

U.S. DEPARTMENT OF LABOR
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
INFORMAL PUBLIC HEARING

Walking and Working :
Surfaces: Fixed Ladders :
:

Monday,
August 24, 2026

Videoconference

The above-entitled matter came on for
hearing, pursuant to notice, at 9:30 a.m. EDT

BEFORE: THE HONORABLE SCOTT R. MORRIS,
Administrative Law Judge

DEPARTMENT OF LABOR PANEL MEMBERS:

ROBERT BLICKSILVER, Economist
DAVID CHICCA, Director, Office of Engineering
Safety
TOM MOCKLER, Economist
WILL ZETTLER, Safety & Occupational Health
Specialist

DEPARTMENT OF LABOR OFFICE OF THE SOLICITOR:

EVE MARIE STOCKER, ESQ.
TESSA ZAVISLAN, ESQ.

ALSO PRESENT:

ALEX DUNCAN, Department of Labor
RICHARD EWELL, Department of Labor
KATIE HARRISON, Eastern Research Group
KECIL JOHN, Eastern Research Group
JULIA KEANE, Eastern Research Group
JESSICA STONE, Department of Labor
RYAN TREMAIN, Department of Labor

1	C-O-N-T-E-N-T-S	
2		PAGE
3	Welcome Comments	5
4	Administrative Law Judge, Introduction and Hearing Guidelines, Introduction of OSHA Panel	
5	The International Liquid Terminals Association	15
6	Byrne Evans	
7	American Petroleum Institute	27
8	Timothy Steffek	
9	American Fuel and Petrochemical Manufacturers	
10	Justin Mecham	42
11	Jody Bench	119
12	Employers OSHA Modernization Coalition	
13	Eric Conn	62
14	The ANSI/ASSP Z359 Committee	
15	Thom Kramer	127
16	Dan Henn	131
17	LJB, Inc. Engineering	
18	Kevin Wilcox	169
19	NATE: The Communications Infrastructure Contractors Association	
20	Kathy Stieler	200
21	Valcourt Building Services	
22	Josh Wing	216
	Brotherhood of Railroad Signalmen	
	Christopher Hand	242
	American Federation of State, County and Municipal Employees (AFSCME)	
	Ellie Barbarash, CPEA	250

1	United Steelworkers	
	Juan Zuniga	270
2	Steve Sallman	273

3	Laborers' Health and Safety Fund of North America	
4	Travis Parsons	301

5	EXHIBITS	MARK RECD
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6		
	1 Master Index	13
7	3 Hearing Procedures	14
	4 Schedule	14
8	5 PowerPoint Presentation	56
	6 PowerPoint Presentation	234

9

10

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12

13

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

9:33 a.m.

JUDGE MORRIS: This is an informal public hearing on the Occupational Safety and Health Administration's Walking Working Services proposed rule regarding fixed ladders. This notice of proposed rulemaking was published in the Federal Register on April 6, 2026 in Volume 91 of the Federal Register beginning at page 17165.

I am Scott R. Morris and I'm the Administrative Law Judge for the United States Department of Labor and I will be presiding over this hearing today. The purpose of this hearing is to receive from interested parties oral testimony as well as any other information pertinent to the proposed rule.

After this hearing and the post-hearing comment periods have closed, OSHA will review the entire record in determining the content of the final rule. My role as presiding judge will be limited to conducting this hearing to assure

1 that a complete and accurate record is made and
2 that all interested parties receive a fair
3 hearing and have an opportunity to submit their
4 information.

5 The hearing schedule and OSHA's
6 procedures governing this hearing are available
7 on the deregulatory rulemaking page of OSHA's
8 website. These documents were sent to people
9 and organizations who filed timely notice of
10 intention to appear at this hearing.

11 A few words here about the nature of
12 this hearing. Despite the informal nature of
13 the hearing, it is governed by rules. Both
14 OSHA's rules governing hearings at 29 Code of
15 Federal Regulations Part 1911 and hearing
16 procedures issued specific to this rulemaking.

17 These rules are meant to assure that
18 everyone has a fair opportunity to speak and
19 express an opinion about the proposed rule. To
20 that end, they also allow me to hold witnesses
21 to their allotted times, limit undue repetition
22 or excessive argument, and generally keep the

1 hearing on schedule. Any written comments you
2 have submitted to the docket are already part of
3 the record of this rulemaking.

4 In the rare case where witnesses wish
5 to provide any other documents that have not
6 already been entered into the docket, they
7 should provide them by email to capital letters
8 O-S-H-A-E then small v-e-n-t-s underline capital
9 D-S-G at d-o-l.g-o-v before the witness begins
10 their testimony so that they can be designated
11 as exhibits in the record.

12 Because all pre-submitted documents are
13 already part of the record, your oral testimony
14 should concentrate on presenting the highlights
15 of your written comments or clarifying or
16 expanding your written submission.

17 Hearing participants may also submit
18 additional evidence or statements for a period
19 following the end of the hearing and will have
20 an additional period of time after that to
21 submit any briefs based on the record as a
22 whole.

1 I will set the deadlines for these
2 periods at the end of the hearing. At that
3 moment, the record for this hearing will close.

4 Today, after each speaker or panel of speakers
5 completes their oral testimony, OSHA
6 representatives will have an opportunity to ask
7 questions of the speaker or panel.

8 When OSHA has finished asking
9 questions, there will be an opportunity, as time
10 permits, for persons who have filed a timely
11 notice of attendance to appear for this hearing
12 to question the witness or panel.

13 Participants may only direct questions
14 to witnesses with whom they have no
15 organizational affiliation. This is intended to
16 prevent the use of the question period to extend
17 testimony. This is the process I intend to
18 follow.

19 After OSHA has finished asking
20 questions of a witness or panel, I will ask
21 participants who wish to ask questions of the
22 witnesses or panel to identify themselves by

1 pressing the raise hand button in Zoom. Or by
2 pressing pound nine on their phones for those
3 who have called in.

4 Based on the hearing schedule and the
5 number of participants who wish to ask
6 questions, I will determine the order in which
7 participants will question the particular
8 witness or panel and any time restrictions on
9 that questioning.

10 If there are more questions than we
11 have time for during the scheduled period for
12 questioning, it may be possible to ask
13 additional questions after the conclusion of the
14 final witness's testimony today.

15 Further, if witnesses are unable to
16 answer a question during today's hearing or
17 would like to expand on the answers provided,
18 they are welcome to use the post-hearing comment
19 period to submit such information. I would also
20 like to remind you that this proceeding is being
21 recorded and transcribed by a court reporter.

22 To ensure that the reporter is

1 available to provide an accurate record of all
2 the testimony, questions, and responses, please
3 try to remember to provide verbal responses to
4 all questions. The court reporter may have a
5 hard time seeing if you only nod or shake your
6 head in response to a question.

7 In addition, please remember to
8 identify yourself before beginning your
9 testimony and before asking or answering a
10 question. Do not worry. I know many
11 participants are not accustomed to doing these
12 things.

13 I will remind you as we go along. The
14 transcript of the hearing will be uploaded to
15 the hearing docket on regulations.gov
16 approximately two weeks following the hearing.
17 I will now ask the OSHA panel to introduce
18 themselves.

19 MR. CHICCA: Thank you, Your Honor.
20 Good morning. I'm David Chicca from OSHA's
21 Directorate of Standards and Guidance and with
22 me today:

1 MR. ZETTLER: Good morning. My name is
2 Will Zettler. I'm with OSHA's Directorate of
3 Standards and Guidance, and I want to thank
4 everyone who's attended today for their
5 testimony.

6 MR. MOCKLER: Hi, I'm Tom Mockler. I'm
7 an economist with OSHA's Office of Regulatory
8 Analysis.

9 MR. CHICCA: And this afternoon, we
10 will have Dr. Bob Blicksilver replacing Tom
11 Mockler, but that is all for the OSHA panel,
12 Your Honor.

13 JUDGE MORRIS: Ms. Stocker?

14 MS. STOCKER: Yes, good morning. My
15 name is Eve Stocker and with me today is my
16 colleague Tessa Zavislan.

17 MS. ZAVISLAN: Good morning. This is
18 Tessa Zavislan for the solicitor.

19 JUDGE MORRIS: Ms. Stocker, are you
20 going to explain the solicitor's office role?

21 MS. STOCKER: Yes, Your Honor. Thank
22 you, Your Honor. My name is Eve Stocker and I

1 am representing the Office of the Solicitor in
2 this hearing. My colleague Tessa Zavislan will
3 also be representing the Office of the Solicitor
4 for portions of this hearing.

5 The role of the Office of the Solicitor
6 in this hearing is to facilitate a complete,
7 accurate, and clear record upon which OSHA can
8 base its final rule. We will do that through
9 asking questions, eliciting information on
10 various issues, and helping to resolve any
11 procedural matters that may arise.

12 I would like to designate as Exhibit 1
13 the master index of the complete record of this
14 rulemaking as of today's date for the hearing
15 record. This is not a copy of all of the
16 documents that have been submitted to the
17 document, to the docket. Rather, it is a list
18 of all of the documents that are part of the
19 public docket of this rulemaking, docket number
20 OSHA-2025-0072.

21 All of the documents listed here are
22 available for inspection and, as permissible,

1 copying at the OSHA docket office. In addition,
2 all of the documents are listed in the docket
3 index for this rulemaking at
4 www.regulations.gov, the federal eRulemaking
5 portal.

6 I would also like to point out that
7 this hearing concerns a proposed change to
8 OSHA's fixed ladders rule, which was originally
9 promulgated in 2016 as part of OSHA's walking
10 working surfaces standard.

11 Therefore, the record for this fixed
12 ladders rulemaking incorporates the record from
13 the walking working surfaces rulemaking. Thank
14 you.

15 JUDGE MORRIS: Thank you, Ms. Stocker.
16 The master index will be designated as Exhibit
17 1.

18 (Whereupon, the document referred to
19 was marked as Exhibit No. 1 for identification.)

20 MS. STOCKER: Your Honor, I also have a
21 few other exhibit-related requests. First, I
22 would like to reserve Exhibit 2 for a complete

1 list of hearing exhibits, which we will prepare
2 after the close of the hearing.

3 And secondly, I would like to designate
4 copies of two other exhibits for the record.
5 The hearing procedures are designated as Exhibit
6 3, and a copy of the hearing schedule is
7 designated as Exhibit 4.

8 JUDGE MORRIS: I will reserve Exhibit 2
9 for the complete list of hearing exhibits. As
10 requested, the hearing procedures will be
11 designated as Exhibit 3, and the schedule will
12 be designated as Exhibit 4 for the hearing
13 record.

14 (Whereupon, the documents referred to
15 were marked as Exhibit Nos. 3 and 4 for
16 identification.)

17 MS. STOCKER: Thank you, Your Honor.

18 JUDGE MORRIS: Now, unless there are
19 any other further announcements or other
20 housekeeping matters, I believe that we can
21 proceed with the public testimony.

22 The expected speaking order is

1 currently displayed or will be displayed on the
2 screen. Our contractor will introduce each
3 speaker in turn and promote them to be
4 panelists.

5 When you are called to testify, please
6 state your name and affiliation for the record,
7 and speak slowly and clearly so our court
8 reporter can record these proceedings
9 accurately.

10 MS. HARRISON: All right. So, our
11 first speaker is Byrne Evans. I've just
12 upgraded you to a panelist, so you should be
13 able to turn your camera on, if you would like,
14 and your microphone.

15 And as a reminder, we do have a
16 courtesy timer at the bottom right-hand corner
17 of the screen that will start once you begin
18 your testimony.

19 MR. EVANS: Good morning. My name is
20 Byrne Evans, and I'm testifying on behalf of the
21 International Liquid Terminals Association.
22 Thank you very much, Your Honor and OSHA, for

1 this opportunity to testify.

2 ILTA is the leading trade association
3 for liquid terminal industry. Our members
4 operate the terminals that are vital components
5 of our nation's supply chain. We have a culture
6 of continuous safety improvement, with zero
7 injuries always as the goal.

8 ILTA's members operate over 1,000
9 terminal facilities in all 50 states and have
10 numerous ladders that will be affected by this
11 proposed rule. Our members are concerned about
12 the safety effects and costs that would result
13 from leaving the 2016 rule unchanged.

14 ILTA believes that OSHA should allow
15 employees to continue using cage wells, cages,
16 and wells as fall protection on fixed ladders
17 that extend more than 24 feet above a lower
18 level.

19 Cages and wells are very common in our
20 industry. They are used to access storage
21 tanks, loading racks, emission control device,
22 and other areas of our members' facilities.

1 This is true not just for storing petroleum, but
2 for other commodities as well.

3 Cages and wells protect employees. We
4 surveyed our members and none reported any fatal
5 falls from fixed ladders equipped with a cage or
6 well. That is also what our anecdotal
7 experience shows. We are not aware of any
8 serious injuries from falls from these ladders
9 equipped with cages or wells.

10 We recognize the usefulness of personal
11 fall arrest systems and ladder safety systems in
12 certain situations, but we do not see the need
13 to require them instead of cages and wells in
14 our industry. Not all of these systems are
15 compatible, and they work only as long as
16 compatible harnesses, connectors, and ladder
17 mounted components are used.

18 A major concern is that people may
19 forget to use their equipment correctly, or they
20 may accidentally use incompatible equipment.
21 Ladder mounted components will be exposed to the
22 elements, sometimes at harsh environments like

1 our marine terminals, and get worn down and
2 compromised.

3 In contrast, fixed ladders in our
4 industry are almost always made of galvanized
5 metal, which resists corrosion and wear. I've
6 been with my company for 23 years, and to my
7 knowledge, we have not needed to replace any
8 tall fixed ladders.

9 We are also concerned about contractors
10 and third parties safely using fall arrest
11 ladder systems. Contractors are widely used in
12 our industry, and our customers hire cargo
13 inspectors to come on site and inspect their
14 products.

15 It would be very difficult to ensure
16 that all these other people use the correct
17 equipment for every site. Emergencies are
18 another major concern. Typically in our
19 industry, multiple tanks are connected by
20 walkways between their tops.

21 One set of stairs may be used to access
22 the walkways. To provide for multiple exit

1 options, we have fixed ladders on the tank to be
2 used in emergencies if the stairs are
3 inaccessible. Load racks are similar.

4 One set of stairs is used for access,
5 and a ladder may be provided at other places on
6 the rack for emergency use only. Right now,
7 cages and wells are installed on our emergency
8 ladders. This is an effective way to protect
9 any person who may need to use them for an
10 emergency access or egress. No one needs to
11 carry specialized PPE, and multiple people at a
12 time can climb one ladder.

13 If cages and wells are not allowed as a
14 compliant option, then anyone who accesses tanks
15 or load racks will have to wear a harness on the
16 off chance there would be an emergency. This
17 would be a major change to how our industry
18 operates, and we are concerned that employees
19 will not always carry equipment when it's very
20 unlikely that the equipment would be needed.

21 Also, because these emergency ladders
22 are not regularly used, ladder mounting

1 components may not be inspected as frequently as
2 equipment used daily. They could become
3 compromised by exposure to weather and could
4 fail to protect employees when needed the most.

5 Costs are also a concern.

6 The cost of retrofitting ladders is not
7 just installing a ladder safety system or buying
8 PPE. Many of the products stored at our members
9 terminal are flammable or hazardous, and working
10 on ladders near these materials would mean
11 higher costs. Some of the ladders are bolted
12 on, but most ladders will have to be welded,
13 requiring a storage tank to be emptied and often
14 cleaned.

15 We also expect more costs related to
16 training employees on new systems, inspecting
17 the systems, maintaining them, and replacing
18 them. This training would also need to extend
19 to contractors and third parties expected to
20 utilize these ladders.

21 Our members may not only absorb the
22 cost, may not be able to absorb the cost, or

1 they will have to direct funds away from other
2 projects that have more safety benefits. That is
3 especially true for more than one-third of our
4 members who are small businesses with less than
5 50 employees.

6 As an alternative, if OSHA does not
7 allow employees to continue to use cages and
8 welds, they'll have to request that it
9 eliminates the 2036 compliance deadline. This
10 is an arbitrary deadline and would create higher
11 costs and operational disruptions because it
12 would not align with regular replacement of
13 ladders.

14 In closing, ILTA requests that OSHA
15 allow employers to use cages and welds as a mean
16 of fall protection on tall, fixed ladders.
17 Thank you for this opportunity to comment.

18 JUDGE MORRIS: Thank you, Mr. Evans.

19 MR. CHICCA: Your Honor, should we
20 start asking questions?

21 JUDGE MORRIS: Oh yeah, please. I'm
22 sorry.

1 MR. CHICCA: That's all right.

2 Thank you, Mr. Evans. And this is
3 David Chicca with OSHA. And I'll start with the
4 first question. Some commenters have stated
5 that cages and wells do not provide positive
6 controlled fall arrest capability. Mr. Evans,
7 can you comment on that?

8 MR. EVANS: I'm sorry. Can you repeat
9 that one more time?

10 MR. CHICCA: Sure. Some commenters
11 have stated that cages and wells do not provide
12 positive control fall arrest capability. Can
13 you comment on that?

14 MR. EVANS: Yeah. As I mentioned in my
15 testimony, we haven't had any experiences with
16 falls from these type of ladders with cages and
17 welds. Although that may not seem to show that
18 it provides the required protection, but our
19 experience is that it's not occurring on these
20 ladders with cages and welds.

21 MR. CHICCA: Thank you. And I guess
22 outside of your own experience, do you have any

1 scientific research that you can submit to the
2 record that cages and wells are more protective
3 than ladder safety systems or personal fall
4 arrest systems, either in preventing a fall or
5 arresting a fall once it occurs?

6 MR. EVANS: No, I do not.

7 MR. CHICCA: Next from OSHA to ask
8 questions is Will Zettler.

9 MR. ZETTLER: Hi. Thank you for your
10 testimony, Mr. Evans. You may not have the
11 information on hand with you, so you're welcome
12 to provide answers to my questions now or in
13 post-hearing comments.

14 How many ladders in your members'
15 workplaces are already equipped with ladder
16 safety systems or personal fall arrest systems?

17 MR. EVANS: Yes, I do not have that
18 answer, but I can get back with you.

19 MR. ZETTLER: Okay. And could you
20 also, with that answer what height those ladders
21 extend to above a lower level? Also, how many
22 ladders in your members' workplaces would need

1 to be retrofitted by the deadline, if you have a
2 number for that?

3 MR. EVANS: I do not, but I will get
4 back with you.

5 MR. ZETTLER: Okay. And can you break
6 down whether the ladder safety system or
7 personal fall arrest system merely need to be
8 installed on an existing ladder, whether the
9 ladders need to be replaced as well, and whether
10 additional structural changes, I think you
11 mentioned bolting on some of the tanks, would
12 need to be made?

13 MR. EVANS: Okay.

14 MR. ZETTLER: And that's all the
15 questions for me, Your Honor.

16 JUDGE MORRIS: Anyone else?

17 MR. CHICCA: Yes, next for OSHA, Tom
18 Mockler.

19 MR. MOCKLER: Hi, yeah, this is a sort
20 of a long question, but bear with me. Can you
21 describe the costs you mentioned that include
22 permitting and approvals, engineering review,

1 temperature monitoring, atmospheric monitoring,
2 and fire watch personnel?

3 And please distinguish between, one,
4 the routine and customary current baseline
5 employer practices that contribute to ladder
6 safety, and two, the services that your analysis
7 categorizes as necessary or implied by the OSHA
8 deadline of 2036.

9 In other words, what are they currently
10 doing for ladder safety independent of the OSHA
11 standard, and what are the actual incremental
12 costs that they perceive as necessary by the
13 deadline?

14 MR. EVANS: I will get back with you on
15 the cost. But as I mentioned before, often a
16 lot of our members have expressed that these
17 ladders are currently used as emergency use that
18 have the cages in the wells.

19 So the main access points that we have
20 would be ladder or stairs that go up the side of
21 tanks and go up the side of those racks. But I
22 will get back with you on the costs associated

1 with retrofitting.

2 MR. MOCKLER: Okay, thank you.

3 MR. CHICCA: Thank you again, Mr.

4 Evans.

5 Your Honor, that's all the questions
6 that OSHA has.

7 JUDGE MORRIS: All right. Thank you,
8 Mr. Evans.

9 MR. EVANS: Thank you.

10 MS. STOCKER: Your Honor, Eve Marie
11 Stocker for the Office of the Solicitor. I have
12 a question, please, for Mr. Evans.

13 JUDGE MORRIS: All right.

14 MS. STOCKER: Would you please clarify
15 for the record, Mr. Evans, do most of your fixed
16 ladders on your member sites, do they have cages
17 that extend the entire length of the ladder, or
18 are the cages or wells just at the top of the
19 ladder or above 24 feet, if you could just
20 expand on that either now or in post hearing
21 comments? Thank you.

22 MR. EVANS: I can follow up with

1 additional member information. But from my
2 experience at my current employer, most of our
3 fixed ladders that are used to access tanks have
4 the wells that extend all the way down, or I am
5 sorry, the cages that extend all the way down.

6 MS. STOCKER: Thank you. We appreciate
7 your testimony very much and your time.

8 MR. EVANS: Thank you.

9 JUDGE MORRIS: Any other questions? I
10 take that silence as a no.

11 So thank you, Mr. Evans, for your input
12 and comments.

13 MR. EVANS: Thank you, everyone.

14 JUDGE MORRIS: According to my notes,
15 the next entity is the American Petroleum
16 Institute.

17 MS. HARRISON: Yes, Your Honor.
18 Timothy Steffek, I have just promoted you to
19 panelist. You should be able to turn your
20 webcam and your camera on or your microphone
21 when you're ready.

22 MR. STEFFEK: Okay. Good morning.

1 Thank you, Your Honor and OSHA for the
2 opportunity to testify today. I am Timothy
3 Steffek, a senior policy advisor testifying on
4 behalf of the American Petroleum Institute, or
5 API.

6 API represents over 600 member
7 companies from all segments of America's natural
8 gas and oil industry. API's members have tens
9 of thousands of fixed ladders that are covered
10 by this proposed rule.

11 Based on the strong safety record of
12 caged fixed ladders, we believe OSHA should
13 allow employers to continue using cages and
14 wells as fall protection on fixed ladders that
15 extend more than 24 feet above a lower level.

16 Essentially, all of the fixed ladders
17 in the natural gas and oil industries are
18 equipped with cages and wells. That has been
19 the case for many decades. They are climbed
20 daily by employees and contractors.

21 To my knowledge, our members have a
22 long history of safe climbs on these ladders

1 with no fatal falls or falls that have resulted
2 in significant injury. We don't see how this
3 safety record could be meaningfully improved as
4 we see no need to replace this proven approach
5 with personal fall arrest systems or ladder
6 safety systems.

7 We have concerns about the reliability
8 of these fall arrest and ladder safety systems.
9 Cages and wells are fixed to the structures.
10 They are always there. Every employee who
11 climbs is always automatically protected without
12 needing to take any extra steps.

13 This type of control is consistently
14 recognized by OSHA and NIOSH as more effective
15 than PPE. In fact, PPE is recognized as the
16 least effective control because it relies on
17 humans to use it correctly. That is why, in my
18 opinion, requiring this PPE presents serious
19 risk.

20 The fall arrest and ladder safety
21 systems only work if they are used the right way
22 every time. Even with excellent training, this

1 is unlikely to happen because people make
2 mistakes. Our members want to rely on proven,
3 safe controls that do not depend on perfect
4 human performance.

5 Even when fall arrest systems and
6 ladder safety systems are used correctly, they
7 can make the climb riskier as employees often
8 climb with tools which may get tangled in the
9 system.

10 And to disconnect from the ladder
11 mounted components, the systems may require
12 multiple steps or for the climber to let go of
13 the ladder with both hands to manipulate the
14 components at the point of transitioning onto or
15 off of the ladder, which are the most dangerous
16 points in the climb.

17 And there is always the risk that the
18 components of the system may fail. In contrast,
19 there is functionally zero risk that a cage or
20 well would fail. We are also concerned about
21 contractor safety using fall arrest or ladder
22 safety systems.

1 Contractors are common in the natural
2 gas and oil industries, and they typically work
3 at multiple different sites. If cages and wells
4 are prohibited, then every employer will have to
5 use a compatible fall protection system at every
6 single site where contractors work.

7 This introduces yet another element of
8 risk. It is not hard to imagine people getting
9 confused and making mistakes from one system to
10 another between facilities, especially since
11 there are so many different systems that can be
12 used, and the components of these different
13 systems are usually not compatible.

14 Another major concern is how fall
15 arrest or ladder safety systems would affect
16 employees in emergencies. In our industries, an
17 emergency can require employees to descend or
18 ascend fixed ladders very quickly.

19 Cages make that easy because employees
20 do not have to don any PPE or connect or
21 disconnect themselves. It is also not realistic
22 to expect these systems to be thoroughly

1 inspected before they are used in an emergency,
2 so any issues with the components might not be
3 found.

4 Also, with cages, multiple employees
5 can climb at the same time, which means faster
6 evacuation and rescue. If a fall arrest or
7 ladder safety systems are mandated, only one
8 employee may be able to climb down at a time.
9 This slows down evacuation and emergency
10 response, creating more risk at exactly the
11 wrong time.

12 Even just the work to implement the
13 mandate would expose employees to unnecessary
14 hazards. In our industries, fixed ladders are
15 often on or near processing equipment.
16 Removing cages will require hot work and work at
17 heights on thousands of ladders.

18 I do want to emphasize that it is
19 unlikely that any of our members will install
20 fall arrest or ladder safety systems inside
21 existing cages. There's a real risk that the
22 systems may not work as intended, given the

1 small area inside the cage.

2 There are certainly some circumstances
3 when personal fall arrest systems and ladder
4 safety systems would be appropriate, but OSHA
5 should not mandate that employers use them to
6 the exclusion of other safe methods with proven
7 records of protection.

8 That is especially true because of the
9 huge mismatch between cost and safety benefit.
10 First, we have not seen any evidence that
11 mandating these systems will actually reduce or
12 eliminate hazard. In fact, as I've discussed
13 this morning, we believe it may have the
14 opposite effect.

15 And there is certainly no safety
16 benefit that matches the cost of retrofitting or
17 replacing effective ladders or reconfiguring
18 climbs to include additional platforms so
19 ladders are under 24 feet. Based on feedback
20 from our members, the cost of these changes
21 exceeds \$1.2 billion across the industry, or
22 roughly \$55,000 per effective ladder that we

1 know of.

2 On top of that, if fall arrest and
3 ladder safety systems must be used, more costs
4 will be added every day for training and
5 retraining employees and inspecting,
6 maintaining, and replacing the components,
7 allowing the use of cages and wells will require
8 none of these costs while providing at least the
9 same level of safety.

10 I also want to address OSHA's proposal
11 to eliminate the 2036 compliance deadline. API
12 supports eliminating this deadline only as a
13 distant second best option. If the deadline is
14 eliminated, the result will be a mix, even at
15 the same facility, of some ladders with cages
16 and some require PPE. Employees will inevitably
17 be confused, increasing the chance for mistakes.

18 In closing, API wants to do what will
19 actually protect our employees and contractors
20 at our facilities. Based on decades of
21 experience, we firmly believe that must include
22 the option to use cages and wells on these tall,

1 fixed ladders. Thank you, and I'm happy to
2 answer any questions you may have.

3 JUDGE MORRIS: Does OSHA have any
4 questions?

5 MR. CHICCA: We do, Your Honor.

6 Thank you for your testimony, Mr.
7 Steffek. If you heard my previous question,
8 these will sound familiar. So, we've heard from
9 some commenters that cages and wells do not
10 provide positive, controlled fall arrest
11 capability. Can you comment on that?

12 MR. STEFFEK: I think, similar to the
13 previous speaker, you know, our history and our
14 survey of our membership has shown that the
15 cages and wells are working effectively. And as
16 I think I stressed in the testimony, you know,
17 the passive nature of their protection is what
18 we have seen as a positive to those systems.

19 MR. CHICCA: Thank you. And do you
20 have any scientific research that you could
21 submit to the record that cages and wells are
22 more protective than ladder safety systems or

1 personal fall arrest systems, either in
2 preventing a fall or arresting a fall once it
3 occurs?

4 MR. STEFFEK: I do not at the moment.
5 I can see within the membership if we can find
6 some documentation and submit that to the
7 record.

8 MR. CHICCA: Thank you. Next for OSHA
9 is Will Zettler. And, Will, you're muted.

10 MR. ZETTLER: Sorry about that. Hi,
11 Will Zettler from OSHA. My questions will also
12 sound familiar. How many ladders in your
13 members' workplaces have ladder safety systems
14 or personal fall arrest systems already
15 installed? And to what height do those ladders
16 extend above a lower level?

17 MR. STEFFEK: I do not have that number
18 in front of me. I would have to pull our
19 membership to see what number -- you want the
20 number of ladders or a percentage of ladders?
21 What is it exactly you're looking for?

22 MR. ZETTLER: Yeah, the number of

1 ladders that have ladder safety systems or
2 personal fall arrest systems already installed.

3 MR. STEFFEK: Okay. I will have to
4 pull the membership and add that to the record.

5 MR. ZETTLER: Okay. Thank you. Also,
6 how many ladders in your members' workplaces
7 would need to be retrofitted by the deadline?

8 Can you break down whether the ladder
9 safety system or personal fall arrest system
10 merely needs to be installed on an existing
11 ladder, whether the ladder needs to be replaced
12 as well, or whether additional structural
13 changes would need to be made?

14 MR. STEFFEK: I do not have a
15 definitive number. When we polled our
16 membership, we've identified through the
17 responses we received tens of thousands of
18 ladders.

19 And what we were told at that time was
20 that all of those ladders would either need to
21 be modified to remove the cages that exist, or
22 they would be looking to re-engineer the climb

1 itself by adding platforms.

2 So, what my understanding is, is that
3 it would not be a simple modification of adding
4 the system. It would have to be either, like I
5 said, removing existing components or
6 reconfiguring the entire climb.

7 MR. ZETTLER: Okay. Thank you for your
8 testimony today.

9 MR. CHICCA: And next for OSHA we have
10 Tom Mockler. It looked like you were off for a
11 second, but then I went back to mute. Oh, there
12 you go. Try now.

13 MR. MOCKLER: Okay. It's just a little
14 temperamental on my end. So, I have a question
15 that's very similar to the last witness. Anyway,
16 it's a little wordy, but just hear me through.

17 So, can you describe the costs you
18 mentioned that include permitting and approvals,
19 engineering review, temperature monitoring,
20 atmospheric monitoring, and fire watch
21 personnel?

22 And please distinguish between, one,

1 the routine and customary baseline employer
2 practices that contribute to ladder safety, and
3 two, the services that your analysis categorizes
4 as necessary or implied by the OSHA deadline of
5 2036.

6 In other words, what are they currently
7 doing for ladder safety independent of the OSHA
8 standard, and what are the actual incremental
9 costs that they perceive as necessary for the
10 deadline?

