stone Drive in Kingsport, Tennessee. And this is  
20 request for variance on four new high-pressure  
21 boilers, 300 horsepower each. Our manuals were  
22 submitted previously, which the board has. It  
23 goes through the cover letter request, a system of  
24 the current boiler setup at Building 262 at the  
25 facility. We go into, then, the computerized

1 remote monitoring system and description or just  
2 microprocessor control.

3 We then go into the remote  
4 monitoring personnel organizational chart. We  
5 spell out very specifically the titles and  
6 descriptions, those folks' responsibilities, and  
7 their training. Section 5, which is going to be  
8 the emergency procedures call list, is there as  
9 well as any and all associated logs with normal  
10 and emergency operations.

11 CHAIRMAN MORELOCK: Okay.

12 MR. FLOWERS: And we'll be happy to  
13 answer any questions you might have.

14 CHAIRMAN MORELOCK: All right. Are  
15 there any conflicts of interest with this item?

16 Okay. Hearing none, what comments  
17 do you have? Go ahead.

18 MR. ROBINSON: Mr. Flowers, thank  
19 you for attending our board meeting. I noticed in  
20 here in your manual, you guys are using a fiber  
21 optics network?

22 MR. FLOWERS: That's correct.

23 MR. ROBINSON: And not being really  
24 attuned to what's going on in the fiber network  
25 environment, how has that been working out for

1 you?

2 MR. FLOWERS: I will refer to  
3 Mr. Phillips and let him answer that question for  
4 you.

5 MR. PHILLIPS: It works really  
6 good.

7 MR. ROBINSON: Any failures?

8 MR. PHILLIPS: We had three or four  
9 other systems at the plant, not boiler-related,  
10 over fiber optics, E-Stops and things. They work  
11 really good.

12 MR. ROBINSON: So if they were to  
13 fail, what would happen?

14 MR. PHILLIPS: We would quit remote  
15 monitoring and go to the boiler house monitoring,  
16 operating.

17 MR. ROBINSON: Have you heard of  
18 any failures? How new is the system? Enlighten  
19 me, because I'm curious to know.

20 MR. PHILLIPS: The fiber-optic  
21 E-Stop systems that we are currently using in the  
22 plant have been around for ten years, probably,  
23 some of them. Some of them are a little newer.

24 MR. ROBINSON: And they're perfect?

25 MR. PHILLIPS: I mean, up to now, I

1 don't know of any failures.

2 MR. ROBINSON: I notice that you're  
3 using the E-Stops with the fiber systems. So  
4 there is no risk of hitting the E-Stop and it not  
5 working?

6 MR. PHILLIPS: No. We've got UPS  
7 backup power for the E-Stop circuits power up in  
8 the case of a power failure at either end.

9 MR. ROBINSON: Your E-Stops are  
10 interconnected where on the boiler?

11 MR. PHILLIPS: They're tied into  
12 the current E-Stops that were put in by the  
13 manufacturer.

14 MR. ROBINSON: So you've got two  
15 separate circuits to stop the boiler?

16 MR. PHILLIPS: Well, we tie all our  
17 circuits in series with existing circuits, so it's  
18 actually one big circuit.

19 MR. ROBINSON: One series?

20 MR. WOOD: I might make a comment  
21 on that.

22 MR. ROBINSON: Please do.

23 MR. WOOD: Locally at the building  
24 itself -- excuse me -- the -- at the building  
25 itself, we've got E-Stops for each boiler, plus



1 we've got E-Stops at the exits of the building.  
2 Then these are remote -- these are remote E-Stops,  
3 of course, you know, at the power house. It's  
4 coal-fired boilers, approximately -- because we've  
5 got, laid out in here, it's about 2,000 feet.  
6 It's very close.

7           And so this is -- and the guys are  
8 in the control room, and we'll go into that, I  
9 guess, the different operations and things. But,  
10 like, the fireman -- we call the guy that's there  
11 in the control room -- monitors there, you know,  
12 100 percent of the time. He's there all the time.  
13 We've got other guys out rolling and so forth, but  
14 he's got two monitors there he's watching. He's  
15 got a monitor that shows exactly what's in the  
16 building being monitored, plus we've got four  
17 cameras set up to watch everything.

18           And then the E-Stops there are  
19 located just behind him up on the wall a little  
20 bit. We put them so nobody would accidentally  
21 bump into one. So we've got an E-Stop for each  
22 boiler. If we look at it and there's -- we  
23 recognize it's just an isolated one boiler, we  
24 could just stop one boiler.

25           And then we have a master E-Stop

1 that we -- if something bad goes on, we would hit  
2 the master and we'd shut the whole building down.  
3 So we've got one for each one plus that.

4 And like Charlie alluded to, it's  
5 essentially the same as what's in the building,  
6 just in parallel.

7 MR. ROBINSON: I understand. Yeah.  
8 Very good. Thank you.

9 MR. FLOWERS: We do state on  
10 page 19 at the bottom that in the event there were  
11 a failure in the fiber-optic network at that  
12 point, the variance is suspended, and we go back  
13 to the 20-minute rule until that's rectified.

14 MR. ROBINSON: I was more concerned  
15 with the length to shut the boiler down, knowing  
16 that it's fiber optics and not really in tune to  
17 what's going on with the electronics there.

18 So I need to feel that out.

19 MR. WOOD: Like you said, anything  
20 manmade could fail, but reliability is very, very  
21 good. We've had this in other things in the  
22 plant. We've had very good success. If anything  
23 did fail on it, like David said, we would go to  
24 the -- we'd go to the building. We'd have an  
25 operator go to the building and secure it.

1 MR. ROBINSON: You're still  
2 equipped with the hard CSD-1 lockouts, the manual  
3 resets?

4 MR. FLOWERS: Yes.

5 MR. ROBINSON: Okay. And you're  
6 not overriding that with anything, --

7 MR. FLOWERS: That is correct.

8 MR. ROBINSON: -- the manual,  
9 that's separate of the controlling microprocessor?

10 MR. FLOWERS: That is correct.

11 MR. ROBINSON: Okay. I saw the DA  
12 tank, and like Dave, the question I'm going to ask  
13 is: What is the valve settings for the two valves  
14 on the DA tank?

15 MR. FLOWERS: I would have to  
16 confirm, but I believe 50 psi is the relief valve  
17 setting on the vessel itself. There is also one  
18 downstream of the regulating station were it to  
19 fail, and would relieve the full capacity of the  
20 valve.

21 MR. ROBINSON: Okay. Is that DA  
22 tank vented to the atmosphere?

23 MR. FLOWERS: No. It's pressurized  
24 DA.

25 MR. ROBINSON: Okay. That's what I

1 thought.

2 Okay. You just had a typo right  
3 there at the description on page 19, second  
4 paragraph. No big deal. That's all I have.

5 You've got to forgive me, but  
6 you're going to submit it to somebody. I'm the  
7 world's worst speller, so forgive me.

8 That's all. No further --

9 CHAIRMAN MORELOCK: Any other  
10 comments?

11 MR. BAUGHMAN: Yes, sir.

12 Mr. Wood, how many boilers do you  
13 operate within this -- go ahead. I'm sorry.

14 MR. WOOD: Well, the coal-fired  
15 steam plant we had, we had four stove-fired  
16 boilers, coal-fired boilers, rated at 100,000-hour  
17 each at 300 psi. They're nameplated higher than  
18 that, but, you know, over time, with the -- we had  
19 ESPs, and now we've got bag houses and so forth,  
20 so we've been downgraded to 100,000.

21 So we never operate more than two  
22 of them at a time, so the guys there in that fire  
23 house would be operating two of those boilers --  
24 there's three guys on the shift -- which is in  
25 here at around 200 and so forth.

1           Then, over at this building we call  
2   262, the gas-fired boilers, there would be four of  
3   them, and it's -- we've got -- that's right there.  
4   We've got three right now, and we're putting  
5   another one in. But we've got people that are  
6   full time right now and everything.

7           So would be, over there at the  
8   gas-fired boilers -- is that your question, or are  
9   you wanting both, I guess?

10           MR. BAUGHMAN: Well, there's four  
11   boilers listed with a "To Be Determined," so I'm  
12   anticipating that the three 2012s are operating  
13   presently, and would be tied into this variance.  
14   There's a boiler that has yet to be installed?

15           MR. FLOWERS: That boiler will  
16   deliver a week from today and will be installed  
17   prior to and tied into this same system prior to  
18   Mr. Jackson's inspection, upon approval, of  
19   course.

20           MR. BAUGHMAN: And then the  
21   drawings show future boiler 5 and 6.

22           MR. WOOD: Yes.

23           MR. BAUGHMAN: And so, I guess my  
24   question being is: When the boilers get added in,  
25   are we doing the variance for the three boilers

1 now, the four boilers? I guess when they add  
2 equipment back in, that's a revision that gets  
3 made.

4 But what I'm -- I guess what I'm  
5 asking is, is since there's only three boilers in  
6 there presently, does this variance cover those  
7 three boilers, or are we covering the --

8 MR. FLOWERS: We're requesting to  
9 cover the four.

10 MR. BAUGHMAN: Okay. I saw where  
11 it was saying, "Our boilers." "We request for the  
12 operation of our boilers," but I didn't  
13 necessarily see where it had listed out the four,  
14 offhand. So I may have missed that.

15 MR. FLOWERS: I think it's in  
16 there.

17 CHAIRMAN MORELOCK: I had a similar  
18 comment to that as well. And since your fourth  
19 boiler is delivering next week, you need to make  
20 application to Sam to get the Tennessee number and  
21 get all the boiler data updated in this manual.  
22 You probably want to update this boiler layout  
23 just to show that four boiler, not a future  
24 boiler, but an active boiler so the manual will  
25 truly reflect what you're asking for. Because it

1 is a little confusing to say you're asking for a  
2 variance on four boilers but you're only showing  
3 three.

4 MR. FLOWERS: Well, our attempt was  
5 to bring this subject up and let you guys be aware  
6 of exactly what the situation was. But that will  
7 be changed and will be noted in the --

8 CHAIRMAN MORELOCK: Okay. Very  
9 good.

10 DR. CANONICO: This is the first  
11 time, at least, that I have seen any requests for  
12 a fiber optics type of device. And you've got  
13 experience with it and you're totally satisfied?

14 MR. WOOD: Yes. Yes, we -- and, of  
15 course, we've tried it and everything, tested it  
16 and so forth, and we're using -- as Charlie said,  
17 we're using more and more of that, you know,  
18 through the system in the plant.

19 MR. ROBINSON: What were the  
20 benefits?

21 MR. WOOD: Well, it's just --  
22 Charlie can tell you. I think it's a whole lot  
23 easier --

24 MR. PHILLIPS: With fiber optics,  
25 you're not -- when you're going outside of the

1 building, between buildings, you're not subject to  
2 lightning coming in on it, any kind of  
3 interference from high voltage lines or anything  
4 like that. Fiber optics transmit, you know, clean  
5 signals. So it just cuts down on a lot of noise  
6 over your -- frequency noise over your lines, a  
7 lot cleaner transition.

8 MR. ROBINSON: Let me ask you: In  
9 the past, did you have experiences where you had,  
10 you know, interference with the normal line? I'm  
11 just trying to get a feel --

12 MR. PHILLIPS: Well, I have -- I  
13 have seen a lot of -- not with E-Stop necessarily,  
14 but copper lines -- not fiber, but copper, going  
15 between buildings. I have seen interference, I've  
16 seen noise, I've seen lightning damage a lot of  
17 equipment. Fiber optics is a whole lot safer and  
18 more reliable.

19 MR. ROBINSON: I'm sorry,  
20 Dr. Canonico.

21 DR. CANONICO: I live in  
22 Chattanooga, and our Electric Power Board provides  
23 us with fiber optics for elevation and everything  
24 else. And I must admit periodically, I have  
25 problems, so I hope you don't have those similar



1 problems.

2 MR. PHILLIPS: Yes.

3 DR. CANONICO: The other question I  
4 had has to do with training. I didn't see  
5 anything in here specifically on training, but I  
6 may have missed it.

7 MR. WOOD: Well, we've got that in  
8 there. It's --

9 MR. FLOWERS: Section 4 is going to  
10 outline that.

11 DR. CANONICO: I'm sorry. What?

12 MR. FLOWERS: Section 4. If you  
13 start on page -- actually, 29 talks about the  
14 duties of the different personnel. And page 35  
15 outlines the steam plant operator training, and  
16 that covers all of the people that are in this  
17 designated as steam plant operators in those  
18 different positions.

19 They have a 12-month apprenticeship  
20 program in which they are trained by several  
21 different personnel, including Mr. Wood and all  
22 the other folks that are on-site.

23 We then spell out that we have done  
24 a specific training, 12 hours of training on the  
25 operation of the Miura boilers when those were

1 started up. We'll go back over that again when we  
2 start the fourth boiler up. But in my opinion,  
3 they have a very extensive on-site training just  
4 for boiler steam plant personnel.

5 Also, too, once the -- and if the  
6 variance is approved, we will train to the manual  
7 as it is accepted.

8 DR. CANONICO: Thanks.

9 CHAIRMAN MORELOCK: Any other  
10 comments?

11 Mr. Baughman has already brought up  
12 one of my comments about the fourth boiler, so  
13 we've got that.

14 I had a question on the checklist  
15 on page 4, Item 20. We have an item here that  
16 states (as read): Does the remote monitoring  
17 system prevent unauthorized access?

18 And your response to that is (as  
19 read): BA internal site security.

20 So how does that work? I didn't  
21 see anything in the narrative as to how your  
22 system is protected from unauthorized access.

23 MR. FLOWERS: Well, the site itself  
24 is very, very secure. It is a -- I'm not sure if  
25 it's actually designated a DOD site, but it is

1 a --

2 MR. WOOD: Well, we operate the  
3 Army ammunition plant for the Department of  
4 Defense, so we've got armed guards. They don't  
5 carry flashlights; they carry more. So, you know,  
6 we've got guys in and out, and even the people  
7 that work there -- I've been there almost 30  
8 years, and sometimes it's hard for me to get in.  
9 So it's -- you know, it's -- it is a secure site.  
10 That's what we're saying from outside.

11 Now, a person inside the plant, I  
12 mean, it's not secured from a person inside the  
13 plant which . . .

14 CHAIRMAN MORELOCK: Well, I mean,  
15 that's my question: What prevents somebody from  
16 accessing the monitoring program?

17 A lot of these systems are password  
18 protected and things like that, so that it's  
19 protected internally so that not just anybody can  
20 walk in and access your boiler monitoring system.  
21 They have to have a password or something like  
22 that to gain access to that.

23 MR. WOOD: Okay. Well, now, of  
24 course, along that line, what we're doing there in  
25 the coal-fired steam plant area of Building 200

1 is, we've got it monitored, we've got two  
2 monitors, and they're displayed all the time.  
3 We're not -- I don't think there's anything there  
4 we're really trying to keep secure. It is a --  
5 truly a monitoring. It's not anything that you  
6 could do to -- there's no remote control or, you  
7 know, a DCS system or anything like that for these  
8 boilers. It's a -- so it's just strictly monitor,  
9 other than the E-Stops on the wall.

10 So the thing that we could say  
11 there, if we could make a little statement there  
12 is the -- the boiler operator, the fireman that's  
13 in that -- that's in that office, he doesn't let  
14 just anyone wander into that office. He knows who  
15 is going in or out of that office, and he's in  
16 that office 24/7 -- he or a person, you know, of  
17 equal training and grade and everything.

18 So it would -- that system would be  
19 secured by the -- by the firemen. You could say  
20 that -- we could say that. That room or that  
21 office, yeah.

22 CHAIRMAN MORELOCK: We just need to  
23 have a statement in there that -- obviously,  
24 Charlie doesn't want just anybody coming in and  
25 being able to access his programming and all that,

1 so just make a statement in your manual that you  
2 protect that.

3 MR. WOOD: Okay. We can do that  
4 with the -- really with the firemen that's there  
5 in the control room, yes.

6 MR. PHILLIPS: The monitoring  
7 system is password protected. Operators have a  
8 log-in that lets them into it. But it doesn't  
9 give them access to go in and change the program.

10 CHAIRMAN MORELOCK: Just write that  
11 in your manual.

12 MR. WOOD: Yeah, they can't change  
13 anything.

14 CHAIRMAN MORELOCK: Okay. Just  
15 write that in your manual. That would be great.

16 MR. WOOD: Okay. All right.

17 CHAIRMAN MORELOCK: Let's see.  
18 That's all the comments I have.

19 MR. BAUGHMAN: One other, Brian.

20 CHAIRMAN MORELOCK: Okay. Go right  
21 ahead.

22 MR. BAUGHMAN: How often is the  
23 system being checked, as far as its alarms? In  
24 other words --

25 MR. WOOD: For the alarms?

1                   MR. FLOWERS: We state at the  
2 beginning of each day shift, so once a day, once  
3 every 24 hours the remote monitoring system is  
4 tested.

5                   MR. BAUGHMAN: Not once each shift,  
6 but just once every 24 hours?

7                   MR. FLOWERS: That's correct.

8                   MR. WOOD: We're doing it on --  
9 well, we're doing it just a little bit more than  
10 that on the -- certain things, the -- every shift.  
11 We're doing the low-water -- the low-water alarms  
12 and so forth once every 12 hours, once every  
13 shift.

14                   MR. FLOWERS: But the remote  
15 monitoring station itself would be, the roving  
16 operator calls in and confirms that the monitoring  
17 station has received a low-water alarm. That's --  
18 we have in our manual currently that that will be  
19 done once every 24 hours.

20                   MR. BAUGHMAN: That's what I'm  
21 reading on Section 4, page 30, normal operation  
22 duties the beginning of each day shift. Operator  
23 on duty shall contact firemen and so forth. The  
24 alarm shall be tested.

25                   It says: Give notification to

1 systems being tested, and they are not required to  
2 shut down the respective boiler.

3 But it didn't really specify how  
4 many times this water column -- it kind of makes  
5 it sound like it's under that once-a-day check,  
6 and that's why -- and there seems to be confusion  
7 a little bit between -- between how we're --

8 MR. WOOD: We may need to clarify  
9 that just a little bit, but what we're doing is,  
10 we're working 12-hour shifts, 6:00 to 6:00. So  
11 each shift, at the beginning of the shift, then  
12 the guy -- the person that's the roving operator  
13 going over there to the gas-fired building, what  
14 he would do is he would go over there and he would  
15 notify by radio contact or phone -- radio  
16 probably -- the guy in the coal-fired steam plant  
17 to watch his monitor. "I'm going to do a  
18 low-water check on the boiler." So then -- "But  
19 this is not -- you're going to get an alarm, but  
20 you don't need to shut anything down. I'm here  
21 doing this."

22 Then he would do it. He would  
23 perform that test, blow the water column down till  
24 he gets the alarms and so forth, and actually trip  
25 the boiler off. And then everything is okay.

1 Then we go about business.

2 So it would be done at the  
3 beginning of each shift, once every 12 hours.

4 MR. BAUGHMAN: When it goes through  
5 this, we're getting more than just an alarm; in  
6 other words, we're not doing a shunt test, we're  
7 actually doing a positive check of the low-water  
8 cutoff?

9 MR. WOOD: We're actually doing the  
10 full test. When we do it -- and we're doing it  
11 right now. We're doing that -- we got guys there,  
12 of course, 24/7 right now until this would be  
13 approved, but right now we do it each shift. We  
14 go through that. It's a full blown -- you know,  
15 we do it -- we don't -- we're not just testing the  
16 instrument. We go in there and we actually blow  
17 the water column down. And you see the different  
18 levels. The indicators will go down and -- water  
19 levels, and then it will go through and give you  
20 a --

21 I'm sorry. But anyway, it -- slow  
22 down.

23 But it's -- it will go down through  
24 there, and it gives you the different probes,  
25 you'll see going. Then you get an audible alarm



1 and then you get -- the boiler actually will go in  
2 the -- you know, post -- it will trip out. We let  
3 the boiler dry off and then we'll reset everything  
4 and come back. And that's the same thing we'll be  
5 doing.

6 MR. BAUGHMAN: Okay. And that's  
7 not quite worded in here as such. But I'm glad to  
8 know that that's how you're doing it, Mr. Wood.  
9 That's a very good way to do it.

10 MR. FLOWERS: And we'll clarify  
11 that. It was apparently a miscommunication  
12 between the two of us, and if they're doing  
13 that -- I know they are doing a low-water test and  
14 everything, normal boiler operation test every 12  
15 hours. But we'll clarify that in the manual.

16 MR. BAUGHMAN: Thank you.

17 CHAIRMAN MORELOCK: Any other  
18 comments? Anybody have any comments?

19 Yes, sir, Mr. Jackson?

20 MR. JACKSON: That doesn't sound to  
21 me like they're testing the emergency shutdown.  
22 If there's no alarm that goes on in the remote  
23 station, and they're able to cut it off and  
24 contact the boiler operator and so on and so  
25 forth, as -- the way the program is set up, am I

1 understanding that it doesn't send the remote  
2 alarm?

3 MR. FLOWERS: No, it does send the  
4 remote.

5 MR. JACKSON: And what about the  
6 personnel in there? How do they respond? They  
7 shut the boiler down?

8 MR. WOOD: No, sir. What they'll  
9 be doing is, the guy -- the roving operator going  
10 over to the building to the gas boilers, he'll  
11 call on the radio to the guys at the coal-fired  
12 steam plant and say, "I'm getting ready to check  
13 the low-water cutoff. This is a test, this is a  
14 check of the -- you don't have to shut the boiler  
15 down."

16 And -- but we'll -- when we go  
17 through there and do it, he'll go through there  
18 and he'll do all his checkout, but the guy at 200  
19 will confirm that he did get the alarm, he did get  
20 the alarm but you had low-water cutoff, and if it  
21 was going on other than that, he would shut it  
22 down.

23 But we actually let the boiler go  
24 all the way down and shut down itself, then  
25 restart it.

1 MR. JACKSON: I can tell you right  
2 now I'm not going to do the low-water alarm.  
3 Everybody wants to do the low-water alarm. I'm  
4 going to pick some default, close the vent,  
5 low-water alarm, and that boiler is going down.  
6 And I'm going to check the remote station  
7 personnel to see if they respond to the emergency  
8 program.

9 MR. WOOD: Okay.

10 MR. FLOWERS: That's fine, and  
11 we've got our alarms spelled out in the manual and  
12 what to do --

13 MR. JACKSON: Now, do you have the  
14 fault messages located in your manual?

15 MR. FLOWERS: Yes, sir, we do.

16 MR. WOOD: Yes.

17 MR. JACKSON: Well, I'm going to  
18 pick one of them.

19 MR. FLOWERS: Okay. We'll be  
20 ready.

21 MR. JACKSON: Everybody wants to do  
22 low-water.

23 MR. FLOWERS: Okay.

24 CHAIRMAN MORELOCK: Well, and  
25 again, like I stated earlier, Mr. Jackson will

1 come and make sure that what you're actually doing  
2 matches the verbiage in the manual. And we all  
3 know about communication, so that's why we do this  
4 is to make sure they both line up. Okay?

5 All right. Any other questions or  
6 comments?

7 All right. Do I have a motion?

8 DR. CANONICO: (Raising hand.)

9 CHAIRMAN MORELOCK: Yes?

10 DR. CANONICO: So be it.

11 CHAIRMAN MORELOCK: Okay. So we  
12 have a motion to approve this variance, again  
13 based on contingent -- contingent approval based  
14 upon a site inspection by Deputy Inspector  
15 Jackson.

16 So do I have a second?

17 MR. ROBINSON: Second.

18 CHAIRMAN MORELOCK: I have a  
19 second. Any other discussion?

20 Okay. I'll call the question. All  
21 in favor say, "Aye."

22 IN UNISON: Aye.

23 CHAIRMAN MORELOCK: Opposed?

24 Abstentions? Not voting?

25 Gentlemen, you have a variance.

1 MR. FLOWERS: Thank you.

2 MR. WOOD: Thank you.

3 CHAIRMAN MORELOCK: Thank you.

4 Again, you're welcome to stay. If  
5 you have other pressing engagements . . .

6 All right. It's 10:00. Let's take  
7 a 5-minute break, let everybody stretch just a  
8 minute, get you some coffee. We'll resume at  
9 10:05.

10 (Recess observed.)

11 CHAIRMAN MORELOCK: All right,  
12 everybody. Let's resume.

13 We are on Item 14-14, which is  
14 Mitsubishi Electric Power Products, and they are  
15 here to present a request for variance to operate  
16 two high-pressure boilers.

17 So gentlemen, if you'll come  
18 forward and introduce yourselves and present your  
19 manual, please.

20 MR. HERTTER: Ryan Hertter with  
21 Hertter Mechanical Services.

22 MR. BONDI: And I'm Mark Bondi with  
23 Mitsubishi Electric.

24 MR. HERTTER: We'd like to thank  
25 the board for considering Mitsubishi's request for

1 boiler variance for remote monitoring. This  
2 facility has been in operation about a year and a  
3 half. It's got two high-pressure steam boilers.  
4 They are Cleaver-Brooks boilers, so the operating  
5 system is a HAWK controller.

6           The whole facility is under a Trane  
7 energy management system. On top of the energy  
8 management system, the whole facility is  
9 continuously monitored by Trane Intelligent  
10 Services, a 24-hour remote off-site monitoring.

11           The facility is continuously, 24/7,  
12 attended by a Class 1 boiler operator, and the  
13 intent of this variance is to simply allow that  
14 attendant more time to perform some other tasks.

15           CHAIRMAN MORELOCK: Okay.

16           MR. HERTTER: Anything else?

17           MR. BONDI: No. I think it's got  
18 350-horsepower boilers, two. Currently, it's a  
19 lag system.

20           Like I said, they're all -- all of  
21 our attendants are Class 1 licensed in Shelby  
22 County, 24/7 monitored.

23           The off shifts are monitored  
24 electronically. Actually use a smartphome, have a  
25 touch point at each boiler and the DA. And those

1 reports are given to me monthly to be reviewed.

2 And I think there's a sampling here. Their

3 average: about 95 to 100 percent.

4 So they're definitely making their

5 way to the boilers nightly every 20 minutes. And

6 again, we rely on their licensure to give them the

7 authority to monitor these boilers.

8 CHAIRMAN MORELOCK: Okay. Do we

9 have any conflicts of interest for this item?

10 DR. CANONICO: No.

11 CHAIRMAN MORELOCK: Okay. Hearing

12 none, I'll open the floor for discussion.

13 DR. CANONICO: I don't have much to

14 say other than I like this idea of the operating

15 engineer license. I'd like to see it statewide.

16 That's it.

17 CHAIRMAN MORELOCK: All right.

18 Very good. What other comments?

19 MR. ROBINSON: To either Mr. Bondi

20 or Mr. Hertter: You guys did mention the boiler

21 operating -- Class 1 operator. What -- do you

22 know -- the question came up earlier about the

23 criteria to -- what kind of training they undergo.

24 Do you know?

25 MR. HERTTER: Actually, if you look

1 in the last page of Tab 4 -- well, wait a minute.  
2 Tab 3. I'm sorry. This is a sheet for the exam  
3 course prep. It's a 45-hour course to be taken  
4 before you take the test.

5 MR. ROBINSON: Okay.

6 MR. HERTTER: It kind of goes  
7 through some of that.

8 MR. BONDI: And again, a  
9 requirement of Mitsubishi Electric is, again, to  
10 partake in this exam and get your operating  
11 license. But also, this would be the course you  
12 go through before -- certainly before you take the  
13 test. But our current chief operator works day  
14 shift, does all our monitoring. He took this  
15 test -- this course and passed long before we ever  
16 hired him. But he's got many, many years'  
17 experience. But going forward, if we were to  
18 train anybody to be a licensed one, of course, we  
19 would send them to this coursework and then  
20 prepare them for the exam, and they would still be  
21 required to have that Class 1 operating --

22 MR. ROBINSON: What exactly is a  
23 third class as opposed to a first class?

24 MR. BONDI: Third is low pressure.  
25 Of course, we want high pressure, so we require



1 first class. If we got our hands on a third class  
2 and he could work days and work under our  
3 operators, the first class would be an ideal  
4 circumstance, too.

5 MR. ROBINSON: Okay.

6 MR. BONDI: And we do have an open  
7 position to back up our first class, first shift.  
8 Right now, the service we contract with backs them  
9 up when he's not available, vacation or otherwise.

10 MR. ROBINSON: Okay. Very nice.

11 I did have a -- I'm looking at your  
12 remote monitoring computer refresh speeds. Who  
13 knew, right? 5 minutes, right? Less than 5  
14 minutes.

15 MR. HERTTER: Yeah.

16 MR. ROBINSON: That's a long time.

17 MR. HERTTER: Well, I don't know  
18 what the refresh rate is. Obviously, it's -- it's  
19 the network speed, and I don't know how to  
20 quantify that -- the speed of the network.

21 MR. BONDI: I think you could say  
22 it's as close to real time as possible. In  
23 reality, it's all our network, the Mitsubishi  
24 Electric network.

25 MR. ROBINSON: Clarify this for me.

1 The refresh speeds are truly separate than the  
2 boiler operating parameters. In other words, if  
3 the boiler goes to failsafe, and the computer  
4 decides to refresh, the boiler is going to do  
5 what?

6 MR. BONDI: So you're saying if  
7 there is some delay in the monitoring versus the  
8 actual alarm?

9 CHAIRMAN MORELOCK: Or actual  
10 shutdown of the boiler. Would it wait 5 minutes  
11 to shut the boiler down?

12 MR. HERTTER: No.

13 MR. BONDI: That may be a mistake  
14 on our part. Absolutely not.

15 MR. HERTTER: The remote monitoring  
16 is on top of the controller, so it's just being  
17 monitored through the --

18 MR. ROBINSON: I just wanted to  
19 hear you say that.

20 Boiler and pressure watch  
21 description. G4S. You clarified G4S, but the  
22 training for G4S, I didn't see it.

23 MR. BONDI: Yeah. Again, typically  
24 the gentlemen that take these roles, they're  
25 boiler operators by trade. And, of course,

1 they're licensed -- you know, they're the licensed  
2 Class 1 operators. But they will step in these  
3 roles as also security guard to play two roles at  
4 once.

5                   But this doesn't interfere with  
6 their 20-minute checks. They carry the operating  
7 device, which is their smartphone, which receives  
8 these alarms and has all of our contact  
9 information and, of course, uses to scan the  
10 badges with. Their training is really revolved  
11 around -- typically around the security role more  
12 than it is the boiler operator role. But again,  
13 we rely on Shelby County --

14                   MR. ROBINSON: Do you train the G4S  
15 operator? I mean, do you give him physical  
16 training to --

17                   MR. BONDI: Yeah. It's -- they  
18 were -- each operator works alongside our chief  
19 operator which was factory-trained by  
20 Cleaver-Brooks. And he's been there since the  
21 commission of the boilers.

22                   But they'll actually work with him  
23 to familiarize themselves with controllers, but in  
24 all reality, they play a monitor role and a  
25 response role. They don't go in and make

1 adjustments. They have to make a phone call to  
2 either myself and our chief operator or, you know,  
3 a service technician if they got that far.

4 But they didn't have any authority  
5 to E-Stop and shut the system down absolutely and  
6 investigate a problem. But they really don't make  
7 adjustments, per se.

8 So other than familiarity between  
9 the screens of the HAWK controller in order, where  
10 to look. There is really no interaction between  
11 them and -- you know --

12 MR. ROBINSON: Is there any  
13 documented training, objective evidence?

14 MR. BONDI: Other than them  
15 carrying their license and the time spent, I can't  
16 say --

17 MR. ROBINSON: G4S.

18 MR. BONDI: I can't say that there  
19 is anything documented.

20 MR. HERTTER: The plant does a  
21 general training with personnel. But as far as  
22 specific training on the boiler --

23 MR. ROBINSON: Or remote system.

24 MR. HERTTER: -- or the remote  
25 system, it's more of a --

1 MR. ROBINSON: Informal?

2 MR. HERTTER: -- informal --

3 MR. BONDI: Yeah. And it's not  
4 that it couldn't be formal. It's -- what they do  
5 go through, as you'll see in here is a contractor,  
6 sort of -- as a contractor, they're trained by us  
7 to, you know, follow certain guidelines. But it's  
8 not specifically a controller or anything related  
9 to it. Not that we couldn't document that.

10 MR. ROBINSON: I would like to  
11 see -- I saw a description for G4S. Said the guy  
12 could be 18 years old. Nothing against  
13 18-year-olds. I was 18 years old.

14 MR. BONDI: Certainly.

15 MR. ROBINSON: But I just didn't  
16 feel a warm fuzzy when there was no given  
17 instructions or formal instructions given to that  
18 guy to say, "When this happens, this is what you  
19 do."

20 I didn't see that. If you --

21 CHAIRMAN MORELOCK: Well, again,  
22 it's what we've been talking about all morning is:  
23 Just write down what you're actually doing, so  
24 that the manual reflects what you're doing in the  
25 field. Okay?

1 MR. HERTTER: Okay.

2 CHAIRMAN MORELOCK: And training  
3 records is parts of that, so . . .

4 MR. BONDI: Sure.

5 MR. ROBINSON: That would help me,  
6 no doubt.

7 That's all I have.

8 CHAIRMAN MORELOCK: Any other  
9 comments?

10 MR. BAUGHMAN: Yes. And I've got  
11 to reiterate. In one area, it says G4S, and in  
12 another, it says GS4, just for what it's worth.  
13 Needs to be kind of consistent.

14 But I do have issues with boiler  
15 operator, upscale security officer. And I know  
16 that the requirement is: Must have an active  
17 license and/or certification as a boiler operator  
18 in the State of Tennessee or -- and/or.

19 We don't have any certification as  
20 a boiler operator in the State of Tennessee. We  
21 do in Shelby County.

22 MR. BONDI: Yeah, I think maybe it  
23 stated near the end of that, but yeah, I did note  
24 that actually just this morning as I was reading  
25 through it. But it didn't identify Shelby County.

1 MR. BAUGHMAN: And Shelby County is  
2 in here.

3 (As read): Must have an active  
4 license and/or certification as a boiler operator  
5 in the State of Tennessee -- which we have  
6 discussions about -- and/or Shelby County  
7 Tennessee, question mark.

8 MR. BONDI: Yeah, I think that may  
9 have been -- again, that was from the service, so  
10 it may have been a deterioration in communication  
11 between us and them. But we can get that  
12 straightened out.

13 MR. BAUGHMAN: So these upscale  
14 security officers are able to get a boiler  
15 operator's license for Shelby County --

16 MR. BONDI: If they passed the  
17 exam. And again, we get to -- also have a say in  
18 who steps foot in our plant also.

19 A good example is when we first got  
20 contracted with them, there was a certain  
21 individual who probably wasn't holding his own  
22 weight out there. And upon my complaints, they  
23 immediately made change to -- you know.

24 So again, these three gentlemen we  
25 know are, I want to say, some of the best I've

1 seen out there.

2                   Yeah, I mean, we still have a say.

3 Like I said, an 18-year-old young man comes in --  
4 or young lady -- and says, you know, "I'm a great  
5 boiler operator. Here's my license." Well, let's  
6 think it through first. So don't think that we  
7 have to take what they give us.

8                   MR. BAUGHMAN: I notice in our  
9 pictures, which are nice, but we show a picture of  
10 the DA, which is a generic picture. Of course,  
11 it's not --

12                   MR. BONDI: Right, the graphic,  
13 sure.

14                   MR. BAUGHMAN: -- the DA you've  
15 got. And then -- but it does identify it as a DA  
16 with a particular number. And then we identify  
17 Boiler No. 1, 9651, which, there again, is a  
18 graphic. But we don't identify Boiler No. 2 for  
19 any particular reason, just Boiler No. 1 is in my  
20 particular manual. And not that it has to be in  
21 there, but the identification of the boilers, I  
22 take it, are actually through our drawings here.

23                   And the list of equipment, unless  
24 I'm missing it, on the very first section under  
25 the boiler system, it lists out a very generic



1 listing of the equipment. And I'd personally like  
2 to see a --

3 MR. HERTTER: Mr. Chapman already  
4 inquired about that, and I've got an Appendix A  
5 that lists out the nameplate data.

6 MR. BAUGHMAN: I missed that.

7 CHAIRMAN MORELOCK: Yeah, that was  
8 a comment I had as well. That data sheet, you  
9 need the boilers, the boiler numbers -- national  
10 boiler numbers, Tennessee numbers -- so it's easy  
11 to find that information.

12 MR. HERTTER: Right.

13 Another point: The address that  
14 I've got in this manual, 2855, is what they used  
15 during construction, but now they're 2865, so I  
16 need to correct that in the manual.

17 CHAIRMAN MORELOCK: Yeah, that  
18 would be good.

19 DR. CANONICO: On your first  
20 drawing, C1-200, you show the boiler room and the  
21 maintenance officer's remote monitoring  
22 essentially in the same building.

23 MR. HERTTER: Correct.

24 DR. CANONICO: What if you had a  
25 serious problem that wiped out all of them? What

1 would that do to you?

2 MR. HERTTER: Well, the --

3 DR. CANONICO: They're a little too  
4 close for my comfort. I guess that's the bottom  
5 line.

6 MR. HERTTER: Really, anywhere that  
7 has Internet connection, you could pull up the  
8 remote networking. The attendant actually has a  
9 phone, so he could be anywhere on the plant, not  
10 just in that boiler room. So it's -- there's  
11 multiple places --

12 DR. CANONICO: I'm less worried  
13 about the boiler room as I am the fellow who is  
14 sitting at that station, or people who are sitting  
15 at that station.

16 MR. HERTTER: Yeah.

17 MR. BONDI: Yeah, that would be my  
18 office. Yeah, there's actually a block wall  
19 between them, but again, I know it's far more  
20 dangerous than that.

21 They never sit still, believe it or  
22 not. They have many other checkpoints. We have a  
23 350,000-square-foot plant, so he's -- he's got to  
24 hustle up to the front office and make it through  
25 a checkpoint and then make his way back to the

1 boiler. So there's --

2 DR. CANONICO: That falls within a  
3 cement block wall. I got involved in a small  
4 explosion up in Kentucky where they had a small  
5 little propane tank blow up, and it blew all the  
6 walls down. I would move my office.

7 MR. BONDI: Yeah. I can ask, at  
8 least.

9 So yeah, he's on the move  
10 throughout the night, so he's -- in fact, he's got  
11 a GPS locator on his phone built in, so if he were  
12 to actually -- if something were to happen where  
13 he was, you know, unable to access the phone or  
14 something medical happened, if it sits -- I think  
15 it's either 45 minutes to an hour, it will  
16 actually notify his supervisor who will have to  
17 make contact with him or come on-site.

18 So -- and also, if he leaves the  
19 grounds within the GPS accuracy of like 30 feet,  
20 it will notify the supervisor as well.

21 So he's always on the go. And, of  
22 course, he has to vouch for that percentage of  
23 checkpoints. So again, we're running 95 to 100 on  
24 the boilers, which is what we really look for.

25 CHAIRMAN MORELOCK: Other comments?

1 MR. BAUGHMAN: Yes. Just looking  
2 over the drawings, I noticed on the one drawing,  
3 it says (as read): This unit will not fit in the  
4 space allotted in the boiler room for the DA.

5 I take it that's been addressed?

6 MR. BONDI: Yeah.

7 MR. BAUGHMAN: Good enough. I  
8 just -- the only drawing I've got shows it won't  
9 fit, just not -- and as of August 24th, hold on  
10 the DA until notified.

11 MR. BONDI: Yeah. Those are  
12 construction drawings. The as-builts are  
13 different. I don't even have access to the  
14 as-builts. That's what we had available to us. I  
15 can vouch that it fits, yeah.

16 MR. BAUGHMAN: Okay. So as far as  
17 the final layout of the boiler room itself, the DA  
18 is in the room with the boilers?

19 MR. BONDI: Yes.

20 MR. BAUGHMAN: Is there any  
21 monitoring of the DA being done?

22 MR. BONDI: Yeah. As you can  
23 see -- well, the graphic is probably the quickest  
24 representation. But you can see the points that  
25 are actually monitored on the DA.

1 MR. BAUGHMAN: Uh-huh. And so the  
2 criteria on that DA for the equipment listing is  
3 in here also as far as the set pressures of the  
4 relief valves and so forth, and . . .

5 MR. HERTTER: It should be.

6 MR. BAUGHMAN: Okay. Having the  
7 operating criteria is great, but always matching  
8 it up to the design criteria; which, I know  
9 everybody does a competent job, but just kind of  
10 little things we look at.

11 There again, it gets back -- and  
12 that's okay. It gets back to having a listing of  
13 the equipment itself of what's boiler and boiler  
14 room equipment, boilers, DAs, and so forth.

15 MR. HERTTER: Okay.

16 CHAIRMAN MORELOCK: Any other  
17 comments?

18 Okay. I've just got some  
19 editorials.

20 Your manual doesn't have page  
21 numbers. You may want to add those.

22 The title of your manual is "Boiler  
23 Bearings Manual," and up until this year, that  
24 probably wouldn't have been an issue, but now we  
25 have multiple variances you can come to the State

1 for. So you might want to make it the Boiler  
2 Attendant Variance Manual, because we do have  
3 other variances available to us as of July of this  
4 year.

5 We talked about the data sheets on  
6 the boilers, so we've addressed that.

7 I didn't see in the cover letter or  
8 any of the documents where it states specifically  
9 who is responsible for implementing this system  
10 manual and keeping it current and all that. Is  
11 that --

12 MR. BONDI: Be myself.

13 CHAIRMAN MORELOCK: Okay. So we  
14 just need to make sure that's stated clearly in  
15 the manual.

16 And I know that your remote  
17 station, basically you've got remote devices where  
18 they could be anywhere in the plant to respond to  
19 an alarm. So would there ever be an instance  
20 where that remote monitor could not respond to  
21 that alarm?

22 And the reason I say that is: In  
23 most situations, if he's trying to respond to the  
24 boiler attendant or boiler operator, what is he  
25 supposed to do if he can't contact that boiler

1 attendant or boiler operator? Is there an  
2 emergency call list, or what -- what's the next  
3 step if, for some reason -- whether he's using his  
4 handheld device or he's at the remote station  
5 specifically, what is his procedure if he cannot  
6 contact the boiler attendant, the boiler operator?

7 MR. HERTTER: He would go down this  
8 organizational chart and call the next person.

9 CHAIRMAN MORELOCK: Okay. So your  
10 organizational chart is your emergency call list?

11 MR. HERTTER: Yes.

12 CHAIRMAN MORELOCK: Okay. So you  
13 may want to state that in the manual.

14 MR. HERTTER: Okay.

15 CHAIRMAN MORELOCK: Let's see. We  
16 talked about the 5 minutes. I was like Eugene; I  
17 had concerns about that.

18 It states in your checklist that  
19 Shane Wills is responsible for the training. Is  
20 that correct?

21 MR. BONDI: Yeah, basically the  
22 training that you have documented here, which is  
23 our contractor safety guidelines. It's a pretty  
24 involved program.

25 CHAIRMAN MORELOCK: I didn't see

1 him on your organizational chart.

2 MR. BONDI: In the case of an  
3 emergency, he's our EHS engineer, so he really  
4 doesn't play much of a role with the boilers, not  
5 that he wouldn't be considered.

6 CHAIRMAN MORELOCK: Well, I mean,  
7 if you're going to label him as your training  
8 person, you probably want to show how he fits into  
9 your organization.

10 Where does this manual state how  
11 your tests are performed in the boiler?

12 MR. HERTTER: There is a listing of  
13 the test points.

14 Okay. Near the end of Section 4,  
15 page before last, it goes over the boiler checks  
16 and the intervals.

17 CHAIRMAN MORELOCK: Okay. At the  
18 end of my Section 4 is the contractor safety  
19 program.

20 MR. ROBINSON: Are you talking  
21 about the weekly intervals?

22 MR. HERTTER: Yes.

23 CHAIRMAN MORELOCK: Second-to-last?

24 MR. HERTTER: When I get the page  
25 numbers, it will be easier.



1                   CHAIRMAN MORELOCK: It would be  
2 helpful.

3                   Oh, okay. So here it is.

4                   And again, just make your manual  
5 easy to find stuff. Font size could be important,  
6 headings, and stuff like that, too. So like I  
7 said, it's editorial.

8                   Okay. Now, I know these guys  
9 are -- they've got handheld devices and all that,  
10 but in the remote station, do you have a placard  
11 anywhere that just kind of gives them a reminder  
12 of what they need to do in the case of an  
13 emergency? Or, I mean, that's one of the things  
14 we put on a checklist. Is there a placard with  
15 instructions?

16                  MR. BONDI: First and foremost, the  
17 emergency would constitute shutting the boilers  
18 down. Again, they'd have the authority. But the  
19 E-Stops, beside each E-Stop, we could document our  
20 phone -- next -- these two phone numbers. We can  
21 expand that further, but . . .

22                  CHAIRMAN MORELOCK: If you've got  
23 one of these security guards, and he's dealing  
24 with who knows what, and he gets a boiler alarm,  
25 it would be handy if he could just have something

1 to glance at to kind of know -- to keep him on  
2 track to follow through with the proper steps to  
3 put the boiler in a safe situation.

4 MR. HERTTER: And there's a picture  
5 at the end of Tab 5 that shows the placard at the  
6 E-Stop. But are you asking for one at the  
7 manual --

8 CHAIRMAN MORELOCK: Well, I'm just  
9 saying that would be like for the boiler attendant  
10 operator. But what about the remote personnel  
11 where -- I know -- like I said, I know they're  
12 roving, but at the same time, in the official  
13 location of the remote monitoring station, would  
14 they have just some instructions there as well?

15 MR. ROBINSON: They're the fastest  
16 person. They're the ones that's going to hear it  
17 first, see it first. That guy out there in the  
18 field, he's going to -- he's in the field. So  
19 you've got some instruction there that says in the  
20 event of an emergency --

21 CHAIRMAN MORELOCK: Something  
22 short, easy, but just to kind of keep them on  
23 task. So just a thought. Because that's Item 42  
24 in the checklist as well.

25 MR. BONDI: Sure.

1                   CHAIRMAN MORELOCK: And what is the  
2 procedure to restart the boiler?

3                   MR. BONDI: What is the procedure?  
4 Like I said, the monitoring staff, nights and  
5 weekends, don't restart the boilers. Only our  
6 chief operator or service technician. We call  
7 them on-site.

8                   As far as the procedure for that, I  
9 don't know if we have that documented in this  
10 manual.

11                  CHAIRMAN MORELOCK: Well, it should  
12 be in combination with the remote and the boiler  
13 attendant operator to work together to restart the  
14 boiler. They shouldn't be able to do it  
15 independently of each other.

16                  MR. BONDI: Oh, no, no. Yeah.  
17 Like I said, the nights and weekends, they have no  
18 authority to restart anything.

19                  CHAIRMAN MORELOCK: You might want  
20 to write out what that looks like, because when  
21 Deputy Inspector Jackson comes, he's going to want  
22 to see that.

23                  MR. BONDI: Sure.

24                  CHAIRMAN MORELOCK: That's all the  
25 comments I have.

1 Any other comments?

2 MR. BAUGHMAN: Yes, sir. Unless  
3 I'm just missing something totally in here, I  
4 really don't see the procedures at all.

5 And for me, I don't know how we can  
6 proceed without having procedures. We've got  
7 something that's a very incomplete document, in my  
8 mind. I'm just kind of calling it out as it is.  
9 The G4S personnel are doing more than just the  
10 boiler monitoring. They're doing quite a few  
11 other tasks that are asked for in this job  
12 description. And in this whole thing, it's  
13 just -- it really isn't spelled out to where  
14 somebody would be able to do it in a very  
15 competent manner, both for us to evaluate -- or  
16 for myself to evaluate -- but for somebody to  
17 implement also.

18 So I didn't know if I was missing  
19 that in the manual, but I didn't really see the  
20 procedure spelled out as far as -- I see the  
21 checks that you had spoke about in the back -- the  
22 boiler checks and the intervals 20 minutes daily  
23 and so forth -- but there's still no checks and  
24 balances of how the system operates, how it is  
25 verified through the operating personnel. So I --

1 I'm a little bit concerned with that.

2 CHAIRMAN MORELOCK: There's a lot  
3 of good data in your manual. But, you know,  
4 you're operating it, so you know it. But you've  
5 got to help us, that's never seen it, to just see  
6 how it logically -- how all these people work  
7 together to make it run.

8 I mean, you've got the remote  
9 station, you've got their normal duties, their  
10 remote monitoring duties, emergency duties; the  
11 boiler attendant operator, their daily duties and  
12 all that.

13 And so it's in here, but you really  
14 have to go digging for it. And if you can just  
15 leave the data in here but just put some pages in  
16 there -- again, just basic one- or two-page  
17 procedures on what that looks like -- that would  
18 certainly help us that's reviewing the manual, but  
19 it's also going to benefit the people who are  
20 going to use the manual as well, so . . .

21 I mean, the content of the manual  
22 is fine. It's just, like I said, no page numbers,  
23 headings are kind of hard to find. It took a lot  
24 to go through the manual to get all the  
25 information out of it, so . . .

1                   MR. BONDI: Okay. We can  
2 elaborate. I don't disagree that the 20-minute  
3 checks are, of course, the most important. That's  
4 when the operator -- the night weekend operator,  
5 that's all he's doing. And I can understand  
6 elaborating on that a little bit more. I mean,  
7 when I look at it, just considering temperatures  
8 and pressure, at what point do you -- you know,  
9 you shut it down or make a phone call?

10                   So that's understood. We can make  
11 those changes.

12                   CHAIRMAN MORELOCK: Okay. All  
13 right.

14                   Any comments from the audience?  
15 Yes, Mr. Jackson?

16                   MR. JACKSON: Did I understand them  
17 to say, in answer to your question, that everybody  
18 on the org chart is on the emergency call list?

19                   CHAIRMAN MORELOCK: That's what I  
20 understood to be said, yes.

21                   MR. JACKSON: And they'll all  
22 receive training on boilers and the operation,  
23 right?

24                   MR. HERTTER: Yes.

25                   CHAIRMAN MORELOCK: That's what it

1 says.

2 MR. JACKSON: Interesting. Okay.

3 CHAIRMAN MORELOCK: Any other  
4 questions?

5 MS. EWELL: Are there any  
6 conflicts?

7 CHAIRMAN MORELOCK: Thank you.  
8 Any conflicts of interest on this  
9 item?

10 Okay. Good. Thanks for keeping us  
11 honest on that.

12 MR. ROBINSON: Make an addition of  
13 a boiler log as far as the checks that you do, a  
14 log so when Mr. Jackson arrives to do his audit,  
15 you'll have a visual presentation of who's been  
16 doing the testing.

17 MR. BONDI: Yeah. In addition to  
18 the electronic log, there is actually a -- they  
19 keep a notebook -- a spreadsheet that I've created  
20 that may have well been part of this --

21 MR. ROBINSON: Can you include that  
22 as a log and a manual?

23 MR. BONDI: We can, yes.

24 CHAIRMAN MORELOCK: You don't have  
25 to put the whole thing, just an example of it.

1                   Anything else? Okay. Do I have a  
2 motion?

3                   DR. CANONICO: I'll make a motion.

4                   CHAIRMAN MORELOCK: You make a  
5 motion to approve contingent upon a site  
6 inspection by Deputy Inspector Jackson?

7                   DR. CANONICO: Well, I wasn't quite  
8 going that far.

9                   CHAIRMAN MORELOCK: Okay. So  
10 what's your motion?

11                   DR. CANONICO: I'm a little  
12 concerned that -- from what I've heard that we  
13 really don't have a manual here who covers -- that  
14 covers what we want covered. And they're going to  
15 fix it up. The question in my mind is, do we  
16 approve it and hope they fix it up, or do we  
17 reject it and have them come back next time with  
18 the manual we want to see? So --

19                   CHAIRMAN MORELOCK: It's your  
20 motion.

21                   DR. CANONICO: My motion is to not  
22 approve.

23                   CHAIRMAN MORELOCK: Okay. So I  
24 have a motion to not approve. Do I have a second?

25                   DR. CANONICO: Have to carry that



1 motion.

2 MR. BAUGHMAN: Well, can we discuss  
3 that motion at all, or do we second it and then  
4 discuss?

5 DR. CANONICO: You have to second  
6 it and then discuss it.

7 CHAIRMAN MORELOCK: Second it, and  
8 then you can vote it up or down.

9 MR. BAUGHMAN: I'll second that  
10 motion.

11 CHAIRMAN MORELOCK: Okay.

12 DR. CANONICO: You can't vote  
13 against it then.

14 MR. BAUGHMAN: Well, we'll discuss  
15 it. How's that?

16 DR. CANONICO: Okay.

17 CHAIRMAN MORELOCK: So now we need  
18 to discuss your motion. So are there any comments  
19 about voting this down?

20 MR. BAUGHMAN: Well, my discussion  
21 is -- in bringing this up is that we are putting  
22 the cart before the horse just a bit, and we're  
23 making -- we have talked about making an approval  
24 without having a firm document that's really in  
25 the manner of what this board's been charged to

1 do. Even though a lot of the information in here  
2 is good, it doesn't give myself personally enough  
3 to evaluate and to honestly make a competent  
4 decision to say yes, this is -- this is good.

5 So I feel that the resubmittal of  
6 the manual in the form that it needs to be for  
7 evaluation would be prudent in this particular  
8 case.

9 So that's the amount of discussion  
10 I've got to bring to it.

11 CHAIRMAN MORELOCK: Any other  
12 discussion?

13 MR. HERTTER: I mean, I'd just like  
14 to say: I can get this corrected within the week.  
15 Really, the spirit of the variance is already in  
16 place. I mean, all the procedures have been  
17 implemented. It's been running this way for a  
18 year and a half, as far as the setup. I mean,  
19 obviously they can't go with the four-hour  
20 intervals. But the setup is in place.

21 So it's not been -- it's not been  
22 an issue, and I think I can get this all corrected  
23 within days. It's mostly a matter of formatting.  
24 I'd hate to go another five months.

25 CHAIRMAN MORELOCK: It wouldn't be

1 five months. It would be three.

2 DR. CANONICO: Three.

3 CHAIRMAN MORELOCK: The next  
4 meeting will be the first week in March.

5 MR. ROBINSON: How does that fall  
6 within your needs?

7 MR. BONDI: It's a challenge to  
8 push out any further, I mean, considering we're  
9 ramping up production and we've got several other  
10 processes that are running 24/7 that these  
11 gentlemen monitor. We've been doing it thus far.

12 But again, you know, relying on the  
13 Shelby County licensure also, you know, their  
14 capabilities, our chief operator, intent to hire  
15 another one, I think, kind of supports that we've  
16 grown successfully, we've passed inspection with  
17 flying colors.

18 Dallas Ward is our inspector. He  
19 was quite impressed with what we had and what  
20 we've been doing. We've got an A-1 operator.  
21 He's a great trainer. He's got 30-plus years'  
22 experience.

23 I don't think there's anything in  
24 here other than, you know, sort of breaking it  
25 down to details, documenting the training that

1 they're receiving from our chief operator. Like I  
2 said, the framework is here. I think if we could  
3 break it down into the details and, you know,  
4 document the training and have your inspector lay  
5 hands on it, lay eyes on it on-site, I think it  
6 would just further support what we've already  
7 accomplished at our facility.

8 CHAIRMAN MORELOCK: I don't think  
9 the -- I don't think your operators are in  
10 question. That's fine. What's in question is the  
11 fact that we know you can operate the boiler  
12 safely. You're doing that successfully today on  
13 the 20-minute rule.

14 MR. BONDI: Sure.

15 CHAIRMAN MORELOCK: What's in  
16 question is: Does your manual set forth a process  
17 to get a variance from Rule 22 to let you operate  
18 in a different manner? And that's where the  
19 struggle is.

20 So yeah, I mean, your personnel and  
21 the training and all that is fine. It's just  
22 we've not seen clear procedures, we've -- I mean,  
23 we've seen -- you know, there's good information  
24 in here, but it needs to be clarified and so . . .

25 Any other comments?

1 MR. ROBINSON: Mr. Chairman?

2 CHAIRMAN MORELOCK: Yes.

3 MR. ROBINSON: Is the board at  
4 liberty to allow revision to the manual and submit  
5 it electronically back to the members for review?

6 CHAIRMAN MORELOCK: Not according  
7 to Open Meetings Act, no. It has to be done in a  
8 public meeting.

9 Is that correct, SydnÃ©?

10 MS. EWELL: Yes.

11 CHAIRMAN MORELOCK: We can't  
12 approve anything outside of this public forum.

13 Yes, Dr. Canonico?

14 DR. CANONICO: We approve it with  
15 the contingency that Sam, --

16 MR. ROBINSON: Mr. Jackson.

17 DR. CANONICO: -- Mr. Jackson agree  
18 that it is proper.

19 CHAIRMAN MORELOCK: Well, that was  
20 my first motion that you shot down.

21 DR. CANONICO: No, that wasn't your  
22 motion. You asked for a motion.

23 CHAIRMAN MORELOCK: That was the  
24 words I was putting in your mouth.

25 DR. CANONICO: Is that what you

1 were trying to do?

2 I wouldn't have a problem with  
3 that.

4 MR. ROBINSON: Yes, ma'am?

5 DR. CANONICO: What I have a  
6 problem with is what they have.

7 MS. JEFFERSON: Could it be  
8 approved contingent to another review by you-all?

9 CHAIRMAN MORELOCK: Well, yes, but  
10 that would be in March.

11 MS. JEFFERSON: Well, not so much  
12 in March, but approved here today contingent with  
13 you-all reviewing --

14 CHAIRMAN MORELOCK: Oh, yeah,  
15 that's what we typically do anyway.

16 DR. CANONICO: We've done that in  
17 the past.

18 MS. JEFFERSON: Not -- not at the  
19 meeting in March.

20 CHAIRMAN MORELOCK: Right. I mean,  
21 we could review this manual contingent on the  
22 changes that we've discussed, and upon successful  
23 site visit by Deputy Inspector Jackson, if he gets  
24 a cleaned up manual with all of our comments and  
25 he reviews that and he goes out and does a site

1 visit and everything lines up, then the approval  
2 that we would make today would stand.

3 MS. JEFFERSON: Uh-huh.

4 CHAIRMAN MORELOCK: So yes, we  
5 could do that.

6 MS. JEFFERSON: Okay. Now, would  
7 that responsibility be on Sam and Mr. -- well,  
8 Neil Jackson --

9 CHAIRMAN MORELOCK: Yes.

10 MS. JEFFERSON: -- to review that  
11 to ensure that everything is corrected outside of  
12 you-all?

13 CHAIRMAN MORELOCK: Yes.

14 MS. JEFFERSON: You-all wouldn't  
15 have any --

16 CHAIRMAN MORELOCK: No.

17 MS. JEFFERSON: Okay.

18 CHAIRMAN MORELOCK: Because we do  
19 that on all these variances is that there's always  
20 comments, they always have to clean up the manual  
21 one more time, and then we have a contingent  
22 approval that once Chief Chapman or Deputy  
23 Inspector Jackson reviews it, and all those are --  
24 all those comments and everything are met, then  
25 they have an approved variance.

1 Dr. Canonico?

2 DR. CANONICO: I will withdraw my  
3 motion.

4 CHAIRMAN MORELOCK: Okay.

5 DR. CANONICO: Do you second to  
6 withdraw?

7 MR. BAUGHMAN: I second to  
8 withdraw.

9 MR. ROBINSON: I'll make the motion  
10 to approve, based on resubmittal of the manual to  
11 the chief -- to the interim chief, Sam Chapman --  
12 assistant chief --

13 MR. CHAPMAN: Thank you.

14 MR. ROBINSON: -- and, naturally, a  
15 successful audit by Mr. Jackson.

16 CHAIRMAN MORELOCK: Okay.

17 DR. CANONICO: Second.

18 CHAIRMAN MORELOCK: Okay. I've got  
19 a second on that.

20 All right. Any discussion about  
21 that motion?

22 MR. JACKSON: Just a comment.

23 CHAIRMAN MORELOCK: Okay.

24 MR. JACKSON: When I make my  
25 inspection, either acceptance, or in the



1 particular case there's not necessarily a  
2 rejection but there's an error in the program, I  
3 know -- I list it in a letter that I send to the  
4 office that either it was acceptable or  
5 unacceptable based on these certain things.

6 So there's always a letter that  
7 goes to the department of my inspection.

8 CHAIRMAN MORELOCK: Okay. I think  
9 that's proper.

10 Any other comments?

11 MS. JEFFERSON: And also, just for  
12 you-all's clarification and the court reporter  
13 here transcribes -- well, the transcriptionist,  
14 I'll say -- is transcribing the minutes. So  
15 everything that the board members mentioned today  
16 will be, verbatim, in that document. So you have  
17 access to that. All you have to do is go to the  
18 website and take a look at everything that was  
19 requested to make sure that you're including  
20 everything, because as Mr. Jackson said, if  
21 anything is omitted, then he will be submitting  
22 that information to us as a form of rejection. So  
23 if you want to ensure that everything is taken  
24 care of, please review those meeting minutes on  
25 our website.

1 MR. BONDI: Yes.

2 CHAIRMAN MORELOCK: Okay. Any

3 other comments?

4 I'm going to call for the question.

5 All in favor say, "Aye."

6 IN UNISON: Aye.

7 CHAIRMAN MORELOCK: Opposed?

8 Abstentions, not voting?

9 Gentlemen, you have a  
10 contingently-approved variance.

11 MR. HERTTER: Thank you.

12 MR. BONDI: Thank you.

13 CHAIRMAN MORELOCK: Again, you're  
14 welcome to stay, you're welcome to excuse yourself  
15 if you need to.

16 We'll move on to the next item,  
17 which is Item 14-15, which is Jack Daniel  
18 Distillery request a variance on two wood-fired  
19 boilers.

20 MR. TIPPS: Good morning.

21 CHAIRMAN MORELOCK: Good morning.  
22 Introduce yourselves.

23 MR. TIPPS: I'm Mike Tipps, manager  
24 of distillery operations.

25 MR. HORTON: David Horton, lead

1 boiler, by-products operator.

2 MR. TIPPS: We're here to -- well,  
3 I guess we've got a couple, but I'll request,  
4 first, a variance for our wood-fired boilers,  
5 Boilers No. 1 and 2. Boiler No. 1 is a  
6 55,000-pound Keeler wood-fired boiler. Boiler  
7 No. 2 is an 80,000-pound Keeler wood-fired boiler  
8 also. They're originally installed as quad-fired  
9 boilers, and there's no -- if you do a lot of  
10 things, you don't do one thing real well, so we  
11 converted them to wood-fired boilers, wood-fired  
12 only.

13 They're controlled through a  
14 control room. Our operators are actually our  
15 boiler room controllers that is remotely located  
16 100 yards or so from the actual boiler building  
17 itself. It's controlled through a DCS system. It  
18 was originally an APAC system. It's still APAC's  
19 equipment with the front end, or the HMI Siemens  
20 PCS 7, over APAC's.

21 So our operators, we have two  
22 operators on a shift. One is outside doing things  
23 around boiler by-products, that sort of thing.  
24 And the other operator is in the control -- in  
25 that control room. It's manned 24/7. We run 365

1 days a year up there, so that control room is  
2 always manned.

3 So that's the situation we have  
4 with the wood-fired boilers.

5 CHAIRMAN MORELOCK: Do we have any  
6 conflicts of interest on this item?

7 All right. Hearing none, I'll open  
8 the floor for discussion.

9 Yes, Dr. Canonico?

10 DR. CANONICO: Does "liking"  
11 indicate a conflict of interest?

12 CHAIRMAN MORELOCK: No.

13 DR. CANONICO: Okay.

14 CHAIRMAN MORELOCK: Being a  
15 procurer of a product does not constitute a  
16 conflict of interest.

17 DR. CANONICO: Okay. On page 1,  
18 you talked about trained boiler operators in the  
19 second paragraph. And I must admit that the two  
20 books I've looked at, you've come forth with one  
21 of the best training programs, internal training  
22 programs, I've seen to date. And I've been here  
23 for a number of years. So I was very impressed  
24 with that.

25 MR. TIPPS: Thank you, sir.

1 DR. CANONICO: The other problem I  
2 had, at the bottom of the page, last sentence, "I  
3 described in Section C and D."

4 And I can't find C and D. In fact,  
5 in your . . .

6 MR. BAUGHMAN: Page 14. 13, 14.

7 DR. CANONICO: You have Appendix A  
8 and Appendix B in your Table of Contents, but I  
9 can't find C and D.

10 Those are the Cs. Okay.

11 CHAIRMAN MORELOCK: Yeah.

12 DR. CANONICO: Section C -- okay.  
13 I guess that takes care of that.

14 Let's see. What else did I have?

15 CHAIRMAN MORELOCK: Does that take  
16 care of it?

17 Any other comments?

18 MR. ROBINSON: Minor comment,  
19 editorial. I know you guys are at 280 Lynchburg  
20 Highway. And I guess this is directed towards the  
21 State, assistant chief. The boilers are really at  
22 590. I'm inclined, when I pick up the manual, the  
23 first page I see is going to be the address at  
24 which I'm at. And the only reason why I say that:  
25 In the event of an emergency, if someone picks it

1 up, the first address they see is going to be the  
2 address where they should be going to.

3 Should that not be corrected?

4 That's the question.

5 Right now, it shows 280 Lynchburg  
6 Highway. I would like to see it show the 590  
7 location.

8 MR. TIPPS: We will make the  
9 correction to the correct address regardless of  
10 which one of these actually should be on that  
11 Lynchburg Highway. There's -- there are multiple  
12 entrances to Jack Daniel, and we could be quoting  
13 two different entrances that end up at the same  
14 place. But we will have one correct --

15 MR. ROBINSON: It's Mike, right?

16 MR. TIPPS: Yes, sir.

17 MR. ROBINSON: You're the first  
18 wood-burning boiler that has come before the board  
19 during my tenure. And just to let you know: In  
20 my opinion, it fell under heavy scrutiny. And  
21 some of the questions, you'll understand why.

22 A wood burner is going to contain  
23 so much fuel. And my real -- first question is:  
24 How much or how long is this thing going to burn  
25 once you shut the boiler down?

1                   MR. TIPPS: David can probably  
2 answer -- not very long because we shut off the  
3 air at the same time, and they smother themselves  
4 out rather quickly. I don't have an exact minutes  
5 for that.

6                   David, you may have a better idea.

7                   MR. HORTON: Yeah. The wood screws  
8 shut off and all the dampers close, so you  
9 limit -- cut your fuel off, what's left on the  
10 grates burning, your air goes off, and it just  
11 kind of smolders there.

12                  MR. ROBINSON: That combustion  
13 chamber is pretty tight? There's no leakage,  
14 nothing coming out of it?

15                  MR. TIPPS: Of course, there is  
16 some leakage on a wood-fired boiler, but it's  
17 not -- but it's a minimal amount. And we don't  
18 maintain a large amount of wood on the grates.  
19 It's continually burning, continually fed in.

20                  MR. ROBINSON: So in reality, we do  
21 have leaks, so we want to get oxygen into the  
22 chamber, so --

23                  MR. HORTON: Some. Some. We  
24 maintain them as tight as possible.

25                  MR. ROBINSON: We want to get some,

1 but we really can't quantify it?

2 MR. HORTON: It's not enough to  
3 sustain making steam.

4 MR. ROBINSON: If you open a door,  
5 it's going to burn?

6 MR. HORTON: Right.

7 MR. ROBINSON: So if the door  
8 opens, either by force or some unsuspecting  
9 person, it's going to ignite again?

10 MR. HORTON: It's going to burn,  
11 but it's not going to burn like you're having  
12 undergrate air coming up through it, you know.  
13 You're pulling air across it. It's not going to  
14 be the undergrate air that's coming up through the  
15 wood that's really going to sustain and make that  
16 fire hot enough to make the steam. You know, you  
17 cut the air dampers off, especially the  
18 undergrate, it's going to slow it down enough that  
19 it . . .

20 MR. ROBINSON: Okay. Question:  
21 Your control room is really elaborate, first of  
22 all.

23 MR. HORTON: Yes, it is.

24 MR. ROBINSON: Do you also control  
25 the air fuel mixture from that central point?



1 MR. HORTON: Yes.

2 MR. TIPPS: Yes.

3 MR. HORTON: You make all your  
4 adjustments from there. You're getting all the  
5 information and data from your screens.

6 MR. ROBINSON: So how -- how are  
7 you -- what data are you taking to make that  
8 assumption?

9 MR. HORTON: We have wood moisture  
10 going in. You know what your wood moisture is.  
11 You're looking -- we've got a camera on the  
12 furnace itself. So you can actually see the fire,  
13 how you're doing, your airflow through the grates,  
14 through the fire. So you're going to know how  
15 it's burning, if you're getting behind on steam  
16 pressure or anything, if you need to adjust, add a  
17 little bit of air, take a little bit of air out.

18 MR. ROBINSON: How do you control  
19 the airflow?

20 MR. HORTON: With the bias on your  
21 dampers. You set your pressure on your fans, your  
22 FD fan, and then you'll put a bias on your dampers  
23 where you can have those open a little bit more or  
24 stay closed a little bit more than what it's  
25 calling for. But it's automated. I mean, it's --

1 MR. ROBINSON: It's automatic?

2 MR. HORTON: Yes. It's

3 automatically doing it, and then you make the

4 adjustments according to the information you're

5 getting back, you know. If you're going positive

6 too much, you're going to put a little more draft

7 in it. You've got people also going out, radio

8 contact. You have a rover going out that goes in

9 the boiler and looks and checks things out and

10 kind of lets you know, "Hey, you've got a

11 little -- need a little more draft. Got some

12 sparks coming around the doors."

13 MR. ROBINSON: You ever get a fire

14 upstream of the fuel feed?

15 MR. HORTON: We've had some fires

16 around our wood conveyors where you might get some

17 sparks and get some dust. We try to wash those

18 down daily.

19 MR. ROBINSON: How did you guys

20 react to that?

21 MR. HORTON: Went over there and

22 washed it down, put it out.

23 MR. TIPPS: Put out the fire.

24 MR. ROBINSON: You got a camera

25 pointing to it?

1 MR. HORTON: Yes.

2 MR. TIPPS: Yes.

3 MR. HORTON: We've got a camera  
4 going right across our wood feed so you can see --

5 MR. ROBINSON: So you can detect  
6 anything that sparks?

7 MR. HORTON: You can see it, yes.

8 MR. ROBINSON: What about sensors,  
9 temperature sensors?

10 MR. HORTON: In the building  
11 or . . .

12 MR. ROBINSON: Upstream of the fuel  
13 feed auger.

14 MR. HORTON: No temperature sensor.

15 We have -- you know, of course,  
16 we've got the backdraft dampers that as the wood  
17 goes in, it's going to close, eliminate those  
18 sparks from going up into the wood hopper.

19 MR. ROBINSON: When you did have  
20 your fire, what's the worst case?

21 MR. HORTON: We lost a wood screw  
22 motor. So we -- you know, we've lost one wood  
23 screw, and had to call maintenance in and re-wire  
24 it and . . .

25 MR. ROBINSON: How long did that

1 one burn?

2 MR. HORTON: We kept it going. We  
3 had three wood screws feeding it, so we kept two  
4 going. The one that was off, we just had to back  
5 down our process a little bit. We couldn't make  
6 the steam flow that we needed, so we just had them  
7 back down, and then got maintenance in and  
8 rewired.

9 MR. ROBINSON: It burned pretty  
10 good, in other words?

11 MR. TIPPS: It burned some wires.

12 MR. ROBINSON: Oh, some wires?  
13 Okay.

14 MR. HORTON: Oh, yeah, just burned  
15 some wires. It didn't burn --

16 CHAIRMAN MORELOCK: It was an  
17 electrical failure, not mechanical failure.

18 MR. HORTON: Right. We do a really  
19 good job, sanitation-wise, to try to eliminate  
20 those -- those kind of things where you've got a  
21 lot of wood dust collected.

22 MR. ROBINSON: You were doing that  
23 during the 20-minute rule, right, in that burn?  
24 When that -- when the wires were overheated and  
25 when the motor burned, it was the 20-minute rule,

1 right?

2 MR. HORTON: I assume we were under  
3 that rule then.

4 But as far as, you know, would you  
5 know it at the central control room now? You  
6 would know it really quick.

7 MR. ROBINSON: Did you have the  
8 same setup?

9 MR. HORTON: Yes, we had the  
10 central control cameras.

11 MR. ROBINSON: What happens to the  
12 pumps when you lose power?

13 MR. HORTON: They go off.

14 MR. ROBINSON: Do you have  
15 generators for that section? I seen one in the  
16 other section, but not this one.

17 MR. HORTON: No.

18 MR. ROBINSON: So nothing to  
19 continue to pour cold water or water into the  
20 vessel?

21 MR. HORTON: No.

22 MR. TIPPS: With complete -- with a  
23 complete power failure --

24 MR. HORTON: Everything goes off.

25 MR. ROBINSON: Everything shuts

1 off, all the dampers?

2 MR. HORTON: Fail-closed.

3 MR. TIPPS: Dampers fail-closed.

4 MR. ROBINSON: No more. Go ahead.

5 MR. BAUGHMAN: Yes, sir. Where is  
6 the emergency boiler shutoff switch actually tied  
7 into? What components does it tie into?

8 MR. HORTON: Kills your wood  
9 screws, and it shuts your dampers.

10 MR. BAUGHMAN: Okay. This  
11 monitoring system is not only tied in with the  
12 wood boilers, but it's also tied in with the gas  
13 boilers; is that correct?

14 MR. HORTON: Part of it, yes. We  
15 have two gas boilers, and one of them is on that  
16 same Siemens, and then -- on those monitoring  
17 screens; and then the other one's on a touch  
18 screen. It's a little bit different, but we're in  
19 the process of putting it on the same type as you  
20 see there.

21 MR. BAUGHMAN: Okay. Well, in the  
22 manual, it says, in fact, the system has been  
23 engineered to control monitor all of the  
24 by-product area processes, including two  
25 additional gas boilers, and so forth. So that's

1 why I was wondering if it was -- the way it states  
2 is, it's also got the gas boilers tied in on this  
3 also.

4 MR. HORTON: Yes.

5 MR. BAUGHMAN: Does the -- do the  
6 boilers both have to operate to pull your load, or  
7 are you using one as a standby or hot lay-up or  
8 both boilers stay on --

9 MR. HORTON: In our current  
10 production, we run both.

11 MR. BAUGHMAN: Okay. So downtime  
12 is critical in your operation to keep the process  
13 up and cooking?

14 MR. HORTON: Yes.

15 MR. TIPPS: Yes.

16 MR. BAUGHMAN: Okay. In the  
17 operations manual, it gives that responsibility of  
18 alarms, and the qualification or quantification of  
19 that alarm to the by-products boiler operator,  
20 boiler monitor personnel. Not all alarms are  
21 considered to be emergency situations. It gives  
22 minor alarms, no further action, operator will  
23 acknowledge and clear the alarm; alarms that  
24 warrant action, operator will acknowledge and so  
25 forth; and then alarms that warrant action. But I

1 don't see any differentiation -- in other words,  
2 it's up to the operator to make that determination  
3 what's minor, what's major.

4 MR. HORTON: Right. You'll get  
5 some alarm warnings. You'll get a warning and --  
6 you know, high-furnace warning before you get a  
7 high-furnace pressure, you know. And a lot of  
8 those, if you've got some real dusty wood, real  
9 dry wood, you might get a little high-furnace, so  
10 it clears itself. I mean, it's not anything you  
11 really need to do.

12 MR. BAUGHMAN: I understand.

13 MR. HORTON: But, you know, if you  
14 get an alarm that warrants some action that's  
15 calling maintenance, such as a wire burnt, a  
16 motor's down, then, you know, our operators  
17 know -- they can distinguish between alarms that  
18 warrant action and ones that don't, that's going  
19 to take care of theirselves.

20 MR. BAUGHMAN: Uh-huh.

21 (As read): This action is left to  
22 the discretion of the by-products boiler operator.  
23 He has been trained to make judgment calls and  
24 solve problems under pressure.

25 We've got a nuisance alarm. Do you



1 ever have nuisance alarms?

2 MR. TIPPS: Yes.

3 MR. BAUGHMAN: What kind?

4 MR. HORTON: You'll have, you know,  
5 alarms that -- where if you're right on the bubble  
6 of either -- whatever it is; level or SBR,  
7 anything -- that it just keeps going under, coming  
8 back in, going under, coming back in. You know,  
9 things like that.

10 MR. BAUGHMAN: Which is critical.  
11 Most boilers melt instead of blowing up, so the  
12 low waters are critical. What you've described is  
13 a nuisance low-water alarm. In the boiler  
14 industry, we all deal with nuisance alarms. My  
15 problem is, is knowing that operation is critical  
16 to keep the product flowing, and if we've got a  
17 nuisance alarm and an operator makes a judgment  
18 decision, I know that's a nuisance alarm. It's  
19 been going off on low-water periodically for  
20 months -- we know that -- high load, DA, whatever  
21 the problem may be, and he resets it. And it goes  
22 off again, and resets it.

23 What I don't want to see is  
24 something from a judgmental standpoint that goes  
25 from being a nuisance alarm judgment call -- the

1 last thing we want to do is see you guys on the  
2 news in a different light. So from that  
3 standpoint, that's what we charge for.

4           And I've got somewhat of an issue  
5 inasmuch as -- this is laid out extremely well,  
6 and I like it in some respects. But from the  
7 respect of not itemizing what particularly gets  
8 judged in this alarm sequence and how that gets  
9 acknowledged -- because an alarm is an alarm, and,  
10 yeah, maybe you're in a different installation --  
11 wood-fired and what have you -- but in our  
12 discussion just now, we also know that there's  
13 other alarms that come up and how those get  
14 addressed.

15           And I just want to bring it up from  
16 a concern standpoint so that there may be further  
17 definition for an operator. It's totally, this  
18 action is left to the discretion of the boiler  
19 operator. We're all human beings. And that  
20 judgment call -- I like things in black and white.  
21 I don't particularly like things that are judgment  
22 calls. And so I would like to see things  
23 itemized.

24           That's my own two cents' worth on  
25 it.

1 MR. HORTON: We have a very  
2 elaborate alarm system. There's all kinds of  
3 alarms, you know. I guess it would help us if we  
4 knew more specific what area, you know, we --  
5 we've got a bunch of alarms, high amps on every  
6 motor, you know. Just continuous. Continuous.

7 MR. TIPPS: On something like the  
8 low water, he's getting an alarm, which, now,  
9 we're finding out some industries call them  
10 different things. It would be more like a  
11 warning. It's getting slightly low, and his  
12 judgment is, "Okay, do I need to cut on another  
13 pump, feedwater pump?"

14 MR. HORTON: If it's continuous, do  
15 I need to raise my drum a half inch?

16 MR. TIPPS: When he gets that  
17 low-water cutoff, it's cutting off and he can't do  
18 anything about it.

19 MR. HORTON: Right.

20 MR. BAUGHMAN: But we all know,  
21 too -- we've all been in the industry a long time.  
22 You guys have operated a long time -- to know that  
23 we also have instances where there are nuisance  
24 alarms that are more than just warnings, but we  
25 know we've got a device, you know. When that

1 device comes in next week, we'll replace it, we'll  
2 shut down then. We can't really shut down right  
3 now because production is high. We don't have  
4 that availability there.

5 MR. TIPPS: That is not our company  
6 policy, it's not our personal policy. If we have  
7 something like that, that boiler goes down, we've  
8 got the two gas-fired boilers we'll discuss in a  
9 minute that are our backup boilers.

10 MR. BAUGHMAN: Super. I like to  
11 hear that.

12 MR. HORTON: Yeah, even though it  
13 said there the boiler -- boiler operator's  
14 discretion to make the calls and call maintenance  
15 or call Mike or myself, I mean, we're there also.  
16 I mean, we're -- it's not like we're not around  
17 the operations. We're in there every day. We  
18 know what kind of alarms are going off, if there  
19 is a problem. And like Mike said, we tend to get  
20 them corrected --

21 MR. BAUGHMAN: Well, and here's the  
22 other thing, too, is: It's still an interpretive  
23 judgment call, and one operator's interpretation  
24 may be different than another. And the only way  
25 to have any consistency is to have something in

1 black and white, what actually mandates a  
2 particular shutdown.

3 And I guess I'm just a little --  
4 I've got problems with the wording, that it's left  
5 into the discretion. Okay?

6 MR. TIPPS: I understand. We can  
7 correct that.

8 CHAIRMAN MORELOCK: Any other  
9 comments?

10 MS. JEFFERSON: I have a question.  
11 Safety, of course, is our number one priority. So  
12 in getting back with what Mr. Robinson was talking  
13 about in the beginning, I think he was talking  
14 about safety, moving to our safety questions.

15 You mentioned that this is unique;  
16 the wood-burning or wood-fired boilers are unique  
17 to Tennessee. So my question to our inspectors  
18 and maybe the board members is: How many of these  
19 type of boilers do we currently have in Tennessee?  
20 Do you know approximately how many, since this is  
21 unique?

22 MR. ROBINSON: If I were -- take --  
23 take most of your lumber companies, and you'll see  
24 a lot of them.

25 MS. JEFFERSON: Okay. So it's not

1 so much --

2 MR. ROBINSON: So relative to  
3 66,000 -- am I correct? 66,000?

4 MR. CHAPMAN: 66,000.

5 MR. ROBINSON: -- 66,000 boilers, I  
6 think, with what? How many -- fourteen -- 2400  
7 being boilers, I would estimate no more than  
8 10 percent. So 2,000, conservative?

9 MR. CHAPMAN: Pretty much.

10 MR. ROBINSON: That's a lot.

11 MR. CHAPMAN: That's a lot.

12 CHAIRMAN MORELOCK: Mr. Robinson's  
13 comment was more toward the fact that this was the  
14 first to come before the board for a variance, not  
15 that it's the first wood boiler.

16 MS. JEFFERSON: Okay.

17 CHAIRMAN MORELOCK: This is just  
18 the first to come before a variance. There's  
19 other wood boilers out there on a 20-minute rule  
20 now.

21 MR. ROBINSON: Yes. Every one I've  
22 seen in wood-burning environments, they had  
23 20-minute rules, they've got a guy who is right  
24 there constantly.

25 MR. CHAPMAN: Yes.

1                   CHAIRMAN MORELOCK: Any other  
2 questions or comments?

3                   MR. ROBINSON: They reminded me of  
4 two other questions I had. Naturally, the  
5 hard-core safety devices or safety stops, we  
6 really need to know what those are because that  
7 will help us make a determination as to if the  
8 boiler is safe. I'm not questioning your  
9 elaborate system. Really, your system is  
10 really -- man, you guys have put a lot of effort  
11 in design and thought, and I -- it's a beautiful  
12 thing.

13                   But I need to know with that --  
14 clear certainty: One of the statements you make  
15 in your manual, you said that you could change the  
16 parameters, the safety parameters, or you can  
17 adjust the low water. You said you can adjust the  
18 level indicators to make it --

19                   MR. HORTON: You can -- no, you can  
20 adjust your drum level.

21                   MR. ROBINSON: Right.

22                   MR. HORTON: You can say, you know,  
23 instead of having it set at zero, I want it at  
24 plus 2, --

25                   MR. ROBINSON: And you can --

1 MR. HORTON: -- try to maintain  
2 that plus 2.

3 MR. ROBINSON: You can do it from  
4 the control room?

5 MR. TIPPS: We can do those  
6 settings. We cannot -- they cannot change the  
7 low-water cutoff level themselves. That's  
8 something operators cannot change. There's  
9 certain safety things and certain things that they  
10 are locked out of and cannot change.

11 MR. ROBINSON: Which leads me back  
12 into CSD-1 hard-core devices. From that control  
13 station, you cannot modify any of those settings?

14 MR. HORTON: No.

15 MR. ROBINSON: You cannot override  
16 them?

17 MR. HORTON: No.

18 CHAIRMAN MORELOCK: You can modify  
19 the performance of the boiler, but you cannot  
20 bypass the safety.

21 MR. HORTON: Oh, no. No, no, no.  
22 All you can do is adjust your air, your water  
23 levels, your . . .

24 MR. ROBINSON: That's all I have.

25 CHAIRMAN MORELOCK: Yes, sir?



1                   MR. BAUGHMAN: So in carrying it on  
2 to the CSD-1 point, we do have the manual-reset  
3 high limits, the manual-reset low waters that are  
4 manually reset physically out on the equipment  
5 itself?

6                   MR. HORTON: Not at the wood  
7 boiler: with the gas boilers.

8                   MR. BAUGHMAN: On the gas boilers.  
9 Okay.

10                   So we don't actually have a control  
11 safety -- no CSD-1 that's related to that?

12                   MR. HORTON: Yeah.

13                   MR. BAUGHMAN: So we don't have any  
14 manual reset devices, then, on these two  
15 35-year-old Keelers?

16                   MR. TIPPS: That's correct.

17                   MR. BAUGHMAN: Okay. Interesting.

18                   CHAIRMAN MORELOCK: Any other  
19 questions or comments?

20                   Yes, Mr. Jackson?

21                   MR. JACKSON: Listening to Dave's  
22 questioning on this judgment call, my  
23 understanding with the variance is, it's not a  
24 judgment call because the remote station is the  
25 first contact, not the operator. So where does

1 this come in at? I guess I'm losing it somewhere.  
2 Where -- what shuts the boiler down? The  
3 operator, or is there a remote station? Is there  
4 somebody located somewhere that's monitoring this  
5 thing, or what?

6 MR. HORTON: You can shut it down  
7 from our control room.

8 MR. TIPPS: The remote station  
9 where our -- are manned 24/7. There's somebody  
10 always there.

11 MR. HORTON: It's in our control  
12 room.

13 MR. JACKSON: We get all these  
14 alarms. Does every alarm go to the remote  
15 station?

16 MR. TIPPS: Yes.

17 MR. JACKSON: So how does he know  
18 which one to shut it down with?

19 MR. TIPPS: He is seeing everything  
20 on the screen.

21 MR. HORTON: He's actually  
22 operating the boiler.

23 MR. TIPPS: He's operating the  
24 boiler.

25 MR. HORTON: He's not remotely

1 monitoring -- he's operating the boiler from the  
2 remote control room.

3 MR. JACKSON: He makes the judgment  
4 call as to whether to shut it down or not?

5 MR. HORTON: Yeah.

6 CHAIRMAN MORELOCK: But he's  
7 trained as a boiler operator?

8 MR. HORTON: He's a boiler  
9 operator; he's not a night watchman.

10 CHAIRMAN MORELOCK: The manual says  
11 these guys are all boiler operators.

12 MR. HORTON: Right. They're all  
13 boiler operators.

14 CHAIRMAN MORELOCK: This is not a  
15 security guard running a DCS?

16 MR. HORTON: No.

17 CHAIRMAN MORELOCK: This is a  
18 boiler operator running the DCS?

19 MR. HORTON: They have to sit there  
20 and monitor what's going on and make all the  
21 adjustments on the air. If you've ever burned  
22 wood, it's continuously changing --

23 CHAIRMAN MORELOCK: I mean, that's  
24 the way we run our boilers at Eastman. We've got  
25 boiler operators on a DCS.

1                   MR. JACKSON:  So there's no fault  
2  messages that come up.  It's just an alarm and the  
3  judgment call is made?

4                   MR. HORTON:  Fault?

5                   MR. TIPPS:  We have two operators  
6  on shift.  One will be outside doing whatever, and  
7  we've got the other gentleman that's related  
8  that's controlling -- actually in the control  
9  room.  So if there's anything going on outside,  
10 he's got a fully qualified boiler operator that  
11 can be there in a minute if he's not already in  
12 the room.

13                  CHAIRMAN MORELOCK:  Neil, if it  
14 helps you, I mean, the guy sitting in the remote  
15 monitoring station could easily hand his chair off  
16 to another one and walk right out into the  
17 facility and run the boiler because he's a boiler  
18 operator.  He -- they all have the same level of  
19 18 months of training.

20                  So it's different than what we  
21 typically see where you've got a receptionist or a  
22 security guard or a maintenance guy at the remote  
23 station.  These are boiler operators at the remote  
24 station.

25                  MR. HORTON:  And they are in radio

1 contact with each other, so if your boiler  
2 operator is out checking something else that  
3 you've got an issue, you can get him to that  
4 boiler building facility to check on anything you  
5 need to get checked on.

6 MR. ROBINSON: All within 100 yards  
7 away?

8 MR. TIPPS: Yes.

9 MR. ROBINSON: Par 3.

10 MR. HORTON: Good par 3.

11 CHAIRMAN MORELOCK: Any other  
12 questions or comments?

13 All right. With all that said, do  
14 I have a motion?

15 DR. CANONICO: So made, to approve.

16 CHAIRMAN MORELOCK: All right. So  
17 I have a motion to approve, contingent on any  
18 changes to the manual and successful inspection by  
19 the deputy inspector.

20 DR. CANONICO: And depending upon a  
21 second.

22 CHAIRMAN MORELOCK: And depending  
23 on a second. That's true.

24 So do I have a second?

25 MR. BAUGHMAN: I would second upon

1 that contingency. And have we agreed on the  
2 contingencies? I've still got -- I still want to  
3 make sure that we've got the judgment taken out as  
4 much as what we can so that there is a black and  
5 white put into the manual, as far as procedure is  
6 concerned.

7 CHAIRMAN MORELOCK: Well, that's  
8 the comments that are going into the minutes that  
9 these gentlemen will address in their revision of  
10 the manual for Mr. Jackson and Mr. Chapman to  
11 review.

12 MR. BAUGHMAN: Okay. I second.

13 CHAIRMAN MORELOCK: Okay. Any  
14 other discussion?

15 MS. SANDERS: I have a question on  
16 that topic. If we put in more definition around  
17 the alarms that require action, is that acceptable  
18 or -- I guess what I'm -- I'm trying to avoid  
19 laying out all -- every single alarm that we have.  
20 Okay. This -- all these alarms, you know, because  
21 it depends daily. But like low water, okay, yes,  
22 that is a shutdown alarm, you know. So the ones  
23 that require action, if we list out those that are  
24 the most important, would that be acceptable?

25 MR. JACKSON: I agree with her.

1 DR. CANONICO: Okay. You've been  
2 operating under the 20-minute rule, so you have no  
3 experience with this judgment call-type thing?

4 MR. HORTON: Yes. Everybody there  
5 that works on a shift is a boiler operator --

6 DR. CANONICO: Yes.

7 MR. HORTON: -- whether they're  
8 over here or --

9 DR. CANONICO: As I said  
10 earlier, --

11 MR. HORTON: -- at the boiler --

12 DR. CANONICO: -- this is one of  
13 the best training programs I've seen.

14 MR. HORTON: Right. Yes, they've  
15 been making these judgment calls on alarms. They  
16 make them every day.

17 MR. TIPPS: Regardless of whether  
18 he's in the boiler building or in the control room  
19 that's 100 yards away.

20 CHAIRMAN MORELOCK: But  
21 Dr. Canonico, the difference is time. The  
22 logistics are the same. They're going to continue  
23 to operate, whether it be they check it every  
24 20 minutes or every four hours. All the equipment  
25 is still the same. The process is the same. The

1 only thing that's going to change with this  
2 variance is that instead of checking the boiler  
3 every 20 minutes, they'll check it every four  
4 hours. All the other controls and operations  
5 remain the same.

6 Correct?

7 MR. HORTON: Correct. We haven't  
8 changed anything.

9 MR. TIPPS: We're not going to  
10 change anything.

11 CHAIRMAN MORELOCK: Does that make  
12 sense?

13 DR. CANONICO: I'm having trouble  
14 with this variance. You're going to have an alarm  
15 now, and someone's going to make a judgment as  
16 opposed to being in there at the boiler and  
17 actually seeing what's going on. I mean --

18 MR. HORTON: We get all the  
19 information back to the control room. That's  
20 where we're actually controlling the boilers from.  
21 And we've got cameras -- cameras in the furnace,  
22 cameras on the wood feed system, cameras on the --  
23 in front of the boilers. We're -- all the  
24 information, everything that boiler is doing,  
25 every -- it's all coming back to that controller,



1 to that boiler operator.

2 He's in contact with a rover that  
3 is also a boiler operator to where if he gets an  
4 alarm that he thinks needs to be checked, he gets  
5 on the radio, hollers at the rover to go to the  
6 boiler and check out so-and-so. When he gets  
7 there, he's a qualified boiler operator. He can  
8 go in the building, take care of whatever issue  
9 that we're having. We have maintenance on-site,  
10 anything like that, that's . . .

11 We're basically not changing our  
12 operation that we've been burning wood for the  
13 past --

14 CHAIRMAN MORELOCK: It's just your  
15 rover won't have to go back to the boiler for  
16 20 minutes.

17 MR. HORTON: We're expanding. It's  
18 taking more people. We need some relief.

19 MR. BAUGHMAN: How long has this  
20 system been in place?

21 MR. HORTON: Since --

22 MR. TIPPS: The control system?  
23 Since '98, this particular control system. Of  
24 course, previous to that, there was other control  
25 systems for the boilers.

1                   MR. BAUGHMAN: So all -- this  
2 monitoring system has already been in place for  
3 quite some time?

4                   MR. HORTON: Yes. We've been doing  
5 it successfully since '98. It's very good.

6                   MR. BAUGHMAN: But it's been  
7 operating under the 20-minute rule even up to  
8 today?

9                   MR. HORTON: All that information  
10 that -- you know, it's -- we've got everything in  
11 there, everything. I think when he comes down and  
12 sees it, he'll feel good.

13                   MR. BAUGHMAN: Do you feel the  
14 variance increases your level of safety?

15                   MR. HORTON: Yeah. I think it's  
16 fine. Those wood boilers that we've been burning  
17 for a while now is -- I feel a lot more  
18 comfortable around those boilers and in those  
19 boilers than I do a small chamber, gas boiler with  
20 instantaneous (snapping fingers). You've got to  
21 supply the air to make this wood burn. It's  
22 not -- you know, it's not (snapping fingers),  
23 boom, like a gas.

24                   MR. BAUGHMAN: Sure. I understand.  
25 Well, we've got a 35-year-old piece

1 of equipment, so that's kind of why I'm  
2 inquisitive about that and -- but knowing that  
3 that system has been in place, that you've been  
4 operating it, I wanted to get your honest opinion  
5 on. Do you feel that it keeps the status quo or  
6 actually increases your level of safety?

7 MR. HORTON: It's -- definitely  
8 keeps the status quo. I mean, I don't think  
9 there's anything that's going to go on there  
10 because we're not there every 20 minutes that's  
11 going to endanger anybody coming in there every  
12 four hours.

13 And also, to let you know that  
14 we've got people -- like I said, there's  
15 maintenance that's -- it's not like nobody's going  
16 over to that boiler building, that it's abandoned.  
17 There's people in there constantly. Maintenance  
18 is going in there, checking, doing their job,  
19 greasing, whatever. Our guy's going through.  
20 It's -- you know, somebody is there all the time.

21 CHAIRMAN MORELOCK: Any other  
22 questions or comments?

23 With that said, I'll call the  
24 question: All in favor say, "Aye."

25 MR. BAUGHMAN: Aye.

1 DR. CANONICO: Aye.

2 CHAIRMAN MORELOCK: Opposed?

3 MR. ROBINSON: (Raising hand.)

4 CHAIRMAN MORELOCK: We've got one  
5 opposition. Abstentions, not voting?

6 Gentlemen, you have a contingent  
7 variance.

8 Okay. Our next item is 14-16;  
9 again, Jack Daniel Distillery. And this is for  
10 the two gas boilers.

11 MR. TIPPS: It's pretty much the  
12 same type of deal. These gas boilers are  
13 probably, what, 100 feet from this central control  
14 room, probably -- well, probably a couple hundred  
15 feet from this central control room, which -- and  
16 they are basically, right now -- hopefully right  
17 this minute, we're not burning any gas through  
18 those. We're up here, so I don't know absolutely  
19 for sure.

20 But they're basically -- at this  
21 production level we're at, they're more like  
22 standby boilers. If, for some reason, we have to  
23 run everything at the Distillery and the  
24 by-products area requiring that much steam, then  
25 we'll fire up one of the gas boilers. And

1 normally it's two wood boilers, and under extreme  
2 loads, would be the -- one of the gas boilers  
3 would be running.

4 And that's basically all they --  
5 all they run is just either for standby or for a  
6 little extra steam, when required, at the  
7 Distillery and what by-products there is.

8 CHAIRMAN MORELOCK: Okay. Are  
9 there any conflicts of interest on this item?

10 All right. Hearing none, I'll open  
11 the floor for discussion.

12 MR. BAUGHMAN: The boilers are tied  
13 in -- the wood-fired and gas-fired boilers are  
14 tied in on the same steam manifolds?