11 MR. STEFFEK: And I'm sorry, I'm not
12 fully following that question of what I provided
13 in my testimony.

14 MR. MOCKLER: I'm sorry, say that
15 again?

16 MR. STEFFEK: I'm not fully following
17 the question, what you're looking for as it
18 relates to what I provided in the testimony this
19 morning.

20 MR. MOCKLER: Is it possible that in
21 reviewing the discussion that you could provide
22 something in post-hearing comments?

1 MR. STEFFEK: Yeah, if the question is
2 provided, when I get that from the recording,
3 I'm happy to provide a response.

4 MR. MOCKLER: Okay, thank you.

5 JUDGE MORRIS: Anyone else from OSHA?

6 MR. CHICCA: Your Honor, that's all
7 from OSHA, thank you.

8 And thank you again, Mr. Steffek.

9 JUDGE MORRIS: Does the solicitor have
10 any questions?

11 MS. STOCKER: Yes, Your Honor. I have
12 a question for Mr. Steffek.

13 Good morning, and thank you for your
14 time and your testimony today. We really
15 appreciate it. Would you clarify for the
16 record, do most of your fixed ladders have cages
17 and wells that extend the entire length of the
18 fixed ladder? Or are your cages and wells just
19 at the top of the ladder or above 24 feet?

20 MR. STEFFEK: I do not have a
21 definitive response to that, but in my
22 experience, the cages will extend the full

1 length of the climb on those tall ladders.

2 MS. STOCKER: Thank you for that
3 clarification. And to answer your question,
4 there will be a transcript of the hearing, so if
5 you wanted to check for the questions asked of
6 you, for any follow-up and post-hearing
7 comments, that might be available to you as
8 well.

9 MR. STEFFEK: I appreciate that.
10 Thank you.

11 MS. STOCKER: Thank you. That's all
12 for me, Your Honor, Eve Marie Stocker. Thank
13 you.

14 JUDGE MORRIS: For ERG, is there anyone
15 from the public that has questions? Just raise
16 your hand.

17 MS. HARRISON: No questions, Your
18 Honor.

19 JUDGE MORRIS: All right. Thank you,
20 Mr. Steffek.

21 MR. STEFFEK: Thank you.

22 JUDGE MORRIS: The next entity I

1 understand to be is American Fuel and
2 Petrochemical Manufacturers.

3 MR. MS. HARRISON: Yes, Justin Mecham
4 and Jody Bench. I've just promoted you both to
5 panelists. You should be able to turn your
6 microphone and camera on when you're ready.

7 MR. MECHAM: Okay, good morning. My
8 name is Justin Mecham, Director of Occupational
9 Health and Safety at Valero Energy. Thank you
10 for the opportunity to speak today.

11 My message is simple. OSHA should
12 repeal the requirement that fixed ladders
13 extending more than 24 feet be equipped
14 exclusively with personal fall arrest or ladder
15 safety systems and restore cages and wells as
16 compliant options. Let me start with the facts
17 on the ground.

18 Valero operations includes 14
19 refineries, 12 ethanol plants, 3 renewable
20 diesel plants, and extensive networks of product
21 terminals. We have nearly 4,000 ladders that
22 extend more than 24 feet across these facilities

1 and virtually all are outfitted with cages and
2 wells, and they have been for decades.

3 Valero employees and contract partners
4 climb these ladders daily as part of normal
5 operations, maintenance, inspection, and other
6 work activities. And here's the safety record
7 that comes with that.

8 To my knowledge, Valero has a
9 longstanding record of no fatal falls, non-fatal
10 falls resulting in major injury, or near-miss
11 incidents associated with falls from caged
12 ladders at our facilities.

13 Valero's experience shows that these
14 caged fixed ladders are operated safely and
15 effectively, and we are unaware of evidence
16 demonstrating that replacing those ladders with
17 fall arrest systems would produce a measurable
18 safety improvement.

19 First, the mandate turns OSHA's own
20 hierarchy of controls upside down. Cages and
21 wells are passive, engineered protection built
22 into the structure itself. They work for every

1 climber, on every climb, automatically. There is
2 no donning, connecting, or inspecting equipment.

3 They allow several workers to climb at
4 once in an emergency situation, and they're
5 practically identical from one facility to the
6 next, so every employee or contractor already
7 knows how to use them. Fall arrest systems are
8 the opposite.

9 They are personal protective equipment,
10 which OSHA and IOSH have long recognized as the
11 least effective control in the hierarchy,
12 precisely because PPE only works when a human
13 uses it consistently and correctly, every single
14 time.

15 The mandate requires us to abandon a
16 more effective control for a less effective one.

17 At this point, you may ask, why not use both a
18 cage and a ladder safety or fall arrest system?
19 In practice, combining these two often creates
20 more problems than it solves.

21 By design, the space within a cage is
22 limited, and this limited space within a cage

1 can interfere with the operation of ladder
2 safety systems, restrict access to rungs, and
3 introduce additional hazards associated with
4 spring-loaded mechanical components. In our
5 view, using a fall arrest system within a cage
6 would be the least safe option.

7 If OSHA prohibits the cages and wells,
8 Valero would instead need to pursue a more
9 costly alternative by reconfiguring a 40-foot
10 ladder into two 20-foot ladders in order to
11 retain the cages and wells that have, for
12 decades, provided enhanced safety.

13 And Ms. Harrison, if you could pull up
14 Exhibit 1 that illustrates this reconfiguration.

15 However, this change is not ideal, as the
16 number of ladder transitions to step with the
17 highest risk would double.

18 Second, fall arrest systems can and do
19 fail because they are complex, multi-component
20 systems where every link has to work, and the
21 everyday hazards of any large, complex
22 manufacturing facility, where the center rails

1 can obstruct the rungs, the fall arrest systems
2 can become entangled with tool belts.

3 And dangerous transition points at the
4 top of the climb where the workers often must
5 transition from the ladder's fall protection
6 system and sidestep or step through to a
7 platform, creating a potential exposure point if
8 continuous tie-off cannot be maintained.

9 To clarify, transitioning off a ladder
10 is the moment when fall risk is the highest,
11 especially when a multi-action carabiner that is
12 part of a fall arrest or ladder safety system is
13 involved.

14 And Ms. Harrison, if you could pull up
15 Exhibit 2 that shows the actions of a multi-
16 action carabiner. In an emergency, a caged
17 ladder lets multiple workers evacuate at once,
18 but a personal fall arrest system typically
19 accommodates only one worker per attachment
20 point or ladder safety device.

21 So, during an emergency evacuation,
22 workers must descend sequentially rather than

1 simultaneously, creating potential delays when a
2 large number of employees must need to exit an
3 elevated structure. Third, compliance itself is
4 dangerous.

5 The retrofit process itself creates
6 additional worker exposures by requiring
7 extensive construction work at operating
8 facilities, including elevated work, crane
9 operations, and hot work that would otherwise
10 not be necessary.

11 Those activities introduce safety risks
12 to replace a ladder protection system that for
13 zero serious incidents after millions of hours
14 of use. Fourth, the costs are enormous, and
15 there is simply no risk left for this mandate to
16 reduce.

17 Even in the 2016 rule, OSHA never found
18 a single fatality that would have been prevented
19 by a fall arrest mandate itself, and our
20 experience confirms it. And what would the cost
21 be? Based on a data collected from
22 approximately one-third of the nation's

1 refineries, industry-wide retrofit costs are
2 conservatively estimated to exceed \$3 billion.

3 At the facility levels, I have heard
4 estimates of roughly \$50,000 per retrofitted
5 ladder or \$10,000 just to install the rail of a
6 ladder safety system or on a single ladder.

7 Fall arrest systems create an ongoing
8 cycle of expense, including pre-use inspections,
9 system-specific training and retraining, routine
10 maintenance, and replacing the components the
11 components exposed to harsh outdoor conditions.

12 By contrast, cages and wells can remain in
13 service over 40 years with minimal maintenance.

14 Consequently, if OSHA prohibits the
15 cages and wells, Valero is likely to pursue the
16 much more expensive alternative of reconfiguring
17 existing ladders that extend between 24 and 40
18 feet into two shorter ladders with an
19 intermediate landing and retain the fall
20 protection approach that has proven safe and
21 effective for decades.

22 We estimate that such modifications

1 could cost approximately \$10,000 per ladder.
2 One final point, removing the 2036 deadline
3 alone isn't enough. It would leave a patchwork
4 of mixed systems, some ladders caged, some
5 requiring harnesses, sometimes on the same
6 structure, creating exactly the confusion and
7 transition errors that cause falls.

8 So, on behalf of Valero, we
9 respectfully ask OSHA to finish the job it
10 started in the proposal, repeal the fall arrest
11 mandate, and let employers choose cages and
12 wells alongside ladder safety and fall arrest
13 systems, just as OSHA proposed in 2010. That is
14 what evidence supports, and that and what will
15 actually keep our people safe. Thank you for
16 your time.

17 JUDGE MORRIS: Questions by OSHA.

18 MR. CHICCA: Yes, Your Honor, this is
19 Dave Chicca with OSHA.

20 Mr. Mecham, thank you very much for
21 your testimony. And I appreciate that you
22 mentioned the hierarchy of controls and how

1 cages and wells represent passive safety
2 systems, but we have heard from commenters that
3 cages and wells do not provide positive
4 controlled fall arrest capability. Can you
5 comment on that?

6 MR. MECHAM: Yeah, I'm not quite
7 understanding where that comment is coming from,
8 only because it may not be active in the same
9 sense as a fall arrest system or a ladder safety
10 system, in that it actively requires people to
11 attach and disconnect and it arrests the fall.

12 But they do provide a protection layer,
13 so people, in the event of a fall, it would be
14 caught by the ladder cage itself, just not in
15 the same way as maybe a fall arrest system. So,
16 it's a little bit, I don't quite understand
17 that.

18 And I think our experience of AFPM as
19 well as API and others that have testified kind
20 of demonstrate that we have a longstanding
21 record where we have not observed falls in these
22 caged ladders. So, they have been very

1 effective for us.

2 MR. CHICCA: Thank you. I appreciate
3 that. And you mentioned the -- and again, just
4 now, all of the experience that you have or lack
5 thereof of falls in these cages and wells, but
6 do you have any scientific research that you
7 could submit to the record that cages and wells
8 are more protective than ladder safety systems
9 or personal fall arrest systems, either in
10 preventing a fall or arresting a fall once one
11 occurs?

12 MR. MECHAM: No, I do appreciate that.
13 And I looked for something similar to that. I
14 could not find any published journal articles
15 that kind of speak to the contrasting, the
16 difference between the four options for
17 promoting one over the other.

18 I did find, you know, there are a lot
19 of events OSHA alerts that speak to some of the
20 falls that have occurred off of ladders. And
21 they haven't been attributed to caged ladders.
22 They've been mostly attributed to falls from

1 fall arrest systems or ladder safety systems in
2 the telecommunications industry.

3 So, I think there is an interesting
4 contrast there. And I think, but I'm not aware
5 of any published journal articles that kind of
6 speak to that.

7 MR. CHICCA: Okay, thank you. Next for
8 OSHA is Will Zettler.

9 MR. ZETTLER: Hi, Will Zettler with
10 OSHA. Thank you again for your testimony today.

11 I know you had mentioned a little bit about
12 Valero, but how many ladders in AFPM members'
13 workplaces do you know have ladder safety
14 systems or personal fall arrest systems already
15 installed? And to what height do those ladders
16 extend above a lower level?

17 MR. MECHAM: Yeah, specifically, I'm
18 not familiar with the number of ladder safety
19 systems or fall arrest systems within AFPM. I'm
20 more familiar with how many caged ladders we
21 have, which is a large number, as opposed to
22 we've tried to avoid the fall arrest and ladder

1 safety systems.

2 We have installed a few at Valero, just
3 a couple, where we've retrofitted or had to
4 install a new ladder since the change was in
5 2016. But, yeah, our experience still promotes
6 the cages and wells, as opposed to the other
7 types.

8 MR. ZETTLER: And the ones you have
9 installed were over 24 feet?

10 MR. MECHAM: Yes, correct.

11 MR. ZETTLER: Okay. And my other
12 question is, how many ladders in AFPM's
13 membership workplaces would need to be
14 retrofitted by the deadline? And can you break
15 down whether the ladder safety system or
16 personal fall arrest system merely need to be
17 installed on an existing ladder, whether the
18 ladder needs to be replaced as well, and whether
19 additional structural changes would need to be
20 made? And you're welcome to follow up with those
21 hearing comments as well.

22 MR. MECHAM: We'll do that just to get

1 you the right level of detail that you need for
2 that. But I guess just to survey across our
3 industry, AFPM, API, ACC, ILTA, our estimate is
4 25,000 ladders that are greater than 24 feet
5 that would need some sort of retrofitting if the
6 rule was not to change.

7 MR. ZETTLER: Okay, thank you very
8 much. I appreciate your testimony and your time
9 today.

10 That's it for me, Your Honor.

11 MR. CHICCA: The next for OSHA will be
12 Tom Mockler.

13 MR. MOCKLER: Hi, Tom Mockler, OSHA
14 Office of Regulatory Analysis. My question is
15 very similar to the question I asked the last
16 couple of guests. Can you describe the costs
17 you mentioned that include permitting and
18 approvals, engineering review, temperature
19 monitoring, atmospheric monitoring, and fire
20 watch personnel?

21 And please distinguish between one, the
22 routine and customary current baseline employer

1 practices that contribute to ladder safety, and
2 two, the services that your analysis categorizes
3 as necessary or implied by the OSHA deadline of
4 2036.

5 In other words, what are they currently
6 doing for ladder safety independent of the OSHA
7 standard and what are the actual incremental
8 costs that they perceive as necessary by the
9 deadline?

10 MR. MECHAM: Yeah, that's a good
11 question. I do appreciate that question. I
12 think in the post-hearing comments we will get
13 you a more thorough answer to that because I do
14 like the idea of actually coming up with that
15 estimate of accounting for like everything you
16 mentioned, all those specifics. So, we'll get
17 you a better answer in our post-hearing
18 comments, Tom.

19 MR. MOCKLER: Okay, thanks.

20 JUDGE MORRIS: Anything else from OSHA?

21 MR. CHICCA: Your Honor, that concludes
22 OSHA.

1 JUDGE MORRIS: Solicitor?

2 MS. STOCKER: Yes, Your Honor. Eve
3 Marie Stocker here. And before I ask my
4 questions of the witness, I would like to move
5 to designate the PowerPoint presentation used
6 during Mr. Mecham's testimony on behalf of
7 Valero as Exhibit No. 5.

8 JUDGE MORRIS: Exhibit No. 5 shall be
9 so designated.

10 (Whereupon, the document referred to
11 was marked as Exhibit No. 5 for identification.)

12 MS. STOCKER: Thank you, Your Honor. I
13 do have a couple of questions for Mr. Mecham.

14 First, could you just clarify, do most
15 of your fixed ladders, or do your fixed ladders
16 on your worksites have cages or wells that
17 extend the entire length of the ladder or are
18 they just at the top or are they above 24 feet?

19 If you could just comment on that. Thank you.

20 MR. MECHAM: Yep. My experience is
21 they're caged, Ms. Stocker. Not just at the
22 top, but the whole ladder.

1 MS. STOCKER: Thank you for that. And
2 I did have sort of a clarifying question on the
3 issue of the falls that occur involving ladders.
4 That is a kind of a larger universe of
5 injuries.

6 But there was a comment to the record
7 about 21 serious injuries that occurred in the
8 last 10 years or less that specifically involved
9 falls within cages. And I wonder if you could
10 comment on that.

11 MR. MECHAM: Yeah, I'm not familiar
12 with those 21 that might be attributed to falls
13 within cages. That doesn't really match my
14 experience or the experience I'm hearing from
15 some of our peers.

16 MS. STOCKER: Yes, I realize you
17 testified that you don't have any injuries or
18 fatalities involving cages on your worksites.
19 And just to clarify, OSHA asked about the sort
20 of the positive controlled fall arrest
21 capability of a cage or a well.

22 There's been a lot of comment to the

1 record on that. And so I didn't know whether
2 you understood the question well enough, but did
3 you have any follow-up comments on that?

4 MR. MECHAM: Yeah, I do not, Ms.
5 Stocker.

6 MS. STOCKER: Thank you very much for
7 your testimony. That's all from the Office of
8 the Solicitor, Your Honor.

9 MR. MECHAM: Great. Thank you.

10 JUDGE MORRIS: Are there any questions
11 -- this is for ESG. Are there any questions
12 from the public?

13 MS. HARRISON: Yes, Your Honor. We
14 have a hand raised by Dan Glucksman.

15 Dan, I have enabled your microphone if
16 you would like to ask your question.

17 MR. GLUCKSMAN: Okay, nice. Hi,
18 Justin. Dan Glucksman with the International
19 Safety Equipment Association. And first, a word
20 of congrats. I think I read recently Valero had
21 one of their lowest, is it T-R-I-R, rates for
22 many years. So I guess the safety achievement.

1 I think I heard you mention that there
2 are some, you know, ladder -- I mean, fall
3 protection systems within ladders on within
4 Valero sites. Is that correct that there are
5 some?

6 MR. MECHAM: No, we traditionally don't
7 mix the two cages in the fall arrest systems or
8 ladder safety systems. We keep them separate.

9 MR. GLUCKSMAN: Okay. Let me ask then
10 in your expertise in the industry, when there
11 are cages and wells that have a ladder system,
12 like how often are those found? I think I heard
13 that in earlier testimony.

14 And in your experience, I want to just
15 talk about how and when there are fall systems
16 in cages and wells. Are there certain reasons
17 for that or when, where and why might those be
18 found?

19 MR. MECHAM: Yeah, I think that, Dan, I
20 think you're getting to what I was trying to
21 explain in the testimony that we see it being
22 problematic only to introduce because of the

1 limited space that exists within in a cage to
2 introduce a rail system and the mechanical
3 operated components, you know, the spring-loaded
4 components that accompany some of those. So it
5 does introduce new challenges to the climber to
6 have those systems mixed.

7 MR. GLUCKSMAN: All right. Thank you.

8 JUDGE MORRIS: Any other questions?

9 MS. ZAVISLAN: Your Honor, this is
10 Tessa Zavislan from the solicitor's office. I
11 just had a follow-up based on the public
12 question.

13 JUDGE MORRIS: Very well.

14 MS. ZAVISLAN: So you had testified
15 that you had installed some -- or Valero had
16 installed some ladder safety systems since the
17 final rule. Could you explain if you've had any
18 issues with those ladders or what the general
19 experience has been with them?

20 MR. MECHAM: Yeah, no, I appreciate the
21 question. So I'm not familiar with that. I
22 have experience with the ladder safety systems

1 from my previous experience at another company,
2 and they have -- they are -- they do fail.

3 As I was trying to pull out in the
4 testimony, they have a lot of components, a lot
5 of failure points, require inspection, and they
6 get stuck. So they can be problematic.

7 They're not my favorite because when
8 they do become problematic, then it requires a
9 lot of additional hazard assessment and hazard
10 controls that need to be implemented to repair
11 those so they can continue to be used, including
12 aerial lifts and working at heights in kind of
13 areas that need to be -- in ways that need to
14 have the risk controlled carefully.

15 So they are -- they do fail. They do
16 have problems. They certainly aren't as
17 reliable as our cage systems that we've had in
18 place for a long time.

19 MS. ZAVISLAN: Thank you for providing
20 your experiences. And then just one more
21 question. This is Tessa Zavislan from the
22 solicitor. You had mentioned that there's some

1 danger between when mixing the two systems.
2 Could you just -- in post-hearing comments, if
3 you could provide any data that's in that
4 position, we'd appreciate it. Thank you.

5 JUDGE MORRIS: Anything else? Any
6 other questions from the public?

7 MS. HARRISON: No additional questions
8 from the public, Your Honor.

9 JUDGE MORRIS: All right, sir. Thank
10 you very much for your testimony.

11 The next entity that I see are
12 scheduled as Employers OSHA Modernization
13 Coalition.

14 MS. HARRISON: Could you please raise
15 your hand? And I'll enable the correct
16 microphone. All right, there we go. All right.

17 I have promoted you to panelist.

18 MR. CONN: Can you hear me?

19 JUDGE MORRIS: I can hear you.

20 MR. CONN: Excellent. Good morning,
21 Judge Morris. Thank you and thanks to OSHA for
22 this opportunity to testify. I'm Eric Conn,

1 Chair of the National OSHA Practice Group at
2 Conn Maciel Carey. I'm testifying today on
3 behalf of the Employers OSHA Modernization
4 Coalition. Our coalition represents businesses
5 across numerous industries including
6 manufacturing, retail, petrochemical, aerospace,
7 agriculture, and many others.

8 The common throughline for our
9 coalition members is that they have a deep
10 commitment to the safety and health of their
11 employees. Many of our members have facilities
12 with dozens, even hundreds of ladders affected
13 by the personal fall arrest system mandate on
14 tall fixed ladders that was established by the
15 2016 update to the walking-working surfaces
16 standard.

17 The mandate is a major concern for our
18 members mostly because it will force them to
19 abandon a proven safe method for protecting
20 their employees at a cost that measures in the
21 billions of dollars. We support OSHA's proposal
22 to update the fall protection requirements on

1 fixed ladders over 24 feet, but we urge OSHA to
2 go further and allow employers to continue using
3 cages and wells as a compliant option for fall
4 protection on tall fixed ladders.

5 In our members' experience, personal
6 fall arrest systems are appropriate in some
7 circumstances, but not all, and OSHA should
8 allow employers to select the options that
9 provide the best protection for their unique
10 work environments.

11 A fundamental problem with the personal
12 fall arrest system mandate, or conversely the
13 ban on ladder cages and wells, is that there's
14 no evidence that cages and wells on tall fixed
15 ladders pose a significant risk to employees.
16 OSHA must make that threshold showing before
17 regulating.

18 Of course, falls are hazards, no one --
19 falls are a hazard, no one would dispute that.
20 But the personal fall arrest system mandate
21 targets falls from ladders over 24 feet that
22 have been equipped with a cage or a well. And

1 there's simply no evidence that that equipment
2 poses a significant risk.

3 Earlier in this hearing, someone said
4 that we are revisiting a rule finalized in 2016.

5 That's not entirely accurate. The legal
6 requirements for fall protection on tall fixed
7 ladders extends as far back as 1972 when OSHA
8 mandated that all tall fixed ladders be equipped
9 with cages or wells. Of course, OSHA had to
10 have a legitimate science-based, data-based
11 basis for making that requirement, which it did
12 have and which it did demonstrate when it
13 adopted that requirement decades ago.

14 Cages and wells have not magically
15 become unsafe since that time. Just the
16 opposite. They have improved. Their universal
17 adoption by industry has enhanced user
18 understanding of how to use them for fall
19 protection. And objectively speaking, they have
20 worked. They continue to provide the same high
21 level of protection they always have. The same
22 high level of protection that prompted OSHA to

1 establish the requirement that you must use
2 cages and wells on all tall fixed ladders in the
3 first place.

4 That's why in 2010 when OSHA issued the
5 walking-working surfaces NPRM that would
6 ultimately become the 2016 final rule, it did
7 not even propose to eliminate cages and wells as
8 a compliant option. Rather, it proposed to
9 allow employers to select from among a suite of
10 options for fall protection onto all fixed
11 ladders which options included the new
12 technology in the form of personal fall arrest
13 system and ladder safety systems, and it also
14 included the old tried-and-true option of cages
15 and wells. There was no evidence then and
16 there's no evidence now that choosing cages and
17 wells provides inadequate protection.

18 In both the NPRM and the -- in both the
19 current NPRM and the 2016 final rule in the
20 preamble with that final rule, OSHA did not
21 point to a single instance of a fall from a
22 fixed ladder over 24 feet that had been equipped

1 with a cage or well. Even in this rulemaking
2 which focuses exclusively on this issue and
3 which specifically seeks information about the
4 hazards of cages and wells as fall protection on
5 tall fixed ladders, the comments submitted
6 identified just one fall from a tall fixed
7 ladder, and that occurred after an employee
8 suffered a heart attack.

9 Importantly, OSHA's Part 1926
10 construction standard allows fixed ladders over
11 24 feet to be equipped with cages or wells. And
12 OSHA's Part 1917 marine terminal standard allows
13 tall fixed ladders to be equipped with cages or
14 wells. Surely OSHA has seen no evidence that
15 cages and wells effectively protect employees
16 climbing ladders at construction sites and
17 marine terminals, but not at petroleum
18 refineries or grain elevators. It would be
19 arbitrary to prohibit cages and wells on the
20 theory that they are not protective, but then to
21 allow them to be used in some industries.

22 It has become something of a straw man

1 or a red herring to ask, and no offense to this
2 question, but whether cages and wells provide
3 positive fall arrest capabilities. And I say
4 it's a straw man or a red herring because that's
5 only one component of evaluating the fall hazard
6 itself. OSHA must consider all aspects of fall
7 protection and overall safety for employees, not
8 just passive or active, or passive versus
9 active. It's about overall safety for
10 employees. And overall safety includes the
11 passive protection that cages and wells provide.

12 OSHA recognized in the 2010 NPRM that
13 human factors like inattention, haste, human
14 error, failure to follow instructions, and
15 fatigue increase hazards. The personal fall
16 arrest system mandate, the active fall
17 protection type systems, inject those factors
18 into climbs while cages and wells take them out
19 of the equation.

20 Cages and wells also provide other
21 safety benefits, including that passive
22 protection for every employee on every climb,

1 simpler transitions onto and off of the ladders
2 during the most dangerous part of the climb, and
3 essentially no risk of equipment failure. Thus,
4 eliminating cages and wells would increase
5 overall risk regardless of the analysis of
6 active versus passive.

7 Mandating personal fall arrest systems
8 will also have potentially dire consequences for
9 emergency escape and emergency response. A
10 major advantage of cages and wells is that
11 multiple people can climb at the same time while
12 still being protected. In emergency situations,
13 this is critically important.

14 But with the personal fall arrest
15 system, only one person can climb at a time.
16 That will hinder both emergency evacuation,
17 emergency rescue, access to the area where a
18 rescue may be needed, and other emergency
19 shutdown efforts that involve accessing
20 operating units or different levels of operating
21 units to shut off valves or to fight fire. All
22 of this would be limited by the personal fall

1 arrest system mandate.

2 There are surely tall fixed ladders in
3 some industries and in some circumstances where
4 those systems may be the best choice, where the
5 personal fall arrest systems may be the best
6 choice for fall protection, but requiring
7 employers to use it across the board, one size
8 fits all, even when the employer has
9 successfully used cages and wells for years, is
10 simply not supported by the evidence.

11 The coalition disagrees that
12 eliminating the 2036 compliance deadline would
13 adequately address the issues caused by the 2016
14 final rule. It would lead to a mishmash of
15 ladders at the same facilities, even in the same
16 operating unit, using different types of
17 protection which would contribute to confusion
18 and increase the likelihood of error. That
19 being said, if OSHA does not restore cages and
20 wells as a compliant option, the coalition does
21 believe that eliminating the 2036 compliance
22 deadline is better than making no changes at all

1 to the existing standard.

2 A final point I would make here is that
3 the federal courts have long held that OSHA
4 cannot impose added costs or inconvenience
5 unless there is a reasonable assurance that the
6 frequency or severity of injuries or illnesses
7 will be reduced. But that is exactly what the
8 personal fall arrest system mandate does. It
9 would be extraordinarily costly and would have
10 no discernable safety benefit.

11 Our members concerns are not mainly
12 about cost, though. Far and away our concern is
13 safety. If there was evidence that cages and
14 wells did not protect our employees, we would
15 not be here today. Thank you. And I'm happy to
16 answer any questions you may have.

17 JUDGE MORRIS: Questions from OSHA?

18 MR. CHICCA: Yes. Thank you, Your
19 Honor. This is David Chicca with OSHA. And Mr.
20 Conn, thank you for your testimony. Obviously,
21 I have that red herring question first, but --
22 and maybe I could ask it slightly differently.

1 So, we have heard that cages and wells don't
2 provide positive control fall arrest capability,
3 and in your own testimony you mentioned the
4 individual who fell after having a heart attack.

5 A cage and a well, like if you were to
6 fall, seemingly requires the individual falling
7 to interact with it in order to arrest
8 themselves, whereas a personal fall arrest
9 system or a ladder safety system will do that
10 action for them. So, that's what we're sort of
11 getting at with this question. Can you comment
12 on sort of how passive versus active a cage and
13 a well actually is versus these other systems?

14 MR. CONN: Yeah. It's a great
15 question. I understand the point and I
16 understand the analysis that the Agency's
17 undertaking there. I would just say that the
18 personal fall arrest system is only active, it
19 only does the work for you after you've donned
20 and accessed and connected correctly to the
21 system. So, it's not the case that, you know,
22 it provides this automatic protection. It

1 requires work to be done by the climber actively
2 on their own before it does any of that work for
3 you.

4 And certainly, as other commenters have
5 pointed out, that incompatible equipment
6 creates, to me, an even greater risk. Because
7 you may think that you're being provided some
8 sort of active protection by a personal fall
9 arrest system, but if your connection point and
10 the system itself are not compatible, it may not
11 be providing that protection at all.

12 And that is the big risk that we see
13 here, especially from, you know, some of the
14 industries that have the most ladders that would
15 be affected by this rule where they have these
16 third-party workforces that access these
17 ladders, you know, hundreds, thousands of times
18 a year.

19 At a shutdown at a petroleum refinery
20 for example, you've got a giant outside
21 maintenance workforce that moves from site to
22 site to site and, you know, unlike ladder cages

1 and wells that is basically a uniform,
2 consistent, virtually identical system on every
3 fixed ladder everywhere in the country, personal
4 fall arrest systems are -- there are droves of
5 different makes and models and different types
6 of connection points and different types of
7 systems where you find that incompatibility.

8 So, it is not really the case that --
9 it's not this magic force field that once you
10 put your foot on the ladder you are actively
11 protected by the personal fall arrest system.
12 There is a requirement to engage with the system
13 by the employee every time.

14 With the ladder cages and wells, that
15 passive system is very effective because if you
16 happen to lose your foothold or lose your
17 handhold on the ladder while you're climbing in
18 the cage, you just stick your arms and legs out
19 and it catches you. And that may happen
20 actively as well, right? It's a pretty small
21 space that if you are falling, even after, you
22 know, the heart attack example or you lose

1 consciousness for some other reason, these
2 systems do catch you, right?

3 I think the -- there's one study I
4 think that's referenced in comments from British
5 HSE where they used dummies and dropped them
6 down in these systems, said look, it's not
7 working. Well, that dummy is, you know, falling
8 straight, it's not reaching out, it's not
9 engaging with the system at all. Obviously,
10 that's not a good mimic for how climbers
11 actually use the system, unless, I suppose, it's
12 someone who's fallen unconscious for some
13 reason. But even in those instances, it is very
14 easy to get hung up in the cage. That's the
15 point of it, is to get hung up in the cage.