15 MR. TIPPS: Correct.

16 MR. BAUGHMAN: What are the relief  
17 valve settings on the boilers, the gas-fired  
18 boilers?

19 MR. HORTON: Two-hundred and . . .

20 MR. TIPPS: 220.

21 MR. HORTON: 220.

22 MR. BAUGHMAN: So they're set for  
23 the maximum pressure that the boilers are rated  
24 for?

25 MR. HORTON: We've got two of them.

1 One of them is set lower, and the other one is set  
2 higher.

3 MR. TIPPS: Two on each boiler.

4 MR. BAUGHMAN: Okay. But the  
5 maximum -- the relief valve settings --

6 MR. HORTON: Yeah.

7 MR. BAUGHMAN: Okay. Do you know  
8 what they're set on the wood-fired boilers?

9 MR. HORTON: The same.

10 MR. TIPPS: Same.

11 MR. BAUGHMAN: So the wood-fired  
12 boilers are 250 psi boilers; the BMW and Nebraska  
13 are 220 psi boilers.

14 So the BMW is 44 years old? Good  
15 old boiler. And the Nebraska, being a '99, were  
16 both these boilers original, or were they --

17 MR. TIPPS: They were both  
18 purchased used.

19 MR. BAUGHMAN: Both purchased used.  
20 Okay.

21 Any incidences with ENE, either of  
22 the boilers?

23 MR. TIPPS: No.

24 MR. BAUGHMAN: Okay. How long has  
25 the Nebraska been in?

1 MR. TIPPS: Two years?

2 MR. HORTON: Yeah.

3 MR. TIPPS: Two years, I believe.

4 I don't have the exact date on that.

5 MR. BAUGHMAN: Okay. So it's

6 relatively new?

7 MR. TIPPS: Correct.

8 MR. BAUGHMAN: Okay. As with the

9 other, with the wood-fired, you don't have any

10 information as far as within the DA system, and I

11 always hate to beat -- well, I don't hate to beat

12 it, but DAs -- yeah, DAs can have the same effect

13 as the boiler?

14 MR. TIPPS: Right.

15 MR. BAUGHMAN: And somewhere down

16 the road, it will get addressed, we're all here

17 for safety, but making sure that those same checks

18 or the identification's made back to the DA

19 itself.

20 That's all I've got for right now.

21 CHAIRMAN MORELOCK: Okay. Any

22 other comments?

23 MR. ROBINSON: Yes. Description of

24 your electric input going into the two gas-fired

25 boilers, you use 480 volts, and then you also have

1 the standby generator. I think I saw that in the  
2 diagram.

3 MR. TIPPS: Right.

4 MR. ROBINSON: And they go through  
5 the same primary switch gear?

6 MR. TIPPS: No. Well, primary  
7 switch gear, yes, through the same -- I'm not  
8 sure -- I'm going to describe this. Our standby  
9 generator is actually located down at the  
10 Distillery in the back room there. It feeds panel  
11 at the gas boiler building, but it feeds through  
12 that switch gear down at the Distillery. I think  
13 that's what you're asking. I'm not --

14 MR. ROBINSON: Right. What I'm  
15 trying to determine: I'm looking at risks, I'm  
16 looking at loss based on if you lose your primary  
17 coming in, --

18 MR. TIPPS: Our generator --

19 MR. ROBINSON: -- you've got no way  
20 to get power in through the generator because the  
21 primary switch gear is gone.

22 MR. TIPPS: No, there is a switch  
23 gear down at the generator that, when power goes  
24 out, the generator automatically comes on and  
25 feeds that gas boiler at No. 8. It's the only



1 boiler we've got that's fed through the portable  
2 generator.

3 MR. HORTON: We're looking at just  
4 keeping enough heat to keep things from freezing  
5 and --

6 MR. ROBINSON: So 15 -- yeah, 15  
7 goes down, but 8 continues?

8 MR. HORTON: Right.

9 MR. TIPPS: Correct. It also feeds  
10 the air compressors to run -- feeds -- and I think  
11 you just checked that out in the last month or so?

12 MR. HORTON: Yeah.

13 MR. ROBINSON: That helps reduce  
14 your exposure?

15 MR. HORTON: Yes.

16 MR. TIPPS: Normally before we get  
17 into winter, when you normally have power outages  
18 and stuff down in rural area in spring, at least  
19 once a year, we go through with the generator, air  
20 compressors, and everything, starting it up from  
21 cold.

22 MR. ROBINSON: Change the diesel  
23 fuel, things like that, filters?

24 MR. HORTON: Yes.

25 MR. TIPPS: Our diesel tank that we

1 use to run that boiler on, we're constantly  
2 running through it because our big loaders to  
3 run -- to move the wood with for our wood-fired  
4 boiler, we actually feed it out of that so that  
5 diesel is not sitting there for three years at a  
6 time.

7 MR. ROBINSON: You've got two org  
8 charts -- any reason for that? -- in the manual.  
9 Two organizational charts. Forgive me.

10 MR. TIPPS: Are they different?

11 MR. ROBINSON: They didn't look  
12 different.

13 CHAIRMAN MORELOCK: One's got names  
14 and one's got job titles.

15 MS. SANDERS: If the people change,  
16 if, you know, Mike retires and someone takes his  
17 place, then you only have to change out one sheet  
18 in the manual so we don't have to reprint the  
19 whole thing.

20 MR. ROBINSON: Very well. That's  
21 very good.

22 CHAIRMAN MORELOCK: Yeah, both  
23 manuals are that way.

24 MR. ROBINSON: Okay. The alarm  
25 system with auto shutdown. That's audio, right?

1 MR. TIPPS: That's what?

2 MR. ROBINSON: When a boiler goes  
3 down, you have an alarm annunciation panel that  
4 goes off?

5 MR. TIPPS: Yes.

6 MR. ROBINSON: Monitoring system,  
7 when you conduct a test, do you record any of the  
8 checks on the check log?

9 MR. HORTON: Yes.

10 MR. ROBINSON: And you log  
11 testing --

12 MR. HORTON: Cut off, yes.

13 MR. ROBINSON: And that's in your  
14 log sheet?

15 MR. HORTON: I don't know if it's  
16 in this one, but we have it in our control room.

17 MR. ROBINSON: No, it's not.

18 MR. HORTON: I didn't think I saw  
19 it, but -- but we can put one in.

20 MR. ROBINSON: Would you, please?

21 Really very nice manuals on both parts.

22 Thank you. That's all I have.

23 MR. BAUGHMAN: Two different  
24 control systems as far as the firing control, fire  
25 IE-110 and the Honeywell 7800. I didn't ask the

1 question on the wood-fired boilers, but on these  
2 gas-fired, how often is the low-water cutoff being  
3 positively checked?

4 MR. HORTON: Positively shutting it  
5 off?

6 MR. BAUGHMAN: How often is the  
7 low-water cutoff having a --

8 MR. HORTON: We -- we check the  
9 low-water cutoff every day it runs.

10 MR. BAUGHMAN: Okay. The gas-fired  
11 boilers?

12 MR. HORTON: Gas-fired boilers with  
13 the --

14 MR. BAUGHMAN: Are you going  
15 through a shunt?

16 MR. HORTON: Yes. The --

17 MR. BAUGHMAN: Okay. So actually,  
18 you're just testing the alarm --

19 MR. HORTON: Testing the alarm.

20 MR. BAUGHMAN: -- but not testing  
21 the actual --

22 MR. HORTON: Yeah. We try to do  
23 that when we're shutting down.

24 MR. BAUGHMAN: So what I'm  
25 understanding is: You're checking the alarm

1 circuitry, but it's not actually shutting the  
2 burner off?

3 MR. HORTON: Right.

4 MR. BAUGHMAN: Okay. That's not a  
5 true, positive check for low-water cutoff, as you  
6 know.

7 MR. HORTON: Right.

8 MR. BAUGHMAN: How often do we do  
9 it on those wood-fired, by the way?

10 MR. HORTON: Every day.

11 MR. BAUGHMAN: Okay. Positively?

12 MR. HORTON: No.

13 MR. BAUGHMAN: The gas-fired  
14 boilers have a hard manual reset, high limits --

15 MR. HORTON: Yes. You have to --

16 MR. BAUGHMAN: -- gas pressure,  
17 switches, and so forth?

18 MR. HORTON: -- go up there and  
19 restart them from the building, the boiler.

20 MR. BAUGHMAN: Being the Nebraska  
21 was put in roughly two years ago, is it low knocks  
22 to meet the air quality requirements for  
23 Tennessee?

24 MR. TIPPS: Yes.

25 MR. BAUGHMAN: Just didn't see that

1 listed, so I was kind of interested in that.

2 My same thing again is, nowhere in  
3 here do we have those definitions, and so that  
4 would apply also. I do have a problem with  
5 checking alarm circuitry. Yeah, the alarm light  
6 goes off --

7 MR. HORTON: How often would you  
8 like to see positive?

9 MR. BAUGHMAN: At minimum, once a  
10 day. It depends upon the quality of water that  
11 you've got, kind of the overall operations of the  
12 boiler.

13 MR. HORTON: If it's running on a  
14 high load and they're needing steam into  
15 distillery, it's hard for --

16 MR. BAUGHMAN: It's hard for some  
17 places to do it once a year instead of once a day.

18 MR. HORTON: There's times that we  
19 could work it in.

20 MR. BAUGHMAN: Well, what I'm --  
21 and through this brief conversation, I get the  
22 interpretation that we're not -- although I  
23 thought these boilers weren't being run that much  
24 presently.

25 MR. TIPPS: They're not. That's

1 part of my job, to make sure we don't burn any  
2 more gas than we have to. So we try to schedule  
3 the loads.

4 MR. BAUGHMAN: So we call them  
5 presently to check it, I mean, even when the  
6 boiler is warming up, low fire, you can take the  
7 low water down and do a positive check.

8 What I would like is to make sure  
9 that as we're doing these checks, it bothers me  
10 that, for one, because of the load that's on the  
11 boiler, we're checking alarm circuitry and not  
12 actual operation of the low water. In other  
13 words, we're blowing the column down, we can  
14 check, but we're not actually physically shutting  
15 the burner off. And I'd like to --

16 MR. HORTON: Well, like I said, we  
17 can do it on start-up. While we're coming up,  
18 going to need it, we can fire it up and --

19 MR. BAUGHMAN: There needs to be  
20 some consistent basis whether it's once a day,  
21 once a week. But what we're doing now is we're  
22 just checking the circuitry and we're not actually  
23 checking the true low water itself.

24 CHAIRMAN MORELOCK: Any other  
25 questions or comments?

1 Do we have a motion?

2 MR. ROBINSON: Motion to approve.

3 DR. CANONICO: Second.

4 CHAIRMAN MORELOCK: And again, this

5 is contingent on corrections to the manual and

6 site inspection and all that, so -- all right.

7 Any other discussion?

8 All in favor say, "Aye."

9 IN UNISON: Aye.

10 CHAIRMAN MORELOCK: Opposed?

11 Abstentions? Not voting?

12 All right, gentlemen. You have a

13 variance for your gas boiler.

14 DR. CANONICO: Contingent.

15 MR. TIPPS: Thank you.

16 CHAIRMAN MORELOCK: Thank you.

17 Okay. We will go to Item 14-17

18 that we just added to the agenda today. This is

19 for the Wacker Polysilicon.

20 So gentlemen, this is a discussion.

21 We won't be taking any action on this, but we'll

22 let you present your information.

23 Please introduce yourselves.

24 MR. KASTENBERGER: Thomas

25 Kastenberger. I'm head of engineering for Wacker



1 Polysilicon.

2 MR. ENG: Richard Eng, mechanical  
3 integrity manager for Polysilicon.

4 Thank you for adding this item to  
5 the agenda today. I just want to take this  
6 opportunity to introduce formally Wacker to the  
7 board. Wacker -- I assume you have a copy of this  
8 right now. Wacker Polysilicon North America is  
9 having a project in Charleston, Tennessee. And we  
10 have acquired about 550 acres in Bradley County  
11 for this particular project.

12 Currently, the project is still  
13 under construction. We are due to complete  
14 construction sometime next year, commission,  
15 start-up, and production soon after that.

16 It's a fairly large project, well  
17 over \$2 billion as of today. As a result,  
18 naturally we will employ a lot of people within  
19 the state of Tennessee in many different  
20 locations.

21 The plant will make ultrapure --  
22 high pure polysilicon for the solar industry;  
23 predominantly, I would say, almost exclusively for  
24 the solar industry, and this product would be sold  
25 worldwide.

1           The company is quite old, 100 years  
2 of operation. And of that 100 years, we've been  
3 making polysilicon for almost half a century. And  
4 that technology, that design, that process that  
5 has been in operation in Germany, it is being  
6 brought over to Tennessee as we speak today.

7           I think you can see from the  
8 write-up, we're not really asking for a variance,  
9 which is a break. Okay? We wanted to introduce  
10 ourselves to the board and to introduce the  
11 mechanical integrity, risk-based inspection  
12 program to the board. And we will use this  
13 program to be in compliance with the State of  
14 Tennessee in terms of pressure vessel --  
15 registration of pressure vessel inspection.

16           The tool that we have selected is  
17 provided by Meridium. Meridium is a software RBI  
18 asset performance management company. And then  
19 we've done quite a bit of extensive research in  
20 the selection and evaluation of this particular  
21 tool. And we feel that this is the tool that will  
22 provide the functionalities and the sustainability  
23 that we need to keep this plant safe and  
24 operational.

25           I'm not sure how to provide all the

1 details and functionalities of the tool. And some  
2 of it is on this particular write-up. And if you  
3 have any questions, perhaps, maybe you can ask me  
4 at any time.

5 CHAIRMAN MORELOCK: This would be a  
6 greenfield site, correct?

7 MR. ENG: That's correct.

8 CHAIRMAN MORELOCK: Okay. So what  
9 is your projected date to start using risk-based  
10 inspection methods?

11 MR. ENG: We have actually started  
12 already prior to completion of the plant. We have  
13 used this tool already on a demonstration mode,  
14 proof of concept, and have an actual output back  
15 in October. And we conducted our risk assessment  
16 of our particular assets with our colleagues in  
17 Germany. So we've done, I would say, numerous  
18 pressure vessels already that we have;  
19 distillation columns, heat exchangers --

20 THE REPORTER: I'm sorry. Would  
21 you speak up?

22 MR. ENG: Which part?

23 THE REPORTER: That last.

24 MR. ENG: Okay. We have done  
25 numerous assessments already with our colleagues

1 in Germany for our assets in our particular site.  
2 Okay? Some of these assets are distillation  
3 columns, heat exchangers, phase upgraders, storage  
4 tanks, knockout pots. Very common equipment in  
5 the chemical industry.

6 CHAIRMAN MORELOCK: All right. So  
7 will the -- will the size of this facility in  
8 Charleston be identical to the facility in Germany  
9 as far as the sizing of the equipment, the  
10 production rates, temperature pressures, flow  
11 rates?

12 MR. ENG: I would say the operating  
13 conditions are very similar, and some of them are  
14 identical. The equipment, in terms of materials  
15 of construction and design and composition and  
16 pressure and temperature, all of these are not  
17 identical always. They're very similar, and if  
18 it's not identical, it's an enhancement of what we  
19 already know.

20 CHAIRMAN MORELOCK: Well, my point  
21 being is, "similar" and "almost" will greatly  
22 affect damage mechanisms and all that.

23 MR. ENG: That's correct.

24 CHAIRMAN MORELOCK: So your  
25 evaluation in Germany will not be the same

1 evaluation in Charleston, Tennessee.

2 MR. ENG: I didn't mean to imply  
3 that we're doing implement. It's the expertise on  
4 our equipment and our operations and our materials  
5 of construction that was used, not so much to  
6 duplicate the other equipment, though in some  
7 cases, it is true.

8 CHAIRMAN MORELOCK: That's why I  
9 asked the question. Initially is --  
10 implementation of RBI is excellent. No issues  
11 there. But you'll have to have some time,  
12 obviously, to have a baseline, trend that data.  
13 You'll have to take process hazards analysis and  
14 all these evaluations for determination of  
15 likelihood of failure, consequence of failure, to  
16 build this matrice and to refine the matrice for  
17 the facility in Charleston.

18 MR. ENG: Absolutely.

19 MR. KASTENBERGER: If I may answer  
20 that. The process, the chemistry, the  
21 temperatures, the pressure ratings, that is very  
22 much comparable to what we're doing in our  
23 facilities in Germany. The difference in the  
24 equipment, if there is difference, comes basically  
25 due to the different environment of codes and

1 standards. All our equipment in Germany is based  
2 on German and European codes and regulations  
3 obviously, and here, we're following ASME codes  
4 and other local regulations.

5 So that is where the difference in  
6 the equipment design comes in. But the material  
7 of construction chosen for a particular process  
8 chemistry is based on our experience in Germany.

9 CHAIRMAN MORELOCK: Okay.

10 MR. ROBINSON: That's a good thing  
11 that you bring that forward.

12 Just so you know, we have a -- we  
13 have an outlet for you guys as far as special  
14 considerations for special materials of  
15 constructions or designs such as DEN -- DEN specs  
16 or perhaps European PEDs.

17 So with that in mind, if you decide  
18 to use an internationally-made piece of equipment,  
19 it would require you to bring it before the State  
20 to make a determination as to if it's acceptable  
21 prior to making the installation, and even  
22 building units. So just -- we call that a  
23 Tennessee special.

24 In addition to that, one of the  
25 other avenues that's available to you for your

1 risk-based analysis is the NBIC. And I don't know  
2 if you've had a chance to look at it, but the NBIC  
3 also gives you standards to perform your  
4 risk-based inspection programs and to set it up.  
5 But at this point, I know we have not -- we --  
6 America has adopted the PED in some aspects, but I  
7 have still seen some jurisdictions or entities  
8 reluctant to accept the PED. So if you have a  
9 PED-stamped piece of equipment, don't assume that  
10 it's right.

11 MR. ENG: No, we don't assume that.

12 MR. ROBINSON: Don't assume it's  
13 capable of meeting the requirements of API or  
14 ASME.

15 MR. ENG: I think all of our  
16 equipment are U.S. ASME, every piece.

17 MR. KASTENBERGER: Yeah. I don't  
18 think we have any Tennessee special --

19 MR. ENG: No Tennessee specials.

20 MR. ROBINSON: Very well.

21 MR. BAUGHMAN: Richard, do you have  
22 any piece of equipment that are -- that have  
23 already been utilized; in other words, a used  
24 piece of equipment?

25 MR. ENG: No.

1 MR. KASTENBERGER: All new.

2 MR. ENG: It's all new

3 construction, all new fabrication.

4 MR. BAUGHMAN: That makes it a bit

5 better.

6 MR. ENG: Baseline readings, based

7 on all new equipment.

8 MR. BAUGHMAN: Very good.

9 MR. ROBINSON: Are you guys

10 conducting your own non-destructive evaluations or

11 have you got outside --

12 MR. ENG: We will most likely

13 resource that and farm that out. We don't have an

14 internal crew to do that, though we have some

15 expertise in terms of CWI inspectors, other

16 inspectors, eventually API 510 inspectors, and

17 perhaps API 570 inspectors. That, we will bring

18 in-house over time.

19 MR. ROBINSON: Okay. I'll turn to

20 Brian.

21 Mr. Chairman, is there any

22 standards as far as non-destructive testing for

23 risk-based analysis as far as -- I know there was

24 some discussion topside. I haven't been privy to

25 it, but there was some discussion about



1 recertifying the ADT inspectors to a new standard  
2 as opposed to -- I guess it was, what, MIL  
3 Standard 410 or something like that years ago?

4 CHAIRMAN MORELOCK: Well,  
5 there's -- ASME is working toward kind of a global  
6 certification for NDE.

7 MR. ROBINSON: Under Section 5?

8 CHAIRMAN MORELOCK: Yes. Well --  
9 yes. Yes.

10 So that work is going on. I think  
11 the project is called ANDE, and so that's ongoing  
12 right now.

13 Just for your information, we do  
14 have a company in the state of Tennessee that does  
15 have an RBI program. It's Valero and --

16 MR. ENG: Jeremy Gross.

17 CHAIRMAN MORELOCK: Yes.

18 MR. ENG: He's not here today.

19 CHAIRMAN MORELOCK: Yeah. And they  
20 will be presenting their annual report in March.  
21 They missed the deadline for the December meeting  
22 or they would be here today.

23 But Eastman Chemical Company also  
24 does RBI. But we are also a national board  
25 owner/user, so it's built into our owner/user

1 program. So that would look a little different  
2 than Valero's program.

3 MR. ENG: We did talk to Valero  
4 last time before we committed to this particular  
5 software package. We spent some time with them  
6 talking to Jeremy Gross and his -- I guess his  
7 program is quite detailed. And we structured some  
8 of ours according to how they conduct their  
9 business.

10 CHAIRMAN MORELOCK: So really, I  
11 guess the next step for you would be to assemble  
12 your program and then let us see what it looks  
13 like with actual examples of the equipment; risk  
14 rankings and . . .

15 MR. ENG: Yeah. We have that as  
16 well, but perhaps this meeting, we're not going to  
17 be able to present that in full. I would like to  
18 offer the entire program and package and all the  
19 printouts, all the technical documentation  
20 necessary for you to make a review and critique of  
21 what we do.

22 CHAIRMAN MORELOCK: So what is your  
23 purpose for implementing an RBI program? What's  
24 the desired outcome of that?

25 MR. ENG: I think it's twofold:

1 One is -- equipment safety is the first  
2 requirement. And second is to be efficient in our  
3 resources, to be deployed in our inspection  
4 program and our mechanical integrity program  
5 without any compromise to the safety component.  
6 So there is the -- the safety component and the  
7 economic component. And that's really the driver  
8 for us. And to be in compliance with all state  
9 and federal regulations.

10 CHAIRMAN MORELOCK: Well, and the  
11 only reason the RBI program would come before the  
12 Tennessee board is if you seek to extend  
13 inspection frequencies.

14 MR. ENG: That's correct. And we  
15 want to be able to sit in front of you and present  
16 our package with all of the technical information  
17 necessary for you to make a good judgment on our  
18 variance.

19 CHAIRMAN MORELOCK: So are you  
20 going to start up and run together the baseline  
21 data to establish the projection?

22 MR. ENG: It is our program today.  
23 Since the equipment is all new, it's not  
24 operational, we will start our baseline readings  
25 right after the equipment has been turned over to

1 operations. And before the first window within  
2 the two-year inspection time, we will have two  
3 data points in which to do our calculations and  
4 evaluations.

5 CHAIRMAN MORELOCK: Okay.

6 MR. ENG: So we have a baseline  
7 reading and then follow-up data point prior to a  
8 two-year window.

9 MR. KASTENBERGER: And with that,  
10 we would like to prove that most of our processes,  
11 as we know them from our experience in the  
12 facilities in Germany, are noncorrosive  
13 applications, truly.

14 CHAIRMAN MORELOCK: Okay. And  
15 you'll just have to prove that through NDE.

16 MR. ENG: That's the goal.

17 MR. KASTENBERGER: Exactly.

18 CHAIRMAN MORELOCK: Very good.

19 Anybody have any questions?

20 MR. ROBINSON: Are you planning on  
21 operating any steam boilers?

22 MR. ENG: Yes. Three.

23 MR. ROBINSON: Okay. Keep in mind  
24 you said two years, so the steam boilers --

25 MR. ENG: It's annual.

1 MR. ROBINSON: Yes, sir.

2 MR. ENG: I hear all the variance  
3 that came through today, so perhaps you'll be  
4 seeing me again very soon.

5 MR. ROBINSON: Yes, sir. Very  
6 well.

7 MR. ENG: Okay. That's a forecast,  
8 not a warning.

9 CHAIRMAN MORELOCK: Dr. Canonico,  
10 you've got a question or comment?

11 DR. CANONICO: Yeah. On the  
12 original letter, you talk about these are all  
13 compliant with API 510 pressure vessel inspection  
14 code, API 570, et cetera. Repair, alteration, and  
15 reconstruction.

16 Are you bringing in used equipment?

17 MR. ENG: No.

18 DR. CANONICO: What does  
19 "reconstruction" mean, then?

20 MR. ENG: It could be an  
21 alteration, but not a used piece of equipment. If  
22 we, perhaps, add a nozzle or change a location or  
23 something, I don't -- we don't have any plans of  
24 buying used equipment.

25 MR. KASTENBERGER: We would

1 certainly buy no used equipment, but we ran into  
2 situations -- I mean, this project is a fairly  
3 large project, and it originated four years ago.  
4 And in the course of the design process, things  
5 are changing. Scope changes come up. Equipment  
6 is already ordered, in certain cases already, or  
7 received through us, and we still have to make  
8 some changes to it. Those will be the cases where  
9 we have some alterations to it.

10 DR. CANONICO: I apologize for  
11 walking out before, but one thing I want to say is  
12 I commend you for coming to Tennessee and bringing  
13 these jobs here.

14 MR. KASTENBERGER: Thank you.

15 MR. ENG: We're happy to be here.

16 DR. CANONICO: The other question I  
17 have is, these are -- are these going to be  
18 pressure-retaining components?

19 MR. KASTENBERGER: Yes.

20 DR. CANONICO: And are they being  
21 built to ASME?

22 MR. ENG: Yes.

23 DR. CANONICO: And they're stamped?

24 MR. ENG: They're all stamped.

25 DR. CANONICO: Okay.

1 MR. ENG: And naturally, the  
2 majority of these vessels will be Tennessee tagged  
3 prior to operation.

4 DR. CANONICO: And they're being  
5 built in Germany?

6 MR. ENG: Globally.

7 MR. KASTENBERGER: I would restrict  
8 that a little bit. Not really globally. We  
9 have -- we are sourcing from Germany, and if we  
10 source from Germany and it's for a specific  
11 equipment where we think we have specific  
12 intellectual property on it, so we want to keep  
13 the experienced manufacturers. They are all  
14 ASME-certified manufacturers, so there is no issue  
15 with bringing that equipment over here.

16 We're sourcing from France for the  
17 same reason. There are some experienced vendors  
18 and suppliers that have manufactured equipment for  
19 us in the past.

20 We are sourcing a lot of equipment  
21 here in the United States, equipment where we  
22 don't have any specific IP concerns: standard  
23 storage vessels, some distillation columns, some  
24 filter vessels. There's a lot sourced here in the  
25 U.S. as well.

1                   Those are the -- really the main  
2 sources generally: France -- Austria, I forgot to  
3 mention Austria -- and several manufacturers here  
4 in the U.S.

5                   MR. BAUGHMAN: So are any of those  
6 alterations happening at the jobsite facility  
7 itself once the equipment arrives?

8                   MR. KASTENBERGER: Not that I'm  
9 aware of, no. If we had -- if we had to change,  
10 we either sent it back to the original  
11 manufacturer, or we chose one of the U.S.  
12 companies here, the Roberts Company, to do some  
13 modifications for us.

14                   CHAIRMAN MORELOCK: Okay.

15                   MR. ENG: So when I say globally, I  
16 don't mean like North Korea.

17                   MR. KASTENBERGER: "Globally"  
18 sounds -- it sounds like you go out for multiple  
19 bids and pick the cheapest vendor. That's not  
20 what happened on this project. We selected  
21 qualified vendors. We had every supplier who  
22 wanted to end up on the supply list vetted through  
23 a rigorous qualification process, and we ended up  
24 with well-known manufacturers that already had  
25 delivered equipment either to our polysilicon



1 facilities or to other Wacker facilities.

2 And so I'm confident we have a  
3 portfolio of qualified suppliers, not just the  
4 cheapest that are on the block.

5 CHAIRMAN MORELOCK: All right. Any  
6 other questions?

7 MR. ROBINSON: Yes. If you are  
8 doing repair to your operations here in the United  
9 States, then it would be prudent for you to notify  
10 of the following NBIC requirements and notify the  
11 State of Tennessee that the repairs are being  
12 made.

13 MR. ENG: Okay.

14 CHAIRMAN MORELOCK: Any R Stamp  
15 holder can do those alterations for you.

16 And if you send a vessel out of  
17 state to one of these manufacturers to have it  
18 done, just remember that anytime you send a vessel  
19 out and back in, you're going to have to get  
20 permission to bring it back into the state of  
21 Tennessee. So let the State know that -- there's  
22 a one-page form you fill out, and that will get  
23 you back into the state of Tennessee.

24 MR. ENG: Okay. No problem.

25 MR. JACKSON: I notice in the

1 paperwork, they're going to go for an owner/user  
2 program. Are they going to implement that at the  
3 time this thing goes into operation, shall we say,  
4 or . . .

5 MR. KASTENBERGER: The question is  
6 introducing or planning to introduce an  
7 owner/user? Is that the question?

8 MR. JACKSON: Yeah. That's what  
9 you've got in the thing here.

10 MR. KASTENBERGER: That's not our  
11 primary goal. Down the road, we might, yeah, go  
12 for it.

13 MR. ENG: We're talking several  
14 years down the road, we might consider that.  
15 We're not in a position or a need or a desire to  
16 go that path.

17 MR. JACKSON: You reference NB-23  
18 RB-3231 talking about owner/user program, so . . .

19 MR. ENG: No, we're not going to go  
20 for that.

21 MR. JACKSON: Okay.

22 MR. ENG: NB-23, part 3, perhaps,  
23 is what we're going to need.

24 CHAIRMAN MORELOCK: NB-23 is just  
25 NBIC.

1 MR. ENG: Yeah. Part 3 is --

2 DR. CANONICO: What's the stamp?

3 CHAIRMAN MORELOCK: NB-371 or

4 something like that.

5 DR. CANONICO: You get an R Stamp.

6 Once it's stamped, then it's passed the code.

7 CHAIRMAN MORELOCK: Right.

8 MR. ENG: We'll follow NB-23,

9 Part 3, for our repairs and alterations.

10 CHAIRMAN MORELOCK: Very good.

11 Any other questions or comments?

12 MR. ENG: You mentioned does it  
13 need a vote, and I wasn't sure how to respond. So  
14 I'm thinking perhaps in the March meeting, I was  
15 going to present a more complete package with all  
16 of the items that we just mentioned here with an  
17 actual output with a risk matrix for select  
18 equipment that we have conducted already. Okay?  
19 And I was thinking if I can present that package  
20 to the board as per their technical review in  
21 terms of correctness, documentation, and  
22 methodology, I would like the board to provide  
23 some feedback whether that validates our program  
24 or not in terms of the direction and what the  
25 board wants to see from us.

1 DR. CANONICO: That would be in the  
2 open meeting.

3 CHAIRMAN MORELOCK: Oh, yeah, well,  
4 that would be in the March meeting, yes.

5 DR. CANONICO: I thought he was  
6 asking --

7 MR. ENG: No, no. Not today. For  
8 the March --

9 CHAIRMAN MORELOCK: For the March  
10 meeting.

11 MR. ENG: But I'm just asking  
12 myself the question, does it need a vote? And I'm  
13 thinking yes.

14 CHAIRMAN MORELOCK: We would  
15 approve it on an annual basis. You'd make an  
16 annual report.

17 MR. ENG: Right, in the same  
18 fashion as Valero was doing today.

19 CHAIRMAN MORELOCK: Yeah, talk to  
20 Valero and review their program, and that will  
21 help you get your program together, to talk to  
22 them.

23 MR. KASTENBERGER: So if we present  
24 this package in March, the vote would be on -- on  
25 what, exactly, is my question, I guess.

1                   CHAIRMAN MORELOCK: To implement  
2 your risk-based inspection program. And then it  
3 would be -- then you would provide an annual  
4 report to the Tennessee board of what your current  
5 equipment status is as far as risk ranking, what  
6 you've monitored in the past year, your findings,  
7 the trends of the equipment. And then after that  
8 report, then we would vote to extend that for  
9 another year.

10                   MR. KASTENBERGER: Okay. And the  
11 vote basically would be on a variance from the  
12 two-year inspection requirement, the internal  
13 inspection requirement. Is that my understanding?

14                   CHAIRMAN MORELOCK: That -- that --  
15 for pressure vessels only.

16                   MR. KASTENBERGER: Yes, for  
17 pressure vessels only.

18                   CHAIRMAN MORELOCK: The boiler  
19 inspection variance is a whole different --

20                   MR. KASTENBERGER: That is  
21 separate.

22                   CHAIRMAN MORELOCK: So in order  
23 to -- we can approve the program, but then you're  
24 going to have to show us data that the equipment's  
25 operated safely and that your trends, as far as

1 damage mechanisms, corrosion rates, risk ranks,  
2 and all that will keep the vessel safe if you go  
3 beyond that two-year inspection. That's why I'm a  
4 little concerned with this brand new equipment.  
5 You're going to have to run it at least one  
6 two-year inspection cycle to even have two data  
7 points.

8 MR. ENG: That's correct.

9 CHAIRMAN MORELOCK: So it may be --  
10 you may be two years down the road before you come  
11 back and say, "We'd like to extend inspection  
12 frequencies out," because you'll have to have data  
13 to support that extension. And with a brand-new  
14 greenfield facility, you're not going to have that  
15 data right out of the box. You'll have  
16 projections --

17 MR. KASTENBERGER: Correct. We'll  
18 have a theoretic projection through the initial  
19 assessment. Our plan is, right off the  
20 start-up -- I mean, since we're starting up so  
21 much equipment, we need to go through a staggered  
22 start-up. And we can't do baseline readings just  
23 on everything within a very short period of time.  
24 It takes a while. But we'll go through a series  
25 of baseline readings, and within -- definitely

1 within the first two years, we'll go through a  
2 second reading of every piece of equipment where  
3 it's appropriate, and we would present that as --  
4 as the proof that we have a noncorrosive  
5 application.

6 CHAIRMAN MORELOCK: Right. So  
7 you're going to have to have data to prove that as  
8 well.

9 MR. KASTENBERGER: Right.

10 CHAIRMAN MORELOCK: So you may  
11 stagger -- I don't know your facility. I mean,  
12 you may do certain sections of your facility, and  
13 you may bring it in under RBI in stages. It's up  
14 to you. We're not going to tell you how to do it.  
15 We'll just review what you bring. But we'll leave  
16 that up to you.

17 Yes, Dr. Canonico?

18 DR. CANONICO: I have a little  
19 trouble with risk-based inspection. I know it's  
20 popular now. But 50 percent of the problems are  
21 human beings, so I worry about how good risk-based  
22 inspection is unless you're psychologically  
23 checking everybody coming in. I'm not going to  
24 vote against it based on that, but that is a  
25 concern.

1                   MR. ENG: I guess you're referring  
2 to incidents and accidents and near-misses and  
3 things of that nature. Yes, that's all  
4 operational side, which, if you set your IOWs  
5 correctly, it should be somewhat independent of  
6 the equipment itself.

7                   MR. KASTENBERGER: The big benefit  
8 that we see in the risk-based inspection program  
9 is, you're taking an effort up front,  
10 inspecting -- not inspecting -- discussing,  
11 assessing every piece of equipment individually.  
12 And in the theoretical session, go through the  
13 degradation mechanism, the damage mechanism that  
14 could theoretically show up under the  
15 circumstances that you have: material of  
16 construction, chemistry and pressures and  
17 temperatures and so on.

18                   And based on that, you design or  
19 you define your inspection program. What is the  
20 right method of inspection? What is the right  
21 frequency? What is the right location of a piece  
22 of equipment?

23                   If you do it traditionally and just  
24 employ a time-based -- yeah, it is more or less  
25 than a random inspection. You open everything,



1 you look at everything the same way, you spread  
2 out your resources where they might not be needed,  
3 and you might overlook areas where there is really  
4 high risk potential. So overall, I think you have  
5 a high chance -- and a higher chance -- of  
6 bringing your resources -- your inspection  
7 resources to where they are really needed and  
8 where they generate value in terms of identifying  
9 potential damage. That's the big benefit of  
10 looking at everything up front.

11           And on-the-other-hand side, for us,  
12 that is a -- I think that's a specific -- with our  
13 chemistry, the chemistry that we -- that we run  
14 is, if you use the right material of  
15 construction -- which I think we know what type of  
16 materials they use -- is a very nonreactive type  
17 setup. It's noncorrosive. It doesn't do anything  
18 to your shell, to your containing shell.

19           But it is only noncorrosive as long  
20 as you can keep it dry, meaning if you don't have  
21 any reaction with humidity or with moisture.

22           We know from experience the worst  
23 thing that we can do to our equipment is opening  
24 it up and exposing it to the atmosphere, because  
25 then you have humidity entering the vessel; and

1 that humidity with traces of remaining chemistry  
2 in there, can create HCL. HCL can introduce  
3 corrosion, stress crack, corrosion. It's -- it's  
4 the worst thing, in our experience, that we can do  
5 to our equipment. So we'd like to keep it  
6 contained, look at it from the outside, make sure  
7 we truly have no surface corrosion happening, no  
8 corrosion under the insulation happening, things  
9 like that.

10 But by all means, keep it  
11 contained. That means, for us, we'll keep it in  
12 good shape.

13 CHAIRMAN MORELOCK: Very good.

14 Any other comments?

15 All right, gentlemen. Thank you.

16 Put us a program together, and get it on the  
17 agenda, and we'll review it.

18 MR. ENG: 45 days.

19 MR. KASTENBERGER: One final  
20 question, I guess: What does it really take to  
21 get it on the agenda? Because we were expecting  
22 to be on the official agenda today.

23 CHAIRMAN MORELOCK: Let Mr. Chapman  
24 know 45 days in advance of the next meeting, and  
25 if you've got something for us to review, we need

1 that 45 days in advance of the meeting so we have  
2 time to review it and have comments ready at the  
3 meeting. Okay?

4 MR. ENG: Okay.

5 MR. KASTENBERGER: Okay. Thank  
6 you.

7 CHAIRMAN MORELOCK: All right.

8 Thank you.

9 Okay. It is 12:15, and I held you  
10 over till 1:00 the last meeting. I'm not going to  
11 do that this time.

12 The rest of our agenda is  
13 discussion items.

14 Deborah, you want to take just a  
15 minute or two and talk about the fall conference?

16 MS. RHONE: Okay. Yes.

17 Just to bring up some things that  
18 we had discussed in the past, that we did receive  
19 approval through our fiscal office where we would  
20 be able to accept the funds for the registration  
21 of the conference. We would be able to set up a  
22 special account in our current Innova System to  
23 process those funds.

24 We also discussed if there were any  
25 co-sponsorship, it would be paid directly to the

1 venue, opposed to any funds coming through the  
2 department. Our administrator has made a  
3 suggestion that we have a combined conference with  
4 all the units for the conferences. And then we  
5 also discussed the possibility with the  
6 registration fee, that it would include conference  
7 materials, meaning handouts, any shirts, and then  
8 the costs for the awards banquet.

9           When the time frame was decided, we  
10 would need to settle on a date, a location, and  
11 then an actual cost for the conference.

12           And any additional information, you  
13 know, we have not discussed any further.

14           CHAIRMAN MORELOCK: Okay. So are  
15 we shooting for -- what's our time frame to maybe  
16 kick this off?

17           MS. JEFFERSON: We haven't set a  
18 date because we're -- since we're going to do a  
19 combined, the goal is to do a combined, it's going  
20 to be a division conference so that we can have  
21 information about boilers, elevators, amusement  
22 devices, labor standards, everything. We have to  
23 confirm with all the other units to find out when  
24 their deadlines are for training.

25           MS. RHONE: Right, yes.

1 MS. JEFFERSON: And that's  
2 something that I think you-all were working on.

3 MS. RHONE: Right.

4 MS. JEFFERSON: So if it's fall, we  
5 would be looking towards October, probably  
6 October. So let's see what we can do.

7 MR. BAUGHMAN: And from what I  
8 understand, when you say it's combined, so how  
9 many elements does that actually combine in one  
10 conference?

11 MS. JEFFERSON: It's going to  
12 include the entire division. All of our training  
13 is going to be performed or conducted during that  
14 conference. It's not going to only be the boiler,  
15 because we're going to try to collaborate our  
16 efforts so that we'll have resources. And we'll  
17 have everybody -- we'll actually be in a position  
18 so everybody can get their annual training. So  
19 it's going to be an annual conference.

20 MR. BAUGHMAN: How many days are we  
21 looking at? If we're going to combine all the  
22 units, what are we talking about?

23 MS. JEFFERSON: Maybe three or  
24 four.

25 MS. RHONE: Yeah, since in the past

1 we've had -- that's what we've done in the past.  
2 We've had like 3 1/2 days. And, of course, you  
3 know, the conferences would go into breakout  
4 sessions. You know, we'd have the general  
5 session, and then they would go into breakout  
6 sessions for the appropriate training for the  
7 boilers, elevators, things of that nature.

8 MR. BAUGHMAN: We wouldn't look to  
9 hold the board meeting at that time, or could  
10 we --

11 CHAIRMAN MORELOCK: We have done it  
12 in the past.

13 MR. BAUGHMAN: Well, being in  
14 October, that's why I was wondering if we could  
15 adjust it to make it coincide with that.

16 MS. RHONE: Yes.

17 CHAIRMAN MORELOCK: Well, we'll  
18 look forward to updates.

19 MS. RHONE: Okay.

20 CHAIRMAN MORELOCK: Thanks for all  
21 the hard work on that.

22 I am not going to attempt to start  
23 Rule 800-03-03, but what I am going to say is poor  
24 Eugene is a good sport. We didn't get to his  
25 comments again. But what I want to do is, we are

1 going to work on addressing Eugene's comments, as  
2 well as some unfinished comments concerning  
3 factors of safety and some things like that.  
4 We're going to do that through e-mail. And  
5 we'll -- the board will work on these through  
6 e-mail, and the goal will be at the March meeting,  
7 we'll bring you a complete item, public forum, for  
8 a discussion and a vote. Because I think we're  
9 close enough we can do that. And so that's --  
10 that will be our plan on the March agenda. We'll  
11 have this item for a voting item.

12           The concern over the factor of  
13 safety -- and I've looked at ASME UG-27 versus the  
14 equation in the current rules, it's very similar.  
15 We just -- we would take ultimate tensile, divide  
16 it by a factor of safety, replace that with  
17 allowable stress. With what we see in the code  
18 versus values that are published in the rules  
19 today, we can make some of those things work. But  
20 what we'll do is we'll get that cleaned up. SydnÃ©  
21 has done an outstanding job of going through the  
22 transcripts, coming up with all the comments,  
23 working with the boiler unit to address comments,  
24 and going through all those rules and reorganizing  
25 it. So we will work off the November version, and

1 then we'll try to have a final version ready in  
2 March for the general public to review, and we'll  
3 vote that as a reorganization of -- and revision  
4 of Rule 800-03-03.

5 Anybody have any concerns about  
6 that?

7 All right. Hearing none, then  
8 that's what we'll do.

9 We have no rule cases or  
10 interpretations.

11 And our next board meeting will be  
12 Wednesday, March the 4th, right here at the  
13 Department of Labor.

14 I wish y'all a very Merry  
15 Christmas, and do I have a motion to adjourn?

16 MR. CHAPMAN: Mr. Neville, you  
17 wanted to ask something?

18 MR. NEVILLE: As far as . . .

19 MR. CHAPMAN: US Nitrogen.

20 MR. NEVILLE: Yes. I've got  
21 Randall Harris from US Nitrogen here. He'd like  
22 to extend an invitation to any of the board  
23 members to tour their facility. They're building  
24 a new facility in Midway, Tennessee, and they've  
25 got some unique processes with their waste



1 deepwaters. And so if anyone would entertain  
2 coming to their facility, we can set that meeting  
3 up.

4 CHAIRMAN MORELOCK: Okay.

5 MR. ROBINSON: Are they prepared to  
6 implement some new equipment or processes or . . .

7 MR. NEVILLE: Yes. All of this is  
8 new. This is a new facility, and we will be  
9 presenting four boilers for a variance proposal in  
10 March.

11 CHAIRMAN MORELOCK: Mr. Neville,  
12 could you have the gentlemen introduce themselves  
13 formally so our reporter can get their names?

14 MR. NEVILLE: Yes.

15 MR. HARRIS: Yes. I'm Randall  
16 Harris, the chief inspector for US Nitrogen.

17 MR. DANIEL: I'm Nathan Daniel,  
18 maintenance engineer.

19 CHAIRMAN MORELOCK: All right.  
20 Anything else?

21 MR. BAUGHMAN: Just -- and it made  
22 me just wonder when you talked to Sam just briefly  
23 and said "interim chief" earlier instead of  
24 "assistant chief," where do we really stand?  
25 Where are we sitting on things right now, just for

1 our own . . .

2 MS. JEFFERSON: I'm not sure if you  
3 were at the hearing, the legislative hearing a  
4 couple of weeks ago, --

5 MR. BAUGHMAN: I was there.

6 MS. JEFFERSON: -- but I explained  
7 that we have had some applicants.  
8 Unfortunately -- yeah, we had 23 applicants.  
9 Unfortunately, only one person qualified, and that  
10 person didn't decide to take the position.

11 We did contact Human Resources,  
12 Department of Human Resources, and we asked them  
13 to find applicants. They found applicants, but we  
14 have to go back and take a look at the  
15 qualifications that we have. We have a ten-year  
16 requirement for the chief, and so we'll probably  
17 have to reduce that. We're in the process of  
18 reducing that requirement. And if we do, we can  
19 possibly pick up some applicants that we had to  
20 overlook. So that's what we're doing now.

21 MR. BAUGHMAN: I remember when we  
22 were there, and Thelma, Ms. Harper, was -- had  
23 some good questions and all with it.

24 But I just -- we get questions from  
25 in the field, and so that way, I have addressed it

1 as far as that end of it, just so we know from our  
2 own end.

3 But yeah, I know it's a task, but  
4 hopefully we can get all that --

5 MS. JEFFERSON: We hope to work on  
6 that. We're working on it.

7 So like I told Ms. Harper at the  
8 legislative hearing, it's not that we're not  
9 working on it. Unfortunately, the applicants that  
10 we're receiving, they're just not qualified.

11 MR. BAUGHMAN: Well, she asked two  
12 things, too, and you addressed them. Is it pay or  
13 is it qualifications? And --

14 MS. JEFFERSON: We're taking a look  
15 at both.

16 MR. BAUGHMAN: Super. Okay. Thank  
17 you very much, Ms. Jefferson.

18 CHAIRMAN MORELOCK: All right.  
19 Anything else?

20 MR. CHAPMAN: No.

21 CHAIRMAN MORELOCK: All right. All  
22 those in favor of adjournment, stand up and have a  
23 Happy New Year and a Merry Christmas.

24 IN UNISON: Merry Christmas.

25 (Meeting adjourned at 12:25 p.m.)

C E R T I F I C A T E

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STATE OF TENNESSEE )  
COUNTY OF WILLIAMSON )

I, Deborah K. Watson, RPR, CRR, LCR# 446, a  
Notary Public in the State of Tennessee, do hereby  
certify:

That the within is a true and accurate  
transcript of the proceedings taken on the 3rd day  
of December, 2014.

I further certify that I am not related to  
any of the parties to this action, by blood or  
marriage, and that I am in no way interested in  
the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my  
hand this 21st day of December, 2014.

\_\_\_\_\_  
Deborah K. Watson, RPR, CRR, LCR# 446  
Notary Public State at Large  
My commission expires: 9/20/2016

|                             |                             |                            |                              |                             |
|-----------------------------|-----------------------------|----------------------------|------------------------------|-----------------------------|
| <b>A</b>                    | 69:3                        | 121:21                     | <b>airflow</b> 103:13        | 67:22 68:7 71:25            |
| <b>abandoned</b> 129:16     | <b>actual</b> 22:22 23:16   | <b>administrator</b> 2:11  | 103:19                       | 73:5 76:10 79:9             |
| <b>abbreviation</b> 22:25   | 64:8 64:9 97:16             | 2:13 170:2                 | <b>alarm</b> 30:12 31:5      | 81:24 82:4 83:6             |
| <b>able</b> 50:25 55:23     | 138:21 141:12               | <b>admit</b> 46:24 98:19   | 33:4 52:17 52:24             | 83:12 83:24 84:5            |
| 69:14 81:14 82:14           | 145:14 152:13               | <b>adopted</b> 149:6       | 53:19 54:5 54:25             | 84:12 84:21 87:3            |
| 152:17 153:15               | 161:17 170:11               | <b>adoption</b> 5:5 12:17  | 55:22 56:2 56:19             | 88:16 88:22 90:21           |
| 169:20 169:21               | <b>actually</b> 17:22 18:12 | <b>adt</b> 151:1           | 56:20 57:2 57:3              | 92:8 92:13 92:24            |
| <b>absolutely</b> 64:14     | 26:1 30:6 32:20             | <b>advance</b> 168:24      | 57:5 64:8 76:19              | 93:12 93:14 93:19           |
| 66:5 130:18 147:18          | 38:18 47:13 48:25           | 169:1                      | 76:21 79:24 109:19           | 93:23 93:24 94:20           |
| <b>abstention</b> 34:7      | 53:24 54:7 54:9             | <b>affect</b> 33:12 146:22 | 109:23 110:5                 | 95:12 95:17 96:5            |
| <b>abstentions</b> 14:14    | 54:16 55:1 56:23            | <b>after</b> 23:1 27:22    | 110:14 110:25                | 98:7 101:8 102:22           |
| 34:5 58:24 96:8             | 58:1 60:24 61:25            | 143:15 153:25              | 111:13 111:17                | 103:3 103:4 108:1           |
| 130:5 142:11                | 65:22 67:23 68:24           | 163:7                      | 111:18 111:25                | 108:23 109:20               |
| <b>accept</b> 14:5 149:8    | 70:22 72:8 72:18            | <b>again</b> 10:23 34:22   | 112:8 112:9 112:9            | 111:14 112:19               |
| 169:20                      | 73:12 73:16 74:25           | 48:1 57:25 58:12           | 113:2 113:8 120:14           | 113:2 113:20                |
| <b>acceptable</b> 95:4      | 85:18 97:14 100:10          | 59:4 61:6 62:8 62:9        | 122:2 124:19                 | 113:21 118:22               |
| 124:17 124:24               | 103:12 108:6 115:1          | 64:23 65:12 67:21          | 124:22 126:14                | 118:24 120:13               |
| 148:20                      | 119:10 120:21               | 69:9 69:17 69:24           | 127:4 136:24 137:3           | 121:11 121:12               |
| <b>acceptance</b> 94:25     | 122:8 126:17                | 70:17 72:19 73:23          | 138:18 138:19                | 121:20 122:18               |
| <b>accepted</b> 48:7        | 126:20 129:6 134:9          | 75:11 79:4 79:18           | 138:25 140:5 140:5           | 123:6 123:13                |
| <b>access</b> 48:17 48:22   | 136:4 138:17 139:1          | 83:16 89:12 96:13          | 141:11                       | 123:13 123:16               |
| 49:20 49:22 50:25           | 141:14 141:22               | 102:9 111:22 130:9         | <b>alarms</b> 11:7 18:7      | 124:19 124:20               |
| 51:9 73:13 74:13            | 145:11 171:9                | 140:2 142:4 155:4          | 51:23 51:25 52:11            | 125:24 126:4                |
| 95:17                       | 171:17                      | 172:25                     | 53:24 57:11 65:8             | 126:18 126:23               |
| <b>accessing</b> 49:16      | <b>add</b> 12:21 12:24      | <b>against</b> 67:12 87:13 | 109:18 109:20                | 126:25 128:1 128:9          |
| <b>accidentally</b> 39:20   | 13:10 13:16 13:25           | 165:24                     | 109:22 109:23                | 129:20 129:24               |
| <b>accidents</b> 166:2      | 32:4 44:1 75:21             | <b>agency</b> 15:7         | 109:25 110:17                | 131:4 131:5 131:10          |
| <b>accomplished</b> 90:7    | 103:16 155:22               | <b>agenda</b> 5:5 12:15    | 111:1 111:5 111:14           | 133:16 133:20               |
| <b>according</b> 91:6 104:4 | <b>added</b> 43:24 142:18   | 12:17 12:21 13:10          | 112:13 113:3 113:5           | 137:22 142:6 142:6          |
| 152:8                       | <b>adding</b> 143:4         | 14:1 14:5 14:15            | 113:24 114:18                | 142:8 142:12                |
| <b>account</b> 169:22       | <b>addition</b> 85:12 85:17 | 14:22 16:2 142:18          | 120:14 124:17                | 144:25 146:6                |
| <b>accuracy</b> 73:19       | 148:24                      | 143:5 168:17               | 124:20 125:15                | 146:16 146:22               |
| <b>accurate</b> 178:10      | <b>additional</b> 108:25    | 168:21 168:22              | <b>all</b> 10:22 12:13 12:16 | 147:14 148:1                |
| <b>acknowledge</b> 109:23   | 170:12                      | 169:12 173:10              | 13:9 14:4 14:10              | 149:15 150:1 150:2          |
| 109:24                      | <b>address</b> 71:13 99:23  | <b>agendas</b> 8:6         | 14:13 14:15 15:17            | 150:3 150:7 152:18          |
| <b>acknowledged</b> 112:9   | 100:1 100:2 100:9           | <b>ago</b> 30:15 139:21    | 15:18 15:20 15:24            | 152:19 153:8                |
| <b>acknowledgment</b> 5:7   | 124:9 173:23                | 151:3 156:3 176:4          | 16:13 18:6 19:10             | 153:16 153:23               |
| <b>acquired</b> 143:10      | <b>addressed</b> 74:5 76:6  | <b>agree</b> 27:16 29:7    | 19:13 23:20 23:22            | 155:2 155:12                |
| <b>acres</b> 143:10         | 112:14 133:16               | 91:17 124:25               | 23:24 27:11 27:15            | 156:24 157:13               |
| <b>across</b> 102:13 105:4  | 176:25 177:12               | <b>agreed</b> 124:1        | 28:1 31:22 32:13             | 159:5 161:15 164:2          |
| <b>act</b> 91:7             | <b>addressing</b> 173:1     | <b>ahead</b> 29:19 36:17   | 33:10 33:25 34:1             | 166:3 168:10                |
| <b>action</b> 109:22 109:24 | <b>adjourn</b> 174:15       | 42:13 51:21 108:4          | 34:8 34:17 36:9              | 168:15 169:7 170:4          |
| 109:25 110:14               | <b>adjourned</b> 177:25     | <b>air</b> 101:3 101:10    | 36:14 38:16 39:12            | 170:23 171:2                |
| 110:18 110:21               | <b>adjournment</b> 7:10     | 102:12 102:13              | 42:4 42:8 44:21              | 171:12 171:21               |
| 112:18 124:17               | 177:22                      | 102:14 102:17              | 47:16 47:21 50:2             | 172:20 173:22               |
| 124:23 142:21               | <b>adjust</b> 103:16 117:17 | 102:25 103:17              | 50:25 51:16 51:18            | 173:24 174:7                |
| 178:15                      | 117:17 117:20               | 103:17 118:22              | 56:18 56:24 58:2             | 174:14 175:7                |
| <b>activated</b> 19:23      | 118:22 172:15               | 121:21 128:21              | 58:5 58:7 58:20              | 175:19 176:23               |
| <b>active</b> 44:24 68:16   | <b>adjustments</b> 66:1     | 135:10 135:19              | 59:6 59:11 60:20             | 177:4 177:18                |
|                             | 66:7 103:4 104:4            | 139:22                     | 60:20 61:17 62:14            | 177:21 177:21               |
|                             |                             |                            | 63:23 65:8 65:24             | <b>allen</b> 2:24 9:13 35:7 |

|                            |                            |                            |                             |                              |
|----------------------------|----------------------------|----------------------------|-----------------------------|------------------------------|
| <b>allied</b> 2:7          | <b>anticipate</b> 22:17    | 172:6                      | <b>assistant</b> 2:9 2:13   | 32:8 45:5 158:9              |
| <b>allotted</b> 74:4       | <b>anticipating</b> 43:12  | <b>approval</b> 32:15      | 2:15 5:8 8:18 13:17         | <b>away</b> 17:11 123:7      |
| <b>allow</b> 60:13 91:4    | <b>anybody</b> 11:22 12:14 | 43:18 58:13 87:23          | 94:12 99:21 175:24          | 125:19                       |
| <b>allowable</b> 173:17    | 49:19 50:24 55:18          | 93:1 93:22 169:19          | <b>associated</b> 36:9      | <b>aye</b> 14:11 14:12 34:1  |
| <b>alluded</b> 40:4        | 62:18 129:11               | <b>approve</b> 33:18 33:20 | <b>associates</b> 2:6       | 34:2 34:3 58:21              |
| <b>almost</b> 49:7 143:23  | 154:19 174:5               | 58:12 86:5 86:16           | <b>assume</b> 107:2 143:7   | 58:22 96:5 96:6              |
| 144:3 146:21               | <b>anyone</b> 50:14 175:1  | 86:22 86:24 91:12          | 149:9 149:11                | 129:24 129:25                |
| <b>along</b> 49:24         | <b>anything</b> 31:6 40:19 | 91:14 94:10 123:15         | 149:12                      | 130:1 142:8 142:9            |
| <b>alongside</b> 65:18     | 40:22 41:6 46:3            | 123:17 142:2               | <b>assumption</b> 103:8     |                              |
| <b>already</b> 16:24 22:3  | 47:5 48:21 50:3            | 162:15 163:23              | <b>atmosphere</b> 41:22     | <b>B</b>                     |
| 22:4 32:4 48:11            | 50:5 50:7 51:13            | <b>approved</b> 20:21 34:8 | 167:24                      | <b>ba</b> 48:19              |
| 71:3 88:15 90:6            | 53:20 60:16 66:19          | 48:6 54:13 92:8            | <b>attempt</b> 45:4 172:22  | <b>back</b> 8:6 12:18 18:25  |
| 122:11 128:2               | 67:8 81:18 86:1            | 92:12 93:25 96:10          | <b>attend</b> 12:10 17:22   | 28:24 30:15 31:14            |
| 145:12 145:13              | 89:23 91:12 95:21          | <b>approximately</b> 39:4  | 30:5                        | 31:16 40:12 44:2             |
| 145:18 145:25              | 103:16 105:6               | 115:20                     | <b>attendance</b> 10:24     | 48:1 55:4 63:7               |
| 146:19 149:23              | 110:10 111:7               | <b>area</b> 49:25 68:11    | <b>attendant</b> 16:6 17:24 | 72:25 75:11 75:12            |
| 156:6 156:6 158:24         | 113:18 122:9 123:4         | 108:24 113:4               | 23:4 23:8 60:14             | 82:21 86:17 91:5             |
| 161:18                     | 126:8 126:10               | 130:24 135:18              | 72:8 76:2 76:24             | 104:5 106:4 106:7            |
| <b>alteration</b> 155:14   | 127:10 129:9               | <b>areas</b> 167:3         | 77:1 77:6 80:9              | 111:8 111:8 115:12           |
| 155:21                     | 167:17 175:20              | <b>armed</b> 49:4          | 81:13 83:11                 | 118:11 126:19                |
| <b>alterations</b> 156:9   | 177:19                     | <b>army</b> 49:3           | <b>attendants</b> 60:21     | 126:25 127:15                |
| 158:6 159:15 161:9         | <b>anytime</b> 159:18      | <b>around</b> 8:14 23:1    | <b>attended</b> 60:12       | 133:18 134:10                |
| <b>always</b> 73:21 75:7   | <b>anyway</b> 54:21 92:15  | 37:22 42:25 65:11          | <b>attendees</b> 11:9       | 145:14 158:10                |
| 93:19 93:20 95:6           | <b>anywhere</b> 72:6 72:9  | 65:11 97:23 104:12         | <b>attending</b> 36:19      | 159:19 159:20                |
| 98:2 120:10 133:11         | 76:18 79:11                | 104:16 114:16              | <b>attorney</b> 3:14 10:5   | 159:23 164:11                |
| 146:17                     | <b>apac</b> 97:18 97:18    | 124:16 128:18              | <b>attuned</b> 36:24        | 176:14                       |
| <b>america</b> 143:8 149:6 | 97:20                      | <b>arrives</b> 85:14 158:7 | <b>audible</b> 54:25        | <b>backdraft</b> 105:16      |
| <b>ammunition</b> 49:3     | <b>api</b> 149:13 150:16   | <b>ask</b> 28:25 30:14     | <b>audience</b> 84:14       | <b>backs</b> 63:8            |
| <b>amount</b> 88:9 101:17  | 150:17 155:13              | 41:12 46:8 73:7            | <b>audio</b> 136:25         | <b>backup</b> 38:7 114:9     |
| 101:18                     | 155:14                     | 137:25 145:3               | <b>audit</b> 20:13 20:16    | <b>bad</b> 40:1              |
| <b>amps</b> 113:5          | <b>apologize</b> 156:10    | 174:17                     | 85:14 94:15                 | <b>badges</b> 65:10          |
| <b>amusement</b> 170:21    | <b>apparently</b> 55:11    | <b>asked</b> 11:10 82:11   | <b>auger</b> 105:13         | <b>bae</b> 2:22 2:23 5:15    |
| <b>analysis</b> 147:13     | <b>appearances</b> 2:1 3:1 | 91:22 147:9 176:12         | <b>august</b> 74:9          | 9:9 9:12 34:18 35:1          |
| 149:1 150:23               | 4:1                        | 177:11                     | <b>austria</b> 158:2 158:3  | 35:3 35:7 35:18              |
| <b>ande</b> 151:11         | <b>appendices</b> 25:21    | <b>asking</b> 44:5 44:25   | <b>authority</b> 61:7 66:4  | <b>bag</b> 42:19             |
| <b>announcement</b> 12:14  | <b>appendix</b> 19:2 19:12 | 45:1 80:6 134:13           | 79:18 81:18                 | <b>bailey</b> 3:13 10:4 10:4 |
| <b>announcements</b> 5:4   | 27:12 71:4 99:7            | 144:8 162:6 162:11         | <b>auto</b> 136:25          | <b>balances</b> 82:24        |
| 11:2 12:13                 | 99:8                       | <b>asme</b> 148:3 149:14   | <b>automated</b> 103:25     | <b>banquet</b> 170:8         |
| <b>annual</b> 5:6 151:20   | <b>applicants</b> 176:7    | 149:16 151:5               | <b>automatic</b> 104:1      | <b>barham</b> 2:20 9:7       |
| 154:25 162:15              | 176:8 176:13               | 156:21 157:14              | <b>automatically</b> 104:3  | 16:16                        |
| 162:16 163:3               | 176:13 176:19              | 173:13                     | 134:24                      | <b>based</b> 20:21 58:13     |
| 171:18 171:19              | 177:9                      | <b>aspects</b> 19:10 149:6 | <b>availability</b> 114:4   | 58:13 94:10 95:5             |
| <b>annunciation</b> 137:3  | <b>application</b> 44:20   | <b>assemble</b> 152:11     | <b>available</b> 8:8 31:3   | 134:16 144:11                |
| <b>another</b> 12:7 31:14  | 165:5                      | <b>assessing</b> 166:11    | 63:9 74:14 76:3             | 145:9 148:1 148:8            |
| 43:5 68:12 71:13           | <b>applications</b> 154:13 | <b>assessment</b> 145:15   | 148:25                      | 149:1 149:4 150:6            |
| 88:24 89:15 92:8           | <b>apply</b> 140:4         | 164:19                     | <b>avenues</b> 148:25       | 150:23 163:2                 |
| 113:12 114:24              | <b>appreciate</b> 35:16    | <b>assessments</b> 145:25  | <b>average</b> 61:3         | 165:19 165:21                |
| 122:16 163:9               | <b>apprenticeship</b>      | <b>asset</b> 144:18        | <b>avoid</b> 124:18         | 165:24 166:8                 |
| <b>answer</b> 36:13 37:3   | 47:19                      | <b>assets</b> 145:16 146:1 | <b>awards</b> 170:8         | 166:18 166:24                |
| 84:17 101:2 147:19         | <b>appropriate</b> 165:3   | 146:2                      | <b>aware</b> 11:7 11:12     | <b>baseline</b> 147:12       |

|  |   |   |   |   |
|--|---|---|---|---|
| 150:6 153:20<br>153:24 154:6<br>164:22 164:25<br><b>basic</b> 17:8 27:7 28:7<br>28:15 83:16<br><b>basically</b> 32:18 76:17<br>77:21 127:11<br>130:16 130:20<br>131:4 147:24<br>163:11<br><b>basis</b> 141:20 162:15<br><b>battelle</b> 3:20 10:13<br><b>baughman</b> 2:7 8:25<br>8:25 12:5 29:18<br>29:20 30:13 31:8<br>31:12 31:18 31:22<br>32:2 33:22 34:3<br>42:11 43:10 43:20<br>43:23 44:10 48:11<br>51:19 51:22 52:5<br>52:20 54:4 55:6<br>55:16 68:10 69:1<br>69:13 70:8 70:14<br>71:6 74:1 74:7<br>74:16 74:20 75:1<br>75:6 82:2 87:2 87:9<br>87:14 87:20 94:7<br>99:6 108:5 108:10<br>108:21 109:5<br>109:11 109:16<br>110:12 110:20<br>111:3 111:10<br>113:20 114:10<br>114:21 119:1 119:8<br>119:13 119:17<br>123:25 124:12<br>127:19 128:1 128:6<br>128:13 128:24<br>129:25 131:12<br>131:16 131:22<br>132:4 132:7 132:11<br>132:19 132:24<br>133:5 133:8 133:15<br>137:23 138:6<br>138:10 138:14<br>138:17 138:20<br>138:24 139:4 139:8<br>139:11 139:13<br>139:16 139:20<br>139:25 140:9<br>140:16 140:20 | 141:4 141:19<br>149:21 150:4 150:8<br>158:5 171:7 171:20<br>172:8 172:13<br>175:21 176:5<br>176:21 177:11<br>177:16<br><b>bear</b> 15:1 32:11<br>33:14<br><b>bearings</b> 75:23<br><b>beat</b> 133:11 133:11<br><b>beautiful</b> 117:11<br><b>become</b> 20:20<br><b>been</b> 12:7 15:18 20:1<br>20:12 32:4 36:25<br>37:22 42:20 49:7<br>60:2 65:20 67:22<br>69:9 69:10 74:5<br>75:24 85:15 85:20<br>87:25 88:16 88:17<br>88:21 88:21 89:11<br>89:20 98:22 108:22<br>110:23 111:19<br>113:21 125:1<br>125:15 127:12<br>127:20 128:2 128:4<br>128:6 128:16 129:3<br>129:3 132:25 144:2<br>144:5 149:23<br>150:24 153:25<br><b>before</b> 12:15 13:20<br>14:18 14:19 14:24<br>19:7 19:14 21:21<br>23:14 62:4 62:12<br>62:12 62:15 78:15<br>87:22 100:18 110:6<br>116:14 116:18<br>135:16 148:19<br>152:4 153:11 154:1<br>156:11 164:10<br><b>beginning</b> 52:2 52:22<br>53:11 54:3 115:13<br><b>behind</b> 39:19 103:15<br><b>being</b> 17:10 17:15<br>17:17 22:17 31:6<br>36:23 39:16 43:24<br>50:25 51:23 53:1<br>64:16 74:21 98:14<br>111:25 116:7<br>126:16 132:15 | 138:2 139:20<br>140:23 144:5<br>146:21 156:20<br>157:4 159:11<br>172:13<br><b>beings</b> 112:19 165:2<br><b>believe</b> 25:23 26:8<br>26:14 41:16 72:21<br>133:3<br><b>benefit</b> 83:19 166:7<br>167:9<br><b>benefits</b> 45:20<br><b>beside</b> 26:22 79:19<br><b>besides</b> 28:20<br><b>best</b> 14:25 69:25<br>98:21 125:13<br><b>better</b> 101:6 150:5<br><b>between</b> 46:1 46:15<br>53:7 53:7 55:12<br>66:8 66:10 69:11<br>72:19 110:17<br><b>beyond</b> 164:3<br><b>bias</b> 103:20 103:22<br><b>bids</b> 158:19<br><b>big</b> 38:18 42:4 136:2<br>166:7 167:9<br><b>bill</b> 2:19 5:14 9:6<br>16:15<br><b>billion</b> 143:17<br><b>bit</b> 23:14 23:25 26:13<br>31:1 39:20 52:9<br>53:7 53:9 83:1 84:6<br>87:22 103:17<br>103:17 103:23<br>103:24 106:5<br>108:18 144:19<br>150:4 157:8<br><b>black</b> 112:20 115:1<br>124:4<br><b>bldg</b> 5:18<br><b>blew</b> 73:5<br><b>block</b> 72:18 73:3<br>159:4<br><b>blood</b> 178:15<br><b>blow</b> 53:23 54:16<br>73:5<br><b>blowdown</b> 25:18<br>25:18 26:6 26:7<br>26:7 26:9 26:9<br><b>blowdowns</b> 25:25 | <b>blowing</b> 111:11<br>141:13<br><b>blown</b> 54:14<br><b>bmw</b> 132:12 132:14<br><b>board</b> 1:2 2:2 2:4 2:5<br>2:7 2:15 7:8 8:4<br>8:20 8:20 8:22 8:24<br>8:25 11:17 11:18<br>12:3 12:6 12:19<br>13:14 13:18 13:20<br>14:16 14:20 15:18<br>20:18 35:16 35:22<br>36:19 46:22 59:25<br>87:25 91:3 95:15<br>100:18 115:18<br>116:14 143:7<br>144:10 144:12<br>151:24 153:12<br>161:20 161:22<br>161:25 163:4 172:9<br>173:5 174:11<br>174:22<br><b>bob</b> 11:16<br><b>boiler</b> 1:2 2:7 2:9 3:9<br>3:10 3:12 5:19 7:8<br>8:5 8:18 8:20 9:24<br>9:25 10:2 15:12<br>15:16 16:6 17:1<br>17:20 17:22 17:23<br>18:18 19:1 22:13<br>23:4 23:7 23:17<br>24:6 24:16 25:18<br>26:1 26:7 26:9<br>28:16 28:22 33:3<br>35:11 35:24 37:9<br>37:15 38:10 38:15<br>38:25 39:22 39:23<br>39:24 40:15 43:14<br>43:15 43:21 44:19<br>44:21 44:22 44:23<br>44:24 44:24 48:2<br>48:4 48:12 49:20<br>50:12 53:2 53:18<br>53:25 55:1 55:3<br>55:14 55:24 56:7<br>56:14 56:23 57:5<br>60:1 60:12 60:25<br>61:20 64:2 64:3<br>64:4 64:10 64:11<br>64:20 64:25 65:12<br>66:22 68:14 68:17 | 68:20 69:4 69:14<br>70:5 70:17 70:18<br>70:19 70:25 71:9<br>71:10 71:20 72:10<br>72:13 73:1 74:4<br>74:17 75:13 75:13<br>75:22 76:1 76:24<br>76:24 76:25 77:1<br>77:6 77:6 78:11<br>78:15 79:24 80:3<br>80:9 81:2 81:12<br>81:14 82:10 82:22<br>83:11 85:13 90:11<br>97:1 97:5 97:6 97:6<br>97:7 97:15 97:16<br>97:23 98:18 100:18<br>100:25 101:16<br>104:9 108:6 109:19<br>109:20 110:22<br>111:13 112:18<br>114:7 114:13<br>114:13 116:15<br>117:8 118:19 119:7<br>120:2 120:22<br>120:24 121:1 121:7<br>121:8 121:11<br>121:13 121:18<br>121:25 122:10<br>122:17 122:17<br>122:23 123:1 123:4<br>125:5 125:11<br>125:18 126:2<br>126:16 126:24<br>127:1 127:3 127:6<br>127:7 127:15<br>128:19 129:16<br>132:3 132:15<br>133:13 134:11<br>134:25 135:1 136:1<br>136:4 137:2 139:19<br>140:12 141:6<br>141:11 142:13<br>163:18 171:14<br>173:23<br><b>boilers</b> 5:11 5:12<br>5:17 5:18 6:5 6:6<br>6:11 6:12 6:17 6:18<br>16:19 16:21 16:25<br>17:3 17:6 17:10<br>17:25 18:3 18:12<br>18:20 19:22 21:8 |
|--|---|---|---|---|

|   |  |   |  |  |
|---|--|---|--|--|
| 22:8 26:10 30:17<br>31:11 33:13 34:20<br>35:10 35:21 39:4<br>42:12 42:16 42:16<br>42:23 43:2 43:8<br>43:11 43:24 43:25<br>44:1 44:5 44:7<br>44:11 44:12 45:2<br>47:25 50:8 56:10<br>59:16 60:3 60:4<br>60:18 61:5 61:7<br>65:21 70:21 71:9<br>73:24 74:18 75:14<br>76:6 78:4 79:17<br>81:5 84:22 96:19<br>97:4 97:5 97:9<br>97:11 98:4 99:21<br>108:12 108:13<br>108:15 108:25<br>109:2 109:6 109:8<br>111:11 114:8 114:9<br>115:16 115:19<br>116:5 116:7 116:19<br>119:7 119:8 121:24<br>126:20 126:23<br>127:25 128:16<br>128:18 128:19<br>130:10 130:12<br>130:22 130:25<br>131:1 131:2 131:12<br>131:13 131:17<br>131:18 131:23<br>132:8 132:12<br>132:12 132:13<br>132:16 132:22<br>133:25 138:1<br>138:11 138:12<br>139:14 140:23<br>154:21 154:24<br>170:21 172:7 175:9<br><b>bondi</b> 3:18 6:9 10:10<br>10:10 59:22 59:22<br>60:17 61:19 62:8<br>62:24 63:6 63:21<br>64:6 64:13 64:23<br>65:17 66:14 66:18<br>67:3 67:14 68:4<br>68:22 69:8 69:16<br>70:12 72:17 73:7<br>74:6 74:11 74:19<br>74:22 76:12 77:21 | 78:2 79:16 80:25<br>81:3 81:16 81:23<br>84:1 85:17 85:23<br>89:7 90:14 96:1<br>96:12<br><b>books</b> 98:20<br><b>boom</b> 128:23<br><b>both</b> 22:8 43:9 58:4<br>82:15 109:6 109:8<br>109:10 132:16<br>132:17 132:19<br>136:22 137:21<br>177:15<br><b>bothers</b> 141:9<br><b>bottom</b> 25:16 40:10<br>72:4 99:2<br><b>box</b> 164:15<br><b>bradley</b> 143:10<br><b>brand</b> 164:4 164:13<br><b>break</b> 13:8 13:18<br>59:7 90:3 144:9<br><b>breaking</b> 89:24<br><b>breakout</b> 172:3<br>172:5<br><b>brian</b> 2:2 8:21 51:19<br>150:20<br><b>brief</b> 140:21<br><b>briefly</b> 175:22<br><b>bring</b> 13:19 45:5<br>88:10 112:15<br>148:11 148:19<br>150:17 159:20<br>165:13 165:15<br>169:17 173:7<br><b>bringing</b> 87:21<br>155:16 156:12<br>157:15 167:6<br><b>brooks</b> 60:4 65:20<br><b>brought</b> 48:11 144:6<br><b>bruce</b> 21:11<br><b>bubble</b> 111:5<br><b>build</b> 147:16<br><b>building</b> 5:13 11:7<br>11:10 11:11 11:12<br>16:22 17:7 17:8<br>17:9 17:11 18:5<br>18:6 30:17 35:24<br>38:23 38:24 39:1<br>39:16 40:2 40:5<br>40:24 40:25 43:1 | 46:1 49:25 53:13<br>56:10 71:22 97:16<br>105:10 123:4<br>125:18 127:8<br>129:16 134:11<br>139:19 148:22<br>174:23<br><b>buildings</b> 46:1 46:15<br><b>built</b> 73:11 151:25<br>156:21 157:5<br><b>builts</b> 74:12 74:14<br><b>bump</b> 39:21<br><b>bunch</b> 113:5<br><b>burn</b> 100:24 102:5<br>102:10 102:11<br>106:1 106:15<br>106:23 128:21<br>141:1<br><b>burned</b> 106:9 106:11<br>106:14 106:25<br>121:21<br><b>burner</b> 100:22 139:2<br>141:15<br><b>burning</b> 100:18<br>101:10 101:19<br>103:15 115:16<br>116:22 127:12<br>128:16 130:17<br><b>burnt</b> 110:15<br><b>business</b> 5:9 5:10<br>5:15 6:3 6:10 6:16<br>6:22 13:23 16:1<br>16:3 54:1 152:9<br><b>buy</b> 156:1<br><b>buying</b> 155:24<br><b>bypass</b> 118:20 | 26:23 27:1 27:10<br>27:17 27:25 28:11<br>28:14 28:24 29:15<br>30:10 30:14 31:4<br>31:10 31:16 31:20<br>32:1 32:12 33:6<br>33:8 34:10 34:15<br><b>calculations</b> 154:3<br><b>call</b> 5:3 8:3 14:10<br>16:8 18:18 18:18<br>33:25 36:8 39:10<br>43:1 56:11 58:20<br>66:1 77:2 77:8<br>77:10 81:6 84:9<br>84:18 96:4 105:23<br>111:25 112:20<br>113:9 114:14<br>114:15 114:23<br>119:22 119:24<br>121:4 122:3 125:3<br>129:23 141:4<br>148:22<br><b>called</b> 23:12 151:11<br><b>calling</b> 82:8 103:25<br>110:15<br><b>calls</b> 52:16 110:23<br>112:22 114:14<br>125:15<br><b>came</b> 61:22 155:3<br><b>camera</b> 103:11<br>104:24 105:3<br><b>cameras</b> 39:17<br>107:10 126:21<br>126:21 126:22<br>126:22<br><b>campus</b> 16:23<br><b>cancer</b> 11:19 17:9<br><b>cannot</b> 77:5 118:6<br>118:6 118:8 118:10<br>118:13 118:15<br>118:19<br><b>canonico</b> 2:5 2:6<br>8:23 8:23 14:7 28:4<br>28:12 28:19 29:8<br>29:13 34:6 45:10<br>46:20 46:21 47:3<br>47:11 48:8 58:8<br>58:10 61:10 61:13<br>71:19 71:24 72:3<br>72:12 73:2 86:3 | 86:7 86:11 86:21<br>86:25 87:5 87:12<br>87:16 89:2 91:13<br>91:14 91:17 91:21<br>91:25 92:5 92:16<br>94:1 94:2 94:5<br>94:17 98:9 98:10<br>98:13 98:17 99:1<br>99:7 99:12 123:15<br>123:20 125:1 125:6<br>125:9 125:12<br>125:21 126:13<br>130:1 142:3 142:14<br>155:9 155:11<br>155:18 156:10<br>156:16 156:20<br>156:23 156:25<br>157:4 161:2 161:5<br>162:1 162:5 165:17<br>165:18<br><b>capabilities</b> 89:14<br><b>capable</b> 149:13<br><b>capacity</b> 41:19<br><b>care</b> 29:13 95:24<br>99:13 99:16 110:19<br>127:8<br><b>carlene</b> 11:13<br><b>carolyn</b> 2:15<br><b>carry</b> 49:5 49:5 65:6<br>86:25<br><b>carrying</b> 66:15 119:1<br><b>cart</b> 21:21 87:22<br><b>case</b> 31:17 38:8 78:2<br>79:12 88:8 95:1<br>105:20<br><b>cases</b> 7:7 147:7 156:6<br>156:8 174:9<br><b>cell</b> 8:10<br><b>cement</b> 73:3<br><b>center</b> 11:20<br><b>central</b> 17:3 17:3<br>18:16 33:8 102:25<br>107:5 107:10<br>130:13 130:15<br><b>cents</b> 112:24<br><b>century</b> 144:3<br><b>certain</b> 52:10 67:7<br>69:20 95:5 118:9<br>118:9 156:6 165:12<br><b>certainly</b> 8:7 21:6 |
| <b>C</b>  |  |   |  |  |
|   |  | <b>c1</b> 71:20<br><b>cain</b> 2:19 2:20 5:14<br>9:6 9:6 9:7 16:15<br>16:15 16:16 17:25<br>19:18 20:4 20:7<br>20:9 21:10 21:21<br>22:4 22:12 22:18<br>23:2 23:10 23:18<br>24:7 24:10 24:13<br>24:17 24:20 24:25<br>25:4 25:14 25:19<br>25:22 26:8 26:15   |  |  |



|  |  |  |   |   |
|--|--|--|---|---|
| 62:12 67:14 83:18<br>156:1<br><b>certainty</b> 117:14<br><b>certificates</b> 20:6<br><b>certification</b> 68:17<br>68:19 69:4 151:6<br><b>certified</b> 28:22 29:9<br>157:14<br><b>certify</b> 178:8 178:14<br><b>cetera</b> 155:14<br><b>chair</b> 11:18 122:15<br><b>chairman</b> 2:2 8:2<br>8:21 9:4 10:22 12:2<br>13:2 13:5 13:9<br>13:15 13:24 14:8<br>14:13 15:22 17:14<br>17:17 19:13 21:5<br>21:16 23:19 26:2<br>26:11 27:5 27:12<br>28:2 29:3 29:11<br>29:16 29:19 32:3<br>32:13 33:1 33:2<br>33:7 33:10 33:19<br>33:23 34:4 34:7<br>34:11 34:16 36:11<br>36:14 42:9 44:17<br>45:8 48:9 49:14<br>50:22 51:10 51:14<br>51:17 51:20 55:17<br>57:24 58:9 58:11<br>58:18 58:23 59:3<br>59:11 60:15 61:8<br>61:11 61:17 64:9<br>67:21 68:2 68:8<br>71:7 71:17 73:25<br>75:16 76:13 77:9<br>77:12 77:15 77:25<br>78:6 78:17 78:23<br>79:1 79:22 80:8<br>80:21 81:1 81:11<br>81:19 81:24 83:2<br>84:12 84:19 84:25<br>85:3 85:7 85:24<br>86:4 86:9 86:19<br>86:23 87:7 87:11<br>87:17 88:11 88:25<br>89:3 90:8 90:15<br>91:1 91:2 91:6<br>91:11 91:19 91:23<br>92:9 92:14 92:20<br>93:4 93:9 93:13 | 93:16 93:18 94:4<br>94:16 94:18 94:23<br>95:8 96:2 96:7<br>96:13 96:21 98:5<br>98:12 98:14 99:11<br>99:15 106:16 115:8<br>116:12 116:17<br>117:1 118:18<br>118:25 119:18<br>121:6 121:10<br>121:14 121:17<br>121:23 122:13<br>123:11 123:16<br>123:22 124:7<br>124:13 125:20<br>126:11 127:14<br>129:21 130:2 130:4<br>131:8 133:21<br>136:13 136:22<br>141:24 142:4<br>142:10 142:16<br>145:5 145:8 146:6<br>146:20 146:24<br>147:8 148:9 150:21<br>151:4 151:8 151:17<br>151:19 152:10<br>152:22 153:10<br>153:19 154:5<br>154:14 154:18<br>155:9 158:14 159:5<br>159:14 160:24<br>161:3 161:7 161:10<br>162:3 162:9 162:14<br>162:19 163:1<br>163:14 163:18<br>163:22 164:9 165:6<br>165:10 168:13<br>168:23 169:7<br>170:14 172:11<br>172:17 172:20<br>175:4 175:11<br>175:19 177:18<br>177:21<br><b>challenge</b> 89:7<br><b>chamber</b> 101:13<br>101:22 128:19<br><b>chance</b> 149:2 167:5<br>167:5<br><b>change</b> 32:9 51:9<br>51:12 69:23 117:15<br>118:6 118:8 118:10 | 126:1 126:10<br>135:22 136:15<br>136:17 155:22<br>158:9<br><b>changed</b> 45:7 126:8<br><b>changes</b> 84:11 92:22<br>123:18 156:5 156:8<br><b>changing</b> 121:22<br>127:11 156:5<br><b>chapman</b> 2:8 8:17<br>8:17 13:4 13:7<br>13:17 15:4 15:23<br>20:24 21:2 71:3<br>93:22 94:11 94:13<br>116:4 116:9 116:11<br>116:25 124:10<br>168:23 174:16<br>174:19 177:20<br><b>chapter</b> 5:11 5:17<br>6:5 6:11 6:17<br><b>charge</b> 17:5 19:4<br>112:3<br><b>charged</b> 87:25<br><b>charleston</b> 143:9<br>146:8 147:1 147:17<br><b>charlie</b> 2:23 5:21<br>9:11 35:5 40:4<br>45:16 45:22 50:24<br><b>chart</b> 27:2 27:10<br>36:4 77:8 77:10<br>78:1 84:18<br><b>charts</b> 27:2 27:6 27:9<br>27:14 136:8 136:9<br><b>chasing</b> 23:1<br><b>chattanooga</b> 34:25<br>46:22<br><b>cheapest</b> 158:19<br>159:4<br><b>check</b> 21:7 53:5<br>53:18 54:7 56:12<br>56:14 57:6 123:4<br>125:23 126:3 127:6<br>137:8 138:8 139:5<br>141:5 141:7 141:14<br><b>checked</b> 51:23 123:5<br>127:4 135:11 138:3<br><b>checking</b> 123:2<br>126:2 129:18<br>138:25 140:5<br>141:11 141:22 | 141:23 165:23<br><b>checklist</b> 48:14 77:18<br>79:14 80:24<br><b>checkoff</b> 18:24<br><b>checkout</b> 56:18<br><b>checkpoint</b> 72:25<br><b>checkpoints</b> 72:22<br>73:23<br><b>checks</b> 65:6 78:15<br>82:21 82:22 82:23<br>84:3 85:13 104:9<br>133:17 137:8 141:9<br><b>chemical</b> 2:3 146:5<br>151:23<br><b>chemistry</b> 147:20<br>148:8 166:16<br>167:13 167:13<br>168:1<br><b>chief</b> 2:9 4:4 5:8 8:18<br>13:17 15:2 15:15<br>15:20 62:13 65:18<br>66:2 81:6 89:14<br>90:1 93:22 94:11<br>94:11 94:12 99:21<br>175:16 175:23<br>175:24 176:16<br><b>chose</b> 158:11<br><b>chosen</b> 148:7<br><b>christmas</b> 174:15<br>177:23 177:24<br><b>circuit</b> 38:18<br><b>circuitry</b> 139:1 140:5<br>141:11 141:22<br><b>circuits</b> 38:7 38:15<br>38:17 38:17<br><b>circulating</b> 10:24<br><b>circumstance</b> 63:4<br><b>circumstances</b><br>166:15<br><b>clarification</b> 95:12<br><b>clarified</b> 64:21 90:24<br><b>clarify</b> 53:8 55:10<br>55:15 63:25<br><b>class</b> 26:19 28:22<br>29:10 60:12 60:21<br>61:21 62:21 62:23<br>62:23 63:1 63:1<br>63:3 63:7 65:2<br><b>classification</b> 23:4<br><b>clean</b> 46:4 93:20 | <b>cleaned</b> 92:24 173:20<br><b>cleaner</b> 46:7<br><b>clear</b> 90:22 109:23<br>117:14<br><b>clearly</b> 76:14<br><b>clears</b> 110:10<br><b>cleaver</b> 60:4 65:20<br><b>clinical</b> 17:8<br><b>close</b> 39:6 57:4 63:22<br>72:4 101:8 105:17<br>173:9<br><b>closed</b> 103:24 108:2<br>108:3<br><b>co</b> 169:25<br><b>coal</b> 39:4 42:14 42:16<br>49:25 53:16 56:11<br><b>code</b> 15:9 155:14<br>161:6 173:17<br><b>codes</b> 147:25 148:2<br>148:3<br><b>coffee</b> 59:8<br><b>coincide</b> 172:15<br><b>cold</b> 107:19 135:21<br><b>collaborate</b> 171:15<br><b>colleagues</b> 145:16<br>145:25<br><b>collected</b> 106:21<br><b>colors</b> 89:17<br><b>column</b> 25:17 26:6<br>26:9 53:4 53:23<br>54:17 141:13<br><b>columns</b> 145:19<br>146:3 157:23<br><b>combination</b> 81:12<br><b>combine</b> 171:9<br>171:21<br><b>combined</b> 170:3<br>170:19 170:19<br>171:8<br><b>combustion</b> 2:25 3:3<br>9:14 9:16 34:24<br>35:8 101:12<br><b>comes</b> 10:25 70:3<br>81:21 114:1 128:11<br>134:24 147:24<br>148:6<br><b>comfort</b> 72:4<br><b>comfortable</b> 128:18<br><b>coming</b> 21:22 46:2<br>50:24 101:14 |
|--|--|--|---|---|

|  |   |  |   |   |
|--|---|--|---|---|
| 102:12 102:14<br>104:12 111:7 111:8<br>126:25 129:11<br>134:17 141:17<br>156:12 165:23<br>170:1 173:22 175:2 | <b>completed</b> 15:18<br><b>completion</b> 22:8<br>145:12<br><b>compliance</b> 144:13<br>153:8<br><b>compliant</b> 155:13<br><b>component</b> 153:5<br>153:6 153:7<br><b>components</b> 108:7<br>156:18<br><b>composition</b> 146:15<br><b>compressors</b> 135:10<br>135:20<br><b>compromise</b> 153:5<br><b>computer</b> 63:12 64:3<br><b>computerized</b> 35:25<br><b>concept</b> 145:14<br><b>conception</b> 22:1<br><b>concern</b> 27:8 112:16<br>165:25 173:12<br><b>concerned</b> 40:14<br>83:1 86:12 124:6<br>164:4<br><b>concerning</b> 30:15<br>173:2<br><b>concerns</b> 77:17<br>157:22 174:5<br><b>conditions</b> 146:13<br><b>conduct</b> 137:7 152:8<br><b>conducted</b> 145:15<br>161:18 171:13<br><b>conducting</b> 150:10<br><b>conference</b> 7:4<br>169:15 169:21<br>170:3 170:6 170:11<br>170:20 171:10<br>171:14 171:19<br><b>conferences</b> 170:4<br>172:3<br><b>confident</b> 159:2<br><b>confirm</b> 41:16 56:19<br>170:23<br><b>confirms</b> 52:16<br><b>conflict</b> 5:6 14:17<br>14:22 98:11 98:16<br><b>conflicts</b> 19:15 36:15<br>61:9 85:6 85:8 98:6<br>131:9<br><b>confusing</b> 45:1<br><b>confusion</b> 24:1 53:6 | <b>conjunction</b> 29:5<br><b>connection</b> 72:7<br><b>consequence</b> 147:15<br><b>conservative</b> 116:8<br><b>consider</b> 35:17<br>160:14<br><b>considerations</b><br>148:14<br><b>considered</b> 78:5<br>109:21<br><b>considering</b> 59:25<br>84:7 89:8<br><b>consistency</b> 114:25<br><b>consistent</b> 23:22<br>68:13 141:20<br><b>constantly</b> 116:24<br>129:17 136:1<br><b>constitute</b> 79:17<br>98:15<br><b>construction</b> 71:15<br>74:12 143:13<br>143:14 146:15<br>147:5 148:7 150:3<br>166:16 167:15<br><b>constructions</b> 148:15<br><b>consultant</b> 3:7 9:22<br><b>contact</b> 52:23 53:15<br>55:24 65:8 73:17<br>76:25 77:6 104:8<br>119:25 123:1 127:2<br>176:11<br><b>contain</b> 100:22<br><b>contained</b> 168:6<br>168:11<br><b>containing</b> 167:18<br><b>content</b> 83:21<br><b>contents</b> 99:8<br><b>contingencies</b> 124:2<br><b>contingency</b> 91:15<br>124:1<br><b>contingent</b> 32:16<br>33:20 58:13 58:13<br>86:5 92:8 92:12<br>92:21 93:21 123:17<br>130:6 142:5 142:14<br><b>contingently</b> 96:10<br><b>continually</b> 101:19<br>101:19<br><b>continue</b> 107:19<br>125:22 | <b>continued</b> 3:1 4:1 6:1<br>7:1<br><b>continues</b> 135:7<br><b>continuous</b> 113:6<br>113:6 113:14<br><b>continuously</b> 25:6<br>60:9 60:11 121:22<br><b>contract</b> 63:8<br><b>contracted</b> 69:20<br><b>contractor</b> 22:5 67:5<br>67:6 77:23 78:18<br><b>control</b> 2:25 3:3 9:14<br>9:16 31:15 33:4<br>34:24 35:6 35:8<br>36:2 39:8 39:11<br>50:6 51:5 97:14<br>97:24 97:25 98:1<br>102:21 102:24<br>103:18 107:5<br>107:10 108:23<br>118:4 118:12<br>119:10 120:7<br>120:11 121:2 122:8<br>125:18 126:19<br>127:22 127:23<br>127:24 130:13<br>130:15 137:16<br>137:24 137:24<br><b>controlled</b> 97:13<br>97:17<br><b>controller</b> 31:9 60:5<br>64:16 66:9 67:8<br>126:25<br><b>controllers</b> 65:23<br>97:15<br><b>controlling</b> 41:9<br>122:8 126:20<br><b>controls</b> 18:6 126:4<br><b>conversation</b> 140:21<br><b>converted</b> 97:11<br><b>conveyors</b> 104:16<br><b>cooking</b> 109:13<br><b>copper</b> 46:14 46:14<br><b>copy</b> 18:14 18:15<br>18:16 28:8 143:7<br><b>core</b> 117:5 118:12<br><b>correct</b> 26:16 36:22<br>41:7 41:10 52:7<br>71:16 71:23 77:20<br>91:9 100:9 100:14 | 108:13 115:7 116:3<br>119:16 126:6 126:7<br>131:15 133:7 135:9<br>145:6 145:7 146:23<br>153:14 164:8<br>164:17<br><b>corrected</b> 88:14<br>88:22 93:11 100:3<br>114:20<br><b>correction</b> 100:9<br><b>corrections</b> 142:5<br><b>correctly</b> 166:5<br><b>correctness</b> 161:21<br><b>corrosion</b> 164:1<br>168:3 168:3 168:7<br>168:8<br><b>cost</b> 170:11<br><b>costs</b> 170:8<br><b>couldn't</b> 67:4 67:9<br>106:5<br><b>counsel</b> 2:18 9:3<br><b>county</b> 15:16 26:18<br>60:22 65:13 68:21<br>68:25 69:1 69:6<br>69:15 89:13 143:10<br>178:3<br><b>couple</b> 97:3 130:14<br>176:4<br><b>course</b> 39:3 43:19<br>45:15 49:24 54:12<br>62:3 62:3 62:11<br>62:15 62:18 62:25<br>64:25 65:9 70:10<br>73:22 84:3 101:15<br>105:15 115:11<br>127:24 156:4 172:2<br><b>coursework</b> 62:19<br><b>court</b> 1:23 8:13 8:16<br>95:12<br><b>courtesy</b> 8:9<br><b>cover</b> 35:9 35:23<br>44:6 44:9 76:7<br><b>covered</b> 86:14<br><b>covering</b> 44:7<br><b>covers</b> 47:16 86:13<br>86:14<br><b>crack</b> 168:3<br><b>create</b> 168:2<br><b>created</b> 85:19<br><b>crew</b> 150:14 |
|--|---|--|---|---|