16 And I think it was Ms. Stocker, you
17 asked the question about other injuries that are
18 occurring during falls in cages. We've
19 certainly heard about, you know, the cuts,
20 scrapes and bruises from the idea of catching
21 yourself on the cage when you've fallen a foot,
22 or two, or three feet, or three rungs before you

1 catch yourself. The idea is to make that
2 physical contact with the cage and to get caught
3 in the cage. So, there is the possibility of
4 those kinds of minor injuries, but not serious
5 injuries.

6 And I would just add, of course, those
7 same types of injuries are just as likely, maybe
8 even more so, with a personal fall arrest
9 system, because you don't fall and stop still,
10 you swing and you bang into the objects that
11 you're tied off to. Banging into the ladder,
12 banging into the tank that it's attached to,
13 banging into the structure itself.

14 I mean, we see that all the time, for
15 example, on fall protection on rolling stock
16 where you fall off the rolling stock and swing
17 back into the rail car or swing back into the
18 grain elevator. So, it's those exact same types
19 of injuries. It's not a, it only exists with
20 the cages and wells versus the personal fall
21 arrest systems.

22 But they've worked incredibly

1 effectively for decades. And that's the reason
2 why OSHA mandated them, right? And that -- you
3 know, the other question we keep hearing about
4 is, is there evidence that they're safe? I
5 think that's the wrong question. I think that's
6 a red herring as well. OSHA determined that
7 they were safe. They had to have made that
8 determination because they mandated them.

9 The question is, should we move away
10 from them? So, there needs to be evidence to
11 support moving away from the cages and wells,
12 not evidence to require them or to continue to
13 allow them. And we've simply not seen that
14 evidence.

15 MR. CHICCA: Thank you. And I
16 appreciate that. We've mentioned a bit, and
17 I've asked this question to the other
18 stakeholders as well, the records that we do
19 have in the comments and us still seeking more,
20 but do you have any scientific research that you
21 could submit to the record that cages and wells
22 are more protective than ladder safety systems

1 or personal fall arrest systems either in
2 preventing a fall or arresting one once it
3 occurs?

4 MR. CONN: We will -- we'll get
5 together as a group and see what we can come up
6 with. I mean, we do have droves of data, right?

7 OSHA 300 logs and incident reports from among
8 our members that show the absence of injury, the
9 absence of fatality using these systems. May
10 not be a scientific study, but it is decades of
11 data from millions of man hours of work on
12 ladders with cages and wells. That is
13 meaningful data. Whether it meets the, you
14 know, a peer-reviewed scientific study? No, but
15 it is an extraordinary wealth of data out there
16 that is meaningful in a rulemaking record.

17 And again I would just make the point
18 that we think as the regulated community it's
19 incumbent on OSHA to identify that data or
20 scientific study to show that it is not safe and
21 therefore to remove a requirement that has been
22 existing since the 1970s, that OSHA itself

1 established as a requirement based on its own
2 analysis that they are safe systems, rather than
3 on the regulated community to say that it is,
4 because it has been a requirement for many
5 decades.

6 MR. CHICCA: Thank you. And with that,
7 I'll pass it over to Will Zettler.

8 MR. ZETTLER: Hi, thanks for your
9 testimony. This is Will Zettler with OSHA. I
10 have a couple of questions. One, you just
11 mentioned that if a fall occurs in a cage, the
12 point is you stick your arms and legs out to
13 catch your fall. If you could submit to the
14 record any training materials about that from
15 your membership, that would be greatly
16 appreciated.

17 And my second question is, are your
18 members' estimated cost savings from the
19 proposed elimination of the 2036 deadline alone
20 and/or are your members' estimated cost savings
21 from an -- excuse me, from any elimination of
22 the requirement to install ladder safety systems

1 or personal fall arrest systems on fixed ladders
2 that extend more than 24 feet above a lower
3 level?

4 MR. CONN: That's a great question,
5 Will. I think in comments that we have assisted
6 with, the best data point we've seen from an
7 economic cost is looking at the petroleum
8 refining industry alone. And that's just one
9 segment of the industry sectors that have
10 significant ladders affected by this rule. And
11 we have estimated that the -- and this is not a
12 cost savings data point, this is a cost data
13 point -- that the cost to either retrofit,
14 replace, redesign, reconfigure all of those
15 ladders to come into compliance with the 2016
16 version of the rule would be around \$3 billion
17 dollars.

18 So, it would not be -- in my opinion,
19 it would not be a \$3 billion-dollar cost savings
20 if we just implemented the proposed rule that's
21 on the table right now, because there would
22 still be ladders that would -- there'd still be

1 new ladders that are being installed at
2 petroleum refineries. There would still be
3 ladders that, because of significant service or
4 maintenance, would have to be replaced or
5 retrofitted.

6 And ultimately all of those ladders,
7 though it would not be exactly by 2036,
8 ultimately they would all need some level of
9 substantial repair or maintenance such that they
10 would need to be replaced with the ladder safety
11 system. So, what you're really doing there is
12 deferring cost and, as we've talked about,
13 instituting in the meantime this mix match
14 system which is -- which creates its own
15 problems.

16 Deferring cost is a significant
17 economic benefit, but the only way to really
18 eliminate that cost and to achieve that \$3
19 billion-dollar savings in that one industry is
20 to allow cages and wells to be a continuous
21 compliant option alongside of compliant options
22 like ladder safety systems and personal fall

1 arrest systems.

2 MR. ZETTLER: Thank you very much for
3 that answer and for your time today. That's all
4 from me.

5 MR. CHICCA: And I will pass it over to
6 Tom Mockler.

7 MR. MOCKLER: Hello. Yeah, I had a few
8 questions. First one being, in post-hearing
9 comments could your coalition provide cost and
10 engineering data on the fixed ladders over 24
11 feet above lower levels that have been
12 engineered, retrofitted with ladder safety
13 systems, personal fall arrest systems, or cages
14 and wells? Where possible, please present the
15 data at unit levels, installation cost per
16 ladder or ladder section, consultation and
17 training fees per worker and per safety
18 specialist, et cetera.

19 MR. CONN: We will. And there -- some
20 of that data is in some of the comments we've
21 submitted already. And one of the things that
22 we found that's really interesting, Tom, is that

1 the cost associated with making those kinds of
2 engineering changes differ in different
3 industries, right? When you're doing this kind
4 of work in a petroleum refinery or a chemical
5 manufacturing facility where you're working
6 around highly hazardous chemicals, that's a much
7 different project than, say, installing an
8 emergency tall fixed ladder to the outside of a
9 grain bin.

10 And so, you'll see a pretty big variety
11 of costs across different industries. And you
12 might think, well, why would it cost \$10,000 to
13 retrofit a ladder in one industry and \$50,000 in
14 another? That's why. And you'll see some of
15 those distinctions in the data, but we can
16 provide a little bit more detail about that
17 post-hearing.

18 MR. MOCKLER: Sure. Yeah, feel free to
19 add whatever annexes you think are appropriate.

20 (Simultaneous speaking.)

21 MR. CONN: Sure.

22 MR. MOCKLER: The second question I had

1 was, you put forth some cost estimates in your
2 comments for your industry, have you inquired
3 about the typical cost estimate for ladder
4 safety systems or personal fall arrest systems
5 in any other industry?

6 MR. CONN: Yeah. So the work that --
7 my particular testimony today is on behalf of
8 the Employers OSHA Modernization Coalition, and
9 we represent a broad range of industries. A lot
10 of my talking points and a lot of what you've
11 heard today comes from those industries that
12 have hundreds of these ladders, right? The
13 giant outdoor chemistry set at petroleum
14 refineries and chemical manufacturing
15 facilities, because they have these, you know,
16 three, four, five story-tall pieces of equipment
17 that you need to access on a daily basis.

18 But we -- these comments, this
19 testimony is on behalf of all those industries.

20 Like in agriculture where you've got fewer but
21 still those same kinds of tall fixed ladders,
22 terminals. Big indoor manufacturing facilities

1 at a steel manufacturing plant, for example, we
2 see those just not in the same volume, and in
3 different environments. But we have gathered as
4 much data as we can and provided that in some
5 comments we've submitted across a lot of
6 different industries. And we can get into a
7 little bit more detail on that post-hearing as
8 well, if that would be helpful.

9 MR. MOCKLER: Okay. Yeah, that would
10 be great. Finally, you described costs
11 associated with ladder safety systems and
12 personal fall arrest systems on fixed ladders
13 because additional arresting force loads on
14 ladders and the supporting structures might
15 require reinforcement and/or replacement of the
16 ladder.

17 Do the costs of the two different
18 options permitted by OSHA, the ladder safety
19 systems and the personal fall arrest systems,
20 end up being roughly equivalent when you take
21 into account design and installation
22 requirements or is one significantly more

1 expensive than the other? You provide data on
2 this cost -- can you provide data on the cost
3 and -- I'm sorry -- for your members associated
4 with the installation of one system versus the
5 other system?

6 MR. CONN: We'll explore that.
7 Candidly, Tom, I think every discussion I've had
8 with any employer about this has focused on the
9 personal fall arrest system option. I'm not
10 even sure that folks are really aware of what a
11 ladder safety system is, to the extent it is
12 particularly distinct from a personal fall
13 arrest system. So, we'll explore that a little
14 bit more.

15 But I can tell you that almost 100
16 percent of the data that I've seen in terms of
17 cost has been cost associated with a personal
18 fall arrest system integrated into a tall fixed
19 ladder. And I've not heard much at all about
20 some sort of distinct ladder safety system that
21 is not of the, you know, personal fall arrest
22 system family.

1 MR. MOCKLER: Okay. Yeah. Whatever --
2 if you want to finish beyond your post-hearings
3 comments on these, feel free.

4 MR. CONN: You bet.

5 MR. MOCKLER: Okay. Thank you. I
6 think that's all my questions.

7 MR. CONN: Thank you, Tom.

8 MR. CHICCA: Your Honor, Dave Chicca
9 again. I think that concludes OSHA's questions.

10 JUDGE MORRIS: Solicitor?

11 MS. STOCKER: Yes, Your Honor.

12 All right. Good morning, Mr. Conn.
13 Thank you for being here and for your testimony
14 and your time. Just wanted to clarify something
15 you mentioned about the deferral of costs.

16 Are you saying that there wouldn't be
17 any cost savings, just cost deferment, if you
18 could just explain that to me? Thank you.

19 MR. CONN: Thank you, Eve. The
20 proposal right now, the current NPRM, would
21 essentially eliminate the hard and fast 2036
22 deadline so that if you have a ladder in place

1 that does not require substantial modification
2 or repair, it could remain in use with a cage
3 and well until such time that it needs
4 substantial maintenance or repair or
5 replacement.

6 So, ultimately, this equipment will
7 reach the end of its useful life, right? We do
8 inspect -- on a regular basis, inspect and
9 maintain our ladders and the ladder cages and
10 wells that are associated with those ladders.

11 So, the idea of the 2016 final rule
12 said, even if your ladder was not at the end of
13 its useful life come 2036, you've got to replace
14 it. You've got to get rid of the cage and well
15 and install the -- well, you've got to install a
16 personal fall arrest system whether you're
17 putting it inside of a cage or well or not.

18 So, that work was all going to have to
19 happen by 2036, and that was the cost that our
20 folks had determined to be, just in the refining
21 industry, about \$3 billion worth of work that
22 would have to be done between now and November

1 2036.

2 By eliminating that 2036 deadline, but
3 maintaining the other two provisions that new
4 ladders and ladders that require substantial
5 repair or replacement have to be reconfigured,
6 eventually you're going to have to do that to
7 all the ladders.

8 So, instead of incurring that \$3
9 billion cost by 2036, you're just deferring it
10 and spreading it out over a longer period of
11 time when those ladders ultimately achieve the
12 end of their useful life -- or ladder segments
13 that reach the end of their useful life.

14 MS. STOCKER: Yeah. Okay. Thank you
15 very much. I appreciate that.

16 We wanted to -- I just wanted to be
17 clear about whether you were, you know, viewing
18 this lifting of the deadline, or any deadline
19 extension, as resulting in a cost savings.

20 MR. CONN: It would be, right, because
21 deferral of cost is cost savings, right?

22 MS. STOCKER: Right.

1 MR. CONN: Present value of money --

2 MS. STOCKER: Yeah.

3 MR. CONN: -- and being able to plan
4 and control the timing better would certainly
5 achieve cost savings, but it's nowhere in the
6 magnitude of the savings that would be achieved
7 if we allowed, exactly as OSHA had proposed to
8 do in 2010, to preserve cages and wells as a
9 compliant option in perpetuity just like the new
10 ladder safety systems and personal fall arrest
11 systems.

12 MS. STOCKER: Thank you. All right.
13 This is Eve Stocker again, Your Honor. I had an
14 additional clarifying question.

15 Mr. Conn, I think you said that -- I
16 understood you to say that flexibility was a
17 positive thing here as far as a choice between
18 the four options --

19 MR. CONN: Yeah.

20 MS. STOCKER: -- on fixed ladders. I
21 don't know if I misunderstood, but I thought you
22 said that there might be a situation where

1 ladder safety systems or personal fall arrest
2 systems might be better, that people should be
3 given the choice.

4 Perhaps that was for industries other
5 than your clients, but can you tell me a little
6 bit where cages would not be appropriate?

7 MR. CONN: So, I don't know that it's
8 so much where cages would not be appropriate as
9 it is that there are circumstances that we could
10 easily foresee and that we understand today
11 where a personal fall arrest system embedded
12 with the ladder might be the better option.

13 And I'm thinking about industries where
14 the most consistent user of the ladder is the
15 host, is the employer's own employees, where you
16 can have a single system, single compatible set
17 of harnesses and lanyards, single workforce
18 who's fully trained and lots of experience with
19 that particular ladder or that particular family
20 of ladders, which is very different than the
21 circumstance we've talked about with all these
22 third-party contractors moving from site to

1 site.

2 And I could envision these systems,
3 like in telecommunications, where the climbs are
4 several hundred feet as opposed to 30 or 40 or
5 50 feet where that might be the better option.

6 But the idea is that, you know,
7 employers know and their employees know best
8 what works best for them in their unique work
9 environments, and that's why flexibility and
10 options tend to be better. One size almost
11 never fits all when you're talking about a
12 regulatory scheme.

13 And that was the beauty of what OSHA
14 was proposing in 2010, why no one really, you
15 know, spoke up about it when it was proposed in
16 2010, because it was simply adding more options
17 to the table, and that's great.

18 That gives employers and their
19 employees the opportunity to evaluate their
20 workplace and identify what's best for them.

21 What ended up happening in 2016 out of
22 the blue with no notice to the regulated

1 community, was the stripping away of options,
2 which we think is the wrong direction and would
3 like to go back to where we thought we were
4 headed in 2010.

5 MS. STOCKER: So, Eve Stocker again for
6 Mr. Conn.

7 There has been some discussion about
8 other alternatives for a phased-in approach,
9 other options for a deadline.

10 Can you comment on that, please?

11 MR. CONN: Yeah. I mean, you know, I
12 think our comment remains that the -- if the end
13 point ultimately is that we're banning cages and
14 wells and insisting on only personal fall arrest
15 systems or ladder safety systems, then that's
16 the wrong safety solution to, frankly, a problem
17 that doesn't exist.

18 So, it's not so much about how long
19 we're pushing that ultimate deadline out. If we
20 are having to replace existing cages and wells
21 with personal fall arrest systems and doing it,
22 you know, in an approach that -- especially an

1 approach that's going to result in a mix and
2 match of different kinds of systems at the same
3 workplace in the same unit, we think that's
4 problematic and we think the better solution is
5 not about -- it's not about the deadline and
6 it's not about the phased-in solution. It's
7 about the options.

8 MS. STOCKER: Thank you. Eve Stocker
9 here again, Mr. Conn.

10 The use of the word patchwork, I'm
11 trying to understand --

12 MR. CONN: Yeah.

13 MS. STOCKER: -- the difference between
14 a patchwork and flexibility of options. So,
15 yeah, as of right now, there could be that.

16 Can you comment on that --

17 MR. CONN: Sure, yeah.

18 MS. STOCKER: -- for your industry as
19 well as others? Thank you.

20 MR. CONN: Yeah, sure. You know, I
21 think when you have options, I can tell you that
22 none of my clients would opt to institute, you

1 know, a cage or a well to go from the ground
2 floor to the second level of an operating unit,
3 and then to go from the second to the third
4 level institute a personal fall arrest system,
5 and then to go from the third to the fourth back
6 to a cage or a well.

7 That would be forced upon us if we're -
8 - if we're following the 2016 rule or the
9 proposed -- the Notice of Proposed Rulemaking
10 today where you have, you know, grandfathered in
11 an old system temporarily.

12 So, the idea of options means in this
13 unit, or in this refinery, we are going to opt
14 for cages and wells. But in this brand-new
15 facility, we might opt for personal fall arrest
16 systems with our ladders, but they're all going
17 to be configured that way.

18 Or in this industry, we think it's
19 better to use personal fall arrest systems. So,
20 we're going to do that. But at this particular
21 facility, we're going to use all cages and
22 wells.

1 So, while it's possible that you could
2 have a patchwork, that would be a choice made by
3 the employer.

4 And I don't know an employer that would
5 make that choice, but there would have to be
6 some, you know, there would be some reason to do
7 it, I suppose, but what's happening now is it's
8 a compelled mix-match because you're, you know,
9 right now if I had to replace a ladder segment
10 today that, you know, was corroded or for
11 whatever reason, I would have to install, in
12 that segment, a personal fall arrest system and
13 it might be surrounded by other segments of that
14 same ladder that don't have that kind of -- or
15 maybe not that same ladder, but that same
16 operating unit or that same facility that would
17 be equipped with cages and wells, and now you've
18 got employees who may be heading out to do a
19 task not expecting at any point to have to don a
20 personal fall arrest system, or not to tie off
21 to a system. So, they don't wear their harness
22 and lanyard.

1 And that's the scenario that, you know,
2 really haunts our members and my clients is the
3 idea that somebody climbs a couple of levels
4 into a unit and gets to a space and says, oh, my
5 gosh, I didn't even realize that we had a
6 harness and lanyard and no cage to go this next
7 level up.

8 Is he really going to climb back down,
9 go over to the PPE shed, get his harness and
10 lanyard and climb back up?

11 I hope so, but, you know, the impulse
12 is there to just say, you know, it's only --
13 it's only 30 feet. I'm just going to go ahead
14 and climb real quick, finish this job and get
15 back down. And that's the part that we dread
16 with that mix-match situation.

17 MS. STOCKER: Thanks. I appreciate
18 that. Eve Stocker again.

19 Are these hypothetical situations that
20 you're talking about or can you speak to the
21 situation now at your client members'
22 facilities?

1 MR. CONN: Yeah, you know, so they're
2 mostly hypothetical because our clients -- my
3 clients have generally tried as hard as they can
4 to avoid having to go to that mix-match
5 situation.

6 And why, in many instances, I think you
7 heard a commenter from AFPM talk about how, when
8 faced with the situation, rather than actually
9 installing a personal fall arrest system,
10 they're actually breaking their ladder runs into
11 smaller segments. So, that tends to be more
12 what we're seeing.

13 We did hear about, and we have included
14 in our written comments, an example at a --
15 outside of the petroleum refining industry, I
16 believe it was in a power generation facility,
17 where an employer did install a new ladder
18 safety system -- or new personal fall arrest
19 system, I should say, after the 2016 rule went
20 into effect where a contractor went to that site
21 and had a different -- their own personal
22 harness system was not compatible with the

1 personal fall arrest system and had a tragic
2 fatal fall when they believed they were
3 protected by their harness and lanyard. But
4 because of the incompatibility of the two
5 systems, it did not arrest the fall and the
6 gentleman fell and died.

7 So, that's an example there of where
8 you have inconsistent equipment, which is what
9 we -- which is what we fear most often when
10 you've got people moving from site to site
11 working with different systems and encountering
12 different systems, is that incompatibility is
13 having tragic results already.

14 MS. STOCKER: Thank you. Eve Stocker
15 with another question for Mr. Conn.

16 I mentioned that there was a comment
17 submitted to the docket, I believe, just a day
18 after you submitted your written comments.

19 And in your comment, you described in
20 detail the issues for the contamination of fall
21 injuries and fatalities with regard to ladders
22 and just trying to distinguish those instances.

1 But this comment introduced, as I
2 mentioned to a previous witness, the idea that
3 when there is a fall in a cage and the climber
4 is not wearing a ladder safety system or a
5 personal fall arrest system, that serious
6 injuries can result.

7 So, there were about 21 instances in a
8 ten-year period where the climber was in a cage
9 and fell and sustained very serious injuries.

10 So, I wanted to give you an opportunity
11 to comment on that either now or in post-hearing
12 comments.

13 MR. CONN: Thank you. Yeah, I made a
14 point earlier about that. I believe it was in
15 response to one of David's questions.

16 There are injuries that occur whenever
17 you fall from a ladder, no matter the fall
18 protection system.

19 I can guarantee you -- I would
20 guarantee OSHA that if it explored this data, it
21 would find as many or more injuries from a fall
22 utilizing a personal fall arrest system from the

1 swing and fall that happens afterwards, right?

2 It arrests your fall and then slams you
3 into the ladder or slams you into the structure
4 to which the ladder is affixed.

5 We've seen those types of injuries
6 countless times in personal fall arrest system
7 falls on rolling stock, even tragic fatal falls
8 where someone falls between rail cars attached
9 to a personal fall arrest system.

10 So, no system is going to provide
11 perfect protection. No system is going to put
12 you in that bubble.

13 The question is, does the system
14 protect you from the fatal outcome, the most
15 serious outcome or serious outcomes most
16 consistently?

17 And I, you know, not to belittle any
18 injury, right, because we all want to protect
19 all of our workers all of the time, but 20
20 nonfatal injuries over a ten-year period, you
21 know, without a whole lot of context -- so, we
22 don't know what really was involved in those

1 circumstances -- I could guarantee you there's
2 as many or more of the same types of injuries
3 that occur from a fall that is arrested by a
4 personal fall arrest system.

5 So, you know, again, in a vacuum it's
6 hard to compare those two, but we know that
7 there are injuries that fall after -- the
8 injuries that occur after a fall is arrested
9 with a PFAS as well.

10 So, I mean, that would be my answer is
11 that, you know, none will be perfect, but are
12 they doing the job that they're designed to do?

13 They certainly have been for the last, you
14 know, five decades or so.

15 MS. STOCKER: Okay. Thank you. Eve
16 Stocker again.

17 When a climber is on a fixed ladder and
18 regardless of a cage or a well, what is stopping
19 that climber from falling further if they slip?

20 If their handhold slips, if their foot
21 slips, or if they lose consciousness, they're
22 fatigued, environmental issues, rain, sleet, can

1 you please tell me, Mr. Conn, what would stop an
2 employee from falling? Thank you.

3 MR. CONN: Yeah. The cage itself is
4 designed to be sort of a 360-degree catch. If
5 you -- no matter, you know, you're not going to
6 really be able to orient yourself if you're
7 falling. But if you stick your arms, legs,
8 elbows, knees, feet out, you're catching
9 something because it's within a foot of your
10 body, 360 degrees around your body.

11 And it's, like the ladder rungs,
12 openings all along the way that you're catching
13 yourself in.

14 In terms of fatigue, it also does
15 provide an opportunity for rest during the
16 climb, if there's a need for that. It's more
17 than just the rungs of the ladder itself to rest
18 upon.

19 But in terms of catching, arresting the
20 fall itself, that is the mechanism, that's how
21 it works and it is super intuitive, right?

22 It is just your, I mean, almost

1 natural, instinctive response is to reach out
2 and you will grab something, right?

3 There is something to get caught in,
4 to get caught on and to catch everywhere you --
5 everywhere you reach.

6 That's the idea of the cage that if
7 you're extending your arms and legs, you will be
8 caught because there's a structure around you.

9 MS. STOCKER: Thanks, Mr. Conn. Eve
10 Stocker again.

11 Correct my assumption that what you're
12 describing relies a great deal on the climber's
13 agility.

14 MR. CONN: I mean, I don't really think
15 so. I mean, it's not a --

16 MS. STOCKER: Okay.

17 MR. CONN: I mean, it's just the human,
18 natural response if you slip and miss that
19 thing, is to reach out and it will catch you.

20 It's not about grabbing and catching it
21 with your hands. You just brace yourself and
22 catch yourself and, I mean, it's -- right?

1 I mean, it's the same thing that will
2 happen if you were arrested by a fall with a
3 fall arrest system and you swing and slam into a
4 structure. That's going to hurt, right?

5 The fall is going to hurt. It's always
6 going to be the case. The best thing to do is
7 to not fall, right?

8 You stay on the ladder, you complete
9 your climb and you're safe, but the idea is, is
10 there a system there that prevents you from
11 falling the length of the ladder, the distance
12 that you've climbed to the lower level.

13 No matter what system you use to do
14 that, there's going to likely be some pain
15 involved and that's just the reality of all of
16 these systems.

17 I mean, the idea that a personal fall
18 arrest system is like an airbag is not the case,
19 right?

20 There is significant pain involved in
21 the arrest itself, right? That's like going
22 from great speed to a quick stop.

1 Your body is jerked and lurched and
2 then you swing and bang into things. That's
3 happening with a personal fall arrest system
4 too.

5 So it's, you know, the idea is we're
6 preventing that most serious injury from falling
7 all the way and they serve that purpose. They
8 work.

9 MS. STOCKER: Thank you. Eve Stocker
10 again.

11 Mr. Conn, can you clarify are you
12 advocating, it sounds like, for cages as a
13 substitute for ladder safety systems or personal
14 fall arrest systems on fixed ladders, but my
15 question is, at what length is that appropriate?

16 Is it 30 feet? 50 feet? Any length?

17 MR. CONN: Yeah, not as a substitute,
18 but as an option alongside. We have no problem
19 with personal fall arrest systems.

20 If an employer determines that that's
21 the right system for them, go for it, right?
22 That's the idea of having multiple options.

1 And I do think, to your point, I would
2 expect that employers that have, you know, very,
3 very tall fixed ladders, that that might be a
4 better option for them and that would be an
5 option that they, in my opinion, if they asked
6 my advice, that I would recommend for them in
7 those types of settings like climbing to the top
8 of a water tower, climbing to the top of an
9 antenna or wind farm equipment.

10 That would be very appropriate and, I
11 think, the best, you know, best practice type of
12 solution, but those aren't the kinds of ladders
13 that we're talking about.

14 We're talking about the ladders that
15 are in the, you know, 25- to 65-foot range, 25-
16 to 75-foot range or a hundred feet maybe at the
17 height.

18 Certainly we'd be willing to work with
19 OSHA to explore whether there is a height
20 demarcation where these options exist, but, in
21 my view, with the employers that I work with and
22 have worked with for 26 years, employers are

1 going to make the right choice, the safe choice,
2 the smart choice.

3 And so, given multiple options, they'll
4 make the right choice given their particular
5 work environment.

6 And if you're dealing with that 400-
7 foot, 300-foot climb, they're likely going to
8 make a different choice than somebody who's
9 talking about a 35- or 55-foot climb in a
10 setting where multiple third parties might be
11 using the same system as your own employees, but
12 it's about option, not substitution, not
13 replacement.

14 We were all for OSHA introducing ladder
15 safety systems and personal fall arrest systems
16 as an option in 2010 and supported that, and we
17 support that today.

18 And, really, all we're asking is that
19 OSHA finish the rulemaking it started in 2010
20 with a sound basis and good evidence when it
21 proposed that.

22 MS. STOCKER: Thank you. Eve Stocker

1 here again. Bear with me. I'm just trying to
2 understand.

3 So, is it impossible to fall all the
4 way down a fixed ladder if it has a cage?

5 MR. CONN: I don't think it's
6 impossible, no.

7 MS. STOCKER: Okay.

8 MR. CONN: I think that the example
9 that, you know, that we've talked about of
10 someone who completely lost consciousness and
11 falls.

12 They're going to, you know, they might
13 -- they might be hung up in the system. I mean,
14 the system is designed that it might serve to
15 hang a person up and catch them, but it's
16 possible that they would fall all the way down,
17 but that's basically what it would take is
18 someone who has absolutely no faculties at all
19 in that situation.

20 MS. STOCKER: Thank you. Thank you.

21 And just to clarify when I mentioned
22 the 21 or so really gruesome injuries that

1 occurred when someone fell on a fixed ladder
2 that only had a cage, just have a look -- the
3 comment is at OSHA-2005-0072-0025 and the
4 information is Appendix A.

5 And, you know, we want to give you an
6 opportunity to kind of comment on those if
7 that's clear. Thank you.

8 And then just one other minor thing.
9 You were talking about the incompatibility of
10 systems. It seems like OSHA has, and consensus
11 standards have, a great number of specifications
12 about systems. So, could you tell me how these
13 systems could be so widely incompatible? Thank
14 you.

15 MR. CONN: Yeah. There are -- there
16 are technical experts who could speak to this
17 better, and that's actually a great opportunity
18 for me to make a point here from a procedural
19 standpoint, Your Honor.

20 The prior testimony from AFPM was
21 intended to be split across two people. Jody
22 Bench, who represents a contractor that works in

1 a lot of refineries, was intended to testify
2 after Mr. Mecham.

3 So, if that's a possibility to re-
4 engage those folks, he had cut his time to allow
5 time for Mr. Bench.

6 JUDGE MORRIS: I will allow that.
7 We'll circle back on that.

8 MR. CONN: Thank you, yeah. And I
9 would say he's probably in a much better
10 position than I am to describe how those
11 incompatibilities surface.

12 And I think the issue is mainly where
13 you have these different systems where you've
14 got the attachment points in different
15 locations, different types of lanyard
16 attachments.

17 And I'll defer to the technical experts
18 on that and we can provide some more detail as
19 well, but that's where the issue arises where if
20 you've got, you know, your own harnesses that
21 come with the ladder safety system for your own
22 employees and they're the only ones using it,

1 you're not likely to encounter that issue.

2 But when you have lots of different,
3 you know, maintenance and outside personnel
4 accessing and using the same ladder, you're
5 almost certainly going to encounter that
6 situation because there are so many different
7 makes and models and designs that don't always
8 work together with each other that could be
9 fully compliant.

10 As long as you're using them with a
11 compatible system, it's all well and good, but
12 you often encounter ones that you weren't, you
13 know, anticipating.

14 MS. STOCKER: Thank you. I have one
15 more question -- Eve Stocker here -- for Mr.
16 Conn.

17 In your written comment, you said that
18 some of the greatest fall risks occur at the
19 transition point between ladder and platform,
20 but not all fall arrest systems offer protection
21 during this moment and, in fact, exacerbate the
22 fall risks.

1 And so, you also stated that self-
2 retracting landlines are also less protective
3 during transition because of potential user
4 error.

5 So, my question is, do you have any
6 data that you can share regarding falls that
7 occurred from the transition point when the
8 employee was using either a ladder safety system
9 or a personal fall arrest system? Thank you.