|   |  |   |   |   |
|---|--|---|---|---|
| <b>criteria</b> 30:21 30:24<br>61:23 75:2 75:7<br>75:8  | 102:17 103:21<br>103:22 105:16<br>108:1 108:3 108:9  | 7:5 10:2 169:14<br>178:6 178:24   | <b>design</b> 30:21 30:24<br>75:8 117:11 144:4<br>146:15 148:6 156:4<br>166:18  | 114:24 122:20<br>136:10 136:12<br>137:23 143:19<br>147:25 152:1<br>163:19   |
| <b>critical</b> 109:12<br>111:10 111:12<br>111:15   | <b>dan</b> 3:13 10:4   | <b>december</b> 1:3 11:18<br>151:21 178:12<br>178:20  | <b>designated</b> 47:17<br>48:25  | <b>differentiation</b> 110:1  |
| <b>critique</b> 152:20  | <b>dangerous</b> 72:20   | <b>decide</b> 148:17 176:10   | <b>designs</b> 148:15   | <b>digging</b> 83:14  |
| <b>crr</b> 1:22 178:6<br>178:24   | <b>daniel</b> 4:5 6:10 6:15<br>6:16 6:21 96:17<br>100:12 130:9<br>175:17 175:17                                    | <b>decided</b> 170:9  | <b>desire</b> 160:15  | <b>direct</b> 11:8 19:19  |
| <b>cs</b> 99:10   | <b>daniels</b> 3:21 3:23<br>3:24 4:3 10:15<br>10:17 10:19 10:21  | <b>decision</b> 88:4 111:18   | <b>desired</b> 152:24   | <b>directed</b> 99:20   |
| <b>csd</b> 41:2 118:12<br>119:2 119:11  | <b>das</b> 75:14 133:12<br>133:12  | <b>deepwaters</b> 175:1   | <b>destructive</b> 150:10<br>150:22   | <b>direction</b> 161:24   |
| <b>curious</b> 30:9 37:19   | <b>data</b> 44:21 71:5 71:8<br>76:5 83:3 83:15<br>103:5 103:7 147:12<br>153:21 154:3 154:7                         | <b>default</b> 57:4   | <b>detailed</b> 152:7   | <b>directly</b> 169:25  |
| <b>current</b> 20:6 20:23<br>21:8 35:24 38:12<br>62:13 76:10 109:9<br>163:4 169:22<br>173:14  | <b>date</b> 20:20 98:22<br>133:4 145:9 170:10<br>170:18  | <b>defense</b> 49:4   | <b>details</b> 89:25 90:3<br>145:1  | <b>disagree</b> 84:2  |
| <b>currently</b> 16:25 17:9<br>37:21 52:18 60:18<br>115:19 143:12   | <b>dave</b> 2:7 8:25 12:4<br>41:12 119:21  | <b>define</b> 166:19  | <b>detect</b> 105:5   | <b>disaster</b> 11:5  |
| <b>cut</b> 55:23 101:9<br>102:17 113:12<br>137:12   | <b>david</b> 3:2 3:24 5:20<br>6:14 6:20 9:15<br>10:18 34:23 40:23<br>96:25 101:1 101:6                             | <b>definitely</b> 61:4 129:7<br>164:25  | <b>deterioration</b> 69:10  | <b>disclosure</b> 5:7   |
| <b>cutoff</b> 25:12 54:8<br>56:13 56:20 113:17<br>118:7 138:2 138:7<br>138:9 139:5  | <b>day</b> 52:2 52:2 52:22<br>53:5 62:13 114:17<br>125:16 138:9<br>139:10 140:10<br>140:17 141:20<br>178:11 178:20 | <b>definition</b> 22:22<br>23:17 112:17<br>124:16   | <b>determination</b> 110:2<br>117:7 147:14<br>148:20  | <b>discretion</b> 110:22<br>112:18 114:14<br>115:5  |
| <b>cuts</b> 46:5  | <b>dcs</b> 50:7 97:17<br>121:15 121:18<br>121:25   | <b>definitions</b> 140:3  | <b>determine</b> 134:15   | <b>discuss</b> 14:24 17:19<br>29:22 87:2 87:4<br>87:6 87:14 87:18<br>114:8  |
| <b>cutting</b> 113:17   | <b>day</b> 52:2 52:2 52:22<br>53:5 62:13 114:17<br>125:16 138:9<br>139:10 140:10<br>140:17 141:20<br>178:11 178:20 | <b>degradation</b> 166:13   | <b>determined</b> 43:11   | <b>discussed</b> 92:22<br>169:18 169:24<br>170:5 170:13   |
| <b>cwi</b> 150:15   | <b>days</b> 63:2 88:23 98:1<br>168:18 168:24<br>169:1 171:20 172:2   | <b>delay</b> 64:7   | <b>development</b> 1:6<br>2:11 2:14 2:16 2:18   | <b>discussing</b> 166:10  |
| <b>cycle</b> 12:8 164:6   | <b>dead</b> 151:21   | <b>delinquent</b> 15:6  | <b>device</b> 45:12 65:7<br>77:4 113:25 114:1   | <b>discussion</b> 7:3 7:6<br>13:1 13:13 13:23<br>14:9 19:17 58:19<br>61:12 87:20 88:9<br>88:12 94:20 98:8<br>112:12 124:14<br>131:11 142:7<br>142:20 150:24<br>150:25 169:13<br>173:8 |
| <b>D</b>  | <b>deadline</b> 151:21   | <b>deliver</b> 43:16  | <b>devices</b> 76:17 79:9<br>117:5 118:12<br>119:14 170:22  | <b>discussed</b> 92:22<br>169:18 169:24<br>170:5 170:13   |
| <b>da</b> 30:1 30:4 30:15<br>30:19 30:21 30:24<br>31:6 31:15 41:11<br>41:14 41:21 41:24<br>60:25 70:10 70:14<br>70:15 74:4 74:10<br>74:17 74:21 74:25<br>75:2 111:20 133:10<br>133:18 | <b>deadlines</b> 170:24  | <b>delivered</b> 158:25   | <b>didn</b> 25:2 26:14 30:6<br>44:12 47:4 48:20<br>53:3 64:22 66:4<br>67:15 67:20 68:25<br>76:7 77:25 82:18<br>82:19 106:15<br>136:11 137:18<br>137:25 139:25<br>147:2 172:24<br>176:10 | <b>discussions</b> 69:6   |
| <b>dallas</b> 89:18   | <b>deal</b> 42:4 111:14<br>130:12  | <b>demonstration</b> 32:18<br>145:13  | <b>diesel</b> 24:8 135:22<br>135:25 136:5   | <b>distillation</b> 145:19<br>146:2 157:23  |
| <b>damage</b> 46:16<br>146:22 164:1<br>166:13 167:9   | <b>dealing</b> 79:23   | <b>den</b> 148:15 148:15  | <b>difference</b> 125:21<br>147:23 147:24<br>148:5  | <b>distillery</b> 6:10 6:15<br>6:16 6:21 96:18<br>96:24 130:9 130:23<br>131:7 134:10<br>134:12 140:15   |
| <b>dampers</b> 101:8  | <b>debbie</b> 8:13 8:15<br>16:11   | <b>denis</b> 3:21 10:14   | <b>different</b> 23:5 27:4<br>39:9 47:14 47:18<br>47:21 54:17 54:24<br>74:13 90:18 100:13<br>108:18 112:2<br>112:10 113:10  | <b>distinguish</b> 110:17   |
|   | <b>deborah</b> 1:22 3:11   | <b>department</b> 1:6 2:11<br>2:13 2:16 2:18 3:14<br>10:5 49:3 95:7<br>170:2 174:13<br>176:12 | <b>differs</b> 148:15 148:15  | <b>divide</b> 173:15  |
|   |  | <b>depending</b> 123:20<br>123:22   | <b>differs</b> 148:15 148:15  | <b>division</b> 170:20<br>171:12  |
|   |  | <b>depends</b> 124:21<br>140:10   | <b>differs</b> 148:15 148:15  | <b>document</b> 67:9 79:19<br>82:7 87:24 90:4   |
|   |  | <b>deployed</b> 153:3   | <b>differs</b> 148:15 148:15  |   |
|   |  | <b>deputy</b> 32:16 33:21<br>58:14 81:21 86:6<br>92:23 93:22 123:19                           | <b>differs</b> 148:15 148:15  |   |
|   |  | <b>describe</b> 134:8   | <b>differs</b> 148:15 148:15  |   |
|   |  | <b>described</b> 99:3<br>111:12   | <b>differs</b> 148:15 148:15  |   |
|   |  | <b>description</b> 36:1<br>42:3 64:21 67:11<br>82:12 133:23                                   | <b>differs</b> 148:15 148:15  |   |
|   |  | <b>descriptions</b> 23:23<br>27:13 36:6   | <b>differs</b> 148:15 148:15  |   |

|   |  |  |  |  |
|---|--|--|--|--|
| 95:16<br><b>documentation</b><br>152:19 161:21<br><b>documented</b> 66:13<br>66:19 77:22 81:9<br><b>documenting</b> 89:25<br><b>documents</b> 76:8<br><b>dod</b> 48:25<br><b>doesn't</b> 21:14 50:13<br>50:24 51:8 55:20<br>56:1 65:5 75:20<br>78:4 88:2 167:17<br><b>doing</b> 20:1 26:4<br>26:21 32:20 43:25<br>49:24 52:8 52:9<br>52:11 53:9 53:21<br>54:6 54:7 54:9<br>54:10 54:11 55:5<br>55:8 55:12 55:13<br>56:9 58:1 67:23<br>67:24 82:9 82:10<br>84:5 85:16 89:11<br>89:20 90:12 97:22<br>103:13 104:3<br>106:22 122:6<br>126:24 128:4<br>129:18 141:9<br>141:21 147:3<br>147:22 159:8<br>162:18 176:20<br><b>domenic</b> 2:5 8:23<br><b>don</b> 8:7 12:19 20:2<br>20:5 23:24 26:21<br>26:23 28:6 29:2<br>31:14 38:1 46:25<br>49:4 50:3 53:20<br>54:15 56:14 61:13<br>63:17 63:19 65:25<br>66:6 68:19 70:6<br>70:18 74:13 81:5<br>81:9 82:4 82:5 84:2<br>85:24 86:13 89:23<br>90:8 90:9 97:10<br>101:4 101:17 110:1<br>110:18 111:23<br>112:21 114:3<br>119:10 119:13<br>129:8 130:18 133:4<br>133:9 133:11<br>136:18 137:15 | 141:1 149:1 149:9<br>149:11 149:12<br>149:17 150:13<br>155:23 155:23<br>157:22 158:16<br>165:11 167:20<br><b>done</b> 15:5 15:12<br>26:10 47:23 52:19<br>54:2 74:21 91:7<br>92:16 144:19<br>145:17 145:24<br>159:18 172:1<br>172:11 173:21<br><b>door</b> 102:4 102:7<br><b>doors</b> 104:12<br><b>doubt</b> 68:6<br><b>down</b> 13:19 35:13<br>40:2 40:15 46:5<br>53:2 53:20 53:23<br>54:17 54:18 54:22<br>54:23 56:7 56:15<br>56:22 56:24 56:24<br>57:5 64:11 66:5<br>67:23 73:6 77:7<br>79:18 84:9 87:8<br>87:19 89:25 90:3<br>91:20 100:25<br>102:18 104:18<br>104:22 106:5 106:7<br>110:16 114:2 114:2<br>114:7 120:2 120:6<br>120:18 121:4<br>128:11 133:15<br>134:9 134:12<br>134:23 135:7<br>135:18 137:3<br>138:23 141:7<br>141:13 160:11<br>160:14 164:10<br><b>downgraded</b> 42:20<br><b>downstream</b> 41:18<br><b>downtime</b> 109:11<br><b>dr</b> 8:23 14:7 28:4<br>28:12 28:19 29:8<br>29:13 34:6 45:10<br>46:20 46:21 47:3<br>47:11 48:8 58:8<br>58:10 61:10 61:13<br>71:19 71:24 72:3<br>72:12 73:2 86:3 | 86:7 86:11 86:21<br>86:25 87:5 87:12<br>87:16 89:2 91:13<br>91:14 91:17 91:21<br>91:25 92:5 92:16<br>94:1 94:2 94:5<br>94:17 98:9 98:10<br>98:13 98:17 99:1<br>99:7 99:12 123:15<br>123:20 125:1 125:6<br>125:9 125:12<br>125:21 126:13<br>130:1 142:3 142:14<br>155:9 155:11<br>155:18 156:10<br>156:16 156:20<br>156:23 156:25<br>157:4 161:2 161:5<br>162:1 162:5 165:17<br>165:18<br><b>draft</b> 104:6 104:11<br><b>drawing</b> 71:20 74:2<br>74:8<br><b>drawings</b> 43:21<br>70:22 74:2 74:12<br><b>dress</b> 26:12<br><b>drive</b> 1:7 5:18 35:4<br>35:19<br><b>driver</b> 153:7<br><b>drum</b> 113:15 117:20<br><b>dry</b> 55:3 110:9<br>167:20<br><b>due</b> 143:13 147:25<br><b>dunlap</b> 17:4<br><b>duplicate</b> 147:6<br><b>during</b> 11:6 11:6<br>71:15 100:19<br>106:23 171:13<br><b>dust</b> 104:17 106:21<br><b>dusty</b> 110:8<br><b>duties</b> 47:14 52:22<br>83:9 83:10 83:10<br>83:11<br><b>duty</b> 52:23 | 42:17 52:2 52:5<br>52:22 53:11 54:3<br>54:13 60:25 65:18<br>79:19 81:15 123:1<br>132:3<br><b>earlier</b> 57:25 61:22<br>125:10 175:23<br><b>easier</b> 45:23 78:25<br><b>easily</b> 122:15<br><b>eastman</b> 2:3 121:24<br>151:23<br><b>easy</b> 71:10 79:5<br>80:22<br><b>economic</b> 153:7<br><b>editorial</b> 22:21 27:19<br>79:7 99:19<br><b>editorials</b> 75:19<br><b>effect</b> 133:12<br><b>efficient</b> 153:2<br><b>effort</b> 117:10 166:9<br><b>efforts</b> 171:16<br><b>ehs</b> 78:3<br><b>eight</b> 19:3<br><b>either</b> 11:9 26:13<br>38:8 61:19 66:2<br>73:15 94:25 95:4<br>102:8 111:6 131:5<br>132:21 158:10<br>158:25<br><b>elaborate</b> 84:2<br>102:21 113:2 117:9<br><b>elaborating</b> 84:6<br><b>electric</b> 3:18 6:4 6:9<br>10:11 46:22 59:14<br>59:23 62:9 63:24<br>133:24<br><b>electrical</b> 106:17<br><b>electronic</b> 85:18<br><b>electronically</b> 60:24<br>91:5<br><b>electronics</b> 40:17<br><b>elements</b> 171:9<br><b>elevation</b> 46:23<br><b>elevators</b> 170:21<br>172:7<br><b>eliminate</b> 105:17<br>106:19<br><b>elliott</b> 11:17<br><b>else</b> 12:14 18:22<br>46:24 60:16 86:1 | 99:14 123:2 175:20<br>177:19<br><b>emergencies</b> 17:24<br><b>emergency</b> 11:5<br>18:13 18:17 18:18<br>18:19 36:8 36:10<br>55:21 57:7 77:2<br>77:10 78:3 79:13<br>79:17 80:20 83:10<br>84:18 99:25 108:6<br>109:21<br><b>employ</b> 143:18<br>166:24<br><b>employees</b> 19:6<br><b>end</b> 18:10 18:11<br>29:21 38:8 68:23<br>78:14 78:18 80:5<br>97:19 100:13<br>158:22 177:1 177:2<br><b>endanger</b> 129:11<br><b>ended</b> 158:23<br><b>ene</b> 132:21<br><b>energy</b> 17:3 60:7<br>60:7<br><b>eng</b> 3:4 6:23 9:17<br>9:17 12:23 13:12<br>13:21 143:2 143:2<br>145:7 145:11<br>145:22 145:24<br>146:12 146:23<br>147:2 147:18<br>149:11 149:15<br>149:19 149:25<br>150:2 150:6 150:12<br>151:16 151:18<br>152:3 152:15<br>152:25 153:14<br>153:22 154:6<br>154:16 154:22<br>154:25 155:2 155:7<br>155:17 155:20<br>156:15 156:22<br>156:24 157:1 157:6<br>158:15 159:13<br>159:24 160:13<br>160:19 160:22<br>161:1 161:8 161:12<br>162:7 162:11<br>162:17 164:8 166:1<br>168:18 169:4 |
| <b>E</b>  |  |  |  |  |
|   |  | e1 27:7 27:10<br><b>each</b> 14:25 18:23<br>26:3 28:16 35:21<br>38:25 39:21 40:3   |  |  |

|                             |                             |                            |                              |                             |
|-----------------------------|-----------------------------|----------------------------|------------------------------|-----------------------------|
| <b>engagements</b> 59:5     | <b>esps</b> 42:19           | 93:1 93:11 93:24           | 164:11 174:22                | 74:16 75:3 81:8             |
| <b>engineer</b> 4:6 61:15   | <b>essentially</b> 40:5     | 95:15 95:18 95:20          | <b>extension</b> 164:13      | 82:20 85:13 86:8            |
| 78:3 175:18                 | 71:22                       | 95:23 107:24               | <b>extensive</b> 48:3        | 88:18 89:11 107:4           |
| <b>engineered</b> 108:23    | <b>establish</b> 153:21     | 107:25 120:19              | 144:19                       | 124:5 133:10                |
| <b>engineering</b> 3:15     | <b>estimate</b> 116:7       | 126:24 128:10              | <b>extra</b> 131:6           | 137:24 146:9                |
| 10:7 35:6 142:25            | <b>et</b> 155:14            | 128:11 130:23              | <b>extreme</b> 131:1         | 148:13 150:22               |
| <b>engineers</b> 16:16      | <b>eugene</b> 2:4 8:19 12:5 | 135:20 164:23              | <b>extremely</b> 112:5       | 150:23 163:5                |
| <b>enhancement</b> 146:18   | 77:16 172:24 173:1          | 166:25 167:1               | <b>eyes</b> 18:12 90:5       | 163:25 174:18               |
| <b>enlighten</b> 37:18      | <b>european</b> 148:2       | 167:10 170:22              |                              | 177:1                       |
| <b>enough</b> 74:7 88:2     | 148:16                      | <b>evidence</b> 66:13      | <b>F</b>                     | <b>farm</b> 150:13          |
| 102:2 102:16                | <b>evaluate</b> 82:15 82:16 | <b>ewell</b> 2:17 9:2 9:2  | <b>f1</b> 25:21              | <b>fashion</b> 162:18       |
| 102:18 135:4 173:9          | 88:3                        | 11:25 13:22 85:5           | <b>fabrication</b> 150:3     | <b>fastest</b> 80:15        |
| <b>ensure</b> 93:11 95:23   | <b>evaluation</b> 88:7      | 91:10                      | <b>facilities</b> 147:23     | <b>fault</b> 57:14 122:1    |
| <b>entering</b> 167:25      | 144:20 146:25               | <b>exact</b> 101:4 133:4   | 154:12 159:1 159:1           | 122:4                       |
| <b>entertain</b> 175:1      | 147:1                       | <b>exactly</b> 39:15 45:6  | <b>facility</b> 17:4 18:15   | <b>favor</b> 14:11 34:1     |
| <b>entire</b> 152:18 171:12 | <b>evaluations</b> 147:14   | 62:22 154:17               | 18:16 19:5 23:24             | 58:21 96:5 129:24           |
| <b>entities</b> 149:7       | 150:10 154:4                | 162:25                     | 27:11 31:25 35:25            | 142:8 177:22                |
| <b>entrances</b> 100:12     | <b>even</b> 29:25 49:6      | <b>exam</b> 62:2 62:10     | 60:2 60:6 60:8               | <b>fd</b> 103:22            |
| 100:13                      | 74:13 88:1 114:12           | 62:20 69:17                | 60:11 90:7 122:17            | <b>fed</b> 101:19 135:1     |
| <b>environment</b> 36:25    | 128:7 141:5 148:21          | <b>example</b> 69:19 85:25 | 123:4 146:7 146:8            | <b>federal</b> 153:9        |
| 147:25                      | 164:6                       | <b>examples</b> 152:13     | 147:17 158:6                 | <b>fee</b> 170:6            |
| <b>environmets</b> 116:22   | <b>event</b> 11:4 40:10     | <b>excellent</b> 147:10    | 164:14 165:11                | <b>feed</b> 104:14 105:4    |
| <b>equal</b> 50:17          | 80:20 99:25                 | <b>exchangers</b> 145:19   | 165:12 174:23                | 105:13 126:22               |
| <b>equation</b> 173:14      | <b>eventually</b> 150:16    | 146:3                      | 174:24 175:2 175:8           | 136:4                       |
| <b>equipment</b> 44:2       | <b>ever</b> 32:8 62:15      | <b>exclusively</b> 143:23  | <b>fact</b> 73:10 90:11 99:4 | <b>feedback</b> 161:23      |
| 46:17 70:23 71:1            | 76:19 104:13 111:1          | <b>excuse</b> 38:24 96:14  | 108:22 116:13                | <b>feeding</b> 30:2 106:3   |
| 75:2 75:13 75:14            | 121:21                      | <b>existing</b> 17:4 20:12 | <b>factor</b> 173:12 173:16  | <b>feeds</b> 134:10 134:11  |
| 97:19 119:4 125:24          | <b>every</b> 12:3 18:21     | 20:16 21:1 21:2            | <b>factors</b> 173:3         | 134:25 135:9                |
| 129:1 146:4 146:9           | 21:17 52:3 52:6             | 21:7 33:5 38:17            | <b>factory</b> 65:19         | 135:10                      |
| 146:14 147:4 147:6          | 52:10 52:12 52:12           | <b>exit</b> 11:10          | <b>fail</b> 37:13 40:20      | <b>feedwater</b> 30:2       |
| 147:24 148:1 148:6          | 52:19 54:3 55:14            | <b>exits</b> 39:1          | 40:23 41:19 108:2            | 113:13                      |
| 148:18 149:9                | 61:5 113:5 114:17           | <b>expand</b> 79:21        | 108:3                        | <b>feel</b> 40:18 46:11     |
| 149:16 149:22               | 116:21 120:14               | <b>expanding</b> 127:17    | <b>failsafe</b> 64:3         | 67:16 88:5 128:12           |
| 149:24 150:7                | 124:19 125:16               | <b>expecting</b> 168:21    | <b>failure</b> 38:8 40:11    | 128:13 128:17               |
| 152:13 153:1                | 125:23 125:24               | <b>experience</b> 45:13    | 106:17 106:17                | 129:5 144:21                |
| 153:23 153:25               | 126:3 126:3 126:25          | 62:17 89:22 125:3          | 107:23 147:15                | <b>feet</b> 39:5 73:19      |
| 155:16 155:21               | 129:10 129:11               | 148:8 154:11               | 147:15                       | 130:13 130:15               |
| 155:24 156:1 156:5          | 138:9 139:10                | 167:22 168:4               | <b>failures</b> 37:7 37:18   | <b>fell</b> 100:20          |
| 157:11 157:15               | 149:16 158:21               | <b>experienced</b> 157:13  | 38:1                         | <b>fellow</b> 72:13         |
| 157:18 157:20               | 165:2 166:11                | 157:17                     | <b>fairly</b> 143:16 156:2   | <b>few</b> 11:3 17:10 21:24 |
| 157:21 158:7                | <b>everybody</b> 8:3 10:23  | <b>experiences</b> 46:9    | <b>fall</b> 7:3 89:5 169:15  | 30:15 82:10                 |
| 158:25 161:18               | 16:7 57:3 57:21             | <b>expertise</b> 147:3     | 171:4                        | <b>fiber</b> 36:20 36:24    |
| 163:5 163:7 163:24          | 59:7 59:12 75:9             | 150:15                     | <b>falls</b> 73:2            | 37:10 37:20 38:3            |
| 164:4 164:21 165:2          | 84:17 125:4 165:23          | <b>expires</b> 178:25      | <b>familiar</b> 31:19 31:20  | 40:11 40:16 45:12           |
| 166:6 166:11                | 171:17 171:18               | <b>explain</b> 28:21       | <b>familiarity</b> 66:8      | 45:24 46:4 46:14            |
| 166:22 167:23               | <b>everyone</b> 14:25       | <b>explained</b> 176:6     | <b>familiarize</b> 65:23     | 46:17 46:23                 |
| 168:5 175:6                 | <b>everything</b> 22:6      | <b>explosion</b> 73:4      | <b>fan</b> 103:22            | <b>field</b> 17:22 67:25    |
| <b>equipped</b> 41:2        | 28:25 39:17 43:6            | <b>exposing</b> 167:24     | <b>fans</b> 103:21           | 80:18 80:18 176:25          |
| <b>error</b> 95:2           | 45:15 46:23 50:17           | <b>exposure</b> 135:14     | <b>far</b> 22:1 31:2 51:23   | <b>fieldstone</b> 1:23      |
| <b>especially</b> 102:17    | 53:25 55:3 55:14            | <b>extend</b> 153:12 163:8 | 66:3 66:21 72:19             | <b>fill</b> 14:19 159:22    |

|                              |                              |                              |                            |                              |
|------------------------------|------------------------------|------------------------------|----------------------------|------------------------------|
| <b>filter</b> 157:24         | 100:17 100:23                | 52:12 52:23 53:24            | 79:21 89:8 90:6            | 168:15 175:12                |
| <b>filters</b> 135:23        | 102:21 116:14                | 55:25 75:4 75:14             | 109:22 112:16              | <b>george</b> 1:23           |
| <b>final</b> 74:17 168:19    | 116:15 116:18                | 82:23 90:16 98:20            | 170:13 178:14              | <b>german</b> 148:2          |
| 174:1                        | 119:25 153:1 154:1           | 108:25 109:25                | <b>future</b> 43:21 44:23  | <b>germany</b> 144:5         |
| <b>find</b> 71:11 79:5 83:23 | 165:1                        | 139:17                       | <b>fuzzy</b> 67:16         | 145:17 146:1 146:8           |
| 99:4 99:9 170:23             | <b>fiscal</b> 169:19         | <b>forum</b> 91:12 173:7     |                            | 146:25 147:23                |
| 176:13                       | <b>fit</b> 27:2 74:3 74:9    | <b>forward</b> 16:10 59:18   | <b>G</b>                   | 148:1 148:8 154:12           |
| <b>finding</b> 113:9         | <b>fits</b> 74:15 78:8       | 62:17 148:11                 | <b>g1</b> 27:2 27:7 27:14  | 157:5 157:9 157:10           |
| <b>findings</b> 163:6        | <b>five</b> 88:24 89:1       | 172:18                       | <b>g2</b> 27:7 27:15       | <b>get</b> 8:11 13:8 13:17   |
| <b>fine</b> 12:1 32:8 57:10  | <b>fix</b> 86:15 86:16       | <b>found</b> 15:9 176:13     | <b>g4s</b> 64:21 64:21     | 14:20 16:8 16:11             |
| 83:22 90:10 90:21            | <b>flashlights</b> 49:5      | <b>four</b> 5:16 12:4 12:7   | 64:22 65:14 66:17          | 21:12 21:14 28:20            |
| 128:16                       | <b>floor</b> 19:16 61:12     | 18:21 19:3 34:19             | 67:11 68:11 82:9           | 29:9 29:20 32:10             |
| <b>fingers</b> 128:20        | 98:8 131:11                  | 35:10 35:20 37:8             | <b>gain</b> 49:22          | 43:24 44:20 44:21            |
| 128:22                       | <b>flow</b> 106:6 146:10     | 39:16 42:15 43:2             | <b>gas</b> 6:17 24:5 24:9  | 46:11 49:8 53:19             |
| <b>finks</b> 2:12            | <b>flowers</b> 3:2 5:20 9:15 | 43:10 44:1 44:9              | 24:10 43:2 43:8            | 54:25 55:1 56:19             |
| <b>fire</b> 42:22 102:16     | 9:15 34:23 34:23             | 44:13 44:23 45:2             | 53:13 56:10 108:12         | 56:19 59:8 62:10             |
| 103:12 103:14                | 35:14 36:12 36:18            | 88:19 125:24 126:3           | 108:15 108:25              | 69:11 69:14 69:17            |
| 104:13 104:23                | 36:22 37:2 40:9              | 129:12 156:3                 | 109:2 114:8 119:7          | 78:24 83:24 88:14            |
| 105:20 130:25                | 41:4 41:7 41:10              | 171:24 175:9                 | 119:8 128:19               | 88:22 90:17 101:21           |
| 137:24 141:6                 | 41:15 41:23 43:15            | <b>fourteen</b> 116:6        | 128:23 130:10              | 101:25 104:13                |
| 141:18                       | 44:8 44:15 45:4              | <b>fourth</b> 44:18 48:2     | 130:12 130:17              | 104:16 104:17                |
| <b>fired</b> 6:11 39:4 42:14 | 47:9 47:12 48:23             | 48:12                        | 130:25 131:2               | 110:4 110:5 110:6            |
| 42:15 42:16 43:2             | 52:1 52:7 52:14              | <b>frame</b> 170:9 170:15    | 131:13 131:17              | 110:9 110:14                 |
| 43:8 49:25 53:13             | 55:10 56:3 57:10             | <b>framework</b> 90:2        | 133:24 134:11              | 112:13 114:19                |
| 53:16 56:11 96:18            | 57:15 57:19 57:23            | <b>france</b> 157:16 158:2   | 134:25 138:2               | 120:13 123:3 123:5           |
| 97:4 97:6 97:7 97:8          | 59:1                         | <b>franklin</b> 1:24         | 138:10 138:12              | 126:18 129:4                 |
| 97:11 97:11 98:4             | <b>flowing</b> 111:16        | <b>freezing</b> 135:4        | 139:13 139:16              | 133:16 134:20                |
| 101:16 112:11                | <b>flying</b> 89:17          | <b>french</b> 1:7            | 141:2 142:13               | 135:16 140:21                |
| 114:8 115:16                 | <b>folks</b> 36:6 47:22      | <b>frequencies</b> 153:13    | <b>gave</b> 31:1           | 159:19 159:22                |
| 131:13 131:13                | <b>follow</b> 67:7 80:2      | 164:12                       | <b>gear</b> 134:5 134:7    | 161:5 162:21                 |
| 131:17 132:8                 | 154:7 161:8                  | <b>frequency</b> 46:6        | 134:12 134:21              | 168:16 168:21                |
| 132:11 133:9                 | <b>following</b> 148:3       | 166:21                       | 134:23                     | 171:18 172:24                |
| 133:24 136:3 138:1           | 159:10                       | <b>front</b> 29:2 72:24      | <b>geb</b> 22:21 22:23     | 173:20 175:13                |
| 138:2 138:10                 | <b>font</b> 79:5             | 97:19 126:23                 | <b>general</b> 66:21 172:4 | 176:24 177:4                 |
| 138:12 139:9                 | <b>foot</b> 69:18 72:23      | 153:15 166:9                 | 174:2                      | <b>gets</b> 44:2 53:24 75:11 |
| 139:13                       | <b>force</b> 102:8           | 167:10                       | <b>generally</b> 158:2     | 75:12 79:24 92:23            |
| <b>fireman</b> 39:10 50:12   | <b>forecast</b> 155:7        | <b>fuel</b> 24:8 24:10       | <b>generate</b> 167:8      | 112:7 112:8 113:16           |
| <b>firemen</b> 50:19 51:4    | <b>foremost</b> 79:16        | 100:23 101:9                 | <b>generator</b> 134:1     | 127:3 127:4 127:6            |
| 52:23                        | <b>forgive</b> 42:5 42:7     | 102:25 104:14                | 134:9 134:18               | <b>getting</b> 22:6 54:5     |
| <b>fires</b> 104:15          | 136:9                        | 105:12 135:23                | 134:20 134:23              | 56:12 103:4 103:15           |
| <b>firing</b> 137:24         | <b>forgot</b> 158:2          | <b>full</b> 41:19 43:6 54:10 | 134:24 135:2               | 104:5 113:8 113:11           |
| <b>firm</b> 87:24            | <b>form</b> 88:6 95:22       | 54:14 152:17                 | 135:19                     | 115:12                       |
| <b>first</b> 11:3 16:4 17:16 | 159:22                       | <b>fully</b> 122:10          | <b>generators</b> 107:15   | <b>give</b> 13:19 28:25 51:9 |
| 17:18 22:20 25:23            | <b>formal</b> 67:4 67:17     | <b>functionalities</b>       | <b>generic</b> 70:10 70:25 | 52:25 54:19 61:6             |
| 26:19 45:10 62:23            | <b>formally</b> 143:6        | 144:22 145:1                 | <b>gentleman</b> 122:7     | 65:15 70:7 88:2              |
| 63:1 63:3 63:7 63:7          | 175:13                       | <b>funds</b> 169:20 169:23   | <b>gentlemen</b> 12:9      | <b>given</b> 61:1 67:16      |
| 69:19 70:6 70:24             | <b>formatting</b> 88:23      | 170:1                        | 34:21 58:25 59:17          | 67:17                        |
| 71:19 79:16 80:17            | <b>former</b> 11:17          | <b>furnace</b> 103:12 110:6  | 64:24 69:24 89:11          | <b>gives</b> 54:24 79:11     |
| 80:17 89:4 91:20             | <b>forth</b> 31:1 39:13      | 110:7 110:9 126:21           | 96:9 124:9 130:6           | 109:17 109:21                |
| 97:4 99:23 100:1             | 42:19 42:25 45:16            | <b>further</b> 19:14 42:8    | 142:12 142:20              | 149:3                        |

|                             |                             |                             |                             |                             |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>glad</b> 55:7            | 53:17 53:19 54:25           | 128:5 128:12                | <b>granted</b> 20:12        | 122:15 130:3                |
| <b>glance</b> 80:1          | 56:9 56:21 57:2             | 132:14 136:21               | <b>graphic</b> 70:12 70:18  | 167:11 178:20               |
| <b>global</b> 151:5         | 57:4 57:5 57:6              | 148:10 150:8                | 74:23                       | <b>handheld</b> 77:4 79:9   |
| <b>globally</b> 157:6 157:8 | 57:17 62:17 64:4            | 153:17 154:18               | <b>grates</b> 101:10 101:18 | <b>handle</b> 17:24         |
| 158:15 158:17               | 78:7 80:16 80:18            | 161:10 165:21               | 103:13                      | <b>handouts</b> 170:7       |
| <b>go</b> 8:14 14:21 16:2   | 81:21 83:19 83:20           | 168:12 168:13               | <b>greasing</b> 129:19      | <b>hands</b> 63:1 90:5      |
| 19:7 19:14 28:17            | 86:8 86:14 96:4             | 172:24 176:23               | <b>great</b> 23:13 51:15    | <b>handy</b> 79:25          |
| 28:24 29:19 31:16           | 99:23 100:1 100:2           | <b>got</b> 18:17 19:1 19:21 | 70:4 75:7 89:21             | <b>happen</b> 27:21 37:13   |
| 35:25 36:3 36:17            | 100:22 100:24               | 22:25 27:8 27:13            | <b>greatly</b> 146:21       | 73:12                       |
| 37:15 39:8 40:12            | 102:5 102:9 102:10          | 30:1 30:21 38:6             | <b>greenfield</b> 145:6     | <b>happened</b> 73:14       |
| 40:23 40:24 40:25           | 102:11 102:13               | 38:14 38:25 39:1            | 164:14                      | 158:20                      |
| 42:13 48:1 51:9             | 102:15 102:18               | 39:5 39:13 39:14            | <b>gross</b> 151:16 152:6   | <b>happening</b> 158:6      |
| 51:20 53:14 54:1            | 103:10 103:14               | 39:15 39:16 39:21           | <b>grounds</b> 73:19        | 168:7 168:8                 |
| 54:14 54:16 54:18           | 104:5 104:6 104:7           | 40:3 42:5 42:19             | <b>grown</b> 89:16          | <b>happens</b> 67:18        |
| 54:19 54:23 55:1            | 104:8 105:4 105:17          | 43:3 43:4 43:5              | <b>gs4</b> 68:12            | 107:11                      |
| 56:16 56:17 56:23           | 105:18 106:2 106:4          | 45:12 47:7 48:13            | <b>guard</b> 65:3 121:15    | <b>happy</b> 26:18 36:12    |
| 62:12 65:25 67:5            | 110:18 111:7 111:8          | 49:4 49:6 50:1 50:1         | 122:22                      | 156:15 177:23               |
| 73:21 77:7 83:14            | 111:19 114:18               | 54:11 57:11 60:3            | <b>guards</b> 49:4 79:23    | <b>hard</b> 41:2 49:8 83:23 |
| 83:24 88:19 88:24           | 121:20 122:9 124:8          | 60:17 62:16 63:1            | <b>guess</b> 20:17 21:6     | 117:5 118:12                |
| 95:17 107:13 108:4          | 125:22 126:1 126:9          | 66:3 68:10 69:19            | 33:11 39:9 43:9             | 139:14 140:15               |
| 120:14 127:5 127:8          | 126:14 126:15               | 70:15 71:4 71:14            | 43:23 44:1 44:4             | 140:16 172:21               |
| 127:15 129:9 134:4          | 126:17 129:9                | 72:23 73:3 73:10            | 72:4 97:3 99:13             | <b>harper</b> 176:22 177:7  |
| 135:19 139:18               | 129:11 129:15               | 74:8 75:18 76:17            | 99:20 113:3 115:3           | <b>harris</b> 4:4 174:21    |
| 142:17 158:18               | 129:18 129:19               | 79:9 79:22 80:19            | 120:1 124:18 151:2          | 175:15 175:16               |
| 160:1 160:11                | 133:24 134:8                | 82:6 83:5 83:8 83:9         | 152:6 152:11                | <b>hate</b> 88:24 133:11    |
| 160:16 160:19               | 138:14 141:18               | 88:10 89:9 89:20            | 162:25 166:1                | 133:11                      |
| 164:2 164:21                | 151:10 152:16               | 89:21 94:18 97:3            | 168:20                      | <b>haven</b> 126:7 150:24   |
| 164:24 165:1                | 153:20 156:17               | 103:11 104:7                | <b>guests</b> 12:19         | 170:17                      |
| 166:12 172:3 172:5          | 159:19 160:1 160:2          | 104:10 104:11               | <b>guidelines</b> 67:7      | <b>having</b> 11:19 75:6    |
| 176:14                      | 160:19 160:23               | 104:24 105:3                | 77:23                       | 75:12 82:6 87:24            |
| <b>goal</b> 154:16 160:11   | 161:15 163:24               | 105:16 106:7                | <b>guy</b> 23:16 39:10      | 102:11 117:23               |
| 170:19 173:6                | 164:5 164:14 165:7          | 106:20 109:2 110:8          | 53:12 53:16 56:9            | 126:13 127:9 138:7          |
| <b>goes</b> 12:3 18:11      | 165:14 165:23               | 110:25 111:16               | 56:18 67:11 67:18           | 143:9                       |
| 35:23 40:1 54:4             | 169:10 170:18               | 112:4 113:5 113:25          | 80:17 116:23                | <b>hawk</b> 18:3 18:4 31:5  |
| 55:22 62:6 64:3             | 170:19 171:11               | 114:8 115:4 116:23          | 122:14 122:22               | 60:5 66:9                   |
| 78:15 92:25 95:7            | 171:13 171:14               | 121:24 122:7                | 129:19                      | <b>hazards</b> 147:13       |
| 101:10 104:8                | 171:15 171:19               | 122:10 122:21               | <b>guys</b> 24:3 26:19      | <b>hcl</b> 168:2 168:2      |
| 105:17 107:24               | 171:21 172:22               | 123:3 124:2 124:3           | 26:20 28:22 36:20           | <b>head</b> 142:25          |
| 111:21 111:24               | 172:23 173:1 173:4          | 126:21 128:10               | 39:7 39:13 42:22            | <b>headings</b> 79:6 83:23  |
| 114:7 134:23 135:7          | 173:21 173:24               | 128:20 128:25               | 42:24 45:5 49:6             | <b>hear</b> 64:19 80:16     |
| 137:2 137:4 140:6           | <b>gone</b> 134:21          | 129:14 130:4                | 54:11 56:11 61:20           | 114:11 155:2                |
| 160:3                       | <b>good</b> 8:2 12:11 20:15 | 131:25 133:20               | 79:8 99:19 104:19           | <b>heard</b> 37:17 86:12    |
| <b>going</b> 13:25 13:25    | 21:10 21:24 30:10           | 134:19 135:1 136:7          | 112:1 113:22                | <b>hearing</b> 1:10 11:23   |
| 17:20 17:21 17:21           | 33:24 37:6 37:11            | 136:13 136:14               | 117:10 121:11               | 12:16 14:4 15:24            |
| 19:19 20:3 23:16            | 40:8 40:21 40:22            | 140:11 150:11               | 148:13 150:9                | 19:16 36:16 61:11           |
| 24:3 24:18 27:20            | 45:9 55:9 61:18             | 155:10 160:9                |                             | 98:7 131:10 174:7           |
| 27:21 27:23 29:25           | 69:19 71:18 74:7            | 168:25 174:20               | <b>H</b>                    | 176:3 176:3 177:8           |
| 31:4 32:9 36:7              | 83:3 85:10 88:2             | 174:25                      | <b>half</b> 60:3 88:18      | <b>heat</b> 135:4 145:19    |
| 36:24 40:17 41:12           | 88:4 90:23 96:20            | <b>gotten</b> 24:4          | 113:15 144:3                | 146:3                       |
| 42:6 45:25 46:14            | 96:21 106:10                | <b>gps</b> 73:11 73:19      | <b>hand</b> 34:6 58:8       | <b>heater</b> 3:19 10:12    |
| 47:9 50:15 53:13            | 106:19 123:10               | <b>grade</b> 50:17          |                             |                             |

|  |  |  |  |   |
|--|--|--|--|---|
| 10:12 30:22<br><b>heavy</b> 100:20<br><b>held</b> 169:9<br><b>help</b> 22:23 68:5 83:5<br>83:18 113:3 117:7<br>162:21<br><b>helpful</b> 79:2<br><b>helps</b> 122:14 135:13<br><b>hereby</b> 178:7<br><b>hereunto</b> 178:19<br><b>hertter</b> 3:16 3:17 6:8<br>6:8 10:8 10:8 10:8<br>59:20 59:20 59:21<br>59:24 60:16 61:20<br>61:25 62:6 63:15<br>63:17 64:12 64:15<br>66:20 66:24 67:2<br>68:1 71:3 71:12<br>71:23 72:2 72:6<br>72:16 75:5 75:15<br>77:7 77:11 77:14<br>78:12 78:22 78:24<br>80:4 84:24 88:13<br>96:11<br><b>hey</b> 104:10<br><b>high</b> 5:11 5:17 6:5<br>34:20 35:11 35:20<br>46:3 59:16 60:3<br>62:25 110:6 110:7<br>110:9 111:20 113:5<br>114:3 119:3 139:14<br>140:14 143:22<br>167:4 167:5<br><b>higher</b> 42:17 132:2<br>167:5<br><b>highway</b> 6:12 6:18<br>99:20 100:6 100:11<br><b>hire</b> 89:14<br><b>hired</b> 19:6 62:16<br><b>hit</b> 40:1<br><b>hitting</b> 38:4<br><b>hmi</b> 97:19<br><b>hold</b> 74:9 172:9<br><b>holder</b> 159:15<br><b>holders</b> 23:21<br><b>holding</b> 69:21<br><b>hollers</b> 127:5<br><b>holt</b> 3:10 9:25 9:25<br><b>honest</b> 85:11 129:4<br><b>honestly</b> 88:3 | <b>honeywell</b> 137:25<br><b>hope</b> 46:25 86:16<br>177:5<br><b>hopefully</b> 130:16<br>177:4<br><b>hopper</b> 105:18<br><b>horse</b> 21:21 87:22<br><b>horsepower</b> 35:11<br>35:21 60:18<br><b>horton</b> 3:24 6:14<br>6:20 10:18 10:18<br>96:25 96:25 101:7<br>101:23 102:2 102:6<br>102:10 102:23<br>103:1 103:3 103:9<br>103:20 104:2<br>104:15 104:21<br>105:1 105:3 105:7<br>105:10 105:14<br>105:21 106:2<br>106:14 106:18<br>107:2 107:9 107:13<br>107:17 107:21<br>107:24 108:2 108:8<br>108:14 109:4 109:9<br>109:14 110:4<br>110:13 111:4 113:1<br>113:14 113:19<br>114:12 117:19<br>117:22 118:1<br>118:14 118:17<br>118:21 119:6<br>119:12 120:6<br>120:11 120:21<br>120:25 121:5 121:8<br>121:12 121:16<br>121:19 122:4<br>122:25 123:10<br>125:4 125:7 125:11<br>125:14 126:7<br>126:18 127:17<br>127:21 128:4 128:9<br>128:15 129:7<br>131:19 131:21<br>131:25 132:6 132:9<br>133:2 135:3 135:8<br>135:12 135:15<br>135:24 137:9<br>137:12 137:15<br>137:18 138:4 138:8<br>138:12 138:16 | 138:19 138:22<br>139:3 139:7 139:10<br>139:12 139:15<br>139:18 140:7<br>140:13 140:18<br>141:16<br><b>hot</b> 16:8 102:16<br>109:7<br><b>hour</b> 42:16 53:10<br>60:10 62:3 73:15<br>88:19<br><b>hours</b> 18:21 24:16<br>47:24 52:3 52:6<br>52:12 52:19 54:3<br>55:15 125:24 126:4<br>129:12<br><b>house</b> 5:19 37:15<br>39:3 42:23 150:18<br><b>houses</b> 42:19<br><b>how</b> 17:20 17:22<br>17:24 27:1 33:12<br>36:25 37:18 42:12<br>48:20 48:21 51:22<br>53:3 53:7 55:8 56:6<br>63:19 78:8 78:10<br>82:5 82:24 82:24<br>83:6 83:6 87:15<br>89:5 100:24 100:24<br>103:6 103:6 103:13<br>103:14 103:18<br>104:19 105:25<br>112:8 112:13<br>115:18 115:20<br>116:6 120:17<br>127:19 132:24<br>138:2 138:6 139:8<br>140:7 144:25 152:8<br>161:13 165:14<br>165:21 171:8<br>171:20<br><b>human</b> 112:19<br>165:21 176:11<br>176:12<br><b>humidity</b> 167:21<br>167:25 168:1<br><b>hundred</b> 130:14<br>131:19<br><b>hustle</b> 72:24<br><b>hvac</b> 19:9 23:13 | <b>idea</b> 61:14 101:6<br><b>ideal</b> 63:3<br><b>identical</b> 146:8<br>146:14 146:17<br>146:18<br><b>identification</b> 70:21<br>133:18<br><b>identify</b> 68:25 70:15<br>70:16 70:18<br><b>identifying</b> 167:8<br><b>ie</b> 137:25<br><b>ignite</b> 102:9<br><b>immediately</b> 69:23<br><b>implement</b> 82:17<br>147:3 160:2 163:1<br>175:6<br><b>implementation</b><br>147:10<br><b>implemented</b> 88:17<br><b>implementing</b> 76:9<br>152:23<br><b>imply</b> 147:2<br><b>important</b> 79:5 84:3<br>124:24<br><b>impressed</b> 89:19<br>98:23<br><b>impression</b> 21:13<br><b>inasmuch</b> 112:5<br><b>inc</b> 5:16 6:4<br><b>inch</b> 113:15<br><b>incidences</b> 132:21<br><b>incident</b> 30:15<br><b>incidents</b> 166:2<br><b>inclined</b> 99:22<br><b>include</b> 85:21 170:6<br>171:12<br><b>included</b> 29:25<br><b>including</b> 47:21<br>95:19 108:24<br><b>incomplete</b> 82:7<br><b>incorporation</b> 32:20<br><b>increases</b> 128:14<br>129:6<br><b>independent</b> 166:5<br><b>independently</b> 81:15<br><b>indicate</b> 98:11<br><b>indicated</b> 16:20<br>22:21<br><b>indication</b> 25:11 | <b>indicators</b> 54:18<br>117:18<br><b>individual</b> 69:21<br><b>individually</b> 166:11<br><b>industries</b> 113:9<br><b>industry</b> 111:14<br>113:21 143:22<br>143:24 146:5<br><b>informal</b> 67:1 67:2<br><b>information</b> 13:11<br>15:14 17:12 31:2<br>32:5 65:9 71:11<br>83:25 88:1 90:23<br>95:22 103:5 104:4<br>126:19 126:24<br>128:9 133:10<br>142:22 151:13<br>153:16 170:12<br>170:21<br><b>initial</b> 164:18<br><b>initially</b> 147:9<br><b>innova</b> 169:22<br><b>input</b> 133:24<br><b>inquired</b> 71:4<br><b>inquisitive</b> 129:2<br><b>inside</b> 49:11 49:12<br><b>inspecting</b> 166:10<br>166:10<br><b>inspection</b> 15:5<br>32:16 32:17 33:20<br>43:18 58:14 86:6<br>89:16 94:25 95:7<br>123:18 142:6<br>144:11 144:15<br>145:10 149:4 153:3<br>153:13 154:2<br>155:13 163:2<br>163:12 163:13<br>163:19 164:3 164:6<br>164:11 165:19<br>165:22 166:8<br>166:19 166:20<br>166:25 167:6<br><b>inspector</b> 2:9 3:9<br>3:10 4:4 8:18 10:1<br>15:6 15:12 15:15<br>15:17 32:17 33:21<br>58:14 81:21 86:6<br>89:18 90:4 92:23<br>93:23 123:19 |
|--|--|--|--|---|