10 MR. CONN: Yeah, that's a great
11 question. We will explore that. I mean, we
12 know that anecdotally. We'll see what we have
13 in the way of data around that. That's a great
14 question. Great point.

15 MS. STOCKER: Thank you very much, Mr.
16 Conn, for your time and attention and testimony.

17 And Eve Stocker, I -- Your Honor, I don't have
18 any further questions for the witness. Thank
19 you.

20 JUDGE MORRIS: Very well. Do we have
21 questions from the public?

22 MS. HARRISON: Yes, Your Honor.

1 Dan Glucksman, I have enabled your
2 microphone.

3 MR. GLUCKSMAN: Hi. This is Dan
4 Glucksman with the International Safety
5 Equipment Association.

6 MR. CONN: Hi, Dan.

7 MR. GLUCKSMAN: Hey, Eric. How are
8 you?

9 MR. CONN: Great. Great to talk with
10 you.

11 MR. GLUCKSMAN: Likewise. And the Q&A
12 with Ms. Stocker answered some of the questions
13 that I was going to ask, but there was one that
14 sort of just came, well, towards the end of that
15 Q&A especially regarding the incapacitated
16 worker who might not have any faculties and
17 here's this worker in the cage.

18 And I guess the question is, and I hope
19 it's not sort of too self-serving, but as a
20 subject matter expert who's familiar with these
21 things, let me ask, you know, could that person
22 be better retrieved if that person is wearing

1 some type of, you know, ladder-climbing safety
2 system and could that be -- could one of those,
3 if that's on the worker, would that generally
4 make work safer for that individual?

5 MR. CONN: Yeah. You know, I think
6 we've had -- we've heard testimony today about
7 the challenges presented in emergency response
8 with a ladder safety system or a personal fall
9 arrest system ingrained in the ladder, that
10 you're going to have to do retrieval by some
11 mechanism other than the ladder, right, because
12 you can't have a second person attached to the
13 personal fall arrest system on the same ladder.

14 So, there will certainly be challenges
15 with that retrieval of somebody who's, you know,
16 who's fallen with a personal fall arrest system.

17 MR. GLUCKSMAN: Yeah.

18 MR. CONN: But, yeah, I mean, I just --
19 I mean, if the idea -- I think we're going down
20 a little bit of a rabbit hole that we're
21 designing a rule that will, you know, possibly
22 cost trillions of dollars across all industries

1 for that extraordinary circumstance of the
2 totally incapacitated worker on a ladder, but,
3 you know, I just don't know that that's really
4 the standard that needs to be met for a
5 rulemaking of this type to provide protection in
6 that circumstance or in every imaginable
7 circumstance.

8 But, you know, is the question that a
9 personal fall arrest system would better arrest
10 a person who's completely lost consciousness? I
11 think the answer is almost certainly yes.

12 MR. GLUCKSMAN: Great. Thanks.

13 And you had also talked about how some
14 employers are choosing to use ladders and, you
15 know, climbing -- rather, ladder safety climbing
16 systems and others aren't.

17 And I know I asked this of someone
18 else, any insights on how some employers are
19 making that decision?

20 You know, I know there's some climbing
21 safety systems now that do have entry exit
22 points, but any insights there from the

1 industry?

2 MR. CONN: Yeah. You know, I think
3 we've talked about a lot of the factors already
4 today.

5 Probably the most common one is the
6 diverse usage of the ladder if it is -- you find
7 it in workplaces that are really siloed where it
8 is just a couple of people from the same
9 employer using the same system and that's really
10 all you'd expect to use the system.

11 I think those decisions are being made
12 most often in that kind of work environment
13 rather than one where you've got such a diverse
14 group of individuals and companies and entities
15 and systems that might be encountering the
16 ladder. That is a very common factor.

17 And then the other, I think, is concern
18 about those transition points, how often those
19 would be encountered, where and how high you
20 would encounter those transition points and just
21 the length of the climb.

22 I think you're finding folks that have

1 these multi hundred-foot climbs are much more
2 likely to adapt to these systems, the personal
3 fall arrest systems than a cage or a well --

4 MR. GLUCKSMAN: Yeah.

5 MR. CONN: -- as the exclusive options,
6 but there's a lot of different factors that an
7 employer would evaluate to make that decision.

8 MR. GLUCKSMAN: All right. Great.
9 Thanks and great to see you. Thanks for the
10 answers.

11 MR. CONN: Thanks, Dan.

12 JUDGE MORRIS: Anyone else?

13 MS. HARRISON: No other questions from
14 the public, Your Honor.

15 JUDGE MORRIS: All right.

16 MR. CONN: Thank you, everybody.

17 JUDGE MORRIS: Thank you. Before I
18 forget, let's circle back to Mr. Bench from
19 AFPM. Did he wish to provide testimony?

20 MS. HARRISON: Jody Bench, I have
21 promoted you to panelist and we've added three
22 minutes to the clock.

1 MR. BENCH: Hi. Good morning, everyone,
2 and thank you for the opportunity to speak
3 today.

4 My name is Jody Bench and I'm the
5 Director of Environmental Health and Safety for
6 Ohmstede Industrial Services.

7 We are an industrial contractor that
8 performs turnarounds and maintenance, specialty
9 mechanical work and capital projects, at a
10 variety of refineries, petrochemical facilities,
11 chemical plants and terminals all across the
12 country.

13 Let me be clear, to begin with, I'm not
14 here to argue against fall protection. Our
15 employees work at heights each and every day and
16 protecting them from falls is one of our top
17 priorities and values.

18 What I am asking for, is for OSHA to
19 allow employers to continue utilizing cages and
20 wells as compliant options for fixed ladders.

21 Speaking from a contractor's
22 perspective, the greatest benefit of cages and

1 wells is consistency.

2 Our employees do not spend their
3 careers at a single facility, a single refinery
4 or chemical plant. They move between
5 facilities, between different customers,
6 different regions.

7 Every time a customer -- or, excuse me,
8 every time a worker arrives at a new site, they
9 encounter different procedures, different
10 equipment, different hazards, and it is our
11 belief that safety improves when critical
12 systems are familiar and consistent to the
13 worker.

14 Cage ladders provide that consistency.

15 A cage ladder functions in the same way
16 regardless of who owns the facility.

17 Workers know what to expect when they
18 approach a ladder, how to climb it, and also how
19 to descend in a safe manner.

20 Personal fall arrest systems and ladder
21 safety systems are all different depending on
22 manufacturer, equipment design and site-specific

1 requirements.

2 Workers must understand their
3 particular system installed at that location and
4 follow specific procedures for the correct
5 access.

6 As contractors move among facilities,
7 that variation creates additional complexity and
8 increases the potential for confusion and error
9 amongst the workers.

10 In our experience, consistency is
11 itself one of our greatest safety benefits. The
12 more systems a worker must learn, remember, and
13 distinguish from one another, the greater
14 opportunity for mistakes.

15 Cages and wells also are always
16 available. They do not depend on a worker to
17 carry specific equipment, locating compatible
18 components.

19 The protection is built into the
20 structure itself every time that the ladder is
21 used.

22 We are not asking for OSHA to choose

1 from one form of fall protection over the other.

2 We are asking OSHA to preserve the flexibility
3 and allow employers to use systems that work
4 best for their operations and their workforce.

5 For contractors whose employees move
6 from facility to facility every day, in some
7 cases, consistency is not just convenience, it
8 is also a safety benefit.

9 Again, thank you from Ohmstede and
10 myself on providing our perspective along with
11 AFPM and I'll be happy to answer any questions
12 you may have.

13 JUDGE MORRIS: Questions by OSHA?

14 MR. CHICCA: Thank you, Your Honor.
15 It's probably prudent to ask the same questions
16 that we did of your colleague, Mr. Bench.

17 So, we've heard from some commenters
18 that cages and wells do not provide positive
19 control fall arrest capability.

20 Do you have any comments on that?

21 MR. BENCH: I do not. Not at this
22 time.

1 MR. CHICCA: And do you have, or are
2 you familiar with, any specific scientific
3 research that you could submit to the record
4 that cages and wells are more protective than
5 ladder safety systems or personal fall arrest
6 systems, either in preventing a fall or
7 arresting a fall once it occurs?

8 MR. BENCH: I do not have any
9 scientific evidence.

10 MR. CHICCA: Okay. I'll pass things
11 over to Mr. Zettler.

12 MR. ZETTLER: Hi. Will Zettler with
13 OSHA.

14 How many ladders in your facility or
15 AFPM membership workplaces have ladder safety
16 systems or personal fall arrest systems, and to
17 what height do those ladders extend above a
18 lower level?

19 MR. BENCH: I'm sorry, Mr. Zettler, I
20 don't have that information.

21 MR. ZETTLER: Okay. If you decide to
22 provide it in post-hearing comments, that would

1 be appreciated.

2 MR. BENCH: Thank you.

3 MR. ZETTLER: My next question is, how
4 many ladders in your members' workplaces would
5 need to be retrofitted by the deadline, if you
6 have that information? And can you break down
7 whether the ladder safety system or personal
8 fall arrest system merely needs to be installed
9 on an existing ladder, whether the ladder needs
10 to be replaced as well, and whether additional
11 structural changes would need to be made, either
12 now or in post-hearing comments?

13 MR. BENCH: I would need to provide
14 that in post-hearing comments.

15 MR. ZETTLER: Perfect. Thank you for
16 your time and testimony today. I appreciate it.

17 MR. BENCH: Thank you.

18 MR. CHICCA: This is Dave Chicca with
19 OSHA. I'm going to pass it over to Tom Mockler.

20 MR. MOCKLER: Just a second here.

21 Okay. We received comments from the
22 association and let me -- we have a follow-up

1 question.

2 So, the question is, can you describe
3 the costs that you mentioned that include
4 permitting and approvals, engineering review,
5 temperature monitoring, atmospheric monitoring
6 and fire watch personnel? And please
7 distinguish between one, the routine and
8 customary current baseline employer practices
9 that contribute to ladder safety, and two, the
10 services that your analysis categorizes as
11 necessary or implied by the OSHA deadline of
12 2036.

13 In other words, what are they currently
14 doing for ladder safety independent of the OSHA
15 standard and what are the actual incremental
16 costs that they perceive as necessary by the
17 deadline?

18 And if you just want to handle that in
19 post-hearing comments, that would be fine.

20 MR. BENCH: Again, thank you, Tom. I'd
21 like to handle that post-hearing.

22 MR. MOCKLER: Okay.

1 MR. CHICCA: Dave Chicca again with
2 OSHA. Your Honor, I believe that concludes our
3 questions.

4 JUDGE MORRIS: All right.

5 Solicitor?

6 MS. STOCKER: Yes, Your Honor. Eve
7 Marie Stocker here.

8 Good morning, Mr. Bench. Thank you for
9 your time and your patience in waiting to
10 testify. Thank you so much.

11 I just had a question. Could you just
12 clarify for us, for the record, the fixed
13 ladders that you encounter at the worksites, do
14 they have cages the entire length of the ladder
15 or are they just at the top of the ladder or
16 above 24 feet?

17 If you could just expand on that, if
18 you could?

19 MR. BENCH: Thank you, Ms. Stocker.

20 As Justin Mecham, my partner, had
21 mentioned earlier when these ladders, you know,
22 the heights exceed at a 24-foot interval, that

1 they are caged all the way through.

2 MS. STOCKER: Thank you, Mr. Bench.

3 That's all I have, Your Honor. Thank
4 you.

5 JUDGE MORRIS: Any questions from the
6 public?

7 MS. HARRISON: No questions from the
8 public, Your Honor.

9 JUDGE MORRIS: All right. Thank you,
10 Mr. Bench, for your testimony.

11 MR. BENCH: Thank you.

12 JUDGE MORRIS: All right. Then the
13 next witnesses are ANSI/ASSP Z359 Committee.

14 MS. HARRISON: And Thom Kramer and Dan
15 Henn, I have promoted you both to panelists.
16 So, you should be able to unmute and turn your
17 camera on when you're ready.

18 MR. KRAMER: I'm ready. Good morning,
19 all. Thank you, Your Honor. Thank you,
20 representatives of OSHA. And thank you,
21 interested members of the public and the
22 industry for joining us today.

1 My name is Thom Kramer and I serve as
2 Senior Vice President of the American Society of
3 Safety Professionals or ASSP.

4 I'm also a professional engineer and
5 certified safety professional with more than 30
6 years of experience assessing, designing, and
7 implementing fall protection systems.

8 Throughout my career, I focus on
9 reducing risk for employees working at height
10 and I previously served as five years as chair
11 of the ASSP Z359 Fall Protection Committee. I
12 appreciate the opportunity to testify on behalf
13 of ASSP today.

14 Founded in 1911, ASSP is the world's
15 oldest professional safety organization and
16 represents more than 36,000 occupational safety
17 and health professionals working across every
18 major industry. As an ANSI-accredited standards
19 developer, American National Standards
20 Institute, our members have partnered with
21 industry, labor, government agencies and other
22 stakeholders for more than a century to advance

1 workplace safety through sound scientific
2 research, practical implementation, and
3 voluntary consensus standards.

4 ASSP has long supported OSHA's mission
5 to protect workers and has consistently
6 participated in the agency's rulemaking process
7 by providing technical comments on behalf of the
8 expertise of our members and the work of our
9 standards committees. We appreciate OSHA's
10 continued commitment to preventing falls, one of
11 the leading causes of workplace serious injuries
12 and fatalities, and we welcome the opportunity
13 to provide technical input as the agency
14 evaluates this proposal.

15 In our view, this proposal raises two
16 central questions. First, should OSHA eliminate
17 the existing compliance deadline requiring
18 personal fall arrest systems or ladder safety
19 systems on fixed ladders extending more than 24
20 feet above a lower level? Second, should OSHA
21 once again permit employers to rely on ladder
22 cages or wells in place of modern fall

1 protection systems?

2 The technical analysis supporting our
3 comments points to a clear conclusion. OSHA's
4 existing requirements reflect decades of
5 advances in fall protection technology and the
6 development of voluntary consensus standards.
7 Together, those advances have resulted in
8 systems that provide workers with a higher level
9 of protection than legacy approaches such as
10 ladder cages and wells. In our view, the answer
11 to both questions is no.

12 Based on the expertise of our members
13 and the technical analysis prepared by the ASSP
14 Z359 Fall Protection Committee, ASSP recommends
15 that OSHA retain its existing fixed ladder fall
16 protection requirements. This recommendation is
17 based on research studies, expertise, and
18 experience of committee members and observations
19 and analysis of drop tests performed in a
20 laboratory along with limited video evidence of
21 falls in the field.

22 Our written comments provide additional

1 detail and include the technical analysis
2 prepared by the ASSP Z359 Fall Protection
3 Committee. Rather than repeat every point from
4 that submission today, we'd like to highlight
5 several technical considerations we believe are
6 extremely important -- are especially important
7 as OSHA evaluates this proposal.

8 Thank you. We appreciate the
9 opportunity to share ASSP's perspective with you
10 today. I'd like to now turn things over to Dan
11 Henn, Chair of the ASSP Z359 Fall Protection
12 Committee, to discuss the technical basis of our
13 recommendations. Dan?

14 MR. HENN: Good morning, Your Honor,
15 ladies and gentlemen. Thank you for this
16 opportunity to be here this morning. My name is
17 Dan Henn. I serve as the Chair of the ANSI/ASSP
18 Z359 Fall Protection Committee, a role I've held
19 since 2023.

20 Again, thank you for the opportunity to
21 present the committee's technical perspective on
22 OSHA's proposal. While Thom's experience and

1 expertise is on the design and analysis of
2 active fall protection systems, my experience
3 and expertise focuses on the design,
4 manufacturing, and testing of many types of fall
5 protection products and systems which
6 organizations purchase every day.

7 Together, Thom and I bring
8 complementary perspectives on fall protection.
9 Our recommendations are further strengthened by
10 the expertise and experience of the committee
11 members who contributed to this work.

12 The ASSP Z359 Committee develops the
13 American National Standards addressing fall
14 protection and fall restraint. Our committee
15 includes engineers, safety professionals,
16 manufacturers, users, consultants, testing
17 laboratories, governmental representatives, and
18 other technical experts who work together
19 through a balanced consensus process to develop
20 standards that help protect workers.

21 As Thom mentioned, OSHA's proposal
22 raises two important questions. From the

1 committee's technical perspective, I'd like to
2 review and address each one.

3 First, should OSHA eliminate the
4 existing compliance deadline for fixed-ladder
5 fall protection systems? From the committee's
6 perspective, the existing compliance deadline
7 remains an important part of OSHA's rule because
8 it reflects the transition to more effective
9 fall protection technologies that have been
10 available for decades and are widely used and
11 accepted. In our view, the 20-year compliance
12 period has provided employers with a substantial
13 amount of time to make that transition.

14 The current requirements reflect
15 decades of advances in fall protection
16 technology, industry practice, and voluntary
17 consensus standards. They were adopted because
18 modern ladder safety systems and personal fall
19 arrest systems provide a higher level of worker
20 protection than older approaches, most notably
21 cages and wells.

22 Removing the deadline would slow the

1 continued adoption of those systems without
2 improving worker safety. For that reason, we
3 believe the existing compliance deadline should
4 remain in place.

5 Second, should ladder cages or wells
6 once again be considered an acceptable
7 substitute for modern fall protection systems?
8 From the committee's perspective, ladder cages
9 and wells should not be reinstated as an
10 acceptable substitute for modern fall protection
11 systems. Based on decades of experience
12 developing fall protection standards along with
13 our review of the available research and
14 incident data, we concluded that doing so would
15 reduce, rather than maintain, the level of
16 worker protection provided by the current rule.

17 Our analysis also considered the
18 continued risk presented by fixed ladders.
19 While portable ladders account for many fall
20 incidents, fixed ladders continue to cause
21 serious injuries and fatalities. Our review of
22 OSHA's accident database identified hundreds of

1 incidents involving fixed ladders over the past
2 two decades. Reinforcing the effective fall
3 protection remains an important occupational
4 safety issue.

5 The engineering principles underlying
6 these systems are fundamentally different.
7 Unlike modern fall protection systems, a ladder
8 cage is not designed to positively arrest a fall
9 in a controlled manner. If it interrupts a fall
10 at all, it does so when a worker's body strikes
11 the cage itself, potentially resulting in
12 significant injury while providing no
13 predictable or controlled means of fall arrest.

14 During my extensive testing experience,
15 I've seen the violence of an uncontrolled fall
16 impact for a variety of reasons, and the results
17 produced in a test laboratory are shocking. We
18 often incorporate these drop test simulations in
19 training environments to viscerally demonstrate
20 the seriousness of the impact, suspension, and
21 other effects. If it would be helpful for OSHA
22 -- or if it would be helpful as OSHA continues

1 evaluating this proposal, the committee would be
2 pleased to provide additional information
3 regarding the testing and demonstrations that
4 informed our technical analysis.

5 By comparison, ladder safety systems
6 and personal fall arrest systems are
7 specifically engineered, tested, and evaluated
8 to defined performance criteria. They are
9 intended to safely arrest falls while limiting
10 the forces experienced by the worker. That
11 distinction is fundamental to the committee's
12 recommendation and is reflected throughout the
13 ANSI/ASSP Z359 standards. Again, I would
14 encourage you to view these demonstrations if
15 you haven't -- or already haven't done so.

16 Our analysis also considered the
17 available peer-reviewed and government-sponsored
18 research cited in our written comments. That
19 research consistently concluded that ladder
20 cages do not provide protection equivalent to
21 ladder safety systems. Workers rarely become
22 safely retained within a cage during a fall.

1 Rescue can become more difficult if they do, and
2 personal fall arrest and ladder safety systems
3 provide substantially greater protection during
4 the types of falls commonly associated with
5 fatigue, missteps, or medical events.

6 I would also like to add that fall
7 arrest systems are already a part of the toolkit
8 that workers in these environments already avail
9 themselves of in other exposures on a daily
10 basis.

11 Taken together, the engineering
12 principles available, research, and practical
13 experience consistently support the same
14 conclusion. Personal fall arrest systems and
15 ladder safety systems are the preferred means of
16 protecting workers climbing fixed ladders
17 whenever safer alternatives such as stairs or
18 intermediate landing platforms are not feasible.
19 These systems are commercially available, widely
20 used throughout the industry, and, based on user
21 feedback received by the committee, are often
22 preferred because they are familiar, practical,

1 and effective.

2 Finally, our review considered the cost
3 information cited in support of the proposal.
4 Based on the practical experience of committee
5 members and real-world engineering and field
6 installations, we believe those estimates are
7 substantially higher than the costs typically
8 encountered in the field. While actual costs
9 vary depending on the engineering and
10 installation, we encourage OSHA to consider
11 additional cost information, including
12 governmental contract data, to better understand
13 the costs associated with these systems.

14 Based on the committee's technical
15 experience, practical experience, and decades of
16 standards development, we believe OSHA's
17 existing requirements continue to represent the
18 appropriate level of protection for workers
19 climbing fixed ladders. The committee's goals
20 align with OSHA's mission to protect workers,
21 and our recommendations reflect that shared
22 objective.

1 If OSHA determines changes to the rule
2 are appropriate, we believe those changes should
3 focus on using risk assessments to improve the
4 safe design and installation of ladder safety
5 systems, rather than reducing the level of
6 worker protection currently provided by the
7 regulation. We believe maintaining the current
8 requirements best supports that shared goal,
9 while continuing the progress made in fall
10 protection over the past several decades.

11 Thank you for the opportunity to
12 present the committee's perspective. Thom and I
13 would be happy to answer any questions.

14 JUDGE MORRIS: OSHA?

15 MR. CHICCA: Thank you, Your Honor.
16 This is Dave Chicca with OSHA. Thank you very
17 much for your testimonies today.

18 In your submitted comments and now, you
19 offered to provide additional information
20 regarding the testing and demonstrations for
21 your technical analysis regarding falls and
22 cages. We would appreciate hearing more about

1 that, perhaps as, like, a high-level summary now
2 and more details in post-hearing comments.

3 MR. HENN: Absolutely. You know, part
4 of our process of developing standards involves
5 collaborating with one another as stakeholders.
6 And the testing that is done, either to develop
7 the requirements for a national consensus
8 standard or the beyond scope testing that is
9 done to validate the efficacy of these systems,
10 often reveals details that are not necessarily
11 intuitive to the casual observer, and much of
12 our work has involved conducting testing of this
13 type to see what the results are when we
14 introduce different variables. And if we were
15 to drop a test dummy or other analog in an
16 uncontrolled manner down a cage or well, it
17 would illustrate very clearly the risks
18 associated with that type of unrestrained fall.

19 I would further add that there has been
20 some commentary today about the hierarchy of
21 controls, with which I have some degree of
22 familiarity. And I would suggest that when we

1 look at cages and wells and consider them as a
2 passive means of protection, I wouldn't equate
3 the level of protection they provide to the same
4 protection we might expect from other passive
5 means like guardrails and other barriers that we
6 typically apply in other fall protection
7 disciplines, which do provide effective barriers
8 to access to a fall hazard.

9 MR. CHICCA: Thank you. So also, I
10 just wanted to drive on some of these specific
11 points. In your submitted comments, you noted
12 that research has consistently concluded that
13 ladder cages do not provide protection
14 equivalent to ladder safety systems. And you
15 explain part of this in conclusion, is that
16 workers rarely become safely retained within a
17 cage during a fall. Are you able to explain a
18 little bit more about what this means?

19 MR. HENN: Well, absolutely. When we
20 look at the effects of a ladder safety system or
21 personal fall arrest system, the objective of
22 those systems is to positively engage the worker

1 and arrest their fall and prevent them from
2 succumbing to contact with a lower level or
3 objects in the fall path.

4 So the requirements that are written
5 into the standards evaluate not just the forces
6 that are imparted on the body, but also evaluate
7 the distances in which we can engage a positive
8 arresting engagement. And when we look at the
9 geometry of a ladder cage, there is no bottom.
10 There is no point at which we can say
11 definitively that that body will be arrested and
12 stopped from succumbing entirely to the fall.

13 MR. CHICCA: And so does safely
14 retained mean there were no injuries?

15 MR. HENN: It reflects a capture of the
16 worker and a prevention of that contact with a
17 lower level or object in the fall path. To
18 suggest that an injury can't occur during a fall
19 arrest, whether in a cage or well or with a fall
20 arrest or a ladder safety system, would be
21 perhaps a little bit naive.

22 You know, there's always the

1 opportunity for injury to occur during a fall
2 arrest engagement. The objective of these
3 systems is to limit the severity of these
4 injuries and to prevent the fatal contact.

5 MR. KRAMER: If I could add onto that,
6 so the way we often like to look at it is how
7 quickly, as Dan mentioned, how quickly is a fall
8 arrested? So, you can compare that to the
9 natural instinct that I think was brought up
10 before as far as possibly, you know, grasping
11 onto the cage.

12 You know, while that is obviously a
13 natural instinct, the intent of the ladder is
14 simply to direct the worker to the lower level.

15 And so the initial design of a cage is not to
16 necessarily arrest the fall.

17 Could it possibly? Absolutely it
18 could, but you also have to look at the human
19 behavior, the human response to a fall. And
20 when you look at just purely physics, the worker
21 is going to fall about four feet in that first
22 half a second.

1 And in that first half a second, that's
2 when the worker will now start to respond, and
3 it will take about another tenth of a second to
4 reach out and possibly grasp onto something. So,
5 that's in the first half to six-tenths of a
6 second they've fallen about four to six feet,
7 and that's just simply physics of a falling
8 object.

9 At that point, the worker -- again,
10 this is all just physics based on our
11 gravitational constant of 32.2 feet per second
12 squared, the worker is now going 16 feet per
13 second. And the possibility that they could
14 then grasp onto something, hold onto something,
15 and prevent them from falling is, I think, very,
16 very challenging to think about.

17 Could it happen? Absolutely, it's
18 possible. Is it likely? Very, very unlikely
19 without significant injury, as Dan mentioned.

20 And so that's the challenge that, you
21 know, just from a pure physics standpoint, pure
22 scientific standpoint, that we look at and

1 compare the systems that Dan are talking about.
2 They're designed to lock up and arrest the fall
3 within a matter of a foot or two, and Dan can
4 probably talk more about that just through his
5 extensive equipment manufacturing and testing of
6 the products.

7 MR. CHICCA: And I guess just to
8 clarify, like, there are falls inside a cage --
9 because we -- I guess we've heard differing
10 opinions on this throughout the day in other
11 testimonies, falls inside of a cage are not only
12 dangerous to people who are unconscious and
13 can't necessarily brace themselves during a
14 fall.

15 MR. KRAMER: Correct. They're --
16 obviously someone that cannot brace themselves,
17 they are going to be, as the cage is designed,
18 to direct the worker to a lower level. And so
19 while it might -- and, again, this -- I'm not a
20 medical professional, so I can't answer this
21 comprehensively, and I don't think there's much
22 scientific data, but it will direct the forces

1 to the person's lower extremities.

2 And so it might keep them more upright,
3 but they're also, just with the openings in the
4 cages, and I think the U.K.'s HSE, Health and
5 Safety Executive, outlines this, there is a
6 chance for inversion as far as the worker going
7 down.

8 Dan, you might be able to speak more to
9 that.

10 MR. HENN: Absolutely. And I think in
11 earlier testimony, it was mentioned that the
12 ladder cages provide 360 degrees of protection,
13 but that's a two-dimensional consideration
14 because there is no bottom to the cage and we're
15 talking about somebody who is going to be
16 subjected to a fall on a vertical plane, and
17 there is no protection on the vertical plane in
18 a ladder cage or well.

19 Whereas, when we install a ladder
20 safety system or fall arrest system, we are
21 providing direct mechanical protection against a
22 fall in that vertical plane, and that's the one

1 objective that we can address that a ladder cage
2 or well cannot.

3 MR. CHICCA: Thank you both. I might
4 come back with more questions, but I want to
5 give my colleague Will Zettler the opportunity
6 to ask some.

7 MR. HENN: Thank you, David.

8 MR. ZETTLER: Good morning, barely.
9 Yes, I do have a few questions. This is Will
10 Zettler for OSHA.

11 Do cages -- just for clarification, do
12 cages require workers being conscious to grab
13 onto something?

14 MR. KRAMER: Go ahead, Dan.

15 MR. HENN: Well, I would suggest that
16 if we're depending upon the worker to grab onto
17 something during the course of a fall in a cage,
18 that consciousness would be an important element
19 of that engagement and that an unconscious
20 worker would not be in a position to grab onto
21 anything.

22 And as Thom described the physics and

1 the acceleration involved in the fall, even if a
2 worker were conscious, there's still a, you
3 know, serious lack of surety that that worker is
4 going to be able to do anything to safely arrest
5 their fall.

6 MR. KRAMER: And I would just add to
7 that, Will, is that, you know, ladders where
8 there isn't a personal fall arrest system or a
9 ladder climbing system, is that they do rely on
10 perfect human performance to not have a slip, to
11 not have a twitch, to not have any deleterious
12 issues with the ladder that might cause that
13 fall. And so they do require, you know, perfect
14 human performance even in the presence of
15 outside factors, environmental factors.

16 MR. ZETTLER: Thank you. We've heard
17 that one reason cages and wells provide equal or
18 more protection is that ladder safety systems
19 and personal fall arrest systems, such as self-
20 retracting lifelines, leave the climber
21 vulnerable at transition points. Can either of
22 you address that?

1 MR. HENN: I would be glad to. First
2 of all, I would say that if we look at the way
3 the self-retracting devices are employed in
4 ladder fall arrest, they actually provide
5 considerable protection during the course of
6 transition when mounted to an elevated davit and
7 can allow a worker to transition off of the
8 ladder onto a platform while still being
9 protected.

10 Furthermore, I would say that in the
11 discipline of fall arrest, one of the common
12 requirements is the use of 100 percent fall
13 arrest procedures, meaning that the worker is
14 required to maintain a fall arrest connection
15 100 percent of the time. So, when using a
16 ladder safety system and transitioning off the
17 ladder, the worker would be trained and required
18 to make a secondary connection to facilitate
19 their transition to ensure that they are not
20 vulnerable during the transition. And 100
21 percent tie-off procedures are very well known
22 and, you know, exceptionally well-implemented,

1 you know, throughout both general industry and
2 construction applications.

3 MR. KRAMER: And I would just add onto
4 that, Will. You know, that's where OSHA and
5 their requirement for fall protection systems to
6 be designed, installed, and used as part of a
7 complete system by a qualified person, that's
8 really what really gets into making sure that
9 it's -- those transition zones are completely
10 addressed.

11 And then ASSP expanded upon that in
12 ANSI Z359.6, the design requirements for an
13 active fall protection system, where, you know,
14 an engineer designing that, what do they need to
15 do to completely to make sure that those
16 transition zones are protected? Because
17 anecdotally, we know, as safety professionals,
18 transition zones, I mean, any part of life,
19 transition zones are where we see, you know,
20 lower quality and then also, you know, higher
21 potential for safety incidents. And that's
22 where it's incumbent upon that designer of that

1 active system to make sure that those transition
2 zones are properly protected.