|  |  |   |  |   |
|--|--|---|--|---|
| 175:16<br><b>inspectors</b> 9:24<br>15:19 115:17<br>150:15 150:16<br>150:16 150:17<br>151:1<br><b>installation</b> 22:2<br>112:10 148:21<br><b>installed</b> 22:3 22:4<br>43:14 43:16 97:8<br><b>instance</b> 76:19<br><b>instances</b> 113:23<br><b>instantaneous</b><br>128:20<br><b>instead</b> 111:11<br>117:23 126:2<br>140:17 175:23<br><b>instruction</b> 80:19<br><b>instructions</b> 67:17<br>67:17 79:15 80:14<br><b>instrument</b> 28:7<br>28:15 54:16<br><b>insulation</b> 168:8<br><b>insurance</b> 15:7<br><b>integrated</b> 18:4<br><b>integrity</b> 12:25 143:3<br>144:11 153:4<br><b>intellectual</b> 157:12<br><b>intelligent</b> 60:9<br><b>intent</b> 60:13 89:14<br><b>interact</b> 17:23<br><b>interaction</b> 66:10<br><b>interconnected</b><br>38:10<br><b>interest</b> 5:6 14:17<br>14:23 19:15 36:15<br>61:9 85:8 98:6<br>98:11 98:16 131:9<br><b>interested</b> 140:1<br>178:16<br><b>interesting</b> 85:2<br>119:17<br><b>interfere</b> 65:5<br><b>interference</b> 46:3<br>46:10 46:15<br><b>interim</b> 94:11 175:23<br><b>internal</b> 30:22 48:19<br>98:21 150:14<br>163:12<br><b>internally</b> 49:19 | <b>internationally</b><br>148:18<br><b>internet</b> 72:7<br><b>interpretation</b><br>114:23 140:22<br><b>interpretations</b> 7:7<br>174:10<br><b>interpretive</b> 114:22<br><b>intervals</b> 78:16 78:21<br>82:22 88:20<br><b>interviews</b> 15:16<br><b>introduce</b> 16:11<br>34:21 59:18 96:22<br>142:23 143:6 144:9<br>144:10 160:6 168:2<br>175:12<br><b>introducing</b> 160:6<br><b>introductions</b> 5:4<br>8:12<br><b>investigate</b> 66:6<br><b>invitation</b> 174:22<br><b>involved</b> 73:3 77:24<br><b>iows</b> 166:4<br><b>ip</b> 157:22<br><b>isn</b> 31:14 82:13<br><b>isolated</b> 39:23<br><b>issue</b> 75:24 88:22<br>112:4 123:3 127:8<br>157:14<br><b>issues</b> 68:14 147:10<br><b>item</b> 6:22 11:2 11:4<br>12:17 13:16 14:1<br>14:24 14:25 15:2<br>16:2 16:4 16:12<br>32:25 34:17 34:17<br>36:15 48:15 48:15<br>59:13 61:9 80:23<br>85:9 96:16 96:17<br>98:6 130:8 131:9<br>142:17 143:4 173:7<br>173:11 173:11<br><b>itemized</b> 112:23<br><b>itemizing</b> 112:7<br><b>items</b> 7:3 7:6 12:20<br>14:3 14:21 14:23<br>32:6 161:16 169:13<br><b>itself</b> 30:4 30:21<br>30:24 31:15 38:24<br>38:25 41:17 48:23<br>52:15 56:24 74:17 | 75:13 97:17 103:12<br>110:10 119:5<br>133:19 141:23<br>158:7 166:6<br><hr/> <b>J</b> <hr/> <b>jack</b> 3:21 3:23 3:24<br>4:3 6:10 6:15 6:16<br>6:21 10:14 10:16<br>10:18 10:20 96:17<br>100:12 130:9<br><b>jackson</b> 3:7 9:21<br>9:21 19:20 19:25<br>20:5 20:19 20:22<br>20:25 21:4 27:20<br>27:21 32:17 33:1<br>33:3 33:11 33:21<br>43:18 55:19 55:20<br>56:5 57:1 57:13<br>57:17 57:21 57:25<br>58:15 81:21 84:15<br>84:16 84:21 85:2<br>85:14 86:6 91:16<br>91:17 92:23 93:8<br>93:23 94:15 94:22<br>94:24 95:20 119:20<br>119:21 120:13<br>120:17 121:3 122:1<br>124:10 124:25<br>159:25 160:8<br>160:17 160:21<br><b>james</b> 3:15 10:6<br><b>jefferson</b> 2:10 92:7<br>92:11 92:18 93:3<br>93:6 93:10 93:14<br>93:17 95:11 115:10<br>115:25 116:16<br>170:17 171:1 171:4<br>171:11 171:23<br>176:2 176:6 177:5<br>177:14 177:17<br><b>jeremy</b> 151:16 152:6<br><b>job</b> 12:11 23:21<br>23:23 27:13 32:7<br>75:9 82:11 106:19<br>129:18 136:14<br>141:1 173:21<br><b>jobs</b> 156:13<br><b>jobsite</b> 158:6<br><b>johnson</b> 18:5<br><b>judged</b> 112:8 | <b>judgment</b> 110:23<br>111:17 111:25<br>112:20 112:21<br>113:12 114:23<br>119:22 119:24<br>121:3 122:3 124:3<br>125:3 125:15<br>126:15 153:17<br><b>judgmental</b> 111:24<br><b>july</b> 15:13 76:3<br><b>jurisdictions</b> 149:7<br><b>just</b> 11:3 11:6 11:12<br>11:15 11:20 13:11<br>13:25 15:13 16:6<br>17:10 17:19 20:14<br>21:5 21:24 22:21<br>23:12 26:3 27:15<br>27:15 27:18 29:4<br>29:24 31:1 31:4<br>31:18 31:19 32:5<br>32:5 32:7 32:8<br>32:11 32:14 32:22<br>33:14 36:1 39:19<br>39:23 39:24 40:6<br>42:2 44:23 45:21<br>46:5 46:11 48:3<br>49:19 50:8 50:14<br>50:22 50:24 51:1<br>51:10 51:14 52:6<br>52:9 53:9 54:5<br>54:15 59:7 64:16<br>64:18 67:15 67:23<br>68:12 68:24 70:19<br>72:10 74:1 74:8<br>74:9 75:9 75:18<br>76:14 79:4 79:11<br>79:25 80:8 80:14<br>80:22 80:23 82:3<br>82:8 82:9 82:13<br>83:5 83:14 83:15<br>83:16 83:22 84:7<br>85:25 87:22 88:13<br>90:6 90:21 94:22<br>95:11 100:19<br>101:10 106:4 106:6<br>106:14 111:7<br>112:12 112:15<br>113:6 113:24 115:3<br>116:17 122:2<br>127:14 131:5 135:3<br>135:11 138:18 | 139:25 141:22<br>142:18 143:5<br>148:12 148:22<br>151:13 154:15<br>159:3 159:18<br>160:24 161:16<br>162:11 164:22<br>165:15 166:23<br>169:14 169:17<br>173:15 175:21<br>175:22 175:22<br>175:25 176:24<br>177:1 177:10<br><hr/> <b>K</b> <hr/> <b>kastenberger</b> 3:5<br>6:24 9:19 9:20<br>142:24 142:25<br>147:19 149:17<br>150:1 154:9 154:17<br>155:25 156:14<br>156:19 157:7 158:8<br>158:17 160:5<br>160:10 162:23<br>163:10 163:16<br>163:20 164:17<br>165:9 166:7 168:19<br>169:5<br><b>keeler</b> 97:6 97:7<br><b>keelers</b> 119:15<br><b>keep</b> 27:18 50:4 80:1<br>80:22 85:19 109:12<br>111:16 135:4<br>144:23 154:23<br>157:12 164:2<br>167:20 168:5<br>168:10 168:11<br><b>keeping</b> 76:10 85:10<br>135:4<br><b>keeps</b> 111:7 129:5<br>129:8<br><b>kentucky</b> 73:4<br><b>kept</b> 106:2 106:3<br><b>kick</b> 170:16<br><b>kills</b> 108:8<br><b>kim</b> 2:10<br><b>kind</b> 11:4 21:20<br>22:25 23:13 25:1<br>28:23 31:13 46:2<br>53:4 61:23 62:6 |
|--|--|---|--|---|

|   |   |   |   |  |
|---|---|---|---|--|
| 68:13 75:9 79:11<br>80:1 80:22 82:8<br>83:23 89:15 101:11<br>104:10 106:20<br>111:3 114:18 129:1<br>140:1 140:11 151:5  | 130:18 132:7<br>136:16 137:15<br>139:6 146:19<br>148:12 149:1 149:5<br>150:23 154:11<br>159:21 165:11<br>165:19 167:15<br>167:22 168:24<br>170:13 172:3 172:4<br>177:1 177:3  | <b>leaves</b> 73:18<br><b>left</b> 101:9 110:21<br>112:18 115:4<br><b>legal</b> 2:18 9:2<br><b>legislative</b> 176:3<br>177:8<br><b>length</b> 40:15<br><b>less</b> 63:13 72:12<br>166:24<br><b>let</b> 8:11 11:16 13:10<br>13:15 13:16 13:16<br>18:22 25:15 25:15<br>37:3 45:5 46:8<br>50:13 51:17 55:2<br>56:23 59:6 59:7<br>59:12 70:5 77:15<br>90:17 99:14 100:19<br>129:13 142:22<br>152:12 159:21<br>168:23 171:6   | 59:24 60:20 61:14<br>61:15 67:10 70:3<br>71:1 73:19 77:16<br>79:6 79:6 80:9<br>80:11 81:4 81:17<br>81:20 83:17 83:22<br>88:13 90:1 100:6<br>102:11 111:9 112:6<br>112:20 112:21<br>112:22 113:7<br>113:10 114:7<br>114:10 114:16<br>114:19 124:21<br>127:10 128:23<br>129:14 129:15<br>130:21 135:23<br>140:8 141:8 141:15<br>141:16 151:3<br>152:13 152:17<br>154:10 158:16<br>158:18 161:4<br>161:22 164:11<br>168:5 168:9 172:2<br>173:3 174:21 177:7  | 75:10 83:1 84:6<br>86:11 103:17<br>103:17 103:23<br>103:24 104:6<br>104:11 104:11<br>106:5 108:18 110:9<br>115:3 131:6 152:1<br>157:8 164:4 165:18<br><b>live</b> 46:21<br><b>ll</b> 8:12 8:13 8:14 9:4<br>10:24 11:19 13:8<br>13:16 13:16 13:18<br>14:10 14:20 14:24<br>16:2 16:7 19:16<br>21:4 27:20 33:25<br>34:21 36:12 39:8<br>48:1 54:25 55:3<br>55:4 55:10 55:15<br>56:8 56:10 56:16<br>56:17 56:18 57:19<br>58:20 59:8 59:17<br>61:12 65:22 67:5<br>84:21 85:15 86:3<br>87:9 87:14 94:9<br>95:14 96:16 97:3<br>98:7 100:21 103:22<br>110:4 110:5 111:4<br>114:1 114:1 114:8<br>115:23 126:3<br>128:12 129:23<br>130:25 131:10<br>142:21 147:11<br>147:13 150:19<br>154:15 155:3 161:8<br>164:12 164:15<br>164:17 164:24<br>165:1 165:15<br>165:15 168:11<br>168:17 171:16<br>171:16 171:17<br>172:17 173:5 173:7<br>173:10 173:20<br>173:20 174:1 174:2<br>174:8 176:16<br><b>load</b> 109:6 111:20<br>140:14 141:10<br><b>loaders</b> 136:2<br><b>loads</b> 131:2 141:3<br><b>local</b> 148:4<br><b>locally</b> 38:23<br><b>located</b> 5:12 5:18 6:6 |
| <b>kinds</b> 113:2<br><b>kingsport</b> 5:19 35:3<br>35:19<br><b>knew</b> 63:13 113:4<br><b>knockout</b> 146:4<br><b>knocks</b> 139:21<br><b>know</b> 11:16 20:5<br>21:10 23:24 26:23<br>28:6 30:6 31:12<br>32:14 32:22 37:19<br>38:1 39:3 39:11<br>42:18 45:17 46:4<br>46:10 49:5 49:9<br>50:7 50:16 54:14<br>55:2 55:8 55:13<br>58:3 61:22 61:24<br>63:17 63:19 65:1<br>66:2 66:11 67:7<br>68:15 69:23 69:25<br>70:4 72:19 73:13<br>75:8 76:16 79:8<br>80:1 80:11 80:11<br>81:9 82:5 82:18<br>83:3 83:4 84:8<br>89:12 89:13 89:24<br>90:3 90:11 90:23<br>95:3 99:19 100:19<br>102:12 102:16<br>103:10 103:14<br>104:5 104:10<br>105:15 105:22<br>107:4 107:5 107:6<br>110:6 110:7 110:13<br>110:16 110:17<br>111:4 111:8 111:18<br>111:20 112:12<br>113:3 113:4 113:6<br>113:20 113:22<br>113:25 113:25<br>114:18 115:20<br>117:6 117:13<br>117:22 120:17<br>124:20 124:22<br>128:10 128:22<br>129:13 129:20 | <b>knowing</b> 40:15<br>111:15 129:2<br><b>known</b> 14:24 23:15<br>158:24<br><b>knows</b> 16:7 50:14<br>79:24<br><b>korea</b> 158:16<br><hr/> <b>L</b> <hr/> <b>label</b> 78:7<br><b>labor</b> 1:6 2:11 2:13<br>2:16 2:18 3:14 10:5<br>170:22 174:13<br><b>lack</b> 29:22<br><b>lady</b> 70:4<br><b>lag</b> 60:19<br><b>laid</b> 39:5 112:5<br><b>landing</b> 1:7<br><b>large</b> 101:18 143:16<br>156:3 178:24<br><b>last</b> 26:25 62:1 78:15<br>78:23 99:2 112:1<br>135:11 145:23<br>152:4 169:10<br><b>later</b> 20:14<br><b>lay</b> 90:4 90:5 109:7<br><b>laying</b> 124:19<br><b>layout</b> 44:22 74:17<br><b>lays</b> 18:12<br><b>lcr</b> 1:22 178:6 178:24<br><b>lead</b> 23:25 96:25<br><b>leads</b> 118:11<br><b>leakage</b> 101:13<br>101:16<br><b>leaks</b> 101:21<br><b>least</b> 13:20 20:19<br>45:11 73:8 135:18<br>164:5<br><b>leave</b> 14:18 34:12<br>83:15 165:15 | <b>lets</b> 51:8 104:10<br><b>letter</b> 35:9 35:23<br>76:7 95:3 95:6<br>155:12<br><b>level</b> 30:5 31:9 31:11<br>31:13 111:6 117:18<br>117:20 118:7<br>122:18 128:14<br>129:6 130:21<br><b>levels</b> 54:18 54:19<br>118:23<br><b>liberty</b> 91:4<br><b>license</b> 61:15 62:11<br>66:15 68:17 69:4<br>69:15 70:5<br><b>licensed</b> 60:21 62:18<br>65:1 65:1<br><b>licenses</b> 26:19<br><b>licensure</b> 29:6 61:6<br>89:13<br><b>life</b> 3:20 10:13<br><b>light</b> 112:2 140:5<br><b>lightning</b> 46:2 46:16<br><b>like</b> 8:3 12:17 12:23<br>17:20 18:20 19:11<br>23:24 24:4 28:21<br>39:10 40:4 40:19<br>40:23 41:12 46:4<br>49:18 49:21 50:7<br>53:5 55:21 57:25 | <b>likelihood</b> 147:15<br><b>likely</b> 150:12<br><b>liking</b> 98:10<br><b>limit</b> 101:9<br><b>limits</b> 119:3 139:14<br><b>line</b> 5:2 6:2 7:2 46:10<br>49:24 58:4 72:5<br><b>lines</b> 46:3 46:6 46:14<br>93:1<br><b>list</b> 18:1 18:18 19:1<br>19:3 22:6 28:25<br>31:5 32:6 36:8<br>70:23 77:2 77:10<br>84:18 95:3 124:23<br>158:22<br><b>listed</b> 31:23 43:11<br>44:13 140:1<br><b>listening</b> 119:21<br><b>listing</b> 71:1 75:2<br>75:12 78:12<br><b>lists</b> 27:11 70:25 71:5<br><b>little</b> 23:14 23:25<br>26:13 31:1 34:14<br>37:23 39:19 45:1<br>50:11 52:9 53:7<br>53:9 72:3 73:5 |  |

|   |  |  |  |   |
|---|--|--|--|---|
| 6:12 6:18 16:21<br>34:25 35:3 35:18<br>39:19 57:14 97:15<br>120:4 134:9<br><b>location</b> 11:9 17:2<br>18:8 80:13 100:7<br>155:22 166:21<br>170:10<br><b>locations</b> 143:20<br><b>locator</b> 73:11<br><b>locked</b> 118:10<br><b>lockouts</b> 41:2<br><b>log</b> 19:12 25:10 30:5<br>51:8 85:13 85:14<br>85:18 85:22 137:8<br>137:10 137:14<br><b>logically</b> 83:6<br><b>logistics</b> 125:22<br><b>logs</b> 36:9<br><b>long</b> 62:15 63:16<br>100:24 101:2<br>105:25 113:21<br>113:22 127:19<br>132:24 167:19<br><b>longer</b> 34:14<br><b>look</b> 17:20 18:20<br>25:16 29:24 30:11<br>39:22 61:25 66:10<br>73:24 75:10 84:7<br>95:18 136:11 149:2<br>152:1 167:1 168:6<br>172:8 172:18<br>176:14 177:14<br><b>looked</b> 22:24 24:4<br>25:2 98:20 173:13<br><b>looking</b> 15:15 19:4<br>20:3 21:23 30:3<br>30:18 30:18 63:11<br>74:1 103:11 134:15<br>134:16 135:3<br>167:10 171:5<br>171:21<br><b>looks</b> 18:12 21:24<br>81:20 83:17 104:9<br>152:12<br><b>lose</b> 107:12 134:16<br><b>losing</b> 120:1<br><b>loss</b> 134:16<br><b>lost</b> 105:21 105:22<br><b>lot</b> 45:22 46:5 46:7 | 46:13 46:16 46:17<br>49:17 83:2 83:23<br>88:1 97:9 106:21<br>110:7 115:24<br>116:10 116:11<br>117:10 128:17<br>143:18 157:20<br>157:24<br><b>low</b> 25:11 25:12<br>52:11 52:11 52:17<br>53:18 54:7 55:13<br>56:13 56:20 57:2<br>57:3 57:5 57:22<br>62:24 111:12<br>111:13 111:19<br>113:8 113:11<br>113:17 117:17<br>118:7 119:3 124:21<br>138:2 138:7 138:9<br>139:5 139:21 141:6<br>141:7 141:12<br>141:23<br><b>lower</b> 132:1<br><b>lumber</b> 115:23<br><b>lynchburg</b> 6:12 6:12<br>6:18 6:18 99:19<br>100:5 100:11<br><hr/> <b>M</b> <hr/> <b>ma</b> 92:4<br><b>made</b> 12:6 22:20<br>44:3 69:23 122:3<br>123:15 133:18<br>148:18 159:12<br>170:2 175:21<br><b>mail</b> 173:4 173:6<br><b>main</b> 158:1<br><b>maintain</b> 29:6<br>101:18 101:24<br>118:1<br><b>maintenance</b> 4:6<br>71:21 105:23 106:7<br>110:15 114:14<br>122:22 127:9<br>129:15 129:17<br>175:18<br><b>major</b> 110:3<br><b>majority</b> 157:2<br><b>make</b> 8:7 10:25<br>11:22 12:15 14:23 | 16:9 20:18 27:15<br>29:4 32:19 38:20<br>44:19 50:11 51:1<br>58:1 58:4 65:25<br>66:1 66:6 72:24<br>72:25 73:17 76:1<br>76:14 79:4 83:7<br>84:9 84:10 85:12<br>86:3 86:4 88:3 93:2<br>94:9 94:24 95:19<br>100:8 102:15<br>102:16 103:3 103:7<br>104:3 106:5 110:2<br>110:23 114:14<br>117:7 117:14<br>117:18 121:20<br>124:3 125:16<br>126:11 126:15<br>128:21 141:1 141:8<br>143:21 148:20<br>152:20 153:17<br>156:7 162:15 168:6<br>172:15 173:19<br><b>makes</b> 53:4 111:17<br>121:3 150:4<br><b>making</b> 61:4 87:23<br>87:23 102:3 125:15<br>133:17 144:3<br>148:21<br><b>man</b> 70:3 117:10<br><b>management</b> 18:5<br>18:6 60:7 60:8<br>144:18<br><b>manager</b> 35:2 96:23<br>143:3<br><b>manassas</b> 5:13<br><b>mandates</b> 115:1<br><b>manifolds</b> 131:14<br><b>manmade</b> 40:20<br><b>manned</b> 97:25 98:2<br>120:9<br><b>manner</b> 82:15 87:25<br>90:18<br><b>manual</b> 16:21 18:14<br>18:25 19:2 19:12<br>20:23 21:4 21:8<br>21:23 23:21 24:24<br>27:9 28:8 28:17<br>28:20 29:4 29:5<br>32:6 32:10 32:18 | 34:22 36:20 41:2<br>41:8 44:21 44:24<br>48:6 51:1 51:11<br>51:15 52:18 55:15<br>57:11 57:14 58:2<br>59:19 67:24 70:20<br>71:14 71:16 75:20<br>75:22 75:23 76:2<br>76:10 76:15 77:13<br>78:10 79:4 80:7<br>81:10 82:19 83:3<br>83:18 83:20 83:21<br>83:24 85:22 86:13<br>86:18 88:6 90:16<br>91:4 92:21 92:24<br>93:20 94:10 99:22<br>108:22 109:17<br>117:15 119:2 119:3<br>119:14 121:10<br>123:18 124:5<br>124:10 136:8<br>136:18 139:14<br>142:5<br><b>manually</b> 119:4<br><b>manuals</b> 21:13 23:23<br>35:21 136:23<br>137:21<br><b>manufactured</b><br>157:18<br><b>manufacturer</b> 38:13<br>158:11<br><b>manufacturers</b><br>157:13 157:14<br>158:3 158:24<br>159:17<br><b>many</b> 42:12 53:4<br>62:16 62:16 72:22<br>115:18 115:20<br>116:6 143:19 171:9<br>171:20<br><b>march</b> 89:4 92:10<br>92:12 92:19 151:20<br>161:14 162:4 162:8<br>162:9 162:24 173:6<br>173:10 174:2<br>174:12 175:10<br><b>mark</b> 2:12 3:18 6:8<br>10:10 59:22 69:7<br><b>marriage</b> 178:16<br><b>master</b> 31:9 31:13 | 39:25 40:2<br><b>match</b> 27:7<br><b>matches</b> 58:2<br><b>matching</b> 75:7<br><b>material</b> 148:6<br>166:15 167:14<br><b>materials</b> 146:14<br>147:4 148:14<br>167:16 170:7<br><b>matrice</b> 147:16<br>147:16<br><b>matrix</b> 161:17<br><b>matter</b> 88:23 178:17<br><b>maximum</b> 30:22<br>131:23 132:5<br><b>may</b> 11:16 11:25<br>21:16 31:3 44:14<br>47:6 53:8 64:13<br>69:8 69:10 75:21<br>77:13 85:20 101:6<br>111:21 112:16<br>114:24 147:19<br>164:9 164:10<br>165:10 165:12<br>165:13<br><b>maybe</b> 68:22 112:10<br>115:18 145:3<br>170:15 171:23<br><b>me</b> 11:24 13:10<br>25:15 28:9 28:25<br>29:2 31:1 35:13<br>37:19 38:24 42:5<br>42:7 46:8 49:8<br>55:21 61:1 63:25<br>68:5 82:5 117:3<br>118:11 136:9 141:9<br>145:3 155:4 175:22<br><b>mean</b> 29:3 37:25<br>49:12 49:14 65:15<br>70:2 78:6 79:13<br>83:8 83:21 84:6<br>88:13 88:16 88:18<br>89:8 90:20 90:22<br>92:20 103:25<br>110:10 114:15<br>114:16 121:23<br>122:14 126:17<br>129:8 141:5 147:2<br>155:19 156:2<br>158:16 164:20 |
|---|--|--|--|---|

|   |   |   |  |  |
|---|---|---|--|--|
| 165:11<br><b>meaning</b> 167:20<br>170:7<br><b>means</b> 168:10 168:11<br><b>meant</b> 28:15<br><b>mechanical</b> 3:17 6:8<br>10:9 12:24 27:1<br>59:21 106:17 143:2<br>144:11 153:4<br><b>mechanism</b> 166:13<br>166:13<br><b>mechanisms</b> 146:22<br>164:1<br><b>medical</b> 11:20 73:14<br><b>meet</b> 8:10 21:22<br>139:22<br><b>meeting</b> 7:9 8:4 11:6<br>12:10 32:22 36:19<br>89:4 91:8 92:19<br>95:24 149:13<br>151:21 152:16<br>161:14 162:2 162:4<br>162:10 168:24<br>169:1 169:3 169:10<br>172:9 173:6 174:11<br>175:2 177:25<br><b>meetings</b> 29:23 91:7<br><b>melanie</b> 3:22 6:14<br>6:20 10:16<br><b>melt</b> 111:11<br><b>member</b> 2:2 2:4 2:5<br>2:7 8:20 8:20 8:22<br>8:24 9:1 11:17<br><b>members</b> 12:19<br>13:18 14:16 91:5<br>95:15 115:18<br>174:23<br><b>memphis</b> 5:13 6:6<br>29:8<br><b>mention</b> 61:20 158:3<br><b>mentioned</b> 95:15<br>115:15 161:12<br>161:16<br><b>meridium</b> 144:17<br>144:17<br><b>merry</b> 174:14 177:23<br>177:24<br><b>messages</b> 57:14<br>122:2<br><b>met</b> 93:24 | <b>method</b> 166:20<br><b>methodology</b> 161:22<br><b>methods</b> 145:10<br><b>microprocessor</b> 22:2<br>22:11 36:2 41:9<br><b>middle</b> 28:12<br><b>midway</b> 174:24<br><b>might</b> 36:13 38:20<br>76:1 81:19 104:16<br>110:9 160:11<br>160:14 167:2 167:3<br><b>mike</b> 4:2 6:14 6:20<br>10:20 96:23 100:15<br>114:15 114:19<br>136:16<br><b>mil</b> 151:2<br><b>mind</b> 15:1 20:1 32:11<br>33:14 82:8 86:15<br>148:17 154:23<br><b>minimal</b> 101:17<br><b>minimum</b> 140:9<br><b>minor</b> 99:18 109:22<br>110:3<br><b>minute</b> 40:13 59:7<br>59:8 62:1 65:6 84:2<br>90:13 106:23<br>106:25 114:9<br>116:19 116:23<br>122:11 125:2 128:7<br>130:17 169:15<br><b>minutes</b> 16:12 61:5<br>63:13 63:14 64:10<br>73:15 77:16 82:22<br>95:14 95:24 101:4<br>124:8 125:24 126:3<br>127:16 129:10<br><b>miscommunication</b><br>55:11<br><b>miss</b> 11:13<br><b>missed</b> 44:14 47:6<br>71:6 151:21<br><b>misses</b> 166:2<br><b>missing</b> 28:6 70:24<br>82:3 82:18<br><b>mistake</b> 64:13<br><b>mitsubishi</b> 3:18 6:3<br>6:9 10:11 59:14<br>59:23 59:25 62:9<br>63:23<br><b>miura</b> 5:19 35:11 | 47:25<br><b>mixture</b> 102:25<br><b>mode</b> 145:13<br><b>modifications</b> 158:13<br><b>modify</b> 32:10 118:13<br>118:18<br><b>moisture</b> 103:9<br>103:10 167:21<br><b>monitor</b> 17:1 31:10<br>39:15 50:8 53:17<br>61:7 65:24 76:20<br>89:11 108:23<br>109:20 121:20<br><b>monitored</b> 17:2<br>17:10 18:3 18:7<br>31:7 39:16 50:1<br>60:9 60:22 60:23<br>64:17 74:25 163:6<br><b>monitoring</b> 17:5<br>17:20 18:10 18:15<br>24:16 30:4 33:9<br>33:12 36:1 36:4<br>37:15 37:15 48:16<br>49:16 49:20 50:5<br>51:6 52:3 52:15<br>52:16 60:1 60:10<br>62:14 63:12 64:7<br>64:15 71:21 74:21<br>80:13 81:4 82:10<br>83:10 108:11<br>108:16 120:4 121:1<br>122:15 128:2 137:6<br><b>monitors</b> 39:11<br>39:14 50:2<br><b>montgomery</b> 15:16<br><b>month</b> 47:19 135:11<br><b>monthly</b> 61:1<br><b>months</b> 88:24 89:1<br>111:20 122:19<br><b>more</b> 14:9 40:14<br>42:21 45:17 45:17<br>46:18 49:5 52:9<br>54:5 60:14 65:11<br>66:25 72:19 82:9<br>84:6 93:21 103:23<br>103:24 104:6<br>104:11 108:4 113:4<br>113:10 113:24<br>116:7 116:13<br>124:16 127:18 | 128:17 130:21<br>141:2 161:15<br>166:24<br><b>morelock</b> 2:2 8:2<br>8:21 8:21 9:4 10:22<br>12:2 13:2 13:5 13:9<br>13:15 13:24 14:8<br>14:13 15:22 17:14<br>17:17 19:13 21:5<br>21:16 23:19 26:2<br>26:11 27:5 27:12<br>28:2 29:3 29:11<br>29:16 29:19 32:3<br>32:13 33:2 33:7<br>33:10 33:19 33:23<br>34:4 34:7 34:11<br>34:16 36:11 36:14<br>42:9 44:17 45:8<br>48:9 49:14 50:22<br>51:10 51:14 51:17<br>51:20 55:17 57:24<br>58:9 58:11 58:18<br>58:23 59:3 59:11<br>60:15 61:8 61:11<br>61:17 64:9 67:21<br>68:2 68:8 71:7<br>71:17 73:25 75:16<br>76:13 77:9 77:12<br>77:15 77:25 78:6<br>78:17 78:23 79:1<br>79:22 80:8 80:21<br>81:1 81:11 81:19<br>81:24 83:2 84:12<br>84:19 84:25 85:3<br>85:7 85:24 86:4<br>86:9 86:19 86:23<br>87:7 87:11 87:17<br>88:11 88:25 89:3<br>90:8 90:15 91:2<br>91:6 91:11 91:19<br>91:23 92:9 92:14<br>92:20 93:4 93:9<br>93:13 93:16 93:18<br>94:4 94:16 94:18<br>94:23 95:8 96:2<br>96:7 96:13 96:21<br>98:5 98:12 98:14<br>99:11 99:15 106:16<br>115:8 116:12<br>116:17 117:1<br>118:18 118:25 | 119:18 121:6<br>121:10 121:14<br>121:17 121:23<br>122:13 123:11<br>123:16 123:22<br>124:7 124:13<br>125:20 126:11<br>127:14 129:21<br>130:2 130:4 131:8<br>133:21 136:13<br>136:22 141:24<br>142:4 142:10<br>142:16 145:5 145:8<br>146:6 146:20<br>146:24 147:8 148:9<br>151:4 151:8 151:17<br>151:19 152:10<br>152:22 153:10<br>153:19 154:5<br>154:14 154:18<br>155:9 158:14 159:5<br>159:14 160:24<br>161:3 161:7 161:10<br>162:3 162:9 162:14<br>162:19 163:1<br>163:14 163:18<br>163:22 164:9 165:6<br>165:10 168:13<br>168:23 169:7<br>170:14 172:11<br>172:17 172:20<br>175:4 175:11<br>175:19 177:18<br>177:21<br><b>morning</b> 8:2 11:14<br>13:18 32:21 67:22<br>68:24 96:20 96:21<br><b>most</b> 76:23 84:3<br>111:11 115:23<br>124:24 150:12<br>154:10<br><b>mostly</b> 88:23<br><b>motion</b> 14:5 32:24<br>33:17 33:18 33:19<br>58:7 58:12 86:2<br>86:3 86:5 86:10<br>86:20 86:21 86:24<br>87:1 87:3 87:10<br>87:18 91:20 91:22<br>91:22 94:3 94:9<br>94:21 123:14 |
|---|---|---|--|--|

|   |  |   |   |  |
|---|--|---|---|--|
| 123:17 142:1 142:2<br>174:15<br><b>motor</b> 105:22 106:25<br>110:16 113:6<br><b>mouth</b> 91:24<br><b>move</b> 12:15 15:25<br>73:6 73:9 96:16<br>136:3<br><b>moved</b> 22:22<br><b>moving</b> 115:14<br><b>mr</b> 8:17 8:19 8:25<br>9:6 9:9 9:11 9:13<br>9:15 9:17 9:19 9:21<br>9:23 9:25 10:4 10:6<br>10:8 10:10 10:12<br>10:14 10:18 10:20<br>12:4 12:5 12:23<br>13:4 13:7 13:12<br>13:21 14:6 15:4<br>15:23 16:15 17:25<br>19:18 19:18 19:20<br>19:25 20:4 20:4<br>20:5 20:7 20:7 20:9<br>20:10 20:19 20:22<br>20:24 20:25 21:2<br>21:4 21:10 21:20<br>21:21 22:4 22:10<br>22:12 22:16 22:18<br>22:19 23:2 23:3<br>23:10 23:11 23:18<br>24:2 24:7 24:9<br>24:10 24:12 24:13<br>24:15 24:17 24:18<br>24:20 24:23 24:25<br>25:1 25:4 25:8<br>25:14 25:15 25:19<br>25:21 25:22 26:8<br>26:12 26:15 26:17<br>26:23 26:25 27:1<br>27:10 27:17 27:18<br>27:20 27:21 27:25<br>28:1 28:11 28:14<br>28:21 28:24 29:10<br>29:15 29:18 29:20<br>30:10 30:13 30:14<br>31:4 31:8 31:10<br>31:12 31:16 31:18<br>31:20 31:22 32:1<br>32:2 32:12 33:1<br>33:1 33:3 33:6 33:8<br>33:11 33:18 33:22 | 34:2 34:3 34:10<br>34:15 34:23 35:14<br>36:12 36:18 36:18<br>36:22 36:23 37:2<br>37:3 37:5 37:7 37:8<br>37:12 37:14 37:17<br>37:20 37:24 37:25<br>38:2 38:6 38:9<br>38:11 38:14 38:16<br>38:19 38:20 38:22<br>38:23 40:7 40:9<br>40:14 40:19 41:1<br>41:4 41:5 41:7 41:8<br>41:10 41:11 41:15<br>41:21 41:23 41:25<br>42:11 42:12 42:14<br>43:10 43:15 43:18<br>43:20 43:22 43:23<br>44:8 44:10 44:15<br>45:4 45:14 45:19<br>45:21 45:24 46:8<br>46:12 46:19 47:2<br>47:7 47:9 47:12<br>47:21 48:11 48:23<br>49:2 49:23 51:3<br>51:6 51:12 51:16<br>51:19 51:22 51:25<br>52:1 52:5 52:7 52:8<br>52:14 52:20 53:8<br>54:4 54:9 55:6 55:8<br>55:10 55:16 55:19<br>55:20 56:3 56:5<br>56:8 57:1 57:9<br>57:10 57:13 57:15<br>57:16 57:17 57:19<br>57:21 57:23 57:25<br>58:17 59:1 59:2<br>59:20 59:22 59:24<br>60:16 60:17 61:19<br>61:19 61:20 61:25<br>62:5 62:6 62:8<br>62:22 62:24 63:5<br>63:6 63:10 63:15<br>63:16 63:17 63:21<br>63:25 64:6 64:12<br>64:13 64:15 64:18<br>64:23 65:14 65:17<br>66:12 66:14 66:17<br>66:18 66:20 66:23<br>66:24 67:1 67:2<br>67:3 67:10 67:14 | 67:15 68:1 68:4<br>68:5 68:10 68:22<br>69:1 69:8 69:13<br>69:16 70:8 70:12<br>70:14 71:3 71:3<br>71:6 71:12 71:23<br>72:2 72:6 72:16<br>72:17 73:7 74:1<br>74:6 74:7 74:11<br>74:16 74:19 74:20<br>74:22 75:1 75:5<br>75:6 75:15 76:12<br>77:7 77:11 77:14<br>77:21 78:2 78:12<br>78:20 78:22 78:24<br>79:16 80:4 80:15<br>80:25 81:3 81:16<br>81:23 82:2 84:1<br>84:15 84:16 84:21<br>84:24 85:2 85:12<br>85:14 85:17 85:21<br>85:23 87:2 87:9<br>87:14 87:20 88:13<br>89:5 89:7 90:14<br>91:1 91:1 91:3<br>91:16 91:16 91:17<br>92:4 93:7 94:7 94:9<br>94:13 94:14 94:15<br>94:22 94:24 95:20<br>96:1 96:11 96:12<br>96:20 96:23 96:25<br>97:2 98:25 99:6<br>99:18 100:8 100:15<br>100:16 100:17<br>101:1 101:7 101:12<br>101:15 101:20<br>101:23 101:25<br>102:2 102:4 102:6<br>102:7 102:10<br>102:20 102:23<br>102:24 103:1 103:2<br>103:3 103:6 103:9<br>103:18 103:20<br>104:1 104:2 104:13<br>104:15 104:19<br>104:21 104:23<br>104:24 105:1 105:2<br>105:3 105:5 105:7<br>105:8 105:10<br>105:12 105:14<br>105:19 105:21 | 105:25 106:2 106:9<br>106:11 106:12<br>106:14 106:18<br>106:22 107:2 107:7<br>107:9 107:11<br>107:13 107:14<br>107:17 107:18<br>107:21 107:22<br>107:24 107:25<br>108:2 108:3 108:4<br>108:5 108:8 108:10<br>108:14 108:21<br>109:4 109:5 109:9<br>109:11 109:14<br>109:15 109:16<br>110:4 110:12<br>110:13 110:20<br>111:2 111:3 111:4<br>111:10 113:1 113:7<br>113:14 113:16<br>113:19 113:20<br>114:5 114:10<br>114:12 114:21<br>115:6 115:12<br>115:22 116:2 116:4<br>116:5 116:9 116:10<br>116:11 116:12<br>116:21 116:25<br>117:3 117:19<br>117:21 117:22<br>117:25 118:1 118:3<br>118:5 118:11<br>118:14 118:15<br>118:17 118:21<br>118:24 119:1 119:6<br>119:8 119:12<br>119:13 119:16<br>119:17 119:20<br>119:21 120:6 120:8<br>120:11 120:13<br>120:16 120:17<br>120:19 120:21<br>120:23 120:25<br>121:3 121:5 121:8<br>121:12 121:16<br>121:19 122:1 122:4<br>122:5 122:25 123:6<br>123:8 123:9 123:10<br>123:25 124:10<br>124:10 124:12<br>124:25 125:4 125:7 | 125:11 125:14<br>125:17 126:7 126:9<br>126:18 127:17<br>127:19 127:21<br>127:22 128:1 128:4<br>128:6 128:9 128:13<br>128:15 128:24<br>129:7 129:25 130:3<br>130:11 131:12<br>131:15 131:16<br>131:19 131:20<br>131:21 131:22<br>131:25 132:3 132:4<br>132:6 132:7 132:9<br>132:10 132:11<br>132:17 132:19<br>132:23 132:24<br>133:1 133:2 133:3<br>133:5 133:7 133:8<br>133:14 133:15<br>133:23 134:3 134:4<br>134:6 134:14<br>134:18 134:19<br>134:22 135:3 135:6<br>135:8 135:9 135:12<br>135:13 135:15<br>135:16 135:22<br>135:24 135:25<br>136:7 136:10<br>136:11 136:20<br>136:24 137:1 137:2<br>137:5 137:6 137:9<br>137:10 137:12<br>137:13 137:15<br>137:17 137:18<br>137:20 137:23<br>138:4 138:6 138:8<br>138:10 138:12<br>138:14 138:16<br>138:17 138:19<br>138:20 138:22<br>138:24 139:3 139:4<br>139:7 139:8 139:10<br>139:11 139:12<br>139:13 139:15<br>139:16 139:18<br>139:20 139:24<br>139:25 140:7 140:9<br>140:13 140:16<br>140:18 140:20<br>140:25 141:4 |
|---|--|---|---|--|

|                    |                             |                            |                              |                            |
|--------------------|-----------------------------|----------------------------|------------------------------|----------------------------|
| 141:16 141:19      | 176:5 176:21                | <b>N</b>                   | <b>neil</b> 3:7 9:21 93:8    | <b>none</b> 12:16 14:4     |
| 142:2 142:15       | 177:11 177:16               | <b>nameplate</b> 71:5      | 122:13                       | 15:24 19:16 36:16          |
| 142:24 143:2 145:7 | 177:20                      | <b>nameplated</b> 42:17    | <b>network</b> 36:21 36:24   | 61:12 98:7 131:10          |
| 145:11 145:22      | <b>ms</b> 9:2 10:2 10:16    | <b>names</b> 27:4 32:6     | 40:11 63:19 63:20            | 174:7                      |
| 145:24 146:12      | 11:25 13:22 85:5            | 136:13 175:13              | 63:23 63:24                  | <b>nonreactive</b> 167:16  |
| 146:23 147:2       | 91:10 92:7 92:11            | <b>narrative</b> 48:21     | <b>networking</b> 72:8       | <b>normal</b> 17:19 36:9   |
| 147:18 147:19      | 92:18 93:3 93:6             | <b>nashville</b> 1:8       | <b>never</b> 42:21 72:21     | 46:10 52:21 55:14          |
| 148:10 149:11      | 93:10 93:14 93:17           | <b>nathan</b> 4:5 175:17   | 83:5                         | 83:9                       |
| 149:12 149:15      | 95:11 115:10                | <b>national</b> 3:20 10:13 | <b>neville</b> 3:15 3:15     | <b>normally</b> 131:1      |
| 149:17 149:19      | 115:25 116:16               | 15:18 71:9 151:24          | 10:6 10:6 10:7               | 135:16 135:17              |
| 149:20 149:21      | 124:15 136:15               | <b>natural</b> 6:17 11:5   | 174:16 174:18                | <b>north</b> 143:8 158:16  |
| 149:25 150:1 150:2 | 169:16 170:17               | <b>naturally</b> 94:14     | 174:20 175:7                 | <b>notary</b> 178:7 178:24 |
| 150:4 150:6 150:8  | 170:25 171:1 171:3          | 117:4 143:18 157:1         | 175:11 175:14                | <b>notation</b> 22:20      |
| 150:9 150:12       | 171:4 171:11                | <b>nature</b> 166:3 172:7  | <b>new</b> 5:10 5:15 6:3     | <b>note</b> 25:10 68:23    |
| 150:19 150:21      | 171:23 171:25               | <b>nb</b> 160:17 160:22    | 6:10 6:16 6:22               | <b>notebook</b> 85:19      |
| 151:7 151:16       | 172:16 172:19               | 160:24 161:3 161:8         | 13:23 16:2 16:18             | <b>noted</b> 45:7          |
| 151:18 152:3       | 176:2 176:6 176:22          | <b>nbic</b> 149:1 149:2    | 20:24 35:10 35:15            | <b>nothing</b> 67:12       |
| 152:15 152:25      | 177:5 177:7 177:14          | 159:10 160:25              | 35:20 37:18 133:6            | 101:14 107:18              |
| 153:14 153:22      | 177:17                      | <b>nde</b> 151:6 154:15    | 150:1 150:2 150:3            | <b>notice</b> 19:21 30:4   |
| 154:6 154:9 154:16 | <b>much</b> 28:10 29:21     | <b>near</b> 68:23 78:14    | 150:7 151:1 153:23           | 38:2 70:8 159:25           |
| 154:17 154:20      | 30:16 61:13 78:4            | 166:2                      | 164:4 164:13                 | <b>noticed</b> 36:19 74:2  |
| 154:22 154:23      | 92:11 100:23                | <b>nebraska</b> 132:12     | 174:24 175:6 175:8           | <b>notification</b> 52:25  |
| 154:25 155:1 155:2 | 100:24 104:6 116:1          | 132:15 132:25              | 175:8 177:23                 | <b>notified</b> 74:10      |
| 155:5 155:7 155:17 | 116:9 124:4 130:11          | 139:20                     | <b>newer</b> 37:23           | <b>notify</b> 53:15 73:16  |
| 155:20 155:25      | 130:24 140:23               | <b>necessarily</b> 44:13   | <b>newly</b> 19:6            | 73:20 159:9 159:10         |
| 156:14 156:15      | 147:5 147:22                | 46:13 95:1                 | <b>news</b> 112:2            | <b>november</b> 12:4       |
| 156:19 156:22      | 164:21 177:17               | <b>necessary</b> 152:20    | <b>next</b> 7:8 11:2 11:18   | 173:25                     |
| 156:24 157:1 157:6 | <b>multiple</b> 72:11 75:25 | 153:17                     | 12:16 15:2 17:7              | <b>now</b> 22:5 22:9 22:11 |
| 157:7 158:5 158:8  | 100:11 158:18               | <b>need</b> 11:10 17:13    | 25:17 34:17 44:19            | 22:18 29:2 37:25           |
| 158:15 158:17      | <b>must</b> 46:24 68:16     | 20:18 21:4 21:6            | 77:2 77:8 79:20              | 42:19 43:4 43:6            |
| 159:7 159:13       | 69:3 98:19                  | 21:11 27:7 27:15           | 86:17 89:3 96:16             | 44:1 49:11 49:23           |
| 159:24 159:25      | <b>my</b> 14:24 17:15 20:1  | 34:13 40:18 44:19          | 114:1 130:8 143:14           | 54:11 54:12 54:13          |
| 160:5 160:8 160:10 | 43:23 48:2 48:12            | 50:22 53:8 53:20           | 152:11 168:24                | 57:2 57:13 63:8            |
| 160:13 160:17      | 49:15 69:22 70:5            | 71:9 71:16 76:14           | 174:11                       | 71:15 75:24 79:8           |
| 160:19 160:21      | 70:19 72:4 72:17            | 79:12 87:17 96:15          | <b>nice</b> 63:10 70:9       | 87:17 93:6 100:5           |
| 160:22 161:1 161:8 | 73:6 78:18 82:7             | 103:16 104:11              | 137:21                       | 107:5 112:12 113:8         |
| 161:12 162:7       | 86:15 86:21 87:20           | 110:11 113:12              | <b>night</b> 73:10 84:4      | 114:3 116:20               |
| 162:11 162:17      | 91:20 94:2 94:24            | 113:15 117:6               | 121:9                        | 126:15 128:17              |
| 162:23 163:10      | 95:7 100:19 100:20          | 117:13 123:5               | <b>nightly</b> 61:5          | 130:16 133:20              |
| 163:16 163:20      | 100:23 111:14               | 127:18 141:18              | <b>nights</b> 81:4 81:17     | 141:21 143:8               |
| 164:8 164:17 165:9 | 112:24 113:15               | 144:23 160:15              | <b>nitrogen</b> 4:4 4:6      | 151:12 165:20              |
| 166:1 166:7 168:18 | 115:17 119:22               | 160:23 161:13              | 174:19 174:21                | 175:25 176:20              |
| 168:19 168:23      | 140:2 141:1 146:20          | 162:12 164:21              | 175:16                       | <b>nowhere</b> 140:2       |
| 169:4 169:5 171:7  | 162:25 163:13               | 168:25 170:10              | <b>nobody</b> 39:20 129:15   | <b>nozzle</b> 155:22       |
| 171:20 172:8       | 178:19 178:25               | <b>needed</b> 106:6 167:2  | <b>noise</b> 46:5 46:6 46:16 | <b>nuisance</b> 110:25     |
| 172:13 174:16      | <b>mynatt</b> 2:20 9:7      | 167:7                      | <b>nomenclature</b> 23:22    | 111:1 111:13               |
| 174:16 174:18      | 16:16                       | <b>needing</b> 140:14      | <b>non</b> 150:10 150:22     | 111:14 111:17              |
| 174:19 174:20      | <b>myself</b> 66:2 76:12    | <b>needs</b> 21:14 23:22   | <b>noncorrosive</b> 154:12   | 111:18 111:25              |
| 175:5 175:7 175:11 | 82:16 88:2 114:15           | 68:13 88:6 89:6            | 165:4 167:17                 | 113:23                     |
| 175:14 175:15      | 162:12                      | 90:24 127:4 141:19         | 167:19                       | <b>number</b> 15:4 15:9    |
| 175:17 175:21      |                             |                            |                              |                            |