3 MR. ZETTLER: Okay. Thanks. Since the
4 2016 final rule was published, are you aware if
5 any of your committee members have promoted the
6 use of cages or wells as a means for fall
7 protection over ladder safety systems or
8 personal fall arrest systems?

9 MR. HENN: The short answer to that is
10 no.

11 MR. ZETTLER: Okay. And can you
12 describe how a rescue would be performed on a
13 fall victim inside a cage or well?

14 MR. HENN: With great difficulty. You
15 know, the amount of room inside a cage or well,
16 particularly if it's obstructed by somebody who
17 managed to become entangled and captured within
18 that cage or well, would become potentially an
19 obstruction to the rescuer if ascending to
20 rescue.

21 And if descending to rescue, it would
22 create great difficulty in terms of getting down

1 into a safe position to actually create an
2 engagement with that person and to facilitate
3 their rescue. So I would view that as being
4 more of an obstacle than a tool.

5 MR. ZETTLER: And can fall arrest
6 systems for ladders be engineered for more than
7 one person, like, for rescues?

8 MR. HENN: Indeed. And, in fact, I
9 would say that the ANSI Z359.16 standard, which
10 addresses climbing ladder fall arrest systems,
11 which are most aligned with the ladder climbing
12 systems or ladder climbing safety systems that
13 are described in the OSHA regulation, does
14 provide provisions for multiple users and
15 provisions for a qualified rescuer to utilize
16 that system during the course of a rescue as
17 well.

18 MR. ZETTLER: Okay. And do any of your
19 committee members have any experience and are
20 you able to, either now or in post-hearing
21 comments, compare and contrast injuries with
22 personal fall arrest systems and ladder safety

1 systems versus injuries they have seen with
2 cages?

3 MR. HENN: I would say that we have
4 submitted some evidence to suggest that, and
5 probably more is available. We'd probably want
6 to use the post-comment -- or post-testimony
7 comment period to get more into that.

8 I will say that we rely heavily on the
9 BLS data that's published every year and look at
10 that as kind of a report card as to how well
11 we're doing. And, you know, it's unfortunate
12 that that data isn't a little bit more granular,
13 but, suffice it to say, there is data in there
14 that is highly suggestive.

15 I would say that over time, and if we
16 look at the fact that this rule has been in
17 place for ten years, we haven't made nearly
18 enough of an effect. And clearly, there is
19 still a long way to go in the remaining ten
20 years we have to fully implement the
21 requirements of this rule. And I would say that
22 we've neglected our opportunity to advance the

1 state of the art over the last ten years, and
2 that's reflected generally in the data.

3 MR. ZETTLER: Very good. That is all
4 the questions from me. Thank you very much for
5 your time and testimony today.

6 MR. KRAMER: Thank you, Will.

7 MR. HENN: Thank you, sir.

8 MR. CHICCA: This is Dave Chicca again
9 with OSHA. I'm going to pass things over to our
10 colleague, Tom Mockler.

11 MR. MOCKLER: Hello. Yeah, I have a few
12 questions. First question is, have you
13 identified cost savings from ladder safety
14 systems, personal fall arrest systems? And if
15 so, do those factors argue for replacement
16 sooner than the schedule might suggest?

17 And related to that, have you observed
18 testimonials from companies who have avoided
19 injuries have improved productivity?

20 MR. HENN: Well, you know, I can't
21 specifically -- you asked a question about can I
22 demonstrate cost savings, and I'm not quite sure

1 where you're going with that. What I would
2 suggest is that based on what's presented to us,
3 this estimate of \$3 billion seems very, very
4 high.

5 And, you know, I would suggest that the
6 actual cost of implementation of the rule can be
7 reduced substantially compared to that number if
8 we look at the actual cost of equipment,
9 engineering, and installation resources. And,
10 you know, I heard a number of 55,000 per ladder
11 thrown out in earlier testimony, and I really
12 quickly put pen to paper.

13 And if we look at a systemic cost of 3-
14 to 5,000, which is pretty extreme, and we look
15 at the associated cost of engineering and labor
16 being one to three times cost of material, we're
17 looking at something far less than half of
18 what's been projected here, and that's just, you
19 know, looking at it from a shotgun approach.
20 You know, I would suggest that there's a
21 tremendous opportunity to take a look at this in
22 a balanced perspective and project a much lower

1 cost to the industry to implement the rule.

2 Furthermore, I would say that, in
3 earlier testimony, it was suggested that
4 delaying the implementation of the rule would
5 save money over time. And I would argue that
6 over time, these materials and services cost
7 more as we look at the inflationary effects and
8 other aspects of our economy that, you know,
9 earlier implementation actually would have
10 benefitted the industry substantially from a
11 financial perspective.

12 MR. MOCKLER: Okay. If you want to
13 elaborate on that in more detail in post-hearing
14 comments, that would be welcome.

15 Another question I have is, can ASSP in
16 post-hearing comments, and summarize now if
17 able, assess the safety benefits of maintaining
18 the 20-year implementation period?

19 MR. KRAMER: I'll go ahead and take
20 that one. You know, that's something that I
21 think ASSP is very keen to look at. ASSP has
22 created what we call standards-based user groups

1 to explicitly address implementation challenges
2 like this.

3 I'm sure ASSP would welcome a
4 discussion with OSHA to determine how to best
5 perform and look at this industry data to make
6 sure that we're giving the full picture and
7 giving a scientific approach, making sure that
8 we've surveyed across the various industries so,
9 again, OSHA has the full picture for this.

10 MR. MOCKLER: Yeah. My final question
11 is, the comment from Mr. Conn on behalf of the
12 ILTA, API, AFPM, and ACC, referred to a need to
13 replace or reinforce fixed ladders because
14 ladder safety systems and personal fall arrest
15 systems impose additional arresting force loads
16 on ladders and their supporting structures. Can
17 you comment on this assertion and provide data
18 on the costs associated with the installation of
19 one system versus the other system?

20 MR. KRAMER: Dan, would you like me to
21 take that?

22 MR. HENN: Yeah, go ahead.

1 MR. KRAMER: Yeah. So my background is
2 in structural engineering. So analyzing the
3 ladders, yes, the loads for personal fall arrest
4 systems and ladder climbing systems are likely
5 going to be greater than just a person climbing
6 it because you just have the weight of the user
7 and some additional loads and so forth.

8 So the impact loads associated with
9 fall arrest systems will be greater, but we
10 often have to evaluate those existing ladders to
11 determine whether or not they are structurally
12 sufficient or how do we have to apply the loads
13 in order for the ladder to still be structurally
14 sufficient. We don't have any data right now,
15 but I can definitely look into it to see what
16 types of -- what percentage of ladders would
17 need to be reinforced.

18 We might have to reach out to
19 individual committee members who have that data
20 for a variety of different ladders that they've
21 analyzed out there in the field. So while we
22 don't have that information with you, we can

1 definitely look into that. It might not be, you
2 know, very, very broad, but there will be some
3 sample sets that we can draw that information,
4 which you might be able to extrapolate it out to
5 other industries.

6 MR. MOCKLER: Okay, thanks. Whatever
7 details you can provide in the post-hearing
8 comments would be welcomed from us.

9 MR. KRAMER: Thank you.

10 MR. MOCKLER: Okay. Thank you.

11 MR. KRAMER: Thank you, Tom.

12 MR. CHICCA: Okay. This is Dave Chicca
13 with OSHA. Mr. Kramer, Mr. Henn, thank you so
14 much for your time and testimony.

15 Your Honor, that's all from OSHA.

16 JUDGE MORRIS: Solicitor?

17 MS. STOCKER: Yes, Your Honor. Eve
18 Marie Stocker here. Thank you, gentlemen, for
19 your time and your testimony today.

20 Commenters have suggested that ladder
21 safety systems or personal fall arrest systems
22 are incompatible with ladders with existing

1 cages or wells. Do cages and wells actually
2 interfere with the proper function of a ladder
3 safety system?

4 MR. KRAMER: Dan?

5 MR. HENN: No. You know, modern ladder
6 safety systems and fall arrest systems can be
7 operated safely within the confines established
8 by existing cages and wells.

9 MS. STOCKER: What about that same
10 question for personal fall arrest systems?

11 MR. HENN: The same would be true for
12 personal fall arrest systems as well.

13 MS. STOCKER: If you have any data on
14 this, we would welcome that in post-hearing
15 comments, if you could. Just related to that,
16 would installation of a ladder safety system or
17 a personal fall arrest system require the
18 removal of the cage or well?

19 MR. HENN: Not necessarily.

20 MS. STOCKER: Okay. And then, so we
21 would welcome your opinion on the percentage of
22 ladders that would have some kind of

1 incompatibility with a ladder safety system or a
2 personal fall arrest system.

3 My other question is in your written
4 comments, you said a cage did arrest a fall, and
5 I just wanted to loop back to make sure I
6 understood. I may not have completely
7 understood. A commenter suggested that all you
8 have to do is just stick your arms or legs out
9 so that the cage could catch you in a fall. Can
10 you comment on that?

11 MR. HENN: As I imagine, a ladder cage
12 and the act, or the unfortunate circumstance, of
13 falling within a ladder cage, I don't imagine
14 that sticking my arms or legs out is going to
15 necessarily get the job done, and I can't
16 guarantee that I'm going to create a positive
17 engagement that will prevent me from either
18 being severely injured or succumbing entirely to
19 the fall.

20 You know, I like analogies. And if I
21 tried to utilize that same stream of logic to
22 suggest that seat belts and airbags are no

1 longer necessary in automobiles, I think that
2 that argument would probably come up short, and
3 I think it comes up short here as well.

4 MR. KRAMER: And if I could just add
5 onto that, you know, what I shared previously is
6 just from a physics standpoint and then human
7 behavior, human reactions. It's going to take
8 the human about a half a second to start to
9 react to that fall and to grasp onto something.

10 So, the object that they saw right here
11 that they were going to grasp on, it's now four
12 feet above them. And, again, they're moving at
13 16 feet per second, and that's just pure physics
14 from, you know, an object in falling motion.

15 And so, you know, those can be
16 evaluated and compared to determine, you know,
17 what's happening, and then I'm sure we can also,
18 you know, get from industry what would happen to
19 a limb that possibly gets caught into a cage
20 while moving in excess of 16 feet per second.

21 MS. STOCKER: Thank you. In your
22 written comments, you stated that only annual

1 inspections and evaluations by qualified
2 individuals could adequately determine the
3 lifespan of a ladder. Could you tell me a
4 little bit more about that? Like, what factors
5 would these individuals need to rely on in
6 making an adequate assessment of the lifespan of
7 a ladder? Thank you.

8 MR. KRAMER: Yeah. So one item that
9 you're looking at is, first off, the geometric
10 requirements of the ladder. So OSHA has, you
11 know, clearances that are required around the
12 ladder, and that's the first thing that we look
13 up, is the ladder even compliant with the OSHA
14 regulations and also the ANSI A14.3 standard on
15 fixed ladders.

16 So just checking the climbing
17 requirements, because that could cause an issue
18 as you're climbing it if you have an obstruction
19 on the climbing side or an obstruction behind
20 the ladder, which doesn't allow you to put your
21 foot on it. So just first off, just reviewing
22 the geometric requirements is critical.

1 And then when you look at it from just
2 a structural standpoint, it's just a normal
3 structural inspection. So you're looking for
4 has that ladder somehow been contacted by a
5 piece of equipment. So in industrial
6 facilities, it's not uncommon for a piece of
7 equipment to somehow have struck a ladder, which
8 obviously bends it.

9 So we're looking for, you know,
10 potential for damage due to some sort of outside
11 force, and then we're looking for possibly
12 elements of the weather. So especially in
13 coastal environments if you don't have a
14 galvanized ladder, it's likely going to start to
15 corrode. And so is that surface deterioration?

16 Has that got into the structural member and
17 starts to compromise the strength of it?

18 And so looking at that and doing that
19 visual inspection is common practice and, you
20 know, there's -- I'm sure there's been hundreds,
21 if not, you know, thousands or, if not, tens of
22 thousands or hundreds of thousands of ladders

1 that have been inspected by members of our
2 committee that, you know, we can maybe not have
3 the exact data on, but we can pull in data to
4 see what typically contributes to a ladder
5 failing that annual inspection.

6 MS. STOCKER: Thank you. That was very
7 interesting. I was actually wondering also, I
8 hadn't really thought very closely about that,
9 but about -- you mentioned environmental factors
10 and the construction of the existing ladder, but
11 you -- I think you touched on that. Did you
12 want to expand?

13 MR. KRAMER: I don't follow what your
14 questions may be going to. Could you maybe --

15 MS. STOCKER: Sure.

16 MR. KRAMER: -- clarify that?

17 MS. STOCKER: Thank you. Yes, I'd be
18 happy to. I was thinking about factors such as
19 wear and tear on the ladder and where it's
20 positioned, the weather conditions, getting that
21 corrosion of the ladder, of course, that goes to
22 the ladder's material, but if you can think of

1 other factors somewhat weather-related or in
2 context of the operation, chemicals and other
3 substances affecting the integrity of the
4 ladder, are those things to take into
5 consideration with the lifespan of a ladder?

6 MR. KRAMER: Absolutely, and it just
7 falls underneath any sort of other structural
8 type inspection. So whether it's structural
9 steel or whether it's a fixed ladder made out of
10 steel or, you know, some ladders are aluminum
11 and other materials, but what we will look at
12 is, yes, what type of environment.

13 Is it corrosive? Is there weather? Is
14 there other types of items that are going to
15 decrease it? What types of coatings were
16 previously applied to that ladder? Sometimes
17 it's just primed and painted. Other times it's
18 galvanized. Other times it's stainless steel.

19 And so there's a variety of factors not
20 only on the material side, but also on the
21 environmental side not only for the weather
22 environment, but then also due to, you know,

1 various chemicals or corrosive nature that might
2 be in that environment.

3 MS. STOCKER: Thank you very much.
4 That's all I have.

5 JUDGE MORRIS: All right. Do we have
6 any questions from the public?

7 MS. HARRISON: No questions from the
8 public, Your Honor.

9 JUDGE MORRIS: All right, gentlemen.
10 Thank you very much for your testimony.

11 MR. KRAMER: Thank you.

12 MR. HENN: Thank you, Your Honor.

13 JUDGE MORRIS: All right. I believe
14 that is it for the morning session. Unless
15 somebody has anything else, I propose that we
16 adjourn until we reconvene at one o'clock.

17 Very well. Since there's no one piping
18 up, we are -- our hearing is in recess until one
19 o'clock.

20 (Whereupon, the above-entitled matter
21 went off the record at 12:16 p.m. and resumed at
22 1:00 p.m.)

1 JUDGE MORRIS: It's my understanding
2 that the next witness or the next individual is
3 from LJB Incorporated Engineering?

4 MS. JOHN: Yes, our next witness is
5 Kathy Stieler.

6 JUDGE MORRIS: Ah, okay, not Mr.
7 Wilcox, but Kathleen Stieler, okay.

8 MS. JOHN: I do not believe so. Kathy,
9 you should have just gotten the prompt to be
10 promoted to panelist.

11 MS. STIELER: Yep.

12 MS. JOHN: You accepted it, great.

13 JUDGE MORRIS: All right, so I'm clear
14 that the agendas that I had had LJB Engineering.
15 They are not participating then?

16 MS. STOCKER: That's what we had too,
17 Your Honor. Is Kevin Wilcox not present?

18 MS. JOHN: I do not see him present.
19 Wait, let me --

20 JUDGE MORRIS: He does have his hand
21 raised.

22 MS. JOHN: Oh, I see. All right. In

1 that case, Kevin, we will promote you.

2 MS. STOCKER: So, you'll have to
3 change your slide. There you go.

4 MR. WILCOX: Wonderful. I assume I'm
5 here loud and clear?

6 JUDGE MORRIS: We can hear you loud and
7 clear. Go ahead, Mr. Wilcox.

8 MR. WILCOX: Thank you very much. Good
9 afternoon. Thank you for the opportunity to
10 speak today. My name is Kevin Wilcox. I'm a
11 certified safety professional and professional
12 engineer with LJB Engineering.

13 I believe OSHA now has an opportunity
14 to refine ladder safety requirements to achieve
15 a higher level of safety overall, rather than
16 simply delaying the implementation of current
17 requirements or reverting to prior requirements
18 completely.

19 I'll begin with what may be an obvious
20 point, and that is there's no such thing as
21 safe, there's only safe enough. And the purpose
22 of a safety standard is not to require the most

1 protective measure that can be imagined in every
2 circumstance, but to reduce risk to a level
3 that's reasonable and practical and defensible
4 for the work being performed.

5 So, a fixed ladder with a ladder safety system
6 may be safer than one without. But if we
7 consider the purpose of the ladder is to provide
8 access to an elevated surface, then a stair is a
9 safer option. And safer still would be an
10 elevator or some other access method.

11 And each safety improvement may reduce risk, but
12 it also adds incremental costs and often
13 significant.

14 So, of course, this is the law of
15 diminishing returns that OSHA already recognizes
16 in establishing practical thresholds and other
17 dimensional requirements, including the basic
18 fall protection trigger height of four feet or
19 other fixed ladder dimensional requirements such
20 as the minimum run length.

21 So, the challenge is to balance the
22 implementation burden with the worker protection

1 so that limited resources are directed toward
2 the greatest overall risk reduction across all
3 hazard exposures and not just ladders.

4 I'm concerned that if ladder safety receives
5 disproportionate regulatory attention, that
6 organizations may be forced to spend their
7 limited resources on some hazards that are lower
8 risk, while delaying more beneficial risk
9 mitigation of other hazards that could have
10 resulted in an overall lower level of risk to
11 workers.

12 As we've heard in the testimony
13 already, there does appear to be a substantial
14 disagreement regarding the cost of implementing
15 ladder safety systems.

16 In my experience, the lower end of the
17 range of costs that have been suggested does not
18 properly address the logistical challenges of
19 construction work inside complex industrial
20 environments.

21 And even worse, the lower end of the
22 range may not consider the other OSHA

1 requirements that must also be met, such as
2 adequate ladder strength and connection strength
3 and the need for enhanced training for workers
4 unaccustomed to donning a full body harness.
5 There's much more to implementing a ladder
6 safety system than just buying the hardware and
7 attaching it to a ladder. Now, to be clear, I
8 agree that ladder cages do little more than
9 guide a fallen climber to the bottom of the
10 ladder.

11 Fixed ladders present real hazards and
12 ladder safety can and in many cases should be
13 improved. However, I've also found that most
14 currently available products do not solve every
15 aspect of ladder use. Most ladder safety
16 systems primarily address one event, and that is
17 the consequence of slipping while climbing.

18 They do not necessarily address other
19 critical parts of the task, including the
20 transition onto or off of the ladder or rescue
21 after a fall or whether the system itself
22 creates new obstructions that could lead to a

1 fall.

2 In some cases, a poorly selected,
3 poorly designed or poorly installed system may
4 reduce one hazard while increasing another. And
5 so for that reason, I believe OSHA should set
6 clear requirements that any ladder safety system
7 must provide continuous protection through the
8 full act of using the ladder, including getting
9 on and off the ladder at transition points, as
10 well as the climb itself, in addition to
11 facilitating rescue should that need arise.

12 Now, given the challenges of ladder
13 safety systems, instead of a requirement to
14 install them on every fixed ladder over a
15 certain height, I think a better approach is a
16 risk-based evaluation that considers not only
17 the ladder height, but also the transition
18 areas, the work activity, the feasibility of
19 rescue, the environmental conditions where the
20 ladder is used, the variability amongst workers
21 who must use the ladder, such as those accessed
22 by different contractor personnel.

1 And depending on those factors, a
2 ladder climbing system may be warranted, but an
3 overhead self-retracting device or a split
4 ladder with an intermediate platform or even
5 another access method entirely may provide a
6 better safety outcome. A simple way that OSHA
7 could make risk-based approach more workable
8 would be to recognize different classes of fixed
9 ladders based on an actual exposure.

10 OSHA already uses a similar concept in its
11 walking working surface rules, where temporary
12 and infrequent work near roof edges may be
13 addressed differently than routine exposure.

14 A ladder used daily for operations or
15 production does not present the same risk as a
16 ladder used once or twice a year under
17 controlled conditions by trained personnel.

18 OSHA could establish objective ladder classes
19 such as frequent use service ladders and
20 temporary or emergency egress ladders.

21 Stronger retrofit requirements or hard deadlines
22 could apply to frequent use ladders, while

1 infrequent use ladders could remain in use until
2 the end of their service life, provided the
3 employer maintains baseline compliance with
4 documented access procedures and training and
5 appropriate administrative or temporary
6 controls, just like the rules regarding flat
7 roofs required.

8 This would allow OSHA to keep a clear
9 compliant or noncompliant framework, while still
10 accounting for the practical difference between
11 high exposure and low exposure ladder
12 conditions. This would not weaken worker
13 safety. It would focus the limited engineering
14 and contractor and employer resources on the
15 ladders that create the greatest exposure, while
16 still moving the industry towards safer ladder
17 access over time.

18 An employer who is required to
19 implement ladder safety systems on every ladder,
20 however infrequently used, may do so instead of
21 adding stairs in place of their one ladder that
22 poses a much greater overall risk. A rule based

1 on a risk assessment would also give OSHA a
2 clearer and more enforceable framework than a
3 one-size-fits-all retrofit requirement, because
4 employers would need to evaluate and document
5 how and by whom each ladder is used, whether
6 it's frequent or infrequent, and what controls
7 are appropriate.

8 In summary, I support OSHA's continued
9 effort to improve fixed ladder safety. My
10 recommendation is that OSHA preserve a stronger
11 comprehensive standard for new, replaced, and
12 modified ladders, while using an exposure-based
13 approach for existing ladders. Such a rule
14 would reduce risk where the exposure is
15 greatest, while allowing employers to select the
16 right safety solution for each ladder. I
17 appreciate your time today, and thank you for
18 giving me the opportunity to speak.

19 JUDGE MORRIS: OSHA.

20 MR. CHICCA: Thank you, Your Honor.
21 Dave Chicca with OSHA. And thank you, Mr.
22 Wilcox.

1 MR. CHICCA: Some commenters have
2 suggested that some personal fall arrest systems
3 will not work with fixed ladders equipped with a
4 cage or a well, including the possibility of
5 entanglement. Can self-retracting lifeline be
6 used safely on a fixed ladder with a cage
7 installed?

8 MR. WILCOX: Yes, much more easily than
9 a ladder climbing system. Both can be used in
10 conjunction with a cage, but in my experience
11 I've found a self-retracting device is a little
12 bit easier to use than a ladder climbing system,
13 primarily because some ladder climbing systems
14 do require the user to slightly lean back.
15 They have become more user-friendly over time,
16 but some of the older systems especially, and
17 even still those currently available on the
18 market, require the user to lean back slightly,
19 and that can be limited by the cage.

20 MR. CHICCA: Are entanglements common?

21 MR. WILCOX: It's hard to say common.
22 I don't have any hard data to support that one

1 way or another. I can say anecdotally in my own
2 personal experience, when I have used a ladder
3 climbing system in conjunction with a cage, I do
4 find it a bit, to use your term, entanglement
5 does become a concern. You manage that. You
6 don't become entangled, but what you do is sort
7 of hold yourself in an awkward position and
8 therefore increases the likelihood of a fall.
9 To be clear, I've never fallen while using a
10 ladder climbing system or on a ladder without a
11 cage, thankfully.

12 MR. CHICCA: Thank you. I'm going to
13 pass it over to Will Zettler.

14 MR. ZETTLER: Hi. Thank you for your
15 testimony today. I have a couple of questions.

16 Do you have an estimate you can either submit
17 now or in post-hearing comments on what the
18 typical cost of a stand-alone self-retracting
19 lifeline is, including the anchorage
20 installation for a 30-feet ladder?

21 MR. WILCOX: So I'll provide a range
22 now, and I think we can follow up in post-

1 hearing comments. But for a stand-alone, for
2 one-off, somewhere between \$15,000 and \$20,000,
3 and that would include the evaluation of the
4 ladder. This is to retrofit an existing ladder,
5 to be clear.

6 And so part of that cost is evaluation
7 of the existing ladder and its condition and its
8 ability to support a new device to which a self-
9 retracting device would be mounted or if it's
10 like an interior ladder, to mount and evaluate
11 the overhead existing structure to which that
12 self-retracting device would be mounted.

13 The challenge that we face in exterior
14 ladders is oftentimes there's not any overhead
15 structure to which to mount a self-retracting
16 device, and so that either needs to be added or
17 there are products now available off the shelf
18 that can be retrofit onto a ladder. But again,
19 that puts new loads on the ladder that was never
20 intended to see.

21 MR. ZETTLER: Okay, thank you. And do
22 you have any studies that you could submit to

1 the record regarding risk assessments on fixed
2 ladders over 24 feet that you could submit?

3 MR. WILCOX: I'm not sure. I'll have
4 to check whether we are able to submit those.
5 We have done risk assessments for our clients,
6 but given the confidential nature of that work,
7 I don't know what level of detail we would be
8 able to provide. So I'll dig into that and I'll
9 submit what I can.

10 MR. ZETTLER: Perfect. Thank you.
11 That is all from me.

12 MR. CHICCA: Okay, I think that's all.
13 No wait, I'd like to pass it over to Dr.
14 Blicksilver.

15 DR. BLICKSILVER: Hi. Thank you.
16 Thank you, Dave. Bob Blicksilver, OSHA
17 Standards and Guidance.

18 Mr. Wilcox, your comment provides a
19 range of cost estimates to design and install a
20 30- to 40-foot ladder safety system, \$15,000 to
21 \$25,000. Would you please clarify whether that
22 \$15,000 to \$25,000 cost is for the installation

1 of new ladders with safety systems included or
2 the cost of adding safety systems to existing
3 ladders?

4 MR. WILCOX: It would be the latter.
5 It would be to retrofit an existing ladder with
6 such a system. Again, the hardware is fairly
7 inexpensive, \$2,000, \$3,000, but it's all the
8 additional effort, the engineering and the
9 evaluation of the existing ladder that tends to
10 drive and reinforcement oftentimes of the
11 existing ladder that drives the cost higher.

12 DR. BLICKSILVER: Thank you. Bob
13 Blicksilver again. Is there a significant cost
14 difference for shorter ladders such as 24 feet
15 to 30 feet versus, say, 30 to 40 feet?

16 MR. WILCOX: Not in my experience.
17 It's not significant. When you add the
18 mobilization and the effort, the overall
19 logistics required to do the work is effectively
20 the same for each. There is a slightly higher
21 material cost for those longer ladders, but it's
22 not significant.

1 DR. BLICKSILVER: Thank you. Bob
2 again. If you install a safety system on an
3 older ladder in the year of OSHA's deadline and
4 then that ladder needs to be replaced a few
5 years later, can someone take the safety system
6 components and transfer them to the new ladder?

7 In other words, is the employer going
8 to end up having to buy two ladder safety
9 systems if they retrofit an old ladder close to
10 the deadline and then have to replace the ladder
11 a few years later?

12 MR. WILCOX: If they were to replace
13 the ladder in kind, no, I would think they would
14 be able to reuse those same components. I'm not
15 familiar with every option that's out there
16 that's sold, but there definitely are options
17 that could be removed and reinstalled.

18 DR. BLICKSILVER: Okay, thank you. Bob
19 again. Does your cost estimate for the design
20 and installation of 30 to 40-foot ladders depend
21 on the industry you're working with?

22 MR. WILCOX: Very much so, yeah. And,

1 you know, a simple ladder going up the side of a
2 building where the access is easier, that's
3 going to be a lower cost than, say, in a
4 petrochemical facility where you've got various
5 permits and environmental hazards and other
6 chemicals.

7 DR. BLICKSILVER: Okay. Bob
8 Blicksilver again. If you could elaborate in
9 post-hearing comments on those variations across
10 industries, that would be really helpful to us.
11 A few more questions.

12 Do the costs of the two different
13 options permitted by OSHA, the ladder safety
14 system and the personal fall arrest system, end
15 up being roughly equivalent when you take into
16 account design and installation requirements, or
17 is one significantly more expensive than the
18 other? Any breakdown in specific costs submitted
19 to the record would be appreciated.

20 MR. WILCOX: Yeah, I find them to be
21 quite similar. There's not a great variation in
22 the material costs, and then the engineering and

1 installation effort also is quite similar. And
2 also, I will say the costs that we're talking
3 about would be for a single ladder.

4 You get a pretty high economy of scale
5 if you're looking at multiple similar ladders at
6 the same time, but one never knows how many, you
7 know, it's hard to estimate that economy of
8 scale factor.

9 DR. BLICKSILVER: Thank you. Bob
10 again. Yeah, if you have additional information
11 looking back at some of your projects on those
12 economies of scale, that would be very helpful
13 information for us.

14 Just a little bit more. The comment
15 from Mr. Conn on behalf of the petitioners
16 referred to costs associated with using ladder
17 safety systems or personal fall arrest systems
18 on fixed ladders because additional arresting
19 force loads of these systems on ladders, and
20 their supporting structure might require
21 reinforcement and or replacement of the ladder.

22 Can you comment on and provide data on

1 the costs associated with the installation of
2 one system versus the other system, with regard
3 to this issue of additional arresting force
4 loads on of these systems on ladders.

5 MR. WILCOX: So, the one system versus
6 another system, there's not going to be much,
7 much difference in this respect. Assuming this
8 is an exterior ladder, and I believe, well, I'm
9 not sure which industries Mr. Conn was referring
10 to, but, well, especially exterior ladders where
11 there's no overhead structure existing to mount
12 a self-retracting device, a fall arrest system.

13 If you have to retrofit and add that load to
14 the ladder, those ladders were never meant to
15 receive those loads.

16 And the biggest challenge that we see
17 is near the top. Most of the systems that I'm
18 familiar with and that are available on the
19 market mount at the very top of the ladder and
20 at the very bottom of the ladder and all of the
21 load, whether it's a ladder climbing system or
22 fall arrest system, all of that load is really

1 impacted at the very top of the ladder.

2 Many times, the last connection point
3 of a ladder is down a few feet from the top.
4 And so now I'm putting a load on the cantilever
5 portion of the ladder, and that even further
6 exacerbates the impact of these additional
7 loads.

8 So I think he's definitely correct in
9 that the additional loads that get imposed might
10 very well lead to need to reinforce the ladder
11 or even potentially replace it with a bulkier,
12 stronger ladder.

13 DR. BLICKSILVER: Okay, thank you. Bob
14 Blicksilver again. Final set of questions for
15 me. What is the cost of removing a cage or well
16 from a ladder so that a ladder safety system or
17 personal fall arrest system can be used? And
18 what is the cost of replacing the ladder so that
19 a ladder safety system or personal fall arrest
20 system can be used? I guess those are two
21 questions.

22 So removing a cage or well from a

1 ladder so that the systems can be, ladder safety
2 systems or personal fall arrest systems can be
3 used. And then the cost of replacing the ladder
4 so that an LSS or PFAS can be used. Thank you.

5 MR. WILCOX: I don't have -- I'll give
6 it some more consideration in post hearing
7 comments, but the numbers that we've been
8 discussing so far would include removal.

9 If removal of the cage is required, that would
10 be included in that range that we previously
11 provided. I don't have a further breakdown that
12 I can share right now. And what was the second
13 question, I'm sorry.

14 DR. BLICKSILVER: The cost of replacing
15 the ladder so that the ladder safety system or
16 the fall arrest system can be used.

17 MR. WILCOX: Yeah, I'll try to follow
18 up with that. I don't have information to share
19 right now.

20 DR. BLICKSILVER: Understood. Thank
21 you very much.

22 MR. CHICCA: All right. Thank you

1 again, Mr. Wilcox. Your Honor, that concludes
2 OSHA's questions.

3 JUDGE MORRIS: Solicitor?

4 MS. STOCKER: Yes, your honor. Eve
5 Marie Stocker here. Good afternoon, Mr. Wilcox.

6 Thank you for being here. I had a question
7 about something someone asked. Are you saying
8 that a ladder climbing system or a ladder safety
9 system rather should not be used with a cage?

10 MR. WILCOX: I'm not saying it should
11 not be used, but they definitely don't interact
12 well together. And so if I were putting up a
13 brand new ladder, I'll look at it this way.
14 If I were to install a new ladder and it needed
15 to have or we chose to have it use a ladder
16 climbing system, I would not also put a cage in
17 it.

18 So given, you know, all else being
19 equal, I would rather have one or the other.
20 And so if I'm going to have a ladder climbing
21 system, I would not have a cage. It would
22 depend on the dimensions of an existing cage on

1 whether or not I would recommend removal of that
2 cage.

3 It would depend on a lot of factors,
4 just the overall configuration of the cage, but
5 primarily the dimensions of the cage would
6 really drive that decision. And also the type
7 of ladder climbing system that was being
8 evaluated.

9 MS. STOCKER: Can you tell me a little
10 bit about that, if you don't mind, about the
11 ladder climbing system, ladder safety system?
12 It's on the side. So the dimensions matter
13 there. If you could just explain. Thank you.

14 MR. WILCOX: On the side, what do you
15 mean on the side?

16 MS. STOCKER: Oh, I'm sorry. Instead
17 of me trying to assume details, if you could
18 explain, like, what would go into your decision
19 to just have one, either the ladder safety
20 system or a cage? Like, what goes into that?

21 MR. WILCOX: I'm sorry.

22 MS. STOCKER: Thank you.

1 MR. WILCOX: Yeah, that's a fair
2 question. So, you know, given, I mean,
3 currently the OSHA regulation would dictate a
4 certain height. But I do have some clients who
5 come to me and they say, well, it's only 20
6 feet, but they still want to add a ladder
7 climbing system.

8 And in those situations, I ask, well,
9 what are you doing at the top of the ladder? Are
10 you going to be connecting to, say it's access
11 to a roof where you have another fall protection
12 system that you're going to need a full body
13 harness and other PPE anyway? Then I say, well,
14 let's you might as well put a ladder climbing
15 system on it.

16 It is safer than a cage in that
17 situation. You need to have that PPE in the
18 first place or once you ultimately end up where
19 you're going. And so that lends itself to a
20 ladder climbing system solution. Whereas, in
21 many times, if it's a long, even if it's a --
22 let's say you need to go 30 feet up the side of

1 a building to a roof that is protected by guard
2 rail or a compliant parapet where you wouldn't
3 otherwise need PPE.

4 Then I would strongly advise my clients
5 to consider other options besides a ladder
6 climbing system, because as been discussed in
7 other testimony, when a worker comes to the
8 ladder and they don't have their PPE and they're
9 not going to need their PPE where they're
10 finally going to end up.

11 While I wish they would turn around and
12 go back to the shop and get their PPE, human
13 nature is what it is. And so I think there's a
14 high risk that they would then climb that ladder
15 anyway and be extremely exposed to a fall. So,
16 I would recommend in those situations using two
17 shorter ladders, or maybe even a stair or some
18 other access method that would allow them to not
19 require that PPE-based solution.

20 MS. STOCKER: Okay, thank you. That
21 was very helpful. And just a minor point. I'm
22 trying to understand the dimensions of cages and

1 wells as they stand now. And you would know
2 best on the properties you're familiar with, but
3 so the dimensions of a cage and well that might
4 still be in place on a fixed ladder over 24 feet
5 tall.

6 Would those dimensions accommodate a
7 ladder safety system? And then same question
8 with those ladders with the cages and wells
9 installed, would they accommodate a personal
10 fall arrest system?

11 MR. WILCOX: They would. If it's a yes
12 or no question, the answer is yes, they would.
13 If it's a degree of preference, then it goes to,
14 I would prefer to not have the cage than to have
15 the cage.

16 MS. STOCKER: Thank you. That was very
17 helpful. Thank you. I did have another
18 question, I believe your written comments
19 offered and suggested a risk assessment based
20 approach. For ladder evaluation. Instead of
21 just a replacement based on. Just the year, the
22 ladder, just when you reach a certain year or

1 ladder life.

2 So, on this risk assessment based
3 approach, what would -- can you tell me what
4 would that involve, number one? And then, like,
5 how frequently would that have to take place?
6 Thank you.

7 MR. WILCOX: Well, in the last -- the
8 frequency of it, I would think that would be --
9 well, let me think about that. That that's a
10 really good question that I haven't thought of
11 the frequency of it, but so I think it would be
12 not like OSHA requires now that we're training
13 or retraining if there's a demonstrated, if
14 something changes in the environment and in the
15 working conditions, you know, that user would
16 need retraining. So I think it would be the
17 similar sort of. You know, what -- has
18 something changed to change the risk assessment
19 and therefore you need to redo it.

20 As far as what would go into it in the
21 first place, several aspects that I could think
22 of now, and I think, you know, OSHA, with

1 consideration, could also come up with other
2 things, but, I mean, the overall height of the
3 ladder would be, certainly would be one thing,
4 and also not just the length of the ladder, but
5 actually the height of the ladder to which a
6 person might fall, right?

7 So if it's a multi-level ladder, and
8 you're 100 feet up, even if the ladder's only 20
9 feet long itself, we would still say you need to
10 somehow limit, our interpretation of the current
11 regulation is that you can't allow a fall of
12 greater than 24 feet.

13 So, whether that's how OSHA meant it, I
14 think it is, but regardless, so that overall
15 height would be one consideration, the frequency
16 of use of the ladder is another consideration,
17 is it indoors, is it outdoors, so are the
18 environmental factors come into play, you know,
19 basically what, it really kind of comes down to
20 the likelihood of a fall occurring, because,
21 again, as I said here today, and I think in our
22 written statements, cages, in my opinion, don't

1 do much to protect a person from falling.

2 I know there's been discussion about, you just
3 reach out, I shudder to picture those images of
4 somebody just reaching out and getting tangled
5 up in a ladder cage.

6 So I think it would come down to an
7 evaluation of what's the likelihood of a fall
8 occurring, and if it's high, then you add a
9 ladder climbing system, and if it's on the lower
10 side, then you look at other options. So that's
11 where I do think from a, to keep it relatively
12 simple, I think OSHA could look at it much like
13 you do with the walk-in working services and
14 frequent, or temporary and infrequent work on
15 flat roofs, same sort of approach, you can take
16 that tack.

17 MS. STOCKER: Thank you. And you
18 mentioned something, and speaking to just the
19 general nature of, you know, protecting someone
20 from a fall, there are lots of situations in
21 which a fall hazard is present. And so we're
22 talking about a fall from a fixed ladder, you

1 know, over 24 foot, as you say, to a lower
2 level.

3 So, like, regardless of what is
4 installed on the ladder, like, say nothing, and
5 you began to climb or you began to descend. So,
6 if your foot slips, your hand slips, you lose
7 contact with the fixed ladder. Could you
8 explain in your experience, just the nature of
9 what is to stop you from falling further? What
10 is there to actually catch you?

11 MR. WILCOX: It's the bars and rails of
12 the cage itself, and the assumption, the hope,
13 maybe, that one of your limbs catches a part of
14 the cage. I do not think it's practical to
15 expect somebody to consciously reach out and
16 definitely not grab something. That, I think,
17 is not possible.

18 One of the services we provide is
19 training, for a competent person training. And
20 part of that, just to raise awareness of how
21 people fall, we talk about the difference
22 between a loss of balance and a free fall. And

1 in a free fall, and it's been shared in prior
2 testimony, but you fall four feet before you
3 even become aware that you're falling. And you
4 fall six feet before your body can even tense
5 its muscles and begin to move. And at that
6 point, you're falling at 20 feet per second.
7 And that's when your muscles just barely tense.

8 So, you will have fallen, in my
9 experience, and this is based on the physics,
10 assuming that you don't, assuming your body just
11 doesn't naturally contort and get caught up in
12 the ladder, in the cage, you will not be able to
13 consciously reach out and do anything before you
14 hit, reach the bottom of the ladder. Just the
15 gravity will work much faster than your mind and
16 body can. And so it really, at that point, kind
17 of depends on the luck of how you slip and fall
18 and what direction are you rotating during that
19 fall.

20 And, frankly, I don't know if you would
21 be luckier to get entangled in the cage or
22 luckier to just go ahead and fall cleanly down

1 to the bottom, but neither would be a good
2 outcome, I think.

3 MS. STOCKER: Thank you very much.
4 Just one quick last question, if you please, Eve
5 Stocker again. Just given what you were saying
6 about risk assessments and looking at what we
7 have as the current compliance deadline of 2036,
8 just deadlines in general, but particularly this
9 one, would a risk assessment approach that you
10 were describing enhance, better enhance safety
11 or better reduce safety risks to workers than a
12 hard deadline? Thank you.

13 MR. WILCOX: Well, I believe it would,
14 and however, I think there are aspects of, at a
15 certain risk level, I do think that would
16 warrant a hard deadline for retrofit to a higher
17 level of safety. I do not think, I think it's
18 been shared in other testimony and in my
19 experience as well. Some of these ladders that
20 we encounter are already 50 years old, and
21 assuming they comply with the other dimensional
22 requirements, there's no reason to retrofit.

1 So, if we don't have some sort of compliance
2 deadline, I think 50, 75 years from now, we
3 could still have the same situation. And to me,
4 as a safety professional, that doesn't feel
5 right. So I think there should be some
6 compliance deadline.

7 High risk could be in, so keep the 2036
8 deadline. Lower risk, maybe you're able to push
9 it further out. I also think none of us can
10 predict what the world will be like in 50 years
11 and what technology will be there and, frankly,
12 what is the reason for that work at height still
13 going to be the same in 50 years. I mean, I
14 think it's totally conceivable that a lot of the
15 reasons that we have those fixed ladders will be
16 long gone in that timeframe.

17 MS. STOCKER: Thank you very much, Mr.
18 Wilcox. I appreciate your time and your
19 testimony. Your Honor, thank you. No more
20 questions.

21 JUDGE MORRIS: Other questions from the
22 public?

1 MS. HARRISON: No questions from the
2 public, Your Honor.

3 JUDGE MORRIS: All right, sir. Thank
4 you for your testimony.

5 MR. WILCOX: Thank you very much.

6 JUDGE MORRIS: Next, we have the
7 Communications Infrastructure Contractors
8 Association.

9 MS. JOHN: All right, Kathy Stieler,
10 you should have just been promoted to panel
11 list.

12 MS. STIELER: Hello. Good afternoon.
13 My name is Kathy Stieler. I'm the Director of
14 Safety, Health, and Compliance for NATE: The
15 Communications Infrastructure Contractors
16 Association. NATE represents more than 1,020
17 companies, most of them small businesses. These
18 technicians routinely climb fixed ladders to
19 build and maintain the communications
20 infrastructure that keeps America connected.
21 Thank you for the opportunity to speak on behalf
22 of NATE regarding the Walking Working Surfaces

1 Proposed Rule.

2 NATE asked OSHA to retain the existing
3 compliance deadline and fall protection
4 requirement for fixed ladders over 24 feet,
5 reject cages and wells as substitutes for ladder
6 safety or personal fall arrest systems, and
7 preserve technology-neutral ways for employers
8 to comply. The cage is an enclosure.

9 It's not a fall arrest system. Safety is and
10 always has been NATE's highest priority. NATE
11 has a direct and substantial interest in this
12 rulemaking because the proposed revisions would,
13 if adopted, directly affect the safety of
14 workers employed by our member companies who
15 climb fixed ladders on multiple structure types
16 as a routine and unavoidable part of their daily
17 work.

18 The proposed rule would remove the
19 compliance deadline and revise fall protection
20 requirements for fixed ladders exceeding 24 feet
21 established through OSHA's 2016 Walking Working
22 Surfaces rulemaking. That rule reflected a

1 considered multi-year agency determination that
2 ladder safety systems or personal fall arrest
3 systems, not cages or wells, are necessary to
4 protect workers above 24 feet. NATE
5 respectfully submits that the record does not
6 support relaxing that standard.

7 The underlying safety rationale remains
8 valid today, and deregulation would increase
9 risk to a clearly identifiable and substantial
10 population of workers. Falls from elevation
11 remain a leading cause of occupational
12 fatalities in the United States. NATE's members
13 report that fixed ladder hazards are frequently
14 observed in the field and are often the product
15 of long-term neglect.

16 Despite inspection requirements in ANSI
17 A14 and OSHA's regulations, improperly
18 maintained ladders remain a commonly cited
19 hazard, a problem compounded by older systems
20 that may lack suitable anchorages for modern
21 fall protection equipment. Those engineering
22 challenges support flexible methods of

1 compliance and a defined transition process, not
2 abandonment, of the required safety outcome.

3 The consequence of a fall from a fixed ladder
4 above 24 feet without effective fall protection
5 is, in the overwhelming majority of cases,
6 severe injury or fatality.

7 That severity warrants a cautious,
8 conservative approach to any rule change,
9 reducing the existing level of protection.

10 Training and work rules to maintain three points
11 of contact can reduce risk, but they cannot
12 arrest a worker after grip or footing is lost,
13 and removing a fixed compliance deadline risks
14 making the transition to proper protection
15 indefinite.

16 NATE's greatest concern is the prospect
17 that cages or wells could be treated as an
18 acceptable substitute for personal fall arrest
19 or ladder safety systems. NATE urges OSHA in
20 the strongest terms not to adopt this approach.

21 Cages and wells are not designed or rated to
22 arrest a fall, limit fall distance, or manage

1 deceleration forces. They enclose the climbing
2 path, but do not perform the protective function
3 of an active fall protection system.

4 Cages and wells can impede escape and
5 complicate rescue, trapping an incapacitated
6 worker where responders may struggle to reach
7 them quickly. Most NATE members are small
8 businesses who understand firsthand the cost and
9 operational challenges of retrofits. Their
10 support for retaining this requirement is
11 therefore significant.

12 They're asking OSHA to preserve the
13 safety outcome while allowing reasonable
14 flexibility in how it's achieved, including
15 engineered ladder safety or vertical lifeline
16 systems and certified anchorage points for
17 personal fall protection, selected according to
18 the structure.

19 This performance-based approach aligns
20 with NATE's broader work through its ANSI/ASSP
21 A1048 Standards Committee leadership to develop
22 clear, technically sound, and practically

1 implementable safety standards for the
2 communications infrastructure industry.

3 For these reasons, NATE respectfully
4 requests that the agency retain the existing
5 fall protection requirements for fixed ladders
6 exceeding 24 feet, decline to adopt cages or
7 wells as an acceptable substitute for active
8 fall protection, and focus any modernization of
9 this standard on performance-based compliance
10 options rather than relaxing the underlying
11 safety requirement.

12 Preserve regulatory clarity. NATE is
13 not asking OSHA to mandate one product or one
14 design. It is asking OSHA to preserve one
15 essential safety outcome. When a worker loses
16 grip or footing on a covered fixed ladder, an
17 effective system must be in place to control and
18 arrest the fall.

19 Retain the compliance deadline. Do not
20 credit cages or wells as equivalent protection.

21 Modernize the methods of compliance without
22 weakening the protection itself.

1 Thank you.

2 JUDGE MORRIS: OSHA?

3 MR. CHICCA: Thank you. Your Honor,
4 David Chicca with OSHA.

5 Ms. Stieler, thank you for your
6 testimony today. You mentioned in the submitted
7 comments received and also just now in your
8 testimony about how cages and wells do not
9 provide equivalent protection to ladder safety
10 systems and personal fall arrest systems. Is
11 that the 2021 -- like, is the research
12 supporting that, the 2021 NATE SEMC Wire Rope
13 Safety Sleeve Testing Report?

14 MS. STIELER: That is a part. We don't
15 believe that cages and wells will arrest a fall.

16 We have done testing with the SEMC on ladder
17 systems. And as a matter of fact, our extensive
18 testing, we have provided to Z359 and have said,
19 you know, these are the things that we have
20 found with the systems, and there have been
21 changes through the standards bodies, which is
22 amazing. But we don't see that a cage will

1 arrest a fall.

2 We don't see that it will protect a
3 person, as we have stated before, that if they
4 fall straight down, it's not going to stop a
5 fall. And as we've also seen that you don't
6 really know you're falling for a few seconds,
7 and by the time you realize you're falling,
8 you're down on the ground.

9 MR. CHICCA: Well, I will just say if
10 there are any documents or research related to
11 this that you'd be willing to put into the
12 record or as part of your post-hearing comments,
13 we would greatly appreciate it.

14 MS. STIELER: Absolutely.

15 MR. CHICCA: So you touched on this in
16 your comments today, but I did just want to
17 clarify. Do NATE members find that fixed
18 ladders over 24 feet are poorly maintained?

19 MS. STIELER: They do. We are working
20 a lot on silos. We work a lot on water tanks.
21 We do work on roof tops. If there's a place to
22 put a telecommunication antenna, we're working

1 on it. So, there are several locations that
2 we're struggling with the neglected ladders.

3 MR. CHICCA: Okay. I appreciate that.
4 We would be interested in any specific details,
5 I suppose, if you could provide in your post
6 hearing comments, whether that's like
7 percentages or numbers. It would be valuable.

8 MS. STIELER: Absolutely. Be happy to.

9 MR. CHICCA: Okay. With that, I will
10 pass things over to Will Zettler.

11 MR. ZETTLER: Will Zettler with OSHA.
12 Do your members have any experience with falls
13 on fixed ladders over 24 feet equipped with
14 cages?

15 MS. STIELER: I do not know of any, but
16 I would be glad to ask the question and provide
17 that in post-hearing comment.

18 MR. ZETTLER: Okay. Thank you. And
19 can you explain how cages can impede escape and
20 complicate rescue in fall events? Are there
21 advantages of ladder safety systems or personal
22 fall arrest systems in these same events?

1 MS. STIELER: If there is a cage, if
2 you have people working on the ground and
3 somebody is coming down a ladder and it has a
4 cage around it and they slip, getting up back
5 into the well to get to them impedes how you
6 pick them up to get them out of the fall. And
7 as you know, you know, a rescued worker is
8 usually picked up out of their harness or picked
9 up and moved up into a place where we can
10 descend with them. So you would have to be at
11 the top of the structure to be able to pick them
12 up to do the rescue.

13 So that poses an impedance. Otherwise,
14 you would have to have maybe a mobile equipment
15 to come at them outside of the ladder, outside
16 of the well to try to lift them up. So it would
17 absolutely impede them, whereas if there was no
18 well, we could get up from the bottom and get up
19 to around them to work around them to move them
20 down.

21 MR. ZETTLER: Okay. Thank you. This
22 morning we heard some testimony that injuries

1 from falls inside cages are likely to be minor
2 or no worse than those falling with ladder
3 safety systems or personal fall arrest systems.

4 What types of injuries do you expect to occur
5 from falls within cages? And is there additional
6 information showing what types of injuries are
7 likely to occur?

8 MS. STIELER: When you fall into a fall
9 arrest system, they are developed for a minimal
10 impact to your body, wearing a full body
11 harness. And, you know, there are standards
12 that say you cannot have a certain impact to
13 your body. I don't know that there is a
14 standard talking about falling into a cage that
15 would minimize the impact to your body.

16 So, I don't know that I could respond
17 about falling into a cage because I'm not sure,
18 you know, if you fall four feet, there's going
19 to be a different impact to your body, you know,
20 hitting a rail than if you go ten feet versus
21 falling seven feet. We know for a fact when you
22 fall into a fall arrest system that they've been

1 tested, their standards said that is an impact
2 that is underneath what OSHA has required for an
3 impact to your body.

4 MR. ZETTLER: Thank you very much for
5 your testimony. That is all the questions I
6 have.

7 MS. STIELER: Thank you, sir.

8 MR. CHICCA: This is Dave Chicca again.
9 I'm going to pass things over to Bob with OSHA.

10 DR. BLICKSILVER: Hi. Bob, OSHA
11 Standards and Guidance. Can NATE provide data
12 from a set of case projects on equipping fixed
13 ladders over 24 feet with ladder safety systems
14 and personal fall arrest systems? Please
15 provide details on the unit costs, the unit
16 costs for all stages of the project, risk
17 assessment, project evaluation, installation,
18 post-retrofit reviews and training.

19 MS. STIELER: I don't believe that I
20 can provide that to you. I would be happy to
21 ask, but that's not normally in our scope of
22 work to provide fixed ladders. But I would be

1 happy to ask.

2 DR. BLICKSILVER: Thank you.

3 MS. STIELER: Thank you.

4 DR. BLICKSILVER: Bob Blicksilver
5 again, the comment from Mr. Khan on behalf of
6 the petitioners referred to costs associated
7 with using ladder safety systems or personal
8 fall arrest systems on fixed ladders because
9 additional arresting force loads of these
10 systems on ladders and their supporting
11 structures might require reinforcement and/or
12 replacement of the costs associated
13 accommodating for the arresting forces, the
14 costs associated with the installation of one
15 system versus the other system.

16 MS. STIELER: Again, that's not exactly
17 what our organization and our contractors do.
18 We climb them and work on telecommunication
19 antennas, but we don't normally replace a fixed
20 ladder with cages. Again, I would be happy.
21 I'll look at post hearing. I'll be happy. If
22 we do have people that provide that, I would be

1 happy to do that.

2 DR. BLICKSILVER: Thank you very much.

3 MS. STIELER: Sure.

4 DR. BLICKSILVER: That's all the
5 questions I have.

6 MS. STIELER: Thank you, sir.

7 MR. CHICCA: Dave Chicca again with
8 OSHA. Your Honor, that's all we have.

9 JUDGE MORRIS: Solicitor.

10 MS. STOCKER: Yes, Your Honor. Eve
11 Marie Stocker here.

12 Ms. Stieler, thank you for your
13 testimony. I just had a question for you. You
14 mentioned the state of ladders that your members
15 come across in their work. Can you provide
16 information about just the general service life
17 of fixed ladders over 24 foot that your members
18 come across? And what kind of factors are
19 affecting the service life of these ladders, in
20 your opinion? Thank you.

21 MS. STIELER: Happy to give some more
22 information later. A lot of things that affect

1 what we do -- we're in rural locations. You
2 know, when you're looking, the whole idea of the
3 telecommunications industry is to cover lots of
4 locations, lots of temperature areas, lots of
5 around the sea, around the ocean, up in the
6 mountains.

7 You know, any place that you can put an
8 antenna, that's where we're going to put an
9 antenna. Water tanks, and some of the water
10 tanks aren't even being used anymore, but
11 there's still an antenna on the top. So there's
12 a lot of buildings in the middle of downtown
13 areas that, you know, have environmental issues.

14 So, I would be happy to talk about
15 those locations and address some of the concerns
16 that they have seen. Be happy to do so. Again,
17 we have 1,020 members, and I hear, you know,
18 lots of little fun information. So, I was on
19 another building and had another problem. So I
20 will be glad to do that for you.

21 MS. STOCKER: Thank you very much. I
22 appreciate that. And thank you again.

1 MS. STIELER: Thank you.

2 MS. STOCKER: No more questions, Your
3 Honor, for me.

4 JUDGE MORRIS: Any questions from the
5 public?

6 MS. JOHN: No questions from the
7 public, Your Honor.

8 JUDGE MORRIS: All right. Thank you,
9 ma'am, for your testimony.

10 MS. STIELER: Thank you. I appreciate
11 you.

12 JUDGE MORRIS: Next, we have the
13 Valcourt Building Services.

14 MS. JOHN: All right. Josh Wing,
15 you've just been promoted to pane list. And you
16 also have several -- you submitted several
17 slides, so just say next slide and you'd like us
18 to advance. You should be able to turn on your
19 microphone and camera to get started.

20 MR. WING: Can you hear me now?

21 JUDGE MORRIS: Yes.

22 MR. WING: Thank you. I was talking to

1 myself. Thank you all for your time. We
2 appreciate the opportunity to testify in front
3 of OSHA and our continued partnership over the
4 years. Are you able to show the presentation,
5 or do I need to present that on my own?

6 MS. HARRISON: Oh, yes. We have it.
7 Just say next slide.

8 MR. WING: Okay. Next slide. So,
9 first of all, the Valcourt Group, we primarily
10 work on commercial office buildings. We are on
11 many, you know, high-rise buildings throughout
12 the country, from the East Coast to the West
13 Coast.

14 We provide a perspective which is a
15 little bit different than others that have been
16 on the call because we're looking at it more
17 from that commercial real estate industry. We
18 have thousands of workers working at height.
19 A lot of the work that we do is through
20 suspended scaffold, rope descent, but we're
21 still on these buildings with ladders.

22 And you can go to the next slide,

1 please. So we've been a trusted advisor for our
2 clients, working with them, trying to get them
3 advice because these building owners and
4 property owners, they have to know a lot of
5 things, right?

6 But they're not experts at these. So
7 they come to us, they come to their service
8 partners to help them, coach them through that
9 process. And what we found is what we see in our
10 next slide.

11 A lot of confusion in the marketplace.
12 People are asking for cage ladders on new
13 ladders that they're installing. And we then
14 need to inform them that that is no longer
15 compliant and what is required now is to do a
16 ladder restraint system. We've talked about a
17 couple different opportunities of what that can
18 look like with an SRL, with a track system, with
19 a cable and a grab system. All those are
20 compliant and Valcourt feels that is the best
21 option to provide safety for ladders and for the
22 worker. Clients don't understand that this

1 really only applies to 24 feet or greater.

2 So OSHA's tried to limit the impact on
3 as a burden to the client on what ladders these
4 need to be on with that 24 feet requirement.
5 And oftentimes, just as Kevin said, you'll get
6 clients who are asking for that ladder restraint
7 system on a ladder that's less than 24 feet. In
8 those instances, we point them to the OSHA code,
9 which is publicly available and advise them that
10 this is not required. However, if they would
11 like to do that, we would be happy to service
12 that and help them with that.

13 We install these systems on numerous
14 buildings and numerous ladders, whether they're
15 new or existing. And we take a different
16 approach depending on if it's new versus if it
17 is existing.

18 There's also a lot of confusion about
19 the total fall distance. We've talked a little
20 bit about that as well. So if you had a ladder
21 on the side of your penthouse, say, and you're
22 very close to the roof edge where you could have

1 a several hundred feet fall, we would advise the
2 client to put a ladder restraint system there
3 because the overall fall distance is greater
4 than 24 feet. And you can look at the OSHA
5 interpretation letters and they speak to that
6 pretty clearly.

7 The existing ladders before November
8 19th, 2018, if they still have that existing
9 ladder, they don't have to change it from that
10 cage until that 2036 deadline. Now, what does
11 that lead to? It's led to people not
12 retrofitting ladders. They still think they
13 have that 2036 deadline. If you look at, say,
14 the load testing deadlines when this code was
15 enacted, as well as 1910.27, there was a big
16 push due to the short deadline period. So I
17 think as you saw a tighter deadline, you'll see
18 more action in terms of getting ladders up to
19 compliance.

20 And that's another great problem is a
21 lot of ladders just aren't compliant. They
22 don't have the seven inches foot clearance.

1 They don't have the 15 inches of foot clearance
2 or side clearance.

3 You have a lot of ladder issues. So
4 this can also bring an opportunity to create a
5 ladder condition that is actually safe because
6 it brings it to people's attention. We also get
7 a lot of requests about doing ladder restraint
8 systems on transportable ladders. And that
9 product does not even exist. And that's where
10 you see a lot of your falls and fatalities
11 related to ladders.

12 I was looking at the US Bureau of Labor
13 and Statistics. Looking at 2020, you had about
14 100 movable ladder fatalities and then you had
15 161 in total. So you're talking about 50, 60
16 different fatalities on fixed ladders, which
17 likely could have been prevented with a ladder
18 restraint system to keep the worker from falling
19 and hitting the ground. If we can go to the
20 next slide, please.

21 I've heard a lot today about cost of
22 ladder restraint systems. Yes, it does vary due

1 to height. However, that initial cost of
2 putting in the brackets on the top and the
3 bottom is only slightly increased by the length
4 of that ladder because the major cost is getting
5 the worker out there, getting the materials for
6 the brackets and getting it installed.

7 But just adding cable is very little
8 cost, very nominal. And then the location of
9 work and access requirements. So we talked
10 about this, Kevin has spoken to it and I will
11 reiterate it as well that doing a ladder in say
12 a densely populated region like D.C. is going to
13 be much more cost effective because there's more
14 suppliers of that service and it's readily
15 available for them to get versus say outlying
16 areas like NATE was talking about on cell phone
17 towers or other broadcast towers. That's going
18 to be a higher cost in order to get out there.
19 Same with a oil rig or a refinery that is maybe
20 very difficult to access. That's what's
21 increasing the cost.

22 It's not per se the ladder restraint

1 system, it's the cost that is sunk into getting
2 out there no matter what. Gave some examples
3 which you can quickly look up on the web, just
4 snipping those out, not calling out any one
5 particular manufacturer for example.

6 And I already spoke about the oil rig
7 example, the cost is related to getting out
8 there and not necessarily the cost of the system
9 and then being able to work in that environment
10 and being trained. And you can go to the last
11 slide.

12 JUDGE MORRIS: Mr. Wing, you're
13 exceeding your time.

14 MR. WING: Thank you, sir. So in
15 conclusion, there's confusion about code
16 requirements. The cost of the equipment is
17 rather low. What increases the cost is the
18 locations and the remoteness of the service.
19 And we believe that the minor cost of ladder
20 restraint system provides excellent return for
21 the investment of the safety dollar for the
22 worker and related to death and injury. And

1 thank you for your time. I welcome any
2 questions.