|  |  |  |  |   |
|--|--|--|--|---|
| 44:20 70:16 98:23<br>115:11<br><b>numbers</b> 71:9 71:10<br>71:10 75:21 78:25<br>79:20 83:22<br><b>numerous</b> 145:17<br>145:25 | 52:2 52:5 52:6<br>52:12 52:12 52:19<br>53:5 54:3 65:4<br>93:22 100:25<br>135:19 140:9<br>140:17 140:17<br>141:20 141:21<br>158:7 161:6<br><b>one</b> 8:7 11:3 12:19<br>15:12 18:23 20:24<br>21:3 21:25 23:6<br>23:19 26:25 29:23<br>30:13 34:7 38:18<br>38:19 39:21 39:23<br>39:24 40:3 40:3<br>41:17 43:5 48:12<br>51:19 57:18 62:18<br>68:11 74:2 79:13<br>79:23 80:6 83:16<br>89:15 93:21 97:10<br>97:22 98:20 100:10<br>100:14 105:22<br>106:1 106:4 107:15<br>107:16 108:15<br>108:17 109:7<br>114:23 115:11<br>116:21 117:14<br>120:18 122:6<br>122:16 125:12<br>130:4 130:25 131:2<br>132:1 132:1 136:13<br>136:14 136:17<br>137:16 137:19<br>141:10 148:24<br>153:1 156:11<br>158:11 159:17<br>159:22 164:5<br>168:19 171:9 176:9<br><b>ones</b> 33:5 80:16<br>110:18 124:22<br><b>ongoing</b> 151:11<br><b>open</b> 7:3 7:6 13:1<br>13:13 13:22 19:16<br>61:12 63:6 91:7<br>98:7 102:4 103:23<br>131:10 162:2<br>166:25<br><b>opening</b> 167:23<br><b>opens</b> 102:8<br><b>operate</b> 5:11 5:16 6:4<br>6:11 6:17 17:21 | 42:13 42:21 49:2<br>59:15 90:11 90:17<br>109:6 125:23<br><b>operated</b> 113:22<br>163:25<br><b>operates</b> 82:24<br><b>operating</b> 18:1 18:19<br>18:23 22:9 23:16<br>28:5 30:19 30:25<br>37:16 42:23 43:12<br>60:4 61:14 61:21<br>62:10 62:21 64:2<br>65:6 75:7 82:25<br>83:4 120:22 120:23<br>121:1 125:2 128:7<br>129:4 146:12<br>154:21<br><b>operation</b> 16:20<br>17:19 18:14 19:2<br>19:12 22:13 24:16<br>28:8 44:12 47:25<br>52:21 55:14 60:2<br>84:22 109:12<br>111:15 127:12<br>141:12 144:2 144:5<br>157:3 160:3<br><b>operational</b> 144:24<br>153:24 166:4<br><b>operations</b> 19:9<br>36:10 39:9 96:24<br>109:17 114:17<br>126:4 140:11 147:4<br>154:1 159:8<br><b>operator</b> 16:19 18:25<br>22:13 23:7 23:9<br>23:12 24:22 28:16<br>40:25 47:15 50:12<br>52:16 52:22 53:12<br>55:24 56:9 60:12<br>61:21 62:13 65:12<br>65:15 65:18 65:19<br>66:2 68:15 68:17<br>68:20 69:4 69:15<br>70:5 76:24 77:1<br>77:6 80:10 81:6<br>81:13 83:11 84:4<br>84:4 89:14 89:20<br>90:1 97:1 97:24<br>109:19 109:22<br>109:24 110:2<br>110:22 111:17 | 112:17 112:19<br>114:13 114:23<br>119:25 120:3 121:7<br>121:9 121:18<br>122:10 122:18<br>123:2 125:5 127:1<br>127:3 127:7<br><b>operators</b> 19:1 19:4<br>25:7 28:22 29:10<br>31:24 47:17 51:7<br>63:3 64:25 65:2<br>90:9 97:14 97:21<br>97:22 98:18 110:16<br>118:8 121:11<br>121:13 121:25<br>122:5 122:23<br><b>opinion</b> 48:2 100:20<br>129:4<br><b>opportunity</b> 143:6<br><b>opposed</b> 14:13 32:7<br>34:4 58:23 62:23<br>96:7 126:16 130:2<br>142:10 151:2 170:1<br><b>opposition</b> 130:5<br><b>optic</b> 37:20 40:11<br><b>optics</b> 36:21 37:10<br>40:16 45:12 45:24<br>46:4 46:17 46:23<br><b>order</b> 5:3 8:5 21:6<br>66:9 163:22<br><b>ordered</b> 156:6<br><b>ordnance</b> 5:16 34:18<br><b>org</b> 84:18 136:7<br><b>organization</b> 27:2<br>78:9<br><b>organizational</b> 27:6<br>27:8 27:14 36:4<br>77:8 77:10 78:1<br>136:9<br><b>original</b> 132:16<br>155:12 158:10<br><b>originally</b> 97:8 97:18<br><b>originated</b> 156:3<br><b>otherwise</b> 63:9<br><b>ours</b> 152:8<br><b>ourselves</b> 144:10<br><b>out</b> 11:14 14:19<br>15:14 29:22 36:5<br>36:25 39:5 39:13<br>40:18 44:13 47:23 | 49:6 50:15 55:2<br>57:11 69:12 69:22<br>70:1 70:25 71:5<br>71:25 80:17 81:20<br>82:8 82:13 82:20<br>83:25 89:8 92:25<br>101:4 101:14<br>103:17 104:7 104:8<br>104:9 104:22<br>104:23 112:5 113:9<br>116:19 118:10<br>119:4 122:16 123:2<br>124:3 124:19<br>124:23 127:6<br>134:24 135:11<br>136:4 136:17<br>150:13 156:11<br>158:18 159:16<br>159:19 159:22<br>164:12 164:15<br>167:2 170:23<br><b>outages</b> 135:17<br><b>outcome</b> 152:24<br>178:17<br><b>outlet</b> 148:13<br><b>outline</b> 47:10<br><b>outlines</b> 47:15<br><b>output</b> 145:14<br>161:17<br><b>outside</b> 45:25 49:10<br>91:12 93:11 97:22<br>122:6 122:9 150:11<br>168:6<br><b>outstanding</b> 173:21<br><b>over</b> 18:11 21:23<br>22:7 26:21 26:21<br>29:25 37:10 42:18<br>43:1 43:7 46:6 46:6<br>48:1 53:13 53:14<br>56:10 74:2 78:15<br>97:20 104:21 125:8<br>129:16 143:17<br>144:6 150:18<br>153:25 157:15<br>169:10 173:12<br><b>overall</b> 33:12 140:11<br>167:4<br><b>overheated</b> 106:24<br><b>overlook</b> 167:3<br>176:20 |
|--|--|--|--|---|

|   |   |  |   |  |
|---|---|--|---|--|
| <b>overlooked</b> 25:3  | <b>particularly</b> 112:7<br>112:21   | 80:16 102:9 176:9<br>176:10  | 19:3 23:7 23:8<br>23:12 24:21 25:6<br>37:9 37:22 40:22  | <b>possibly</b> 19:23 20:17<br>176:19  |
| <b>override</b> 118:15  | <b>parties</b> 178:15   | <b>personal</b> 114:6  | 42:15 45:18 47:15<br>47:17 48:4 49:3  | <b>post</b> 55:2   |
| <b>overriding</b> 41:6  | <b>parts</b> 68:3 137:21  | <b>personally</b> 71:1 88:2  | 49:11 49:13 49:25<br>53:16 56:12 66:20  | <b>potential</b> 30:16<br>167:4 167:9  |
| <b>own</b> 69:21 112:24<br>150:10 176:1 177:2   | <b>passed</b> 62:15 69:16<br>89:16 161:6  | <b>personnel</b> 11:8 18:1<br>18:20 18:23 25:4<br>27:11 28:5 31:23<br>32:9 36:4 47:14<br>47:21 48:4 56:6<br>57:7 66:21 80:10<br>82:9 82:25 90:20<br>109:20 | 69:18 72:9 72:23<br>76:18 143:21<br>144:23 145:12   | <b>pots</b> 146:4  |
| <b>owner</b> 22:7 35:7<br>151:25 151:25<br>160:1 160:7 160:18   | <b>password</b> 49:17<br>49:21 51:7   | <b>phase</b> 146:3   | <b>play</b> 65:3 65:24 78:4   | <b>pound</b> 97:6 97:7   |
| <b>oxygen</b> 101:21  | <b>past</b> 11:18 46:9<br>92:17 127:13<br>157:19 163:6<br>169:18 171:25<br>172:1 172:12 | <b>phillips</b> 2:23 5:21<br>9:11 9:11 35:5 37:3<br>37:5 37:8 37:14<br>37:20 37:25 38:6<br>38:11 38:16 45:24<br>46:12 47:2 51:6                            | 10:25 11:1 11:20<br>13:1 14:19 14:23<br>38:22 59:19 95:24<br>137:20 142:23                                    | <b>pour</b> 107:19   |
| <b>P</b>  | <b>path</b> 160:16  | <b>phone</b> 53:15 66:1<br>72:9 73:11 73:13<br>79:20 79:20 84:9  | <b>please</b> 8:9 8:9 8:12<br>10:25 11:1 11:20<br>13:1 14:19 14:23<br>38:22 59:19 95:24<br>137:20 142:23      | <b>power</b> 6:4 23:7 23:8<br>24:21 24:21 25:6<br>30:16 38:7 38:7<br>38:8 39:3 46:22<br>59:14 107:12<br>107:23 134:20<br>134:23 135:17   |
| <b>package</b> 12:25 13:3<br>13:14 13:17 152:5<br>152:18 153:16<br>161:15 161:19<br>162:24  | <b>pay</b> 177:12   | <b>phones</b> 8:10   | <b>plus</b> 38:25 39:16<br>40:3 89:21 117:24<br>118:2   | <b>predominantly</b><br>143:23   |
| <b>page</b> 5:2 6:2 7:2<br>22:20 23:3 23:7<br>23:11 25:4 25:19<br>28:5 28:13 40:10<br>42:3 47:13 47:14<br>48:15 52:21 62:1<br>75:20 78:15 78:24<br>83:16 83:22 98:17<br>99:2 99:6 99:23<br>159:22 | <b>pcs</b> 97:20  | <b>physical</b> 65:15  | <b>pmb</b> 1:24   | <b>premises</b> 19:22  |
| <b>pages</b> 83:15  | <b>ped</b> 149:6 149:8<br>149:9   | <b>physically</b> 119:4<br>141:14  | <b>point</b> 20:17 21:6 21:9<br>40:12 60:25 71:13<br>84:8 102:25 119:2<br>146:20 149:5 154:7                  | <b>prep</b> 62:3   |
| <b>paid</b> 169:25  | <b>peds</b> 148:16  | <b>pick</b> 57:4 57:18<br>99:22 158:19<br>176:19   | <b>pointing</b> 104:25  | <b>preparation</b> 12:10   |
| <b>panel</b> 134:10 137:3   | <b>per</b> 66:7 161:20  | <b>picks</b> 99:25   | <b>points</b> 30:12 31:5<br>74:24 78:13 154:3<br>164:7  | <b>prepare</b> 62:20   |
| <b>paperwork</b> 160:1  | <b>percent</b> 39:12 61:3<br>116:8 165:20   | <b>picture</b> 70:9 70:10<br>80:4  | <b>policy</b> 5:7 114:6<br>114:6  | <b>prepared</b> 175:5  |
| <b>par</b> 123:9 123:10   | <b>percentage</b> 73:22   | <b>pictures</b> 70:9   | <b>polysilicon</b> 3:4 3:6<br>6:22 6:24 9:18 9:20<br>12:24 142:19 143:1<br>143:3 143:8 143:22<br>144:3 158:25 | <b>prerequisites</b> 26:20   |
| <b>paragraph</b> 28:12<br>42:4 98:19  | <b>perfect</b> 37:24  | <b>piece</b> 128:25 148:18<br>149:9 149:16<br>149:22 149:24<br>155:21 165:2<br>166:11 166:21   | <b>poor</b> 172:23  | <b>present</b> 16:12 34:22<br>59:15 59:18 142:22<br>152:17 153:15<br>161:15 161:19<br>162:23 165:3   |
| <b>parallel</b> 40:6  | <b>perfectly</b> 32:8   | <b>placard</b> 79:10 79:14<br>80:5   | <b>popular</b> 165:20   | <b>presentation</b> 5:14<br>5:20 6:8 6:14 6:20<br>6:23 12:6 13:13<br>16:9 85:15  |
| <b>parameters</b> 64:2<br>117:16 117:16   | <b>perform</b> 20:19 20:20<br>53:23 60:14 149:3   | <b>place</b> 20:11 88:16<br>88:20 100:14<br>127:20 128:2 129:3<br>136:17   | <b>portable</b> 135:1   | <b>presented</b> 32:21   |
| <b>parks</b> 11:11  | <b>performance</b> 118:19<br>144:18   | <b>places</b> 72:11 140:17   | <b>portfolio</b> 159:3  | <b>presenting</b> 151:20<br>175:9  |
| <b>parkway</b> 1:23   | <b>performed</b> 15:11<br>19:24 78:11 171:13  | <b>plan</b> 164:19 173:10  | <b>position</b> 63:7 160:15<br>171:17 176:10  | <b>presently</b> 43:13 44:6<br>140:24 141:5  |
| <b>part</b> 31:21 64:14<br>85:20 108:14 141:1<br>145:22 160:22<br>161:1 161:9   | <b>perhaps</b> 145:3  | <b>planning</b> 24:15<br>154:20 160:6  | <b>positive</b> 54:7 104:5<br>139:5 140:8 141:7   | <b>president</b> 35:8  |
| <b>partake</b> 62:10  | <b>period</b> 164:23  | <b>plans</b> 155:23  | <b>positions</b> 47:18  | <b>pressing</b> 59:5   |
| <b>particular</b> 29:24<br>70:16 70:19 70:20<br>88:7 95:1 115:2<br>127:23 143:11<br>144:20 145:2<br>145:16 146:1 148:7<br>152:4   | <b>periodically</b> 46:24<br>111:19   | <b>plant</b> 17:3 18:16 19:1   | <b>positively</b> 138:3<br>138:4 139:11   | <b>pressure</b> 5:11 5:17<br>6:5 30:19 30:25<br>34:20 35:11 35:20<br>59:16 60:3 62:24<br>62:25 64:20 84:8<br>103:16 103:21<br>110:7 110:24<br>131:23 139:16<br>144:14 144:15<br>145:18 146:16<br>147:21 155:13 |



|   |  |  |  |  |
|---|--|--|--|--|
| 156:18 163:15<br>163:17<br><b>pressures</b> 75:3<br>146:10 166:16<br><b>pressurized</b> 41:23<br><b>pretty</b> 21:24 77:23<br>101:13 106:9 116:9<br>130:11<br><b>prevent</b> 48:17<br><b>prevents</b> 49:15<br><b>previous</b> 127:24<br><b>previously</b> 35:22<br><b>primary</b> 134:5 134:6<br>134:16 134:21<br>160:11<br><b>printouts</b> 152:19<br><b>prior</b> 43:17 43:17<br>145:12 148:21<br>154:7 157:3<br><b>priority</b> 115:11<br><b>privy</b> 150:24<br><b>probably</b> 25:2 37:22<br>44:22 53:16 69:21<br>74:23 75:24 78:8<br>101:1 130:13<br>130:14 130:14<br>171:5 176:16<br><b>probes</b> 54:24<br><b>problem</b> 66:6 71:25<br>92:2 92:6 99:1<br>111:15 111:21<br>114:19 140:4<br>159:24<br><b>problems</b> 46:25 47:1<br>110:24 115:4<br>165:20<br><b>procedure</b> 27:22<br>77:5 81:2 81:3 81:8<br>82:20 124:5<br><b>procedures</b> 18:17<br>36:8 82:4 82:6<br>83:17 88:16 90:22<br><b>proceed</b> 82:6<br><b>proceedings</b> 178:11<br><b>process</b> 12:3 20:14<br>90:16 106:5 108:19<br>109:12 125:25<br>144:4 147:13<br>147:20 148:7 156:4<br>158:23 169:23 | 176:17<br><b>processes</b> 89:10<br>108:24 154:10<br>174:25 175:6<br><b>procurer</b> 98:15<br><b>product</b> 98:15<br>108:24 111:16<br>143:24<br><b>production</b> 89:9<br>109:10 114:3<br>130:21 143:15<br>146:10<br><b>products</b> 6:4 59:14<br>97:1 97:23 109:19<br>110:22 130:24<br>131:7<br><b>program</b> 20:3 20:13<br>29:7 33:5 47:20<br>49:16 51:9 55:25<br>57:8 77:24 78:19<br>95:2 144:12 144:13<br>151:15 152:1 152:2<br>152:7 152:12<br>152:18 152:23<br>153:4 153:4 153:11<br>153:22 160:2<br>160:18 161:23<br>162:20 162:21<br>163:2 163:23 166:8<br>166:19 168:16<br><b>programming</b> 50:25<br><b>programs</b> 98:21<br>98:22 125:13 149:4<br><b>project</b> 22:7 143:9<br>143:11 143:12<br>143:16 151:11<br>156:2 156:3 158:20<br><b>projected</b> 145:9<br><b>projection</b> 153:21<br>164:18<br><b>projections</b> 164:16<br><b>proof</b> 145:14 165:4<br><b>propane</b> 24:5 24:5<br>24:12 24:13 73:5<br><b>proper</b> 80:2 91:18<br>95:9<br><b>property</b> 157:12<br><b>proposal</b> 175:9<br><b>protect</b> 51:2<br><b>protected</b> 48:22 | 49:18 49:19 51:7<br><b>prove</b> 154:10 154:15<br>165:7<br><b>provide</b> 144:22<br>144:25 161:22<br>163:3<br><b>provided</b> 144:17<br><b>provides</b> 46:22<br><b>prudent</b> 88:7 159:9<br><b>psi</b> 30:19 30:22 30:23<br>41:16 42:17 132:12<br>132:13<br><b>psychologically</b><br>165:22<br><b>public</b> 91:8 91:12<br>173:7 174:2 178:7<br>178:24<br><b>published</b> 173:18<br><b>pull</b> 72:7 109:6<br><b>pulling</b> 102:13<br><b>pump</b> 113:13 113:13<br><b>pumps</b> 107:12<br><b>punch</b> 22:6<br><b>purchased</b> 132:18<br>132:19<br><b>pure</b> 143:22<br><b>purpose</b> 152:23<br><b>push</b> 89:8<br><b>put</b> 15:14 18:2 20:11<br>27:22 38:12 39:20<br>79:14 80:3 83:15<br>85:25 103:22 104:6<br>104:22 104:23<br>117:10 124:5<br>124:16 137:19<br>139:21 168:16<br><b>putting</b> 21:20 43:4<br>87:21 91:24 108:19 | 140:10<br><b>quantification</b><br>109:18<br><b>quantify</b> 63:20 102:1<br><b>quarter</b> 15:5<br><b>quarterly</b> 8:4<br><b>question</b> 14:10 19:19<br>19:19 27:1 27:6<br>28:4 30:10 31:2<br>33:11 34:1 37:3<br>41:12 43:8 43:24<br>47:3 48:14 49:15<br>58:20 61:22 69:7<br>84:17 86:15 90:10<br>90:10 90:16 96:4<br>100:4 100:23<br>102:20 115:10<br>115:17 124:15<br>129:24 138:1 147:9<br>155:10 156:16<br>160:5 160:7 162:12<br>162:25 168:20<br><b>questioning</b> 117:8<br>119:22<br><b>questions</b> 15:22<br>21:25 21:25 29:17<br>33:16 36:13 58:5<br>85:4 100:21 115:14<br>117:2 117:4 119:19<br>123:12 129:22<br>141:25 145:3<br>154:19 159:6<br>161:11 176:23<br>176:24<br><b>quick</b> 107:6<br><b>quickest</b> 74:23<br><b>quickly</b> 101:4<br><b>quit</b> 37:14<br><b>quite</b> 55:7 82:10 86:7<br>89:19 128:3 144:1<br>144:19 152:7<br><b>quo</b> 129:5 129:8<br><b>quote</b> 24:4<br><b>quoting</b> 100:12 | <b>raising</b> 34:6 58:8<br>130:3<br><b>ramping</b> 89:9<br><b>ran</b> 156:1<br><b>randall</b> 4:4 174:21<br>175:15<br><b>random</b> 166:25<br><b>ranking</b> 163:5<br><b>rankings</b> 152:14<br><b>ranks</b> 164:1<br><b>rate</b> 63:18<br><b>rated</b> 42:16 131:23<br><b>rates</b> 146:10 146:11<br>164:1<br><b>rather</b> 101:4<br><b>ratings</b> 147:21<br><b>rb</b> 160:18<br><b>rbi</b> 12:25 144:17<br>147:10 151:15<br>151:24 152:23<br>153:11 165:13<br><b>re</b> 11:13 12:8 12:18<br>13:24 13:25 15:14<br>16:14 16:19 17:18<br>20:8 21:7 21:17<br>22:10 22:12 26:4<br>31:19 32:19 32:20<br>34:11 34:12 34:18<br>34:24 37:24 38:2<br>38:11 41:1 41:5<br>42:6 42:17 43:4<br>44:8 44:25 45:1<br>45:2 45:13 45:16<br>45:17 45:25 45:25<br>46:1 49:10 49:24<br>50:2 50:3 50:4 52:8<br>52:9 52:11 53:7<br>53:9 53:10 53:19<br>54:5 54:6 54:6 54:9<br>54:10 54:11 54:15<br>55:8 55:12 55:21<br>55:23 58:1 59:4<br>60:20 61:4 64:6<br>64:24 65:1 65:1<br>67:6 67:23 67:24<br>71:15 72:3 73:23<br>78:7 80:11 80:15<br>80:16 82:10 83:4<br>86:14 87:22 89:8<br>90:1 90:12 95:19 |
|   |  | <b>Q</b>   |  |  |
|   |  | <b>qc</b> 15:11<br><b>quad</b> 97:8<br><b>qualification</b> 109:18<br>158:23<br><b>qualifications</b> 176:15<br>177:13<br><b>qualified</b> 122:10<br>127:7 158:21 159:3<br>176:9 177:10<br><b>quality</b> 139:22   | <b>radio</b> 53:15 53:15<br>56:11 104:7 122:25<br>127:5<br><b>raise</b> 113:15   |  |
|   |  |  | <b>R</b>   |  |

|  |  |  |  |  |
|--|--|--|--|--|
| 96:13 96:14 97:2<br>97:8 97:13 100:17<br>102:11 102:13<br>103:4 103:11<br>103:13 103:14<br>103:15 104:4 104:5<br>104:6 105:23<br>108:18 111:5<br>112:10 112:19<br>113:9 114:15<br>114:16 114:16<br>114:17 121:12<br>125:7 125:22 126:9<br>126:14 126:20<br>126:23 127:9<br>127:11 127:17<br>129:10 130:17<br>130:18 130:20<br>130:21 130:21<br>131:22 132:8<br>133:16 134:13<br>135:3 136:1 138:18<br>138:23 138:25<br>140:14 140:22<br>140:25 141:9<br>141:11 141:13<br>141:14 141:17<br>141:21 141:21<br>141:22 144:8<br>146:17 147:3<br>147:22 148:3<br>152:16 156:15<br>156:23 156:24<br>157:4 157:16<br>159:19 160:1<br>160:13 160:15<br>160:19 160:23<br>163:23 164:5<br>164:14 164:20<br>165:7 165:14<br>165:22 166:1 166:9<br>170:18 170:18<br>171:15 171:21<br>173:4 173:8 174:23<br>176:17 176:20<br>177:6 177:8 177:10<br>177:10 177:14<br><b>react</b> 104:20<br><b>reaction</b> 167:21<br><b>read</b> 28:7 48:16<br>48:19 69:3 74:3 | 110:21<br><b>reading</b> 28:20 52:21<br>68:24 154:7 165:2<br><b>readings</b> 150:6<br>153:24 164:22<br>164:25<br><b>ready</b> 22:6 22:17<br>22:18 56:12 57:20<br>169:2 174:1<br><b>real</b> 63:22 97:10<br>100:23 110:8 110:8<br><b>reality</b> 63:23 65:24<br>101:20<br><b>reapproved</b> 12:7<br>32:10<br><b>reason</b> 28:9 70:19<br>76:22 77:3 99:24<br>130:22 136:8<br>153:11 157:17<br><b>reasons</b> 30:14<br><b>receive</b> 84:22 169:18<br><b>received</b> 52:17 156:7<br><b>receives</b> 65:7<br><b>receiving</b> 90:1<br>177:10<br><b>receptionist</b> 122:21<br><b>recertifying</b> 151:1<br><b>recess</b> 59:10<br><b>recognize</b> 39:23<br><b>recommendation</b><br>20:18<br><b>reconstruction</b><br>155:15 155:19<br><b>record</b> 137:7<br><b>records</b> 68:3<br><b>rectified</b> 40:13<br><b>reduce</b> 135:13<br>176:17<br><b>reducing</b> 176:18<br><b>reevaluate</b> 20:13<br><b>refer</b> 37:2<br><b>reference</b> 160:17<br><b>referred</b> 5:19<br><b>referring</b> 166:1<br><b>refine</b> 147:16<br><b>reflect</b> 44:25<br><b>reflects</b> 67:24<br><b>refresh</b> 63:12 63:18<br>64:1 64:4<br><b>regardless</b> 100:9 | 125:17<br><b>registration</b> 144:15<br>169:20 170:6<br><b>regulating</b> 41:18<br><b>regulations</b> 148:2<br>148:4 153:9<br><b>reiterate</b> 68:11<br><b>reject</b> 86:17<br><b>rejection</b> 95:2 95:22<br><b>related</b> 11:3 37:9<br>67:8 119:11 122:7<br>178:14<br><b>relative</b> 116:2<br><b>relatively</b> 133:6<br><b>reliability</b> 40:20<br><b>reliable</b> 46:18<br><b>relief</b> 41:16 75:4<br>127:18 131:16<br>132:5<br><b>relieve</b> 41:19<br><b>relocate</b> 30:17<br><b>reluctant</b> 149:8<br><b>rely</b> 61:6 65:13<br><b>relying</b> 89:12<br><b>remain</b> 126:5<br><b>remaining</b> 168:1<br><b>remarks</b> 7:5<br><b>remember</b> 11:15<br>11:16 11:20 20:2<br>159:18 176:21<br><b>remind</b> 14:25<br><b>reminded</b> 117:3<br><b>reminder</b> 79:11<br><b>remote</b> 17:23 18:7<br>18:10 18:15 22:13<br>25:5 25:5 25:12<br>25:17 26:3 26:4<br>26:5 36:1 36:3<br>37:14 39:2 39:2<br>48:16 50:6 52:3<br>52:14 55:22 56:1<br>56:4 57:6 60:1<br>60:10 63:12 64:15<br>66:23 66:24 71:21<br>72:8 76:16 76:17<br>76:20 77:4 79:10<br>80:10 80:13 81:12<br>83:8 83:10 119:24<br>120:3 120:8 120:14<br>121:2 122:14 | 122:22 122:23<br><b>remotely</b> 25:13 97:15<br>120:25<br><b>renewal</b> 19:24<br><b>renewed</b> 21:18<br><b>reorganization</b> 7:6<br>174:3<br><b>reorganizing</b> 173:24<br><b>repair</b> 155:14 159:8<br><b>repairs</b> 159:11 161:9<br><b>replace</b> 114:1 173:16<br><b>report</b> 5:8 11:22<br>11:24 11:25 15:3<br>15:21 151:20<br>162:16 163:4 163:8<br><b>reporter</b> 8:13 8:15<br>8:16 35:12 95:12<br>145:20 145:23<br>175:13<br><b>reporting</b> 1:23<br><b>reports</b> 61:1<br><b>representation</b> 74:24<br><b>represented</b> 12:5<br><b>representing</b> 2:20<br>9:7 16:16<br><b>reprint</b> 136:18<br><b>request</b> 5:10 5:16 6:4<br>6:10 6:16 16:6<br>35:10 35:15 35:20<br>35:23 44:11 59:15<br>59:25 96:18 97:3<br><b>requested</b> 95:19<br><b>requesting</b> 16:19<br>34:19 44:8<br><b>requests</b> 45:11<br><b>require</b> 32:9 62:25<br>124:17 124:23<br>148:19<br><b>required</b> 14:16 29:6<br>53:1 62:21 131:6<br><b>requirement</b> 5:11<br>5:17 6:5 6:11 6:17<br>20:11 30:8 62:9<br>68:16 153:2 163:12<br>163:13 176:16<br>176:18<br><b>requirements</b> 139:22<br>149:13 159:10<br><b>requiring</b> 130:24<br><b>research</b> 5:12 16:22 | 17:9 144:19<br><b>reset</b> 55:3 119:2<br>119:3 119:4 119:14<br>139:14<br><b>resets</b> 41:3 111:21<br>111:22<br><b>resource</b> 150:13<br><b>resources</b> 153:3<br>167:2 167:6 167:7<br>171:16 176:11<br>176:12<br><b>respect</b> 112:7<br><b>respective</b> 53:2<br><b>respects</b> 112:6<br><b>respond</b> 56:6 57:7<br>76:18 76:20 76:23<br>161:13<br><b>response</b> 48:18 65:25<br><b>responsibilities</b> 36:6<br><b>responsibility</b> 93:7<br>109:17<br><b>responsible</b> 19:10<br>76:9 77:19<br><b>rest</b> 169:12<br><b>restart</b> 56:25 81:2<br>81:5 81:13 81:18<br>139:19<br><b>restrict</b> 157:7<br><b>resubmittal</b> 88:5<br>94:10<br><b>result</b> 143:17<br><b>results</b> 11:23<br><b>resume</b> 59:8 59:12<br><b>retaining</b> 156:18<br><b>retires</b> 136:16<br><b>revealed</b> 20:15<br><b>review</b> 12:3 15:11<br>91:5 92:8 92:21<br>93:10 95:24 124:11<br>152:20 161:20<br>162:20 165:15<br>168:17 168:25<br>169:2 174:2<br><b>reviewed</b> 61:1<br><b>reviewing</b> 83:18<br>92:13<br><b>reviews</b> 92:25 93:23<br><b>revision</b> 44:2 91:4<br>124:9 174:3<br><b>revolved</b> 65:10 |
|--|--|--|--|--|

|                              |                          |                              |                             |                             |
|------------------------------|--------------------------|------------------------------|-----------------------------|-----------------------------|
| <b>rewired</b> 106:8         | 152:13 161:17            | 107:25 108:4                 | <b>rule</b> 7:6 7:7 40:13   | 129:23 141:16               |
| <b>rhone</b> 3:11 7:5 10:2   | 163:2 163:5 164:1        | 115:12 115:22                | 90:13 90:17 106:23          | 154:24 175:23               |
| 10:2 169:16 170:25           | 165:19 165:21            | 116:2 116:5 116:10           | 106:25 107:3                | <b>sam</b> 2:8 8:17 20:22   |
| 171:3 171:25                 | 166:8 167:4              | 116:12 116:21                | 116:19 125:2 128:7          | 44:20 91:15 93:7            |
| 172:16 172:19                | <b>risks</b> 134:15      | 117:3 117:21                 | 172:23 174:4 174:9          | 94:11 175:22                |
| <b>richard</b> 3:4 6:23 9:17 | <b>riverport</b> 6:6     | 117:25 118:3                 | <b>rules</b> 1:2 7:9 8:5    | <b>same</b> 17:2 20:1 27:19 |
| 143:2 149:21                 | <b>road</b> 6:6 133:16   | 118:11 118:15                | 116:23 173:14               | 30:16 33:4 40:5             |
| <b>ridge</b> 3:20 10:13      | 160:11 160:14            | 118:24 123:6 123:9           | 173:18 173:24               | 43:17 55:4 71:22            |
| <b>right</b> 10:22 12:16     | 164:10                   | 130:3 133:23 134:4           | <b>run</b> 13:8 83:7 97:25  | 80:12 100:13 101:3          |
| 13:10 14:4 14:15             | <b>roberts</b> 158:12    | 134:14 134:19                | 109:10 121:24               | 107:8 108:16                |
| 15:24 16:13 17:7             | <b>robinson</b> 2:4 8:19 | 135:6 135:13                 | 122:17 130:23               | 108:19 122:18               |
| 19:14 20:8 22:5              | 8:19 12:5 14:6           | 135:22 136:7                 | 131:5 135:10 136:1          | 125:22 125:25               |
| 22:9 22:11 29:2              | 19:18 20:4 20:7          | 136:11 136:20                | 136:3 140:23                | 125:25 126:5                |
| 29:19 33:11 33:25            | 20:10 21:20 22:10        | 136:24 137:2 137:6           | 153:20 164:5                | 130:12 131:14               |
| 34:8 34:17 36:14             | 22:16 22:19 23:3         | 137:10 137:13                | 167:13                      | 132:9 132:10                |
| 42:2 43:3 43:4 43:6          | 23:11 24:2 24:9          | 137:17 137:20                | <b>running</b> 22:14 73:23  | 133:12 133:17               |
| 51:16 51:20 54:11            | 24:12 24:15 24:18        | 142:2 148:10                 | 88:17 89:10 121:15          | 134:5 134:7 140:2           |
| 54:12 54:13 57:1             | 24:23 25:1 25:8          | 149:12 149:20                | 121:18 131:3 136:2          | 146:25 157:17               |
| 58:5 58:7 59:6               | 25:15 25:21 26:12        | 150:9 150:19 151:7           | 140:13                      | 162:17 167:1                |
| 59:11 61:17 63:8             | 26:17 26:25 27:18        | 154:20 154:23                | <b>runs</b> 138:9           | <b>sammy</b> 3:8 9:23       |
| 63:13 63:13 70:12            | 28:1 28:21 29:10         | 155:1 155:5 159:7            | <b>rural</b> 135:18         | <b>sampling</b> 61:2        |
| 71:12 84:13 84:23            | 33:18 34:2 36:18         | 175:5                        | <b>ryan</b> 3:16 6:8 10:8   | <b>sanders</b> 3:22 6:14    |
| 92:20 94:20 98:7             | 36:23 37:7 37:12         | <b>role</b> 65:11 65:12      | 59:20                       | 6:20 10:16 10:16            |
| 100:5 100:15 102:6           | 37:17 37:24 38:2         | 65:24 65:25 78:4             |                             | 124:15 136:15               |
| 105:4 106:18                 | 38:9 38:14 38:19         | <b>roles</b> 64:24 65:3 65:3 | <b>S</b>                    | <b>sanitation</b> 106:19    |
| 106:23 107:1 110:4           | 38:22 40:7 40:14         | <b>rolling</b> 39:13         | <b>safe</b> 11:9 80:3 117:8 | <b>satisfied</b> 45:13      |
| 111:5 113:19 114:2           | 41:1 41:5 41:8           | <b>room</b> 1:10 39:8        | 144:23 164:2                | <b>satisfy</b> 29:12        |
| 116:23 117:21                | 41:11 41:21 41:25        | 39:11 50:20 51:5             | <b>safely</b> 90:12 163:25  | <b>saw</b> 22:24 24:2 41:11 |
| 121:12 122:16                | 45:19 46:8 46:19         | 71:20 72:10 72:13            | <b>safer</b> 46:17          | 44:10 67:11 134:1           |
| 123:13 123:16                | 58:17 61:19 62:5         | 74:4 74:17 74:18             | <b>safeties</b> 18:7        | 137:18                      |
| 125:14 130:16                | 62:22 63:5 63:10         | 75:14 97:14 97:15            | <b>safety</b> 11:4 30:20    | <b>say</b> 14:11 26:14      |
| 130:16 131:10                | 63:16 63:25 64:18        | 97:25 98:1 102:21            | 77:23 78:18 115:11          | 27:23 27:24 34:1            |
| 133:14 133:20                | 65:14 66:12 66:17        | 107:5 118:4 120:7            | 115:14 115:14               | 45:1 50:10 50:19            |
| 134:3 134:14 135:8           | 66:23 67:1 67:10         | 120:12 121:2 122:9           | 117:5 117:5 117:16          | 50:20 56:12 58:21           |
| 136:25 139:3 139:7           | 67:15 68:5 78:20         | 122:12 125:18                | 118:9 118:20                | 61:14 63:21 64:19           |
| 142:6 142:12 143:8           | 80:15 85:12 85:21        | 126:19 130:14                | 119:11 128:14               | 66:16 66:18 67:18           |
| 146:6 149:10                 | 89:5 91:1 91:3           | 130:15 134:10                | 129:6 133:17 153:1          | 69:17 69:25 70:2            |
| 151:12 153:25                | 91:16 92:4 94:9          | 137:16                       | 153:5 153:6 173:3           | 76:22 84:17 88:4            |
| 159:5 161:7 162:17           | 94:14 99:18 100:15       | <b>rosa</b> 11:11            | 173:13 173:16               | 88:14 95:14 96:5            |
| 164:15 164:19                | 100:17 101:12            | <b>roth</b> 3:21 10:14       | <b>said</b> 12:17 13:22     | 99:24 117:22                |
| 165:6 165:9 166:20           | 101:20 101:25            | 10:14                        | 18:20 19:11 23:5            | 129:24 142:8                |
| 166:20 166:21                | 102:4 102:7 102:20       | <b>roughly</b> 139:21        | 25:16 32:14 40:19           | 143:23 145:17               |
| 167:14 168:15                | 102:24 103:6             | <b>rover</b> 104:8 127:2     | 40:23 45:16 60:20           | 146:12 156:11               |
| 169:7 170:25 171:3           | 103:18 104:1             | 127:5 127:15                 | 67:11 70:3 79:7             | 158:15 160:3                |
| 174:7 174:12                 | 104:13 104:19            | <b>roving</b> 52:15 53:12    | 80:11 81:4 81:17            | 164:11 171:8                |
| 175:19 175:25                | 104:24 105:5 105:8       | 56:9 80:12                   | 83:22 84:20 90:2            | 172:23                      |
| 177:18 177:21                | 105:12 105:19            | <b>roy</b> 2:21 5:21 9:9     | 95:20 114:13                | <b>saying</b> 32:19 44:11   |
| <b>rigorous</b> 158:23       | 105:25 106:9             | 35:2                         | 114:19 117:15               | 49:10 64:6 80:9             |
| <b>risk</b> 38:4 144:11      | 106:12 106:22            | <b>rpr</b> 1:22 178:6        | 117:17 123:13               | <b>says</b> 28:6 32:19      |
| 145:9 145:15 149:1           | 107:7 107:11             | 178:24                       | 125:9 129:14                | 52:25 68:11 68:12           |
| 149:4 150:23                 | 107:14 107:18            |                              |                             |                             |

|  |  |  |  |  |
|--|--|--|--|--|
| 70:4 74:3 80:19<br>85:1 108:22 121:10<br><b>sbr</b> 111:6<br><b>scan</b> 65:9<br><b>schedule</b> 7:8 141:2<br><b>science</b> 5:12 16:22<br>17:8<br><b>scope</b> 24:3 156:5<br><b>screen</b> 108:18 120:20<br><b>screens</b> 66:9 103:5<br>108:17<br><b>screw</b> 105:21 105:23<br><b>screws</b> 101:7 106:3<br>108:9<br><b>scrutiny</b> 100:20<br><b>se</b> 66:7<br><b>seats</b> 16:9<br><b>second</b> 14:7 14:8<br>22:23 25:24 33:21<br>33:22 33:24 42:3<br>58:16 58:17 58:19<br>78:23 86:24 87:3<br>87:5 87:7 87:9 94:5<br>94:7 94:17 94:19<br>98:19 123:21<br>123:23 123:24<br>123:25 124:12<br>142:3 153:2 165:2<br><b>secretary</b> 2:15<br><b>section</b> 36:7 47:9<br>47:12 52:21 70:24<br>78:14 78:18 99:3<br>99:12 107:15<br>107:16 151:7<br><b>sections</b> 165:12<br><b>secure</b> 40:25 48:24<br>49:9 50:4<br><b>secured</b> 49:12 50:19<br><b>security</b> 11:8 48:19<br>65:3 65:11 68:15<br>69:14 79:23 121:15<br>122:22<br><b>see</b> 18:22 25:2 28:14<br>30:20 30:23 30:24<br>31:6 31:17 44:13<br>47:4 48:21 51:17<br>54:17 54:25 57:7<br>61:15 64:22 67:5<br>67:11 67:20 71:2<br>74:23 74:24 76:7 | 77:15 77:25 80:17<br>81:22 82:4 82:19<br>82:20 83:5 86:18<br>99:14 99:23 100:1<br>100:6 103:12 105:4<br>105:7 108:20 110:1<br>111:23 112:1<br>112:22 115:23<br>122:21 139:25<br>140:8 144:7 152:12<br>161:25 166:8 171:6<br>173:17<br><b>seeing</b> 120:19 126:17<br>155:4<br><b>seek</b> 153:12<br><b>seems</b> 53:6<br><b>seen</b> 45:11 46:13<br>46:15 46:16 46:16<br>70:1 83:5 90:22<br>90:23 98:22 107:15<br>116:22 125:13<br>149:7<br><b>sees</b> 128:12<br><b>select</b> 161:17<br><b>selected</b> 144:16<br>158:20<br><b>selection</b> 144:20<br><b>send</b> 56:1 56:3 62:19<br>95:3 159:16 159:18<br><b>senior</b> 23:6 23:8<br>23:12 24:21 25:6<br><b>sense</b> 126:12<br><b>sensor</b> 105:14<br><b>sensors</b> 105:8 105:9<br><b>sent</b> 158:10<br><b>sentence</b> 22:23 99:2<br><b>separate</b> 38:15 41:9<br>64:1 163:21<br><b>september</b> 15:13<br><b>sequence</b> 112:8<br><b>series</b> 38:17 38:19<br>164:24<br><b>serious</b> 71:25<br><b>service</b> 27:3 63:8<br>66:3 69:9 81:6<br><b>services</b> 3:17 6:8<br>10:9 59:21 60:10<br><b>session</b> 166:12 172:5<br><b>sessions</b> 172:4 172:6<br><b>set</b> 39:17 55:25 75:3 | 90:16 103:21<br>117:23 131:22<br>132:1 132:1 132:8<br>149:4 166:4 169:2<br>170:17 175:2<br>178:19<br><b>setting</b> 30:20 41:17<br><b>settings</b> 30:25 41:13<br>118:6 118:13<br>131:17 132:5<br><b>settle</b> 170:10<br><b>setup</b> 35:24 88:18<br>88:20 107:8 167:17<br><b>seven</b> 20:2<br><b>several</b> 16:24 19:21<br>47:20 89:9 158:3<br>160:13<br><b>shall</b> 52:23 52:24<br>160:3<br><b>shane</b> 77:19<br><b>shape</b> 168:12<br><b>sheet</b> 10:24 62:2 71:8<br>136:17 137:14<br><b>sheets</b> 18:25 30:5<br>76:5<br><b>shelby</b> 26:18 60:21<br>65:13 68:21 68:25<br>69:1 69:6 69:15<br>89:13<br><b>shell</b> 167:18 167:18<br><b>sherrod</b> 2:15<br><b>shift</b> 18:11 25:23<br>25:24 25:24 26:4<br>42:24 52:2 52:5<br>52:10 52:13 52:22<br>53:11 53:11 54:3<br>54:13 62:14 63:7<br>97:22 122:6 125:5<br><b>shifts</b> 53:10 60:23<br><b>shirts</b> 170:7<br><b>shooting</b> 17:18<br>170:15<br><b>short</b> 11:22 80:22<br>164:23<br><b>shot</b> 91:20<br><b>shouldn</b> 81:14<br><b>show</b> 43:21 44:23<br>70:9 71:20 78:8<br>100:6 163:24<br>166:14 | <b>showing</b> 45:2<br><b>shows</b> 19:22 39:15<br>74:8 80:5 100:5<br><b>shunt</b> 54:6 138:15<br><b>shut</b> 40:2 40:15 53:2<br>53:20 56:7 56:14<br>56:21 56:24 64:11<br>66:5 84:9 100:25<br>101:2 101:8 114:2<br>114:2 120:6 120:18<br>121:4<br><b>shutdown</b> 55:21<br>64:10 115:2 124:22<br>136:25<br><b>shutoff</b> 108:6<br><b>shuts</b> 107:25 108:9<br>120:2<br><b>shutting</b> 79:17 138:4<br>138:23 139:1<br>141:14<br><b>sick</b> 11:14<br><b>side</b> 11:11 30:12<br>166:4 167:11<br><b>siemens</b> 97:19<br>108:16<br><b>sign</b> 10:25 25:24 26:3<br><b>signals</b> 46:5<br><b>silence</b> 8:10<br><b>similar</b> 44:17 46:25<br>146:13 146:17<br>146:21 173:14<br><b>simply</b> 60:13<br><b>since</b> 20:17 44:5<br>44:18 65:20 115:20<br>127:21 127:23<br>128:5 153:23<br>164:20 170:18<br>171:25<br><b>single</b> 124:19<br><b>sir</b> 12:22 20:9 22:15<br>23:10 24:7 24:14<br>24:17 24:25 25:14<br>26:15 28:14 29:18<br>35:12 42:11 55:19<br>56:8 57:15 82:2<br>98:25 100:16 108:5<br>118:25 155:1 155:5<br><b>sit</b> 16:8 72:21 121:19<br>153:15<br><b>site</b> 19:24 20:19 | 22:14 25:25 32:16<br>33:20 47:22 48:3<br>48:19 48:23 48:25<br>49:9 58:14 60:10<br>73:17 81:7 86:5<br>90:5 92:23 92:25<br>127:9 142:6 145:6<br>146:1<br><b>sits</b> 73:14<br><b>sitting</b> 19:25 72:14<br>72:14 122:14 136:5<br>175:25<br><b>situation</b> 45:6 80:3<br>98:3<br><b>situations</b> 76:23<br>109:21 156:2<br><b>sitz</b> 3:8 9:23 9:23<br><b>six</b> 19:3<br><b>size</b> 79:5 146:7<br><b>sizing</b> 146:9<br><b>slash</b> 23:8 24:5<br><b>slightly</b> 113:11<br><b>slow</b> 35:12 54:21<br>102:18<br><b>small</b> 73:3 73:4<br>128:19<br><b>smartphone</b> 60:24<br>65:7<br><b>smolders</b> 101:11<br><b>smother</b> 101:3<br><b>snapping</b> 128:20<br>128:22<br><b>software</b> 144:17<br>152:5<br><b>solar</b> 143:22 143:24<br><b>sold</b> 143:24<br><b>solutions</b> 2:25 3:3<br>9:14 9:16 34:24<br>35:8<br><b>solve</b> 110:24<br><b>somebody</b> 42:6<br>49:15 82:14 82:16<br>120:4 120:9 129:20<br><b>someone</b> 99:25<br>126:15 136:16<br><b>something</b> 28:6 40:1<br>49:21 73:12 73:14<br>79:25 80:21 82:3<br>82:7 111:24 113:7<br>114:7 114:25 118:8 |
|--|--|--|--|--|

|   |   |  |   |   |
|---|---|--|---|---|
| 123:2 151:3 155:23<br>161:4 168:25 171:2<br>174:17<br><b>sometime</b> 143:14<br><b>sometimes</b> 49:8<br><b>somewhat</b> 112:4<br>166:5<br><b>somewhere</b> 24:3<br>120:1 120:4 133:15<br><b>soon</b> 143:15 155:4<br><b>sorry</b> 25:19 42:13<br>46:19 47:11 54:21<br>62:2 145:20<br><b>sort</b> 23:17 67:6 89:24<br>97:23<br><b>sound</b> 53:5 55:20<br><b>sounds</b> 158:18<br>158:18<br><b>source</b> 157:10<br><b>sourced</b> 157:24<br><b>sources</b> 158:2<br><b>sourcing</b> 157:9<br>157:16 157:20<br><b>south</b> 5:13 17:4<br><b>space</b> 74:4<br><b>sparks</b> 104:12<br>104:17 105:6<br>105:18<br><b>speak</b> 35:13 144:6<br>145:21<br><b>special</b> 148:13<br>148:14 148:23<br>149:18 169:22<br><b>specialist</b> 35:6<br><b>specialists</b> 27:3<br><b>specials</b> 149:19<br><b>specific</b> 32:6 47:24<br>66:22 113:4 157:10<br>157:11 157:22<br>167:12<br><b>specifically</b> 26:6 29:1<br>36:5 47:5 67:8 76:8<br>77:5<br><b>specify</b> 53:3<br><b>specs</b> 148:15<br><b>speed</b> 63:19 63:20<br><b>speeds</b> 63:12 64:1<br><b>spell</b> 36:5 47:23<br><b>spelled</b> 57:11 82:13<br>82:20 | <b>speller</b> 42:7<br><b>spent</b> 66:15 152:5<br><b>spirit</b> 88:15<br><b>spoke</b> 82:21<br><b>sponsorship</b> 169:25<br><b>sport</b> 172:24<br><b>spread</b> 167:1<br><b>spreadsheet</b> 85:19<br><b>spring</b> 135:18<br><b>square</b> 72:23<br><b>staff</b> 17:5 81:4<br><b>staffed</b> 25:6<br><b>stages</b> 165:13<br><b>stagger</b> 165:11<br><b>staggered</b> 164:21<br><b>stamp</b> 159:14 161:2<br>161:5<br><b>stamped</b> 149:9<br>156:23 156:24<br>161:6<br><b>stand</b> 93:2 175:24<br>177:22<br><b>standard</b> 151:1<br>151:3 157:22<br><b>standards</b> 148:1<br>149:3 150:22<br>170:22<br><b>standby</b> 109:7<br>130:22 131:5 134:1<br>134:8<br><b>standpoint</b> 111:24<br>112:3 112:16<br><b>start</b> 8:11 8:12 8:14<br>9:4 19:8 47:13 48:2<br>141:17 143:15<br>145:9 153:20<br>153:24 164:20<br>164:22 172:22<br><b>started</b> 8:11 23:1<br>48:1 145:11<br><b>starting</b> 135:20<br>164:20<br><b>state</b> 2:9 3:7 3:9 3:10<br>3:12 9:22 9:23 9:25<br>11:22 15:6 15:19<br>40:9 52:1 68:18<br>68:20 69:5 75:25<br>77:13 78:10 99:21<br>143:19 144:13<br>148:19 151:14 | 153:8 159:11<br>159:17 159:20<br>159:21 159:23<br>178:2 178:7 178:24<br><b>stated</b> 32:5 35:9<br>57:25 68:23 76:14<br><b>statement</b> 29:4 50:11<br>50:23 51:1<br><b>statements</b> 14:17<br>117:14<br><b>states</b> 48:16 76:8<br>77:18 109:1 157:21<br>159:9<br><b>statewide</b> 61:15<br><b>station</b> 17:21 17:23<br>18:10 25:5 26:5<br>33:9 41:18 52:15<br>52:17 55:23 57:6<br>72:14 72:15 76:17<br>77:4 79:10 80:13<br>83:9 118:13 119:24<br>120:3 120:8 120:15<br>122:15 122:23<br>122:24<br><b>stations</b> 25:5<br><b>status</b> 129:5 129:8<br>163:5<br><b>stay</b> 34:12 34:13<br>34:13 59:4 96:14<br>103:24 109:8<br><b>steam</b> 30:22 30:23<br>42:15 47:15 47:17<br>48:4 49:25 53:16<br>56:12 60:3 102:3<br>102:16 103:15<br>106:6 130:24 131:6<br>131:14 140:14<br>154:21 154:24<br><b>step</b> 65:2 77:3 152:11<br><b>stephen</b> 3:19 10:12<br><b>steps</b> 17:11 69:18<br>80:2<br><b>stiles</b> 21:11<br><b>still</b> 15:14 31:24 41:1<br>62:20 70:2 72:21<br>82:23 97:18 114:22<br>124:2 124:2 125:25<br>143:12 149:7 156:7<br><b>stone</b> 1:23 5:18 35:4<br>35:19 | <b>stop</b> 37:21 38:4 38:7<br>38:15 39:21 39:24<br>39:25 46:13 66:5<br>79:19 80:6<br><b>stops</b> 37:10 38:3 38:9<br>38:12 38:25 39:1<br>39:2 39:18 50:9<br>79:19 117:5<br><b>storage</b> 146:3 157:23<br><b>stove</b> 42:15<br><b>straightened</b> 69:12<br><b>street</b> 5:13 17:4<br><b>stress</b> 23:20 168:3<br>173:17<br><b>stretch</b> 59:7<br><b>strictly</b> 50:8<br><b>strikes</b> 28:9<br><b>structured</b> 152:7<br><b>struggle</b> 90:19<br><b>stuck</b> 22:25<br><b>stuff</b> 23:1 79:5 79:6<br>135:18<br><b>subject</b> 45:5 46:1<br><b>submit</b> 42:6 91:4<br><b>submitted</b> 35:22<br><b>submitting</b> 95:21<br><b>substantial</b> 22:8<br><b>success</b> 40:22<br><b>successful</b> 92:22<br>94:15 123:18<br><b>successfully</b> 89:16<br>90:12 128:5<br><b>suggestion</b> 170:3<br><b>suite</b> 1:24<br><b>sunset</b> 11:23<br><b>super</b> 114:10 177:16<br><b>supervisor</b> 3:12 10:3<br>19:9 23:13 73:16<br>73:20<br><b>supplier</b> 158:21<br><b>suppliers</b> 157:18<br>159:3<br><b>supply</b> 2:7 30:23<br>128:21 158:22<br><b>support</b> 90:6 164:13<br><b>supports</b> 89:15<br><b>supposed</b> 76:25<br><b>sure</b> 10:25 17:12<br>21:12 26:24 27:15<br>28:18 30:11 32:19 | 48:24 58:1 58:4<br>68:4 70:13 76:14<br>80:25 81:23 90:14<br>95:19 124:3 128:24<br>130:19 133:17<br>134:8 141:1 141:8<br>144:25 161:13<br>168:6 176:2<br><b>surface</b> 168:7<br><b>surgery</b> 11:19<br><b>survey</b> 20:19<br><b>suspended</b> 40:12<br><b>sustain</b> 102:3 102:15<br><b>sustainability</b> 144:22<br><b>switch</b> 108:6 134:5<br>134:7 134:12<br>134:21 134:22<br><b>switches</b> 139:17<br><b>sydn</b> 2:17 9:2 11:21<br>91:9 173:20<br><b>system</b> 18:4 18:4<br>18:5 18:6 30:1 30:7<br>31:5 31:6 31:14<br>33:4 35:23 36:1<br>37:18 43:17 45:18<br>48:17 48:22 49:20<br>50:7 50:18 51:7<br>51:23 52:3 60:5<br>60:7 60:8 60:19<br>66:5 66:23 66:25<br>70:25 76:9 82:24<br>97:17 97:18 108:11<br>108:22 113:2 117:9<br>117:9 126:22<br>127:20 127:22<br>127:23 128:2 129:3<br>133:10 136:25<br>137:6 169:22<br><b>systems</b> 2:22 2:23<br>5:15 5:16 9:10 9:12<br>16:20 28:8 29:5<br>30:2 34:18 35:1<br>35:3 35:6 35:7<br>35:18 37:9 37:21<br>38:3 49:17 53:1<br>127:25 137:24 |
|   |   |  |   | <b>T</b>  |
|   |   |  |   | <b>tab</b> 18:17 62:1 62:2<br>80:5  |

|  |   |  |   |  |
|--|---|--|---|--|
| <p><b>table</b> 8:7 12:18 99:8<br/> <b>tagged</b> 157:2<br/> <b>take</b> 13:7 13:18<br/> 25:15 25:16 27:21<br/> 29:13 59:6 62:4<br/> 62:12 64:24 70:7<br/> 70:22 74:5 95:18<br/> 99:15 103:17<br/> 110:19 115:22<br/> 115:23 127:8 141:6<br/> 143:5 147:13<br/> 168:20 169:14<br/> 173:15 176:10<br/> 176:14<br/> <b>taken</b> 21:9 62:3<br/> 95:23 124:3 178:11<br/> <b>takes</b> 99:13 136:16<br/> 164:24<br/> <b>taking</b> 103:7 127:18<br/> 142:21 166:9<br/> 177:14<br/> <b>talk</b> 152:3 155:12<br/> 162:19 162:21<br/> 169:15<br/> <b>talked</b> 76:5 77:16<br/> 87:23 98:18 175:22<br/> <b>talking</b> 20:8 67:22<br/> 78:20 115:12<br/> 115:13 152:6<br/> 160:13 160:18<br/> 171:22<br/> <b>talks</b> 47:13<br/> <b>tank</b> 30:5 30:5 41:12<br/> 41:14 41:22 73:5<br/> 135:25<br/> <b>tanks</b> 146:4<br/> <b>task</b> 80:23 177:3<br/> <b>tasks</b> 60:14 82:11<br/> <b>technical</b> 12:25<br/> 152:19 153:16<br/> 161:20<br/> <b>technician</b> 66:3 81:6<br/> <b>technology</b> 144:4<br/> <b>tell</b> 21:11 27:20<br/> 45:22 57:1 165:14<br/> <b>temperature</b> 30:6<br/> 105:9 105:14<br/> 146:10 146:16<br/> <b>temperatures</b> 84:7<br/> 147:21 166:17</p> | <p><b>ten</b> 19:3 37:22<br/> 176:15<br/> <b>tend</b> 114:19<br/> <b>tennessee</b> 1:24 2:9<br/> 2:11 2:13 2:15 2:18<br/> 2:20 3:7 3:9 3:10<br/> 3:12 3:14 5:10 5:13<br/> 5:19 6:7 6:13 6:19<br/> 8:4 9:8 9:22 9:24<br/> 10:5 11:17 12:6<br/> 16:5 16:14 16:17<br/> 18:2 21:12 24:21<br/> 34:25 35:4 35:19<br/> 44:20 68:18 68:20<br/> 69:5 69:7 71:10<br/> 115:17 115:19<br/> 139:23 143:9<br/> 143:19 144:6<br/> 144:14 147:1<br/> 148:23 149:18<br/> 149:19 151:14<br/> 153:12 156:12<br/> 157:2 159:11<br/> 159:21 159:23<br/> 163:4 174:24 178:2<br/> 178:7<br/> <b>tensile</b> 173:15<br/> <b>tenure</b> 100:19<br/> <b>term</b> 23:6<br/> <b>terms</b> 23:5 27:18<br/> 144:14 146:14<br/> 150:15 161:21<br/> 161:24 167:8<br/> <b>test</b> 25:11 26:5 53:23<br/> 54:6 54:10 55:13<br/> 55:14 56:13 62:4<br/> 62:13 62:15 78:13<br/> 137:7<br/> <b>tested</b> 45:15 52:4<br/> 52:24 53:1<br/> <b>testing</b> 25:12 54:15<br/> 55:21 85:16 137:11<br/> 138:18 138:19<br/> 138:20 150:22<br/> <b>tests</b> 25:17 26:3<br/> 78:11<br/> <b>thank</b> 12:9 12:11<br/> 13:21 21:21 25:8<br/> 26:17 29:14 29:15<br/> 34:10 34:15 34:16</p> | <p>36:18 40:8 55:16<br/> 59:1 59:2 59:3<br/> 59:24 85:7 94:13<br/> 96:11 96:12 98:25<br/> 137:22 142:15<br/> 142:16 143:4<br/> 156:14 168:15<br/> 169:5 169:8 177:16<br/> <b>thankful</b> 12:8<br/> <b>thanks</b> 48:8 85:10<br/> 172:20<br/> <b>their</b> 12:6 12:9 16:5<br/> 20:3 20:5 25:25<br/> 28:18 29:1 29:9<br/> 36:7 61:2 61:4 61:6<br/> 65:6 65:7 65:10<br/> 66:15 83:9 83:9<br/> 83:11 89:13 124:9<br/> 129:18 151:20<br/> 152:8 161:20<br/> 162:20 170:24<br/> 171:18 174:23<br/> 174:25 175:2<br/> 175:13<br/> <b>themselves</b> 110:19<br/> <b>thelma</b> 176:22<br/> <b>them</b> 18:13 21:14<br/> 21:14 21:17 28:17<br/> 28:25 37:23 37:23<br/> 39:20 42:22 43:3<br/> 51:8 51:9 57:18<br/> 61:6 62:19 62:20<br/> 63:8 66:11 66:14<br/> 69:11 69:20 71:25<br/> 72:19 79:11 80:22<br/> 81:7 84:16 86:17<br/> 97:11 101:24 106:6<br/> 108:15 113:9<br/> 114:20 115:24<br/> 118:16 125:16<br/> 131:25 132:1<br/> 139:19 141:4<br/> 146:13 152:5<br/> 154:11 162:22<br/> 176:12 177:12<br/> <b>themselves</b> 65:23<br/> 101:3 118:7 175:12<br/> <b>theoretic</b> 164:18<br/> <b>theoretical</b> 166:12<br/> <b>theoretically</b> 166:14</p> | <p><b>they</b> 12:14 12:18<br/> 16:19 16:25 17:1<br/> 18:2 18:17 18:22<br/> 18:23 19:1 19:3<br/> 19:7 19:22 20:20<br/> 21:17 22:10 22:12<br/> 22:13 22:14 25:25<br/> 27:3 28:17 28:20<br/> 29:1 29:8 31:24<br/> 34:18 37:10 37:12<br/> 37:24 38:11 42:17<br/> 44:1 47:19 47:20<br/> 48:3 49:4 49:5<br/> 49:21 50:2 51:12<br/> 53:1 55:12 55:13<br/> 55:21 55:23 56:6<br/> 56:6 56:8 57:7 58:4<br/> 59:14 60:4 60:20<br/> 61:4 61:23 62:20<br/> 64:24 65:1 65:1<br/> 65:2 65:6 65:17<br/> 65:22 65:24 65:25<br/> 66:1 66:3 66:4 66:6<br/> 67:4 67:6 69:16<br/> 69:22 70:7 71:14<br/> 71:15 72:3 72:21<br/> 72:22 73:4 76:18<br/> 79:9 79:12 79:18<br/> 80:11 80:14 80:15<br/> 80:16 81:14 81:17<br/> 82:10 84:21 85:18<br/> 86:14 86:16 88:19<br/> 90:1 92:6 93:20<br/> 93:25 97:8 97:13<br/> 100:1 100:2 101:3<br/> 107:13 110:17<br/> 116:22 116:23<br/> 117:3 118:6 118:9<br/> 121:12 121:19<br/> 122:18 122:25<br/> 125:7 125:14<br/> 125:15 125:22<br/> 125:23 126:3<br/> 130:16 130:20<br/> 130:21 131:4 131:5<br/> 131:22 132:8<br/> 132:16 132:17<br/> 134:4 136:10<br/> 136:11 140:14<br/> 140:25 146:17<br/> 151:19 151:21</p> | <p>151:22 152:8<br/> 156:20 156:23<br/> 156:24 157:4<br/> 157:13 160:1 160:2<br/> 167:2 167:7 167:8<br/> 167:16 172:5<br/> 174:23 174:24<br/> 175:5 176:13<br/> 177:10<br/> <b>thing</b> 20:1 50:10 55:4<br/> 82:12 85:25 97:10<br/> 97:23 100:24 112:1<br/> 114:22 117:12<br/> 120:5 125:3 126:1<br/> 136:19 140:2<br/> 148:10 156:11<br/> 160:3 160:9 167:23<br/> 168:4<br/> <b>things</b> 23:20 29:24<br/> 37:10 39:9 40:21<br/> 49:18 52:10 75:10<br/> 79:13 95:5 97:10<br/> 97:22 104:9 106:20<br/> 111:9 112:20<br/> 112:21 112:22<br/> 113:10 118:9 118:9<br/> 135:4 135:23 156:4<br/> 166:3 168:8 169:17<br/> 172:7 173:3 173:19<br/> 175:25 177:12<br/> <b>think</b> 18:23 22:18<br/> 25:10 28:15 29:11<br/> 44:15 45:22 50:3<br/> 60:17 61:2 63:21<br/> 68:22 69:8 70:6<br/> 70:6 73:14 88:22<br/> 89:15 89:23 90:2<br/> 90:5 90:8 90:9 95:8<br/> 115:13 116:6<br/> 128:11 128:15<br/> 129:8 134:1 134:12<br/> 135:10 137:18<br/> 144:7 149:15<br/> 149:18 151:10<br/> 152:25 157:11<br/> 167:4 167:12<br/> 167:15 171:2 173:8<br/> <b>thinking</b> 161:14<br/> 161:19 162:13<br/> <b>thinks</b> 127:4<br/> <b>third</b> 25:24 62:23</p> |
|--|---|--|---|--|

|  |   |  |  |   |
|--|---|--|--|---|
| 62:24 63:1<br><b>thomas</b> 3:5 6:24 9:19<br>142:24<br><b>thought</b> 42:1 80:23<br>117:11 140:23<br>162:5<br><b>three</b> 15:11 20:11<br>20:14 21:17 27:8<br>37:8 42:24 43:4<br>43:12 43:25 44:5<br>44:7 45:3 69:24<br>89:1 89:2 106:3<br>136:5 154:22<br>171:23<br><b>through</b> 11:1 12:3<br>14:22 19:7 19:23<br>28:17 31:4 35:23<br>45:18 54:4 54:14<br>54:19 54:23 56:17<br>56:17 62:7 62:12<br>64:17 67:5 68:25<br>70:6 70:22 72:24<br>80:2 82:25 83:24<br>97:13 97:17 102:12<br>102:14 103:13<br>103:14 129:19<br>130:17 134:4 134:7<br>134:11 134:20<br>135:1 135:19 136:2<br>138:15 140:21<br>154:15 155:3 156:7<br>158:22 164:18<br>164:21 164:24<br>165:1 166:12<br>169:19 170:1 173:4<br>173:5 173:21<br>173:24<br><b>throughout</b> 23:23<br>29:23 73:10<br><b>thus</b> 89:11<br><b>tie</b> 38:16 108:7<br><b>tied</b> 30:4 30:7 31:14<br>33:3 38:11 43:13<br>43:17 108:6 108:11<br>108:12 109:2<br>131:12 131:14<br><b>tight</b> 101:13 101:24<br><b>till</b> 53:23 169:10<br><b>tim</b> 3:10 9:25<br><b>time</b> 11:6 12:9 13:19 | 17:13 17:18 35:16<br>39:12 39:12 42:18<br>42:22 43:6 45:11<br>50:2 60:14 63:16<br>63:22 66:15 80:12<br>86:17 93:21 101:3<br>113:21 113:22<br>125:21 128:3<br>129:20 136:6 145:4<br>147:11 150:18<br>152:4 152:5 154:2<br>160:3 164:23<br>166:24 169:2<br>169:11 170:9<br>170:15 172:9<br><b>times</b> 53:4 140:18<br><b>tips</b> 4:2 6:14 6:20<br>10:20 10:20 96:20<br>96:23 96:23 97:2<br>98:25 100:8 100:16<br>101:1 101:15 103:2<br>104:23 105:2<br>106:11 107:22<br>108:3 109:15 111:2<br>113:7 113:16 114:5<br>115:6 118:5 119:16<br>120:8 120:16<br>120:19 120:23<br>122:5 123:8 125:17<br>126:9 127:22<br>130:11 131:15<br>131:20 132:3<br>132:10 132:17<br>132:23 133:1 133:3<br>133:7 133:14 134:3<br>134:6 134:18<br>134:22 135:9<br>135:16 135:25<br>136:10 137:1 137:5<br>139:24 140:25<br>142:15<br><b>title</b> 75:22<br><b>titles</b> 23:21 32:7 36:5<br>136:14<br><b>tn</b> 1:8<br><b>today</b> 11:6 11:15<br>12:25 14:18 14:21<br>21:22 32:15 33:13<br>43:16 90:12 92:12<br>93:2 95:15 128:8<br>142:18 143:5 | 143:17 144:6<br>151:18 151:22<br>153:22 155:3 162:7<br>162:18 168:22<br>173:19<br><b>together</b> 18:2 81:13<br>83:7 153:20 162:21<br>168:16<br><b>told</b> 177:7<br><b>took</b> 62:14 83:23<br><b>tool</b> 144:16 144:21<br>144:21 145:1<br>145:13<br><b>top</b> 60:7 64:16<br><b>topic</b> 124:16<br><b>topside</b> 150:24<br><b>tosha</b> 1:10<br><b>total</b> 15:6 15:8<br><b>totally</b> 45:13 82:3<br>112:17<br><b>touch</b> 60:25 108:17<br><b>tour</b> 174:23<br><b>toward</b> 116:13 151:5<br><b>towards</b> 99:20 171:5<br><b>traces</b> 168:1<br><b>track</b> 80:2<br><b>trade</b> 64:25<br><b>traditionally</b> 166:23<br><b>train</b> 48:6 62:18<br>65:14<br><b>trained</b> 47:20 65:19<br>67:6 98:18 110:23<br>121:7<br><b>trainer</b> 89:21<br><b>training</b> 15:17 18:24<br>18:24 19:7 19:10<br>19:11 26:19 28:5<br>28:7 28:10 28:15<br>28:18 28:19 28:23<br>29:1 29:6 29:7<br>29:21 29:22 31:24<br>36:7 47:4 47:5<br>47:15 47:24 47:24<br>48:3 50:17 61:23<br>64:22 65:10 65:16<br>66:13 66:21 66:22<br>68:2 77:19 77:22<br>78:7 84:22 89:25<br>90:4 90:21 98:21<br>98:21 122:19 | 125:13 170:24<br>171:12 171:18<br>172:6<br><b>trane</b> 60:6 60:9<br><b>transcribes</b> 95:13<br><b>transcribing</b> 95:14<br><b>transcript</b> 178:11<br><b>transcriptionist</b><br>95:13<br><b>transcripts</b> 173:22<br><b>transition</b> 46:7<br><b>translational</b> 5:12<br>16:22<br><b>transmit</b> 46:4<br><b>travelers</b> 2:4<br><b>trend</b> 147:12<br><b>trends</b> 163:7 163:25<br><b>tried</b> 45:15<br><b>trip</b> 17:16 53:24 55:2<br><b>tripp</b> 2:24 9:13 9:13<br>35:7<br><b>trouble</b> 126:13<br>165:19<br><b>true</b> 123:23 139:5<br>141:23 147:7<br>178:10<br><b>truly</b> 44:25 50:5 64:1<br>154:13 168:7<br><b>try</b> 104:17 106:19<br>118:1 138:22 141:2<br>171:15 174:1<br><b>trying</b> 46:11 50:4<br>76:23 92:1 124:18<br>134:15<br><b>tsrb</b> 5:13<br><b>tune</b> 40:16<br><b>turn</b> 14:17 16:7<br>150:19<br><b>turned</b> 22:7 153:25<br><b>two</b> 5:11 6:4 6:11<br>6:17 16:8 16:18<br>17:9 19:3 23:5 27:3<br>27:14 38:14 39:14<br>41:13 42:21 42:23<br>50:1 55:12 59:16<br>60:3 60:18 65:3<br>79:20 83:16 96:18<br>97:21 98:19 100:13<br>106:3 108:15<br>108:24 112:24 | 114:8 117:4 119:14<br>122:5 130:10 131:1<br>131:19 131:25<br>132:3 133:1 133:3<br>133:24 136:7 136:9<br>137:23 139:21<br>154:2 154:2 154:8<br>154:24 163:12<br>164:3 164:6 164:6<br>164:10 165:1<br>169:15 177:11<br><b>twofold</b> 152:25<br><b>type</b> 25:5 45:12<br>108:19 115:19<br>125:3 130:12<br>167:15 167:16<br><b>typically</b> 64:23 65:11<br>92:15 122:21<br><b>typo</b> 42:2<br><hr/> <b>U</b> <hr/> <b>ug</b> 173:13<br><b>ultimate</b> 173:15<br><b>ultrapure</b> 143:21<br><b>unable</b> 73:13<br><b>unacceptable</b> 95:5<br><b>unauthorized</b> 48:17<br>48:22<br><b>uncorrected</b> 15:10<br><b>under</b> 5:11 5:17 6:5<br>6:11 6:17 21:13<br>33:5 33:13 53:5<br>60:6 63:2 70:24<br>100:20 107:2<br>110:24 111:7 111:8<br>125:2 128:7 131:1<br>143:13 151:7<br>165:13 166:14<br>168:8<br><b>undergo</b> 61:23<br><b>undergrate</b> 102:12<br>102:14 102:18<br><b>understand</b> 11:14<br>20:8 40:7 84:5<br>84:16 100:21<br>110:12 115:6<br>128:24 171:8<br><b>understanding</b> 56:1<br>119:23 138:25<br>163:13 |
|--|---|--|--|---|

|  |   |  |   |   |
|--|---|--|---|---|
| <b>understood</b> 84:10<br>84:20   | 145:21 149:4<br>153:20 154:7 156:5  | <b>uses</b> 65:9   | 40:3 40:21 40:22<br>42:5 42:19 42:20  | <b>verbatim</b> 95:16   |
| <b>unfinished</b> 173:2  | 158:22 158:23   | <b>using</b> 22:10 22:12<br>24:5 36:20 37:21   | 43:3 43:4 43:5  | <b>verbiage</b> 58:2  |
| <b>unfortunately</b> 176:8<br>176:9 177:9  | 164:20 164:20<br>164:22 165:13  | 38:3 45:16 45:17<br>77:3 109:7 145:9   | 45:12 45:15 46:15<br>46:16 47:7 48:13   | <b>verified</b> 82:25   |
| <b>unique</b> 115:15<br>115:16 115:21<br>174:25  | 165:16 166:9<br>166:14 167:10<br>167:24 169:17  | <b>ut</b> 3:20 10:12 27:11   | 49:4 49:6 49:7 50:1   | <b>verify</b> 27:23 28:18<br>31:17  |
| <b>unison</b> 14:12 58:22<br>96:6 142:9 177:24   | 169:21 173:20<br>173:22 175:3<br>176:19 177:22  | <b>utilities</b> 35:3  | 50:1 57:11 67:22<br>68:10 69:25 70:14   | <b>version</b> 173:25 174:1   |
| <b>unit</b> 14:20 74:3<br>173:23   | <b>update</b> 7:4 44:22   | <b>utilized</b> 149:23   | 71:4 71:14 74:8<br>75:18 76:6 76:17   | <b>versus</b> 64:7 173:13<br>173:18   |
| <b>united</b> 157:21 159:8   | <b>updated</b> 44:21  | <b>uva</b> 11:20   | 79:9 79:22 80:19<br>82:6 83:4 83:8 83:9   | <b>vessel</b> 41:17 107:20<br>144:14 144:15   |
| <b>units</b> 20:16 148:22<br>170:4 170:23<br>171:22  | <b>updates</b> 172:18   | <b>V</b>   | 85:19 86:12 88:10<br>89:9 89:11 89:15   | 155:13 159:16<br>159:18 164:2<br>167:25   |
| <b>university</b> 2:20 5:10<br>9:7 16:5 16:13<br>16:17 16:18 16:24<br>18:1 21:12 24:20   | <b>upgraders</b> 146:3  | <b>vacation</b> 63:9   | 89:16 89:20 89:20<br>90:6 90:22 90:22   | <b>vessels</b> 145:18 157:2<br>157:23 157:24  |
| <b>unless</b> 70:23 82:2<br>165:22   | <b>upon</b> 32:16 33:20<br>43:18 58:14 69:22<br>86:5 92:22 123:20<br>123:25 140:10  | <b>validates</b> 161:23  | 90:23 92:16 92:22<br>94:18 97:3 98:20   | 163:15 163:17   |
| <b>unsure</b> 21:24  | <b>ups</b> 38:6   | <b>value</b> 167:8   | 98:20 98:22 98:22<br>103:11 104:7   | <b>vetted</b> 158:22  |
| <b>unsuspecting</b> 102:8  | <b>upscale</b> 68:15 69:13  | <b>values</b> 173:18   | 104:10 104:15<br>105:3 105:16   | <b>violations</b> 15:9  |
| <b>until</b> 40:13 54:12<br>74:10 75:23  | <b>upstairs</b> 13:4 13:6   | <b>valve</b> 30:20 30:25<br>41:13 41:16 41:20<br>131:17 132:5  | 105:22 106:20<br>110:8 110:25   | <b>visit</b> 19:24 34:14<br>92:23 93:1  |
| <b>up</b> 13:8 16:8 16:9<br>16:14 17:16 20:20<br>21:13 21:15 22:14<br>26:13 35:13 37:25<br>38:7 39:17 39:19<br>45:5 48:1 48:2<br>48:11 55:25 58:4<br>61:22 63:7 63:9<br>72:7 72:24 73:4<br>73:5 75:8 75:23<br>86:15 86:16 87:8<br>87:21 89:9 92:24<br>93:1 93:20 98:1<br>99:22 100:1 100:13<br>102:12 102:14<br>105:18 109:7<br>109:13 110:2<br>111:11 112:13<br>112:15 122:2 128:7<br>130:18 130:25<br>135:20 139:18<br>141:6 141:17<br>141:17 141:18<br>143:15 144:8 145:2 | <b>upstream</b> 104:14<br>105:12  | <b>valves</b> 41:13 75:4   | 111:12 111:16<br>112:4 113:5 113:21<br>113:25 114:7 115:4   | <b>visitors</b> 12:18   |
|  | <b>us</b> 4:4 4:6 11:9 13:19<br>18:2 21:22 34:14<br>35:5 46:23 55:12<br>67:6 69:11 70:7<br>74:14 76:3 82:15<br>83:5 83:18 85:10<br>95:22 113:3 117:7<br>152:12 153:8 156:7<br>157:19 158:13<br>161:25 163:24<br>167:11 168:11<br>168:16 168:25<br>174:19 174:21<br>175:16 | <b>variance</b> 5:10 5:16<br>6:4 6:10 6:16 15:12<br>16:6 16:20 16:25<br>20:12 20:21 21:8<br>30:1 31:23 32:15<br>33:5 33:13 34:9<br>34:19 35:10 35:16<br>35:20 40:12 43:13<br>43:25 44:6 45:2<br>48:6 58:12 58:25<br>59:15 60:1 60:13<br>76:2 88:15 90:17<br>93:25 96:10 96:18<br>97:4 116:14 116:18<br>119:23 126:2<br>126:14 128:14<br>130:7 142:13 144:8<br>153:18 155:2<br>163:11 163:19<br>175:9 | 116:21 116:23<br>121:21 121:24<br>122:7 122:21 123:3<br>124:2 124:3 125:1<br>125:13 125:14<br>126:21 127:12<br>128:4 128:10<br>128:16 128:20<br>128:25 129:3<br>129:14 130:4<br>131:25 133:20<br>134:19 135:1 136:7<br>140:11 144:2<br>144:19 145:17<br>149:2 155:10 160:9<br>163:6 168:25 172:1<br>172:1 172:2 173:13<br>174:20 174:24 | <b>visual</b> 85:15   |
|  | <b>use</b> 26:13 60:24<br>83:20 133:25 136:1<br>144:12 148:18<br>167:14 167:16  | <b>variances</b> 21:7 21:19<br>75:25 76:3 93:19  | <b>vendor</b> 35:1 158:19   | <b>voltage</b> 46:3   |
|  | <b>used</b> 23:5 23:6 26:14<br>71:14 132:18<br>132:19 145:13<br>147:5 149:23<br>155:16 155:21<br>155:24 156:1   | <b>various</b> 29:23   | <b>vendors</b> 157:17<br>158:21   | <b>volts</b> 133:25   |
|  | <b>user</b> 151:25 151:25<br>160:1 160:7 160:18   | <b>ve</b> 18:17 19:1 20:1<br>20:14 27:8 27:13<br>30:1 38:6 38:14<br>38:25 39:1 39:4<br>39:13 39:16 39:21   | <b>vented</b> 41:22   | <b>vote</b> 13:11 13:25<br>14:1 87:8 87:12<br>161:13 162:12<br>162:24 163:8<br>163:11 165:24<br>173:8 174:3 |
|  |   |  | <b>venue</b> 170:1  | <b>voting</b> 13:12 14:14<br>21:7 34:8 58:24<br>87:19 96:8 130:5<br>142:11 173:11                           |
|  |   |  |   | <b>vouch</b> 73:22 74:15  |
|  |   |  |   | <b>W</b>  |
|  |   |  |   | <b>wacker</b> 3:4 3:6 6:22<br>6:24 9:17 9:20<br>12:24 142:19<br>142:25 143:6 143:7<br>143:8 159:1           |
|  |   |  |   | <b>wait</b> 62:1 64:10  |
|  |   |  |   | <b>walk</b> 49:20 122:16  |
|  |   |  |   | <b>walking</b> 156:11   |
|  |   |  |   | <b>wall</b> 39:19 50:9<br>72:18 73:3  |
|  |   |  |   | <b>walls</b> 73:6   |
|  |   |  |   | <b>wander</b> 50:14   |
|  |   |  |   | <b>want</b> 11:22 11:24   |



|   |  |   |   |  |
|---|--|---|---|--|
| 12:9 12:15 12:20<br>44:22 50:24 62:25<br>69:25 75:21 76:1<br>77:13 78:8 81:19<br>81:21 86:14 86:18<br>95:23 101:21<br>101:25 111:23<br>112:1 112:15<br>117:23 124:2 143:5<br>153:15 156:11<br>157:12 169:14<br>172:25<br><b>wanted</b> 11:15 11:21<br>64:18 129:4 144:9<br>158:22 174:17<br><b>wanting</b> 43:9<br><b>wants</b> 57:3 57:21<br>161:25<br><b>ward</b> 89:18<br><b>warm</b> 67:16<br><b>warming</b> 141:6<br><b>warning</b> 110:5 110:6<br>113:11 155:8<br><b>warnings</b> 110:5<br>113:24<br><b>warrant</b> 109:24<br>109:25 110:18<br><b>warrants</b> 110:14<br><b>wash</b> 104:17<br><b>washed</b> 104:22<br><b>wasn</b> 69:21 86:7<br>91:21 161:13<br><b>waste</b> 174:25<br><b>watch</b> 39:17 53:17<br>64:20<br><b>watching</b> 39:14<br><b>watchman</b> 121:9<br><b>water</b> 25:11 25:12<br>30:2 31:10 52:11<br>52:11 52:17 53:4<br>53:18 53:23 54:7<br>54:17 54:18 55:13<br>56:13 56:20 57:2<br>57:3 57:5 57:22<br>107:19 107:19<br>111:13 111:19<br>113:8 113:17<br>117:17 118:7<br>118:22 124:21<br>138:2 138:7 138:9 | 139:5 140:10 141:7<br>141:12 141:23<br><b>waters</b> 111:12 119:3<br><b>watson</b> 1:22 8:15<br>178:6 178:24<br><b>way</b> 55:9 55:25 56:24<br>61:5 72:25 88:17<br>109:1 114:24<br>121:24 134:19<br>136:23 139:9 167:1<br>176:25 178:16<br><b>website</b> 95:18 95:25<br><b>wednesday</b> 174:12<br><b>week</b> 11:18 43:16<br>44:19 88:14 89:4<br>114:1 141:21<br><b>weekend</b> 84:4<br><b>weekends</b> 81:5 81:17<br><b>weekly</b> 78:21<br><b>weeks</b> 176:4<br><b>weight</b> 69:22<br><b>welcome</b> 10:23 34:11<br>34:12 34:13 59:4<br>96:14 96:14<br><b>went</b> 104:21<br><b>weren</b> 140:23<br><b>west</b> 5:18 35:4 35:18<br><b>whatever</b> 111:6<br>111:20 122:6 127:8<br>129:19<br><b>when</b> 10:25 13:7<br>16:7 16:10 20:20<br>22:16 27:19 28:17<br>43:24 44:1 45:25<br>47:25 48:1 54:4<br>54:10 56:16 63:9<br>67:16 67:18 69:19<br>78:24 81:20 84:4<br>84:7 85:14 94:24<br>99:22 105:19<br>106:24 106:24<br>106:25 107:12<br>113:16 113:25<br>127:6 128:11 131:6<br>134:23 135:17<br>137:2 137:7 138:23<br>141:5 158:15 170:9<br>170:23 171:8<br>175:22 176:21<br><b>where</b> 22:19 25:16 | 26:4 27:13 38:10<br>44:10 44:13 46:9<br>66:9 73:4 73:12<br>76:8 76:17 76:20<br>78:10 80:11 82:13<br>90:18 100:2 103:23<br>104:16 106:20<br>108:5 111:5 113:23<br>119:25 120:2 120:9<br>122:21 126:20<br>127:3 148:5 156:8<br>157:11 157:21<br>165:2 167:2 167:3<br>167:7 167:8 169:19<br>175:24 175:25<br><b>whereof</b> 178:19<br><b>whether</b> 77:3 121:4<br>125:7 125:17<br>125:23 141:20<br>161:23<br><b>white</b> 112:20 115:1<br>124:5<br><b>who</b> 17:21 24:18<br>35:6 35:7 50:14<br>63:12 69:18 69:21<br>72:13 72:14 73:16<br>76:9 79:24 83:19<br>85:15 86:13 116:23<br>158:21<br><b>whole</b> 40:2 45:22<br>46:17 60:6 60:8<br>82:12 85:25 136:19<br>163:19<br><b>why</b> 53:6 58:3 99:24<br>100:21 109:1 129:1<br>147:8 164:3 172:14<br><b>will</b> 11:3 11:8 14:16<br>15:25 16:4 17:23<br>17:24 18:3 18:20<br>19:7 20:13 25:5<br>28:7 28:16 32:17<br>37:2 43:15 43:16<br>44:24 45:6 45:7<br>48:6 52:18 54:18<br>54:19 54:23 55:1<br>55:2 56:19 57:25<br>65:2 73:15 73:16<br>73:20 74:3 78:25<br>89:4 94:2 95:16<br>95:21 100:8 100:14<br>109:22 109:24 | 117:7 122:6 124:9<br>133:16 142:17<br>143:18 143:21<br>144:12 144:21<br>146:7 146:7 146:21<br>146:25 150:12<br>150:17 151:20<br>153:24 154:2 156:8<br>157:2 159:22<br>162:20 164:2 173:5<br>173:6 173:10<br>173:25 174:11<br>175:8<br><b>williamson</b> 178:3<br><b>wills</b> 77:19<br><b>window</b> 154:1 154:8<br><b>winter</b> 135:17<br><b>wiped</b> 71:25<br><b>wire</b> 105:23 110:15<br><b>wires</b> 106:11 106:12<br>106:15 106:24<br><b>wise</b> 106:19<br><b>wish</b> 174:14<br><b>withdraw</b> 94:2 94:6<br>94:8<br><b>within</b> 42:13 73:2<br>73:19 88:14 88:23<br>89:6 123:6 133:10<br>143:18 154:1<br>164:23 164:25<br>165:1 178:10<br><b>witness</b> 17:15 178:19<br><b>won</b> 14:1 74:8<br>127:15 142:21<br><b>wonder</b> 175:22<br><b>wondering</b> 109:1<br>172:14<br><b>wood</b> 2:21 5:21 6:11<br>9:9 9:9 35:2 38:20<br>38:23 40:19 42:12<br>42:14 43:22 45:14<br>45:21 47:7 47:21<br>49:2 49:23 51:3<br>51:12 51:16 51:25<br>52:8 53:8 54:9 55:8<br>56:8 57:9 57:16<br>59:2 96:18 97:4<br>97:6 97:7 97:11<br>97:11 98:4 100:18<br>100:22 101:7 | 101:16 101:18<br>102:15 103:9<br>103:10 104:16<br>105:4 105:16<br>105:18 105:21<br>105:22 106:3<br>106:21 108:8<br>108:12 110:8 110:9<br>112:11 115:16<br>115:16 116:15<br>116:19 116:22<br>119:6 121:22<br>126:22 127:12<br>128:16 128:21<br>131:1 131:13 132:8<br>132:11 133:9 136:3<br>136:3 138:1 139:9<br><b>word</b> 26:13<br><b>worded</b> 55:7<br><b>wording</b> 115:4<br><b>words</b> 51:24 54:6<br>64:2 91:24 106:10<br>110:1 141:13<br>149:23<br><b>work</b> 19:8 24:2 37:10<br>48:20 49:7 63:2<br>63:2 65:22 81:13<br>83:6 140:19 151:10<br>172:21 173:1 173:5<br>173:19 173:25<br>177:5<br><b>workforce</b> 1:6 2:11<br>2:13 2:16 2:18<br><b>working</b> 22:5 36:25<br>38:5 53:10 151:5<br>171:2 173:23 177:6<br>177:9<br><b>works</b> 37:5 62:13<br>65:18 125:5<br><b>world</b> 42:7<br><b>worldwide</b> 143:25<br><b>worried</b> 72:12<br><b>worry</b> 165:21<br><b>worst</b> 42:7 105:20<br>167:22 168:4<br><b>worth</b> 68:12 112:24<br><b>wouldn</b> 75:24 78:5<br>88:25 92:2 93:14<br>172:8<br><b>write</b> 51:10 51:15 |
|---|--|---|---|--|

|                            |                              |                              |                             |                             |
|----------------------------|------------------------------|------------------------------|-----------------------------|-----------------------------|
| 67:23 81:20 144:8<br>145:2 | 165:1                        | 7:3 13:16 16:5               | 161:8 176:8                 | <b>550</b> 143:10           |
| <hr/> <b>Y</b> <hr/>       | <b>young</b> 70:3 70:4       | 16:13 34:18 59:13            | <b>234</b> 1:24             | <b>570</b> 150:17 155:14    |
| <b>yards</b> 97:16 123:6   | <b>yourselves</b> 16:11      | 59:13 96:17 99:6             | <b>24</b> 6:23 18:10 24:16  | <b>59</b> 6:3 6:8           |
| 125:19                     | 34:22 59:18 96:22            | 99:6 130:8 142:17            | 50:16 52:3 52:6             | <b>590</b> 6:12 6:18 99:22  |
| <b>yeah</b> 13:7 13:24     | 142:23                       | <b>142</b> 6:22 6:23         | 52:19 54:12 60:10           | 100:6                       |
| 17:17 20:25 21:11          | <hr/> <b>Z</b> <hr/>         | <b>15</b> 5:8 5:14 6:10      | 60:11 60:22 89:10           | <hr/> <b>6</b> <hr/>        |
| 21:18 27:5 28:11           | <b>zero</b> 117:23           | 96:17 135:6 135:6            | 97:25 120:9                 | <b>60</b> 30:19             |
| 29:11 31:11 40:7           | <hr/> <b>0</b> <hr/>         | 169:9                        | <b>2400</b> 116:6           | <b>615</b> 1:25             |
| 50:21 51:12 63:15          | <b>00</b> 1:4 8:3 53:10      | <b>150</b> 30:20             | <b>24th</b> 74:9            | <b>66</b> 116:3 116:3 116:4 |
| 64:23 65:17 67:3           | 53:10 59:6 169:10            | <b>16</b> 5:5 5:6 5:9 5:10   | <b>25</b> 177:25            | 116:5                       |
| 68:22 68:23 69:8           | <b>000</b> 39:5 42:16 42:20  | 5:14 6:10 6:16 7:5           | <b>250</b> 30:22 132:12     | <hr/> <b>7</b> <hr/>        |
| 70:2 71:7 71:17            | 72:23 97:6 97:7              | 130:8                        | <b>262</b> 5:18 35:24 43:2  | <b>71</b> 5:13              |
| 72:16 72:17 72:18          | 116:3 116:3 116:4            | <b>169</b> 7:3 7:5           | <b>27</b> 173:13            | <b>7800</b> 137:25          |
| 73:7 73:9 74:6             | 116:5 116:8                  | <b>17</b> 5:15 6:22 6:22     | <b>280</b> 99:19 100:5      | <hr/> <b>8</b> <hr/>        |
| 74:11 74:15 74:22          | <b>017</b> 15:8              | 13:16 142:17                 | <b>2855</b> 6:6 71:14       | <b>80</b> 97:7              |
| 77:21 81:16 85:17          | <b>03</b> 5:12 5:12 5:18     | <b>172</b> 7:6               | <b>2865</b> 71:15           | <b>800</b> 172:23 174:4     |
| 90:20 92:14 99:11          | 5:18 6:6 6:6 6:12            | <b>174</b> 7:7 7:8           | <b>29</b> 47:13             | <hr/> <b>9</b> <hr/>        |
| 101:7 106:14               | 6:12 6:18 6:18 7:6           | <b>177</b> 7:10              | <hr/> <b>3</b> <hr/>        | <b>900</b> 1:24             |
| 112:10 114:12              | 7:6 20:17 172:23             | <b>18</b> 67:12 67:13 67:13  | <b>30</b> 30:22 49:7 52:21  | <b>912</b> 15:6             |
| 119:12 121:5               | 172:23 174:4 174:4           | 70:3 122:19                  | 73:19 89:21                 | <b>95</b> 61:3 73:23        |
| 128:15 132:6 133:2         | <b>04</b> 5:12 5:18 6:6 6:12 | <b>19</b> 40:10 42:3         | <b>300</b> 35:11 35:21      | <b>96</b> 6:10 6:14         |
| 133:12 135:6               | 6:18                         | <b>19th</b> 12:4             | 42:17                       | <b>9651</b> 70:17           |
| 135:12 136:22              | <b>045</b> 15:5              | <hr/> <b>2</b> <hr/>         | <b>3231</b> 160:18          | <b>98</b> 127:23 128:5      |
| 138:22 140:5               | <b>05</b> 59:9               | <b>20</b> 6:8 40:13 48:15    | <b>34</b> 5:15 5:20         | <b>99</b> 132:15            |
| 149:17 151:19              | <b>0800</b> 5:12 5:18 6:6    | 61:5 65:6 82:22              | <b>35</b> 47:14 119:15      |                             |
| 152:15 155:11              | 6:12 6:18 7:6                | 84:2 90:13 106:23            | 128:25                      |                             |
| 160:8 160:11 161:1         | <hr/> <b>1</b> <hr/>         | 106:25 116:19                | <b>350</b> 60:18 72:23      |                             |
| 162:3 162:19               | <b>10</b> 59:6 59:9 116:8    | 116:23 125:2                 | <b>365</b> 97:25            |                             |
| 166:24 171:25              | <b>100</b> 30:23 39:12       | 125:24 126:3                 | <b>37069</b> 1:24           |                             |
| 176:8 177:3                | 42:16 42:20 61:3             | 127:16 128:7                 | <b>371</b> 161:3            |                             |
| <b>year</b> 12:7 20:11     | 73:23 97:16 123:6            | 129:10 178:25                | <b>37243</b> 1:8            |                             |
| 29:23 60:2 67:13           | 125:19 130:13                | <b>200</b> 42:25 49:25       | <b>3rd</b> 178:11           |                             |
| 70:3 75:23 76:4            | 144:1 144:2                  | 56:18 71:20                  | <hr/> <b>4</b> <hr/>        |                             |
| 88:18 98:1 119:15          | <b>105</b> 15:7              | <b>2003</b> 19:23            | <b>410</b> 151:3            |                             |
| 128:25 135:19              | <b>1089</b> 1:25             | <b>2007</b> 19:23            | <b>42</b> 80:23             |                             |
| 140:17 143:14              | <b>10th</b> 11:19            | <b>2012s</b> 43:12           | <b>44</b> 132:14            |                             |
| 154:2 154:8 163:6          | <b>11</b> 5:4 6:20 7:8       | <b>2014</b> 1:3 15:13        | <b>446</b> 1:22 178:6       |                             |
| 163:9 163:12 164:3         | <b>110</b> 137:25            | 178:12 178:20                | 178:24                      |                             |
| 164:6 176:15               | <b>12</b> 5:5 5:10 16:5      | <b>2016</b> 178:25           | <b>45</b> 62:3 73:15 168:18 |                             |
| 177:23                     | 16:13 47:19 47:24            | <b>2020</b> 1:23             | 168:24 169:1                |                             |
| <b>years</b> 12:4 20:2     | 52:12 53:10 54:3             | <b>21</b> 7:10               | <b>4509</b> 5:18 35:4 35:18 |                             |
| 20:14 21:17 30:15          | 55:14 169:9 177:25           | <b>21st</b> 178:20           | <b>480</b> 133:25           |                             |
| 37:22 49:8 62:16           | <b>13</b> 5:15 6:3 15:10     | <b>22</b> 5:12 5:18 6:6 6:12 | <b>4th</b> 174:12           |                             |
| 67:12 67:13 89:21          | 34:18 99:6                   | 6:18 7:6 90:17               | <hr/> <b>5</b> <hr/>        |                             |
| 98:23 132:14 133:1         | <b>130</b> 6:16 6:20         | <b>220</b> 1:7 131:20        | <b>50</b> 41:16 165:20      |                             |
| 133:3 136:5 139:21         | <b>14</b> 5:6 5:10 5:15 6:3  | 131:21 132:13                | <b>510</b> 150:16 155:13    |                             |
| 144:1 144:2 151:3          | 6:3 6:10 6:16 6:22           | <b>221</b> 1:25              | <b>55</b> 97:6              |                             |
| 154:24 156:3               |                              | <b>23</b> 5:20 6:14 160:17   |                             |                             |
| 160:14 164:10              |                              | 160:22 160:24                |                             |                             |