3 JUDGE MORRIS: OSHA.

4 MR. CHICCA: Thank you, Your Honor.
5 David Chicca with OSHA. I'm actually going to
6 pass it straight to Will Zettler.

7 JUDGE MORRIS: You're on mute, Will.

8 MR. ZETTLER: Sorry for that. Will
9 Zettler from OSHA. Thank you for your testimony
10 today. It's much appreciated. What are your
11 thoughts on OSHA's proposal to remove the
12 deadline, just to be clear?

13 MR. WING: To remove the deadline and
14 make it a requirement immediately?

15 MR. ZETTLER: To remove the 2036
16 compliance deadline from the standard.

17 MR. WING: I think having no deadline
18 for action is going to create an environment
19 where people are not going to do anything. I
20 think if you have a deadline, you will have much
21 more action.

22 MR. ZETTLER: Okay, thank you. And

1 approximately how many ladder safety systems or
2 personal fall arrest systems has your company
3 installed on fixed ladders over 24 feet since
4 2017?

5 MR. WING: I would say hundreds.

6 MR. ZETTLER: And how many cages have
7 you installed since the 2018 -- November, 2018?

8 MR. WING: I would say few rarely.
9 Usually the cages, the reason we have those on
10 there are more of a security issue. And it's on
11 a low lying ladder on say like a grocery store,
12 for example, right? And they want to limit
13 access and they're trying to really use that
14 cage to keep people out. And then also having a
15 security gate on there. So not necessarily for
16 protection of the worker.

17 MR. ZETTLER: All right, thank you.
18 And do you have any personal experience or heard
19 from some of your clients dealing with falls
20 from fixed ladders? And can you describe the
21 circumstances?

22 MR. WING: Sure, so we've been called

1 in by clients who've had issues with people
2 falling and being hurt. I'm not going to call
3 out any specific organization obviously. But
4 had they had that system in place, they believe
5 that they would not have had that issue and they
6 have since retrofitted their ladders.

7 So, they've come to that conclusion on
8 their own. They've made that a standard in
9 their organization to do that and we agree with
10 that standard.

11 MR. ZETTLER: Thank you very much. No
12 more questions from me.

13 JUDGE MORRIS: Doctor.

14 MR. CHICCA: Okay, and again with OSHA,
15 I'm going to pass it to Bob.

16 DR. BLICKSILVER: Bob Blicksilver, OSHA
17 Standards and Guidance. Mr. Wing, can you share
18 cost data for projects involving the
19 installation of ladder safety systems and
20 personal fall arrest systems and any follow-on
21 costs for conducting fall protection on fixed
22 ladders for the commercial properties that you

1 have serviced?

2 MR. WING: Sure, are you looking for
3 that now or like after?

4 DR. BLICKSILVER: Post-hearing
5 comments will be fine. Yeah, and as much detail
6 please as possible in terms of per project, per
7 ladder and then training per worker, per
8 trainer, just break it down to the units.
9 That's really helpful to us.

10 MR. WING: Sure.

11 DR. BLICKSILVER: Okay, good, thank
12 you. The comments from Mr. Khan on behalf of
13 the petitioners referred to costs associated
14 with using ladder safety systems or personal
15 fall arrest systems on fixed ladders because of
16 additional arresting force loads of these
17 systems on ladders and their supporting
18 structure might require reinforcement and or
19 replacement of the ladder.

20 So it's the additional arresting force
21 question you've probably heard a few times
22 already this afternoon. Can you comment on and

1 provide data on the costs associated with the
2 installation of one system versus the other
3 system?

4 MR. WING: Yeah, and I feel like his
5 comment kind of addresses it. He says might.
6 So I think that's a pretty rare occasion and
7 that's what I found in our work is if the
8 ladder's in good working condition, these
9 systems are designed to be used with ladders
10 that are up to code and they are able to meet
11 those load requirements that are applied on
12 them.

13 And the way the system works, it
14 arrests the worker so quickly, there's no fall.

15 You've heard that from other representatives
16 here. You get that acceleration and that's
17 where you get the energy and that's where you
18 get that fall force. But these fall forces are
19 so tight because the lanyard length is so low
20 and that free fall is essentially none. So then
21 those forces that are applied to the ladder are
22 relatively low.

1 So, I don't see that as a real concern.
2 Could it be? Sure, but if the ladder is able to
3 withstand the loads that it needs to be a
4 ladder, then those systems operate properly.

5 DR. BLICKSILVER: Bob again, thank you
6 for your comments. You state that clients in
7 your field install personal fall arrest systems
8 when they are not required by regulation. How
9 much is the average cost of a ladder system in
10 your sector? And how much do you estimate
11 clients would save if they better understood the
12 regulations requirements?

13 MR. WING: Yeah, I mean -- I would say
14 that for a standard ladder, you're probably
15 somewhere between the 5- to \$10,000 range for a
16 ladder restraint system. And that's pretty
17 broad, but I think that range is good. And I
18 think the other thing that hasn't been discussed
19 is the cost comparison between a ladder
20 restraint system and a cage itself. I think
21 they kind of neutralize each other out when you
22 look at it from those two perspectives.

1 DR. BLICKSILVER: Thank you. Bob
2 again. Last set of questions. Commenters have
3 suggested that ladder safety systems or personal
4 fall arrest systems are incompatible on ladders
5 with existing cages or wells.

6 Do cages and wells interfere with the
7 proper function of a ladder safety system? What
8 about for personal fall arrest systems? I
9 probably ought to pause there. There are a
10 couple more questions beyond that, but let me
11 just let you --

12 MR. WING: Sure. So I've been in cages
13 and wells with ladder restraint systems. And
14 the issue is not the ladder restraint system
15 that's restricting you, it's the cage. And
16 we've heard that as well, like bringing up tools
17 and equipment.

18 I typically have a backpack as well
19 that I'm carrying my tools on. And the issue I
20 always have is my backpack getting caught on the
21 cage. It's not the ladder restraint system in
22 front of me. And the way that's positioned

1 allows me to climb without issue.

2 And OSHA does address that in their
3 codes where they talk about a ladder restraint
4 system can be used in a cage or well, as long as
5 it doesn't impact or impede movement within that
6 system. And I've experienced that it can do
7 that, but I would prefer not to have a cage or
8 well for that exact fact of having a backpack or
9 other range of motion. And then also for the
10 safety and the self-rescue aspect associated
11 with it as well. That cage limits you in
12 getting that done.

13 DR. BLICKSILVER: Okay. Bob again,
14 thank you. So, it sounds like the installation
15 of either system, ladder safety or personal fall
16 arrest might require the removal of the cage or
17 it just depends on how you see the particular
18 application or the scenario, the type of
19 activity that the ladder will be used for. It's
20 all sort of context-dependent.

21 MR. WING: I would say you can, nine
22 times out of 10, you can keep the cage on there.

1 It's not a requirement to take it off. Would
2 it -- could it make the life of the worker
3 easier in terms of getting materials up and
4 down? Sure, but there's other solutions there as
5 well. You can lift them up, you can hoist them
6 up. That's common practice.

7 DR. BLICKSILVER: Okay, thank you. Bob
8 again. What percentage of ladders will have
9 that incompatibility with a ladder safety system
10 and then with a personal fall arrest system? And
11 I guess a follow-on, what's the cost of removing
12 a cage or well from a ladder so that either of
13 those systems can be used? And then there's the
14 last question is the cost of replacing the
15 ladder so that either of those two, ladder
16 safety or personal fall arrest systems can be
17 used. So I'll --

18 MR. WING: Yeah, so the first question
19 was the cost of removing the cage, I believe.
20 Was that your first question?

21 DR. BLICKSILVER: Yes.

22 MR. WING: Okay, so the cost of

1 removing the cage could be substantial,
2 especially if it's a very high ladder. You
3 know, climbing, say a water tower, which I've
4 climbed, you know, 150 feet. Yeah, that's going
5 to take a lot of time, money and energy to get
6 that down. You're going to have to have a crane
7 or you're going to have to have some sort of
8 lift. And then you're also then working at
9 height and then how do you protect the workers?
10 So now you have two maybe aerial work platforms
11 in order to do that and then that labor and then
12 to get that down and then to remove it from the
13 site.

14 So yes, that is a high cost. But your
15 other question was like, how often are ladders
16 requiring cages to be removed to install a
17 ladder restraint system or an SRL, you know,
18 personal fall protection system on a ladder?
19 And in my experience, I have never had to do
20 that. I've been able to add the system without
21 issue or the system never had a cage or well to
22 begin with and it needed the system to be in

1 compliance. And then there was a third
2 question, but I apologize.

3 DR. BLICKSILVER: Oh, the cost of
4 replacing the ladder so that those safety
5 systems can be used if it came to that and you
6 needed to replace the ladder itself.

7 MR. WING: Yeah, in terms of replacing
8 the ladder, yes, there is an additional cost in
9 terms of the ladder restraint system and adding
10 that. But if you're going to replace the
11 ladder, the ladder restraint system is very
12 nominal and the labor and the time you're
13 already out there installing that ladder, you
14 know, that mobilization is really where it's
15 going to get you. It's not adding on that
16 ladder restraint system. So, I would say the
17 costs are very nominal. As a fraction of the
18 ladder costs, maybe 10 percent at the most.

19 MR. ZETTLER: Thank you. I think that
20 includes my questions. Thanks so much. I think
21 that, again, if you have more detail to flesh
22 out, you know, these various contextual things

1 that you've encountered in your experience in
2 post-hearing comments, that would be helpful.

3 MR. CHICCA: Right, thank you. Okay,
4 Dave Chicca with OSHA, Your Honor, that ends our
5 questions.

6 JUDGE MORRIS: Ms. Stieler, I'm
7 assuming you want these slides as the next
8 exhibit in order?

9 MS. STOCKER: You read my mind, Your
10 Honor. I would like to designate the PowerPoint
11 presentation in both of the forms that we
12 received it as a PowerPoint and as a Word
13 document as Exhibit No. 6, please.

14 JUDGE MORRIS: Granted.

15 (Whereupon, the document referred to
16 was marked as Exhibit No. 6 for identification.)

17 MS. STOCKER: Thank you, Your Honor.
18 And I had a couple of questions, Your Honor.

19 JUDGE MORRIS: Go ahead.

20 MS. STOCKER: Thank you, Mr. Wing, for
21 your testimony today. And just wanted to
22 clarify, my colleague touched on training for a

1 second. When you are advising your clients,
2 when you talk about these two different systems,
3 ladder safety systems, personal fall arrest
4 systems, can you tell us a little bit about how
5 you advise your clients on the
6 interchangeability of systems and how to train
7 their workers on them? Thank you.

8 MR. WING: Yeah, so it's a two-part
9 question, interchangeability and training of the
10 workers. So the interchangeability, yes, you
11 need consistency. You would need that in any
12 organization.

13 You're not going to use the metric
14 system on one thing and then the imperial system
15 on another. So that should be a common business
16 practice to have standardization, look at
17 McDonald's.

18 The second thing would be training.
19 Yes, training is required, but it can be done
20 almost through a video. A lot of the
21 manufacturers have that training. Typically,
22 when we do an installation, especially for the

1 first time, we'll go out there and we will show
2 the workers, but we include that as part of our
3 installation process. And that's really to help
4 protect our liability as well, because we have
5 some liability related to being the installer.

6 MS. STOCKER: Thank you. I'm sure it
7 depends on the circumstance, but my question to
8 you is, is there a certain preference for a
9 ladder safety system versus a personal fall
10 arrest system? Thank you.

11 MR. WING: Yeah, that's a good
12 question. My personal preference is I prefer
13 the cable system versus the track system. One
14 worker did -- or one other testifier did mention
15 that you kind of have to pull yourself away,
16 which I do not prefer to do that. I prefer to
17 stay near the ladder, not away from it. So
18 that's my preference there, but there could be a
19 situation where maybe that makes more sense than
20 another.

21 And then, in terms of using an SRL,
22 we've done that as well. It just depends on

1 what the worker wants and what the client wants.

2 As long as they're meeting the need, we're open
3 to either/or. And sometimes, again, they have
4 that concern about more transitioning out of the
5 ladder than per se the ladder going up and down,
6 and they want to address that hazard as well.
7 And that's a creative solution to do that with
8 the SRL or SRD.

9 MS. STOCKER: Very good, thank you.
10 And then, just to follow on, there was a little
11 discussion with my colleague about the
12 interference of a cage with someone's use of the
13 ladder. And you may have mentioned a backpack
14 with tools or what have you.

15 So, I honed in on that discussion, and
16 I think it was with ladder safety systems. Is
17 that the same case when you're talking about
18 personal fall arrest systems?

19 MR. WING: Absolutely. I mean, you're
20 going to have that same potential issue even
21 more so with an SRL or SRD system, because
22 that's going to be in your dorsal attachment.

1 So if you have that leaning back, that could
2 potentially have a higher likelihood of that
3 versus your track or your cable system, which
4 has a sternal attachment in the front.

5 So again, the cage can be an issue, and that's
6 something you need to look into as well. That's
7 why I prefer the cable ladder restraint system.

8 MS. STOCKER: And then just another two
9 short questions, if you please, Eve Stocker
10 again. Just in the commercial real estate
11 market that you work in, as you've described,
12 and you described a little bit about the life
13 service or the length of service of the ladder.

14 What kind of factors affect how long a fixed
15 ladder over 24 feet could last, could be safe to
16 use?

17 MR. WING: Yeah, I think the biggest
18 factor is what is the material that is used to
19 make it out of, right? So steel ladders, I
20 mean, they're everywhere. They're very common.
21 Aluminum ladder isn't going to rust like a steel
22 ladder. Has it been coated, has it been

1 cleaned, has it been maintained over the time
2 and the lifespan? You also have other corrosive
3 factors like pollution and acid rain and things
4 like that.

5 But I've seen ladders from the '50s and
6 I've seen ladders from the early 1900s, which
7 are still in place and still relatively safe to
8 use. Maybe not to the same standards that OSHA
9 has to these days, but I mean, they're secure.
10 You can climb up them. So they do have a long
11 lifespan.

12 MS. STOCKER: Do those ladders that
13 you've seen, are they equipped with personal
14 fall arrest systems, ladder safety systems?

15 MR. WING: Most of those ladders are
16 not because they're less than 24 feet. And
17 that's the thing with commercial off --

18 (Simultaneous speaking.)

19 MR. WING: Go ahead, I'm sorry.

20 MS. STOCKER: No, I'm sorry. Yes,
21 please go ahead.

22 MR. WING: Yeah, are less than 24 feet.

1 And a lot of the commercial office building
2 spaces, they're not going to have those long
3 ladders like you would see on say a cell phone
4 tower or some sort of petroleum facility.
5 You're only going to see that in those instances
6 or a water tower.

7 The commercial office buildings, they
8 don't have a lot of tall ladders. They're
9 trying to avoid that. They're trying to
10 maximize their space so they don't need to get
11 to some high area that they can't then lease
12 out.

13 MS. STOCKER: I understand. We had
14 some evidence from commenters, the costs and
15 related costs of changing out cages and wells
16 for personal fall systems, ladder safety systems
17 by the compliance deadline. And I just wanted
18 to, because of the area that you work in, it's a
19 little bit different than the petitioners. Can
20 you just kind of describe the types of
21 properties and conditions involved in this
22 commercial real estate market of yours?

1 MR. WING: Yeah, so most of the ladders
2 we see are going to be going from like a main
3 roof to a penthouse roof. And you're typically
4 in the 20 foot range, not much taller than that.

5 You can see some areas where it has a large
6 windscreen when a high catwalk, but that's
7 pretty rare that you would see that. So, the
8 impact in commercial real estate is pretty
9 minimal as to the need for these.

10 MS. STOCKER: Those are all the
11 questions I had. Thank you. Thank you for your
12 testimony.

13 MS. JOHN: I do not see any questions
14 from the public, Your Honor.

15 JUDGE MORRIS: All right. Thank you,
16 sir, for your testimony.

17 MR. WING: Thank you.

18 JUDGE MORRIS: We next have the
19 Brotherhood of Railroad Signalmen.

20 MS. JOHN: Christopher Hand, you should
21 have just gotten a little -- yep. You just
22 accepted your promotion to panelist.

1 MR. HAND: Okay. Can you hear me okay?

2 JUDGE MORRIS: Yes.

3 MR. HAND: Okay. Good afternoon, and
4 thank you, Your Honor, and OSHA for the
5 opportunity to speak today. My name is Chris
6 Hand and I'm here on behalf of the Brotherhood
7 of Railroad Signalmen. The BRS represents the
8 men and women who install, inspect, maintain,
9 and repair railroad signal systems and highway-
10 rail grade crossing warning systems throughout
11 the United States.

12 I want to begin by acknowledging
13 something important. Railroad signal employees
14 are generally subject to the jurisdiction of the
15 Federal Railroad Administration, rather than
16 OSHA, when FRA has exercised its authority over
17 the particular working condition. However, that
18 does not mean OSHA standards are irrelevant to
19 the railroad industry. OSHA's safety standards
20 are widely recognized across the industry, and
21 its requirements frequently set an important
22 benchmark for workplace safety practices. What

1 OSHA does here matters beyond only those workers
2 directly regulated by OSHA. That is
3 particularly important when we talk about fixed
4 ladders.

5 Our members routinely work on highway-
6 rail grade crossing cantilevers, signal bridges,
7 and other elevated signal structures. Many of
8 these structures have been in service for
9 decades. And that is exactly where we believe
10 there is a problem. The concern for railroad
11 workers is what happens if OSHA now removes that
12 deadline, and allows the existing ladders to
13 remain as they are until the ladder is
14 eventually replaced. In the railroad industry,
15 until replacement can be an extremely long time.

16 Railroad infrastructure is built for longevity.
17 Signal bridges and highway-rail grade crossing
18 cantilevers do not operate on the same
19 replacement cycle as many pieces of ordinary
20 industrial equipment. A structure can remain in
21 service for decades, so long as it continues to
22 perform its intended function. That means there

1 is a very real possibility that many existing
2 fixed ladders will receive little attention if
3 the 2036 deadline disappears.

4 There will no longer be a date forcing
5 the owner to evaluate that ladder and bring its
6 fall protection into the modern era. Instead,
7 the incentive becomes, leave it in service. And
8 if the structure remains serviceable for another
9 10, 20, 30 years, the employee climbing the
10 ladder could still be relying on a fall
11 protection design that OSHA itself determined in
12 2016 should eventually be replaced. That is
13 difficult for us to reconcile with the purpose
14 of its original rule.

15 OSHA already accounted for costs and
16 replacement cycles when it provided a 20-year
17 transition period. The 2036 deadline gave
18 employers an extraordinary amount of time to
19 plan, budget, and incorporate these improvements
20 into their maintenance programs. If railroad
21 structures have remained in service longer than
22 OSHA originally anticipated, that should not be

1 a justification for eliminating the deadline.
2 It demonstrates why the deadline is necessary.
3 Without a deadline, some of these ladders may
4 simply never receive the attention or
5 modernization they otherwise would.

6 The BRS is not asking OSHA to require
7 every existing ladder to be replaced tomorrow.
8 We are asking OSHA to maintain the commitment it
9 made in 2016. Employers were given 20 years to
10 transition away from an older form of fall
11 protection towards systems OSHA determined
12 provide greater protection. We believe 20 years
13 is reasonable. More importantly, the employees
14 who will climb these structures for the next 20
15 or 30 years deserve to know that there is
16 eventually going to be a date certain when the
17 safety equipment protecting them is brought up
18 to a modern standard. For those reasons, the
19 Brotherhood of Railroad Signalmen respectfully
20 ask OSHA retain the November 18th, 2036
21 compliance deadline. Thank you for the
22 opportunity to testify.

1 JUDGE MORRIS: OSHA?

2 MR. CHICCA: David Chicca with OSHA.

3 Thank you, Mr. Hand, for your testimony. Do
4 your members climb fixed ladders over 24 feet
5 with cages and wells?

6 MR. HAND: Not so much cages. So, in
7 the railroad industry, you're not up to OSHA
8 standards unless it's brand new, coming from the
9 manufacturer. So, we still have ladders we
10 climb without any sort of cages, fall
11 protection, anything, over 24 feet, yes.

12 MR. CHICCA: Okay. So, I suppose,
13 similarly, since you just mentioned they don't
14 have anything installed, they're not necessarily
15 climbing ladders with these safety systems or
16 personal fall arrest systems installed either,
17 right?

18 MR. HAND: Not always, no.

19 MR. CHICCA: Okay. How often are the
20 ladders your members are climbing inspected? Do
21 you know?

22 MR. HAND: I would say close to never.

1 MR. CHICCA: All right. Thank you. I
2 appreciate that. I'll pass it over to Will
3 Zettler.

4 MR. ZETTLER: Will Zettler from OSHA.
5 Thank you for your testimony today. I just have
6 one follow-on question. Can you describe any
7 falls your members have had on fixed ladders
8 over 24 feet, and the outcomes?

9 MR. HAND: I could provide it post-
10 hearing. That's information that unfortunately
11 the union is not privy to. So, we would have to
12 actually poll our members to see what accidents
13 have happened. But I will do that.

14 MR. ZETTLER: Okay. Thank you very
15 much. That's all from me.

16 MR. CHICCA: Okay. Dave Chicca with
17 OSHA again. I don't believe we have any
18 questions from Bob. Is that correct, Bob?

19 DR. BLICKSILVER: Yes, that's correct.

20 MR. CHICCA: All right. Your Honor,
21 that's all from OSHA.

22 JUDGE MORRIS: All right. Solicitor?

1 MS. ZAVISLAN: Good afternoon. This is
2 Tessa Zavislan, for the Solicitor's Office.

3 Thank you for your testimony. I had one follow-
4 up question based on your testimony. You stated
5 that fixed ladders almost never have the ladder
6 safety systems or personal fall arrest systems.

7 Can you estimate about how many of these
8 ladders do have the systems?

9 MR. HAND: It's hard. FRA doesn't keep
10 track of what signal crossing has a cantilever.

11 Also, signal bridges are not kept in an
12 inventory either. So, I can't say, I mean,
13 there's 120,000 signal railroad crossings, so I
14 would be lying if I told you anything.

15 MS. ZAVISLAN: I understand. If you're
16 able to provide something in your post-hearing
17 comments, we would appreciate it.

18 MR. HAND: Okay.

19 MS. ZAVISLAN: I just have one
20 additional question. If you could expand on the
21 circumstances and when and why that these
22 systems are being installed, that would be

1 helpful.

2 MR. HAND: Oh. So, when they're
3 actually up to date with OSHA standards?

4 MS. ZAVISLAN: Correct.

5 MR. HAND: It's either new
6 construction. Rarely is it ever maintenance
7 because they need a change-out, they need to
8 bring it up to OSHA requirements. They're not
9 regulated -- they don't have to do it, so they
10 don't. So, the only time anything under OSHA
11 requirements is when we have something new put
12 in, under new construction.

13 MS. ZAVISLAN: Got it. Thank you for
14 your testimony, Mr. Hand.

15 MR. HAND: Thank you.

16 JUDGE MORRIS: Any questions from the
17 public?

18 MS. JOHN: No questions from the
19 public, Your Honor.

20 JUDGE MORRIS: All right. Thank you,
21 Mr. Hand, for your testimony.

22 MR. HAND: Thank you, sir.

1 JUDGE MORRIS: Next, we have the
2 American Federation of State, County, and
3 Municipal Employees.

4 MS. JOHN: Ellie Barbarash, you should
5 have just been promoted to panelist. All right.
6 You should be able to turn on your microphone.

7 MS. BARBARASH: Hello. My name is
8 Ellie Barbarash. Thank you so much for all of
9 your work, from OSHA and everyone assisting in
10 this effort for worker safety. My name is Ellie
11 Barbarash. I'm a certified professional
12 environmental auditor, with a specialty in
13 occupational safety and health. I serve as
14 Senior Health and Safety Advocate for AFSCME,
15 the American Federation of State, County, and
16 Municipal Employees.

17 AFSCME represents 1.4 million members
18 across America, and our members routinely use
19 fixed ladders more than 24 feet in height that
20 are equipped with steel cages or wells, climbing
21 ladders while maintaining historical buildings,
22 bridges, tunnel infrastructure, airports, waste

1 treatment, and water purification plans, power
2 gen stations, cultural institutions, and in just
3 about every municipal setting you can think of.

4 The ladders in question are ones that
5 may fall under OSHA's proposed compliance
6 loophole, a deregulation proposal that would
7 allow employers to deny workers with effective
8 fall protection, despite the recognized and
9 proven risk of material harm caused by falls
10 from ladders when no effective fall protection
11 is provided.

12 AFSCME strongly opposes OSHA's efforts
13 to weaken a standard that can save worker lives,
14 in order to provide greater compliance
15 flexibility for employers. OSHA has not
16 provided documentation or evidence to justify
17 this proposed revision. The deregulation would
18 deny workers and deny our members life saving
19 fall protection improvements when using these
20 tall ladders.

21 In November 2016, OSHA published its
22 standard on walking working surfaces and

1 personal protective equipment, including fall
2 protection systems. At that time, OSHA
3 estimated there were approximately 3.1 million
4 fixed ladders in the U.S. that were over 20 feet
5 in height. In the same document, they said that
6 328,000 of the 3.1 million fixed ladders were
7 between 24 and 30 feet tall. Commonly, these
8 tall fixed ladders were equipped with steel
9 wells or cages that were capable of containing
10 bodies if they fell. In the 2016 standard, OSHA
11 acknowledged that for the sake of worker safety,
12 employers needed to provide additional safety
13 requirements for fixed ladders, beyond those
14 found in the OSHA regulations or voluntary
15 consensus standards.

16 If an employer installed a 20-foot tall
17 or more fixed ladder after November 18th, 2018,
18 or when an existing ladder, well, or cage needed
19 to be replaced, then OSHA 1910.28 required
20 employers to equip the ladder with either a
21 personal fall arrest system or ladder safety
22 system. But OSHA permitted employers to delay

1 providing effective fall protection systems when
2 their tall fixed ladders with wells or cages
3 were installed before November 2018. OSHA
4 clearly recognized that personal fall arrest and
5 ladder safety systems prevent falls, and that
6 fixed ladder wells and cages do not.

7 In the 2016 Walking-Working Surface
8 standard revision, the agency established a
9 final deadline of November 2036, giving
10 employers two full decades to provide the fall
11 protection systems proven to save workers'
12 lives. But now, in 2026, halfway through OSHA's
13 generous 20-year implementation period, OSHA
14 proposes to remove the 2036 deadline to provide
15 fall protection that has proven to be effective.

16 Employers were already granted a full
17 decade to plan, budget, and schedule safety
18 compliance activity to better protect employees
19 from fall-related injury and fatality. OSHA
20 proposes to rescind employer requirements to
21 protect workers from fall-related fatality and
22 injury for the sake of employer flexibility.

1 But there are still 10 years left before the
2 original deadline is due. There is ample time
3 for employers to still meet fall protection
4 requirements on tall fixed ladders, to better
5 protect worker safety.

6 When workers using tall fixed ladders
7 equipped with a cage or a well fall, they hit
8 the sides as they come down, breaking bones and
9 entangling limbs. There is nothing provided by
10 a cage or a well that stops a human body from
11 falling when a worker's safe contact with a
12 ladder or platform has been lost. According to
13 OSHA, falls are still the leading cause of death
14 in construction. According to the BLS data, in
15 2024, there were 389 fatal falls to a lower
16 level out of 1,034 construction fatalities.
17 These deaths are completely preventable. While
18 the BLS identified only five fatal falls from
19 fixed ladders in their 2020 memo, BLS indicates
20 that out of 816 fatalities from ladder falls
21 between 2016 to 2020, 219 worker fatalities, or
22 26 percent, were caused by falls from ladders

1 that did not move.

2 Again, it is well understood that
3 ladders and cages installed on tall fixed
4 ladders do not prevent falls or fatalities.
5 Only systems engineered to provide effective
6 fall protection, like personal fall arrest or
7 ladder safety systems, prevent falls from
8 maiming or killing people. Ladder wells and
9 cages have been known to impede direct rescue,
10 making emergency efforts complicated, difficult
11 and delaying life-saving emergency response for
12 the person entangled. Use of a personal fall
13 arrest or a ladder safety system facilitates
14 faster and effective access to injured workers.

15 And lastly, for more than a decade,
16 fall protection programs based on personal fall
17 arrest or ladder safety systems have been
18 available, feasible, widely implemented, and
19 effective in preventing worker falls, injury,
20 disability, and death. We believe employers
21 must be required to provide proven effective
22 fall protection for all workers making climbs

1 over 24 feet on fixed ladders.

2 We strongly oppose OSHA's proposal, and
3 we support the 2016 Walking-Working Surface
4 standard requirements that establish a deadline
5 for employers to provide effective personal fall
6 arrest systems and ladder safety systems for
7 workers using fixed ladders over 24 feet in
8 height. Thank you for the privilege of
9 addressing you today.

10 JUDGE MORRIS: OSHA?

11 MR. CHICCA: Thank you, ma'am, for your
12 time and testimony today. On the fall risks
13 that you mentioned, can you tell us more about
14 the falls and slips and near falls that your
15 members are exposed to, and how they occur?

16 MS. BARBARASH: I think I would need to
17 get back to you with that. While that
18 information, by definition, is the employer's
19 responsibility to collect and maintain, I could
20 see what kind of anecdotal information we have
21 from our affiliates.

22 MR. CHICCA: Okay, thank you. I would

1 appreciate that. And of course, if you did have
2 any data that you could quantify, we would
3 welcome that as well. And would you know how
4 many of your members use ladder safety systems
5 or personal fall arrest systems?

6 MS. BARBARASH: I would really be
7 guessing. I worked closely with our New York
8 City affiliate for seven years, and was in the
9 field with them, and that was 130,000 members in
10 New York City, and I would say that my
11 experience over seven years had me personally
12 climbing fixed ladders without safety systems
13 four times a week, easily. I mean, they were
14 everywhere. They were endemic for the work that
15 we were doing, maintaining municipal
16 infrastructure. But again, that's just my
17 personal experience. I don't have data larger
18 than that.

19 MR. CHICCA: Okay. Thank you. I'm
20 going to pass things over to Will.

21 MR. ZETTLER: Thank you for your
22 testimony today. Do members who use fall

1 protection PPE report that they do not use
2 personal fall arrest systems or ladder safety
3 systems because of harness fit or other factors?

4 MS. BARBARASH: No. That's not
5 feedback I've ever received.

6 MR. ZETTLER: Have you received any
7 reports from members of having difficulty using
8 personal fall arrest systems or ladder safety
9 systems on fixed ladders, such as -- or
10 attaching incorrectly?

11 MS. BARBARASH: The type -- I can only
12 answer your personally, in my response capacity.

13 And I can say that my role is always to get the
14 employer to meet with OSHA compliance. The type
15 of complaints we might meet is that employers,
16 in a multitude of places, are not inspecting
17 their equipment, are not providing equipment
18 that fits, are not replacing equipment that's
19 been damaged, are not providing requisite
20 training, are just handing people a brochure or
21 are just doing a quick training online instead
22 of in person. But I honestly have never -- you

1 know, the problem is, our workers want to be
2 safe. The problem isn't that they're having
3 trouble being safe, the problem is, we're
4 challenging their employers to meet basic OSHA
5 minimum requirements for our safety.

6 MR. ZETTLER: Okay. And do your
7 members indicate a preference for using cages,
8 wells, ladder safety systems, or personal fall
9 arrest systems while climbing fixed ladders, and
10 why?

11 MS. BARBARASH: There's a preference
12 for having their life protected from falls,
13 which means using something that works, which is
14 not a ladder or a well alone.

15 MR. ZETTLER: Okay, thank you. And we
16 heard testimony this morning suggesting instead
17 that injuries are likely to be relatively minor
18 when using a cage, or at least not worse than
19 ladder safety systems or personal fall arrest
20 systems. You just mentioned that there are
21 likely to be broken bones or worse when someone
22 falls in a cage. Can you help us figure this

1 out? What evidence of injury should we be
2 looking at within cages?

3 MS. BARBARASH: I haven't -- maybe only
4 twice in 30 years, so again, I'm just telling
5 from my experience, and I apologize, I don't
6 have wider data in front of me beyond that. But
7 I have twice responded to fatalities from falls
8 from cages. And people were mangled, and if
9 they didn't die immediately, they died from
10 their injuries, because they had femurs broken,
11 because they had ribs broken, because they had
12 internal bleeding. It was hard to get to people
13 while they were tangled. But again, those are
14 just anecdotes. Those are experiences from my
15 investigatory position. I don't have a broader
16 set of data than that.

17 MR. ZETTLER: Okay. Thank you very
18 much. If you come up with anything from members
19 that you can put in post-hearing comments, we'd
20 appreciate that.

21 MS. BARBARASH: I'll see what kind of
22 stories I can get by asking.

1 MR. ZETTLER: Okay, thank you very
2 much. That is all the questions from me.

3 MR. CHICCA: Okay. With that, this is
4 David Chicca again with OSHA, I'm going to pass
5 things over to Bob.

6 DR. BLICKSILVER: Hi. Bob Blicksilver,
7 OSHA Standards and Guidance. I wonder if you all
8 have enough time, Ms. Barbarash, in post-hearing
9 comments, to survey your workers, so that you
10 can help us develop profile data on the affected
11 worker categories, and perhaps even cost data
12 for projects involving the installation of
13 ladder safety systems, personal fall arrest
14 systems, and any other follow-on costs to
15 provide protection on fixed ladders.

16 I don't know whether you already have
17 that sort of survey data, or if there would be
18 time for you to survey your membership, but
19 those are areas that would be helpful to us, to
20 help to round out, complete our industry profile
21 and cost assessments.

22 MS. BARBARASH: I just want to share a

1 limitation, that we are a labor union, and our
2 members would, you know, the slogan is, AFSCME
3 makes America happen. We are the ones doing the
4 work. We're not the ones -- we may be
5 maintaining infrastructure, but we're not paying
6 for it, we're not creating the budget. I don't
7 -- that would be about, that information would
8 be from our employers, that wouldn't be from the
9 members that we represent.

10 As far as injury -- perhaps you could
11 ask that again? Perhaps we could separate that
12 question, so it could be in the realm that, I
13 can't promise anything, but that we'd actually
14 have access to. We certainly don't have access
15 to management's budget, you know?

16 DR. BLICKSILVER: Okay. Let me
17 clarify. Bob Blicksilver again. Let me clarify
18 for industry profile purposes. If you have
19 information on where your workers work, you
20 know, you mentioned municipal areas, New York
21 City and other urban areas. If you could help
22 us to generally identify, you know, the sort of

1 activities your workers are involved in when
2 they are climbing, ascending and descending
3 fixed ladders, then that would be useful to us.

4 And then, any information, personal
5 information, anecdotes, any stories that your
6 members can share with you in the time that's
7 available for the post-hearing comments, on
8 their experiences climbing the ladders and what
9 they encountered in terms of fall safety, all
10 useful information for us. Did that help?

11 MS. BARBARASH: It did help. It
12 definitely helped. Yeah. We'll give it a try.

13 DR. BLICKSILVER: Okay, good. Thank
14 you so much. That's all I have.

15 MR. CHICCA: Okay. This is David
16 Chicca again with OSHA. Your Honor, that's all
17 the questions that we have.

18 JUDGE MORRIS: Solicitor?

19 MS. ZAVISLAN: Yes. This is Tessa
20 Zavislan for the Solicitor. Thank you, Ms.
21 Barbarash, for your testimony. I have a couple
22 questions for you. You may have heard this

1 question a few times already, but Petitioner's
2 comments stated that additional reinforcements
3 are needed on fixed ladders or structures to
4 accommodate the forces of arresting a fall. Can
5 you provide any data on how often this happens,
6 and when this is required, if your members have
7 reported such information?

8 MS. BARBARASH: I don't know that I
9 would have access to that. I could check, but
10 off hand, I don't know that I'd have access to
11 that information.

12 MS. ZAVISLAN: Okay. No problem. No,
13 if you're able to provide it in post-hearing
14 comments, we would appreciate it. And then,
15 what percentage of fixed ladders over 24 feet
16 high in the industries that your members work in
17 lack personal fall arrest or ladder safety
18 systems?

19 MS. BARBARASH: That's a really good
20 question. I don't know. I would have to check,
21 but it's a really good question. I'd love to
22 know.

1 MS. ZAVISLAN: If you're able to
2 provide, we'd appreciate it.

3 MS. BARBARASH: We have 1.3 million
4 members. Thank you.

5 MS. ZAVISLAN: And then, we heard
6 testimony this morning asserting that cages are
7 preferable to safety systems, in part because
8 they're standardized across operations, whereas
9 the use of safety systems requires employers to
10 be trained on different types of fall arrest
11 systems used at different facilities where they
12 worked. In your members' experiences, do the
13 systems require a lot of different training to
14 use, or is it more the case that it's fairly
15 standardized, once the individuals have training
16 on how to use a harness and how to clip into
17 that harness?

18 MS. BARBARASH: I personally don't know
19 the nuances of one fall system training for
20 another, but I want to generically answer that.

21 MS. ZAVISLAN: Please.

22 MS. BARBARASH: The type of thing that

1 we're fighting for -- and my title is Safety and
2 Health Advocate. My title defines what I do.
3 We want risk assessments to happen. We want a
4 job hazard assessment. We want to be told about
5 our hazards, and be told what to do about it.
6 We fight for that training. We're not going to
7 complain about it, that it's too complicated.
8 We want to save our lives.

9 If anything, we are advocating for and
10 fighting to have that training in an appropriate
11 way, to deal with the appropriate risks that our
12 members deal with every day. It is not a burden
13 for us that we mind. It is something that we
14 recognize will save our life, for all the
15 reasons and experiences that people have shared
16 today, especially this afternoon.

17 MS. ZAVISLAN: Thank you. And again,
18 this is Tessa Zavislan from the Solicitor. You
19 had mentioned witnessing two fatalities from
20 falls from fixed ladders with cages. Could you
21 please provide more information about these
22 incidents, such as if you know the heights that

1 they fell from, or whether they had lost
2 consciousness before they fell?

3 MS. BARBARASH: So, I didn't witness
4 them, I responded afterwards, as safety
5 professional for the employer or for the union.

6 One of them was on a tank that had a well, and
7 I think it was under 28 feet. The other one was
8 a straight run up a building, and I don't think
9 it had anything. That's what I can recall.

10 MS. ZAVISLAN: Thank you. Do you
11 recall if either of those individuals had lost
12 consciousness, or whether they were conscious?

13 MS. BARBARASH: Oh, by the time -- I
14 mean, they died. I mean, I don't know. I do
15 not know.

16 MS. ZAVISLAN: Thank you.

17 JUDGE MORRIS: Ms. Zavislan, just so
18 we're clear, you're talking about loss of
19 consciousness that caused the fall, or after the
20 fall?

21 MS. ZAVISLAN: Correct. Loss of
22 consciousness that caused the fall.

1 MS. BARBARASH: At least one of them, I
2 think the environmental conditions were
3 slippery, but I honestly don't know.

4 MS. ZAVISLAN: Okay. Thank you. And
5 you had mentioned that the rescue was more
6 difficult because of the cage or wall. Could
7 you explain more, maybe regarding those
8 incidents, or generally why rescue is more
9 difficult?

10 MS. BARBARASH: I don't know that I
11 can. I don't know that I have that information
12 or that I remember. I believe it involved the
13 fire department, and it took a while to get
14 people out, because they couldn't, they had to
15 extricate a body, and it was messy. I don't --
16 you know, I did not get more detail than that,
17 except that it took a while and involved fire
18 trucks and coordination.

19 MS. ZAVISLAN: Understood. Thank you
20 for providing that information. That is all the
21 questions I had. Thank you for your testimony.

22 JUDGE MORRIS: Is there any questions

1 from the public?

2 MS. JOHN: I do not see anyone's hands
3 raised. No questions from the public.

4 JUDGE MORRIS: All right. Thank you,
5 ma'am, for your testimony.

6 MS. BARBARASH: Thank you so much.

7 JUDGE MORRIS: Next, we have United
8 Steelworkers.

9 MS. JOHN: All right. Juan, I'm going
10 to promote you to panelist. Juan Zuniga. I do
11 not see Thomas Duffy, but I will promote Steve
12 Sallman, you've also been promoted to panelist.

13 MR. ZUNIGA: Hello?

14 MR. SALLMAN: Hello.

15 JUDGE MORRIS: Mr. Zuniga, I can see
16 you. This is Judge Morris. Mr. Sallman, I can
17 see you. This is Judge Morris.

18 MR. ZUNIGA: Can you hear me?

19 JUDGE MORRIS: I can hear you, Mr.
20 Zuniga.

21 MR. ZUNIGA: Okay.

22 JUDGE MORRIS: Go ahead.

1 MR. ZUNIGA: Thank you, Your Honor,
2 Judge Morris, and members of the panel. I am
3 Juan Antonio Zuniga Ayala, a proud member of the
4 United Steelworkers Union Local 3657. I am also
5 a technician in the health, safety, and
6 environment department here at the headquarters.

7 The United Steelworkers or the USW is
8 one of the largest industrial unions in North
9 America, representing workers in steel,
10 aluminum, and other metals, paper, oil, rubber,
11 plastics, glass, cement, mining, energy,
12 chemicals, refining, utilities, healthcare,
13 atomic, education, manufacturing services, and
14 other sectors. I would like to first mention
15 that brother Tom Duffy is absent today, due to
16 him attending other very important assignments.

17 He is right now with bargaining negotiations.

18 I speak today as a representative,
19 someone who represents workers that climb fixed
20 ladders, and who has trained alongside my
21 brothers and sisters in safety, and who has
22 mourned coworkers who never came home. I am

1 here to respectfully but firmly urge OSHA, and
2 let's be honest, whoever is instructing OSHA to
3 do these deregulations, to withdraw this
4 proposed rule, and to keep the November 18, 2036
5 compliance deadline for installing personal fall
6 arrest systems or ladder safety systems on fixed
7 ladders exceeding 24 feet.

8 Let me be clear. Removing this
9 deadline is not deregulation, it is legalized
10 negligence. It tells employers that an outdated
11 cage, which OSHA itself has called inadequate
12 fall protection, is acceptable forever. That is
13 a deviation from the very purpose of the OSH
14 Act, to prevent fatalities, not to investigate
15 them after the fact.

16 Now, industry groups, as we heard
17 before, argued that cages are passive
18 protection, and that personal fall arrest
19 systems require workers to actively connect.
20 With respect, that is a distraction. Modern
21 ladder safety systems are hands-free. They
22 travel with you automatically, and our members

1 are not passive objects. Our members are steel
2 professionals. We have trained thousands
3 through the United Steelworkers Tony Mazzocchi
4 Center. Clipping a lanyard becomes a second
5 nature, just like fastening a seatbelt. No
6 worker has never died because they had to clip
7 in. Workers die when there is nothing to clip
8 to at all, or the systems were not there that
9 should have set them up for success.

10 If this deadline is removed, we will
11 see four predictable and unacceptable outcomes.

12 First, employers will delay investments
13 indefinitely. Without a binding date, eventual
14 compliance becomes never compliance. Cost
15 reduction will win over worker protection.
16 Second, you will create a two-tier safety
17 system. Workers in newer facilities with modern
18 protection, and workers in older facilities,
19 often our most vulnerable members, remain
20 trapped with 1950s technology. That is safety
21 discrimination by facility age, and it is wrong.

22 Third, rescue becomes a nightmare.

1 When a worker falls inside a cage, first
2 responders cannot easily reach them. Cutting
3 the cage requires torches, hot work permits, and
4 precious time, time that injured workers do not
5 have. Personal fall arrest systems and ladder
6 safety systems allow for self-rescue or rapid
7 descent. Preserving cages is not protection.
8 It is a legal death sentence.

9 Fourth, you will be rewarding reactive
10 safety instead of proactive safety. Our union
11 has seen too many employers spare no expense
12 after a tragedy, but do nothing before. It
13 should not take a fatality to fix a known
14 hazard.

15 And, with that, I finish my
16 participation. Thank you very much.

17 MR. SALLMAN: Hello. I'm Steve
18 Sallman. Can you hear me?

19 JUDGE MORRIS: I can.

20 MR. SALLMAN: All right, thank you.
21 I'm the Director of Health, Safety, and
22 Environment for the United Steelworkers. I want

1 to thank you, Your Honor and OSHA, for the
2 opportunity to testify today.

3 Our members climb fixed ladders daily
4 to inspect and maintain glass furnaces, refinery
5 towers, silos, tanks, chemical columns, roofs,
6 and similar equipment. For our members, 24 feet
7 is a point of no return. A fall from 25 feet
8 onto concrete can generate 7,000 pounds of
9 force. That is not an injury. That is a death
10 sentence.

11 I want to share a quick summary of a
12 USW fatality involving a fixed ladder. One of
13 our members suffered a fatal fall at a chemical
14 plant when he fell from a fixed ladder with a
15 cage on the side of a distillation column.
16 Witnesses said that he'd almost reached the top
17 of the unit when it appeared that he froze up on
18 the fixed ladder, as if he was resting, when he
19 suddenly fell backward, without any bodily
20 actions or screams, and falling to the ground
21 below. The coroner's report stated he died as a
22 result of a heart attack and a blunt force

1 trauma from his fall. It is our belief that a
2 personal fall arrest system or ladder safety
3 system could have positively engaged and
4 possibly saved our member's life by allowing him
5 to be rescued and life-saving measures provided
6 to change the outcome of this tragic loss.

7 It's deeply troubling today to hear the
8 comments basically saying that it's acceptable
9 for workers to fall inside fixed ladders because
10 cages and wells are there for workers to
11 instinctively stick their arms and legs outward
12 to arrest their fall, and do this successfully,
13 regardless of the injuries they'll suffer as a
14 result.

15 We fail to understand how a worker can
16 physically arrest their potentially fatal fall
17 when there's huge forces and distance involved
18 when a worker falls. This also flies in the
19 face of when employers we work with have a 100
20 percent tie-off policy for workers, including
21 contractors, to always be tied-off in their
22 workplace. Falling inside fixed ladders with

1 cages and wells is a recognized hazard that will
2 cause fatalities, injuries, and can be
3 controlled to stop a fall to the base of a fixed
4 ladder.

5 Climbing ladders is a strenuous
6 activity and causes fatigue, even for healthy
7 individuals, and it can cause unexpected cardiac
8 events in susceptible individuals, those who may
9 not even know they might be at risk. This is
10 why employers must update fixed ladders with
11 personal fall arrest systems or ladder safety
12 systems, and make recovery much safer for rescue
13 teams, instead of having workers tangled up in
14 an outdated cage and well.

15 Yes, retrofitting ladders has
16 challenges, working at height, process
17 disruptions, and costs, but those are solvable
18 problems. Employers have had, since 2016,
19 nearly two decades by the 2036 deadline, to
20 plan, schedule shutdowns, and implement
21 controls. Removing the deadline does not
22 eliminate those challenges; it just postpones

1 them. And postponed hazards are deferred
2 fatalities and life-altering injuries.

3 Cages and wells do not stop workers
4 from falling. When you slip, you fall four feet
5 in half of a second, 16 feet in one second, 64
6 feet in two seconds. A cage is not a personal
7 fall arrest system. It only encloses you. It
8 is, frankly, a coffin with rungs.

9 We fought for the OSH Act in 1970, we
10 fought for Walking-Working Surfaces Rule in
11 2017, and we will fight any attempt to roll back
12 the clock. Every worker, whether at a newly
13 constructed plant or one built in the 1950s,
14 deserves the same level of safety protections
15 and systems. No removal of the 2036 deadline.
16 No grandfathering of hazards or death traps. No
17 compromise on our members' lives.

18 We respectfully ask OSHA to follow what
19 the OSH Act requires: that employers shall
20 furnish to each of his employees' employment and
21 a place of employment which are free from
22 recognized hazards that are causing or likely to

1 cause death or serious physical harm to his
2 employees. Do not delay safer workplaces.

3 Thank you for the opportunity for Juan
4 and myself to provide our testimonies today.

5 JUDGE MORRIS: OSHA?

6 MR. CHICCA: Thank you, Your Honor.
7 David Chicca with OSHA. Thank you, both of you
8 gentlemen, for your time and testimony today.

9 We've heard about that particular
10 individual, both in your submitted comment, and
11 again, Mr. Sallman, in your testimony today, who
12 died after having a heart attack on a ladder, in
13 a cage. And we've heard a lot of discrepancy on
14 the effectiveness of cages and wells based on
15 who has been giving testimony today. Are either
16 of you gentlemen aware if any of your members
17 have successfully arrested their fall in a cage
18 or a well without fall protection?

19 MR. SALLMAN: I'm not aware of a
20 successful fall. People don't normally call our
21 department and say that things are good. They
22 call us when things are bad. So, I'm not aware

1 of any at this time.

2 MR. CHICCA: Thank you. Do your
3 members wear a harness for fall protection once
4 they're at the top of a fixed ladder that's
5 above 24 feet?

6 MR. SALLMAN: Lots of times, when our
7 members are doing elevated work, they'll
8 typically already have that body harness
9 restraint device with them, depending upon the
10 job or task. But not always would they have a
11 personal fall arrest system if they're going up
12 the side of a building to go up and work on a
13 roof. So, it depends on what the job is that
14 they're doing, and the requirements for such.

15 MR. CHICCA: Thank you. And this is
16 sort of -- you were discovering where we were
17 going, and if you don't know the specifics,
18 perhaps you could submit them in post-hearing
19 comments. But do you know roughly how many of
20 your members use ladder safety systems and
21 personal fall arrest systems?

22 MR. SALLMAN: I don't know a good way

1 to try to get that information. I can tell you
2 that we work in all kinds of highly hazardous
3 industries, from the oil chemical manufacturing,
4 rubber, glass, paper, most all of your metals,
5 you know, and it requires jobs where people will
6 be going up fixed ladders, as well as just being
7 exposed to falls greater than four foot.

8 Lots of times, when it's a different
9 level, it's some type of system that's already
10 there to prevent the fall, like rails. But then
11 there's times when our members do have to use
12 personal fall arrest systems. And our
13 experience is, a lot of those are pretty much in
14 place.

15 And, as I mentioned, we've even been
16 made aware of when people have been disciplined
17 for not having a personal fall arrest system on.

18 And then a lot of that comes when jobs have
19 been redesigned. You'll go from a five-person
20 crew to a three-person crew, or they'll combine
21 other folks, and that becomes a training issue,
22 and making sure that they've been set up for

1 success.

2 So, we know that employers are looking
3 at those fall hazards and doing everything they
4 can to either eliminate or control them. So,
5 we're all over the map, and all kinds of fall
6 hazards, including fixed ladders. But I would
7 add this, that we've seen a lot of employers
8 doing very well on those, and, in fact, at some
9 of our workplaces, our health and safety
10 committee representatives, including full-time
11 safety representatives, are designated and
12 trained as competent persons to be able to help
13 with recognizing fall hazards, predicting what
14 could happen, knowing what corrective actions to
15 take, and have been authorized by the employer
16 to help take those corrective actions.

17 MR. CHICCA: Thank you. I appreciate
18 that. I'll pass things over to Will.

19 MR. ZETTLER: Hi. Thank you for your
20 testimony today. This is Will Zettler with
21 OSHA. I have just a few questions. Do members,
22 do any of your members who use fall protection

1 PPE report that they do not use personal fall
2 arrest systems or ladder safety systems on fixed
3 ladders because of harness fit or other factors?

4 MR. SALLMAN: I have not been aware of
5 any of those kinds of issues, unless Juan has.
6 I have not.

7 MR. ZUNIGA: No, I haven't. There are
8 some employers that fail to provide proper fall
9 arrest systems, but that's because they will not
10 fit the physique of our members, which is, at
11 that point, a different problem. And most of
12 the time, it's being addressed at the local
13 level, but we try to have a meaningful and
14 active safety committee, joint safety committee,
15 that will address that at the local level, like
16 I said.

17 MR. ZETTLER: Okay, thank you. Have
18 you received any reports from members of having
19 difficulty using personal fall arrest systems or
20 ladder safety systems on fixed ladders? Or
21 attaching incorrectly?

22 MR. SALLMAN: I would say we haven't

1 had a lot. I would say where one of the
2 challenges are is, when it comes to women's PPE,
3 but we've been seeing more and more
4 manufacturers who have rose to the occasion to
5 fix those problems. So, we're definitely seeing
6 a trend in the right direction, and we've been
7 able to find a lot of solutions for female
8 members when it comes to, like, body harnesses
9 and such.

10 MR. ZETTLER: Okay, thank you. Do you
11 have any survey data that you can submit to the
12 record from members indicating if they have a
13 preference for using cages, wells, ladder safety
14 systems, or personal fall arrest systems while
15 climbing the fixed ladders?

16 MR. SALLMAN: We do not. I'm sorry. I
17 mean, anecdotally, I can say that our members
18 would want the best safety protections that
19 would prevent fatalities and injuries. So, you
20 know, I can say that, just from interacting with
21 our members.

22 MR. ZETTLER: Okay. And either now and

1 in post hearing comments, if you could submit or
2 describe training your members have had
3 regarding cages, and training your members have
4 had using ladder safety systems or personal fall
5 arrest systems.

6 MR. SALLMAN: Yeah. A lot of that
7 would be through their employer, based upon the
8 risk and exposure that they would have. I can
9 tell you that a lot of our members receive
10 training on personal fall arrest systems from
11 the anchor, the body, the connector, any type of
12 decelerating device. You would see those kinds
13 of things. We've seen people, how to inspect
14 ladders. You'll see some of those things, where
15 safety committee members will go out and inspect
16 fixed ladders, look for clearances, and so on,
17 damage, any type of corrosion. That would
18 basically be what we would see a lot.

19 But, the other part that I would add in
20 that training is the hierarchy of controls. Can
21 you eliminate a hazard from falls? So, for
22 instance, instead of having to climb a fixed

1 ladder to go turn a valve, we've seen where
2 employers have made remove operated valves, so
3 then that way you don't have to expose someone
4 to a fall. We've seen even valves that have
5 been moved to a floor level, to where you don't
6 to climb a ladder, or there could be a chain-
7 operated valve, where you could do it from the
8 floor.

9 So, there is a component to the
10 training about how can you eliminate that
11 hazard? Find a substitute for some other way to
12 not expose workers to a fall. And a lot of that
13 centers around the hierarchy of controls. We
14 see much done with safety committees to help
15 promote that. And then we also having training
16 on how to inspect personal fall arrest systems,
17 all the way from the anchor, body, and the
18 connector, to inspecting the equipment that they
19 work with, via fixed ladders. But, lots of
20 times, you know, there's like even a PM program,
21 a periodic preventative and predictive
22 maintenance, where those types of things will be

1 looked at. But lots of times, we see a lot of
2 this, where things are done reactively. And
3 that's when something will get retrofitted with
4 ladder safety devices, personal fall arrest
5 systems, and we've been advocating for future
6 fitting, rather than retrofitting.

7 MR. ZETTLER: Very good. Thank you
8 very much for your time and testimony today.
9 That is all the questions I have.

10 MR. SALLMAN: Thank you.

11 MR. CHICCA: This is David Chicca
12 again, with OSHA. I'm going to pass things over
13 to Bob Blicksilver.

14 DR. BLICKSILVER: Hi. Bob Blicksilver.
15 OSHA Standards and Guidance. Thank you for
16 your comments, Mr. Sallman and Mr. Zuniga. I
17 wonder, Mr. Sallman, you described a safety and
18 health committee that your workers are involved
19 in, and helping to design the training programs
20 and also going out and inspecting ladders and
21 other infrastructure within the facilities where
22 your workers are situated. Can you share with

1 us, and I don't know whether you have any
2 profile data, survey data of any kind, that
3 could sort of help us characterize how much time
4 is spent to typically train a worker for how to
5 use the harness and clip on to a ladder safety
6 system or personal fall arrest system. Just the
7 full training program and fall safety on
8 ladders, and also, if you have any typical times
9 involved in doing these sort of risk assessment,
10 if your committees are involved in assessing the
11 conditions of ladders and safety systems
12 themselves, whether you have some information,
13 details, on sort of the typical times that are
14 spent in doing these types of risk assessments?

15 If you could sort of give us a type of
16 landscape, a profile of the range of what
17 they're observing and identifying and recording,
18 and the time involved in that. That would be
19 helpful to us.

20 MR. SALLMAN: Sure. Let me answer
21 that. We have all kinds of workplaces, from
22 very large facilities that covers a lot of miles

1 of ground, to facilities where it might take up
2 a city block, and everything in between. And
3 what we see is, those safety committees meet at
4 least once per month. They have meetings, and
5 then in that time, they also go out and do what
6 I'll call hazard hunts, for lack of better
7 words, much like an OSHA compliance audit. They
8 go out, and they hazard hunt. And sometimes
9 they'll break up and look for different things.

10 Other times, people will take something and
11 look at a checklist that might include not only
12 ladders in general that are portable, but
13 they'll look at fixed ladders as well.

14 But, a lot of it, too, is about using
15 your eyes and ears. Going to talk to workers.
16 When do your feet leave the floor? When you
17 have trouble, what does it look like? And they
18 will actually inspect, then, during those times.

19 At other times, they might be out doing a
20 hazard hunt because someone has reported an
21 issue or concern. That can be anywhere from,
22 they'll spend a day walking through a workplace,

1 they might spend some hours over a period of
2 time over the course of the month doing those
3 hazard hunts. So, a lot of it depends upon the
4 workplace, the size of the workplace. Ideally,
5 we always advocate for trying to get a full
6 scope of the workplace, to have done a hazard
7 hunt from end-to-end, top to bottom, over the
8 course of a year, so that something doesn't get
9 missed.

10 Regarding the training and the
11 equipment, that depends on the job that people
12 will do. Sometimes, it might be once a year,
13 during a particular outage or shutdown that
14 someone will receive some training to do a
15 particular job or task. Otherwise, it might be
16 someone who gets training on a regular basis,
17 including an annual refresher. So, like, if you
18 were in the maintenance department, and you're
19 working on overhead piping and so on, you're
20 exposed a lot to different fall hazards. A
21 maintenance person might receive all kinds of
22 various training, and that is going to be

1 dependent upon what kind of equipment they're
2 using. Is it going to be going into a manhole
3 and using a tripod? Is it going to be using
4 some type of lanyard that's overhead, that's a
5 restraint? It's going to be dependent upon the
6 job and the task that the worker does. So,
7 that's probably the best that I can do to answer
8 your question.

9 DR. BLICKSILVER: Thank you. Bob
10 Blicksilver again. Do your committees, in the
11 course of intervening in certain safety
12 situations, you know, hazardous conditions that
13 you're identifying, have there been efforts to
14 quantify the hazard reduction, the risk
15 reduction, or even in qualitative terms, are
16 these committees -- if in post-hearing comments,
17 you're able to share some examples, case
18 studies, or case projects that you're aware of.

19 MR. SALLMAN: I don't know -- I would
20 be happy to try to find something. I'm not
21 aware of anything at the moment, but what I can
22 tell you is, a lot of employers are now moving

1 away from lagging indicators. For instance, an
2 OSHA recordable, is it a workday injury that
3 lost time? Was it a recordable? People are
4 trying to move away from those. And we've seen
5 it with employers, where they're now calling
6 them leading indicators. So, if there was a
7 hazard identified, as I mentioned, with a valve,
8 and someone was at risk, couldn't maintain three
9 points of contact, a valve was hard to operate
10 and stand on a ladder at the same time, we've
11 seen it being tracked as leading indicators,
12 about eliminating fall hazards. Moving a valve
13 to the floor level. Finding some sort of
14 substitute that you wouldn't have to turn a
15 valve from a ladder. We see more and more of
16 that, where employers now are basically starting
17 to measure health and safety in leading
18 indicators. I don't know how I could start to
19 dissect all of that, that would include fixed
20 ladders. That would be hard to do, but if there
21 is something that we can find, we'll certainly
22 send it in post-hearing comments.

1 DR. BLICKSILVER: All right. Thanks so
2 much.

3 MR. SALLMAN: You're welcome. Thank
4 you.

5 MR. CHICCA: That concludes all of
6 OSHA's questions, Your Honor.

7 JUDGE MORRIS: Solicitor?

8 MS. ZAVISLAN: Thank you, Your Honor.
9 This is Tessa Zavislan, for the Solicitor. I'd
10 asked the previous witness about additional
11 reinforcements that are needed on fixed ladders
12 or structures to accommodate the forces of
13 arresting a fall. Can you provide any data on
14 how often, and when this is required from your
15 members?

16 MR. SALLMAN: I wouldn't have anything
17 that I could provide on that. A lot of that
18 gets handled through the employer doing the
19 engineering studies. We don't have an
20 engineering department that would go out and
21 assess that. That's the employer that would do
22 that.

1 MS. ZAVISLAN: Understood. If you're
2 able to provide anything in your post-hearing
3 comments, we would definitely welcome it. Your
4 comment and testimony today discussed that
5 personal fall arrest systems connections do not
6 cause safety concerns. Would you please explain
7 the connection process you are referring to, and
8 if you're aware of any injuries that have
9 occurred from this process?

10 MR. SALLMAN: What do you mean by the
11 process? Are you referring to like a personal
12 fall arrest system?

13 MS. ZAVISLAN: Right. So, the
14 connections or transitions that may be required
15 of an individual using a personal fall arrest
16 safety system.

17 MR. SALLMAN: Yeah. I'm following you
18 now. So, lots of times you'll see where our
19 members are actually carrying a double lanyard.

20 And so, for instance, I'll give you an example.

21 Where someone has used a fixed ladder to get up
22 to basically what is a catwalk between two

1 overhead cranes that run on parallel paths,
2 there will be a runway in between those two
3 overhead cranes that run on parallel paths.
4 There are no guard rails, there are nothing up
5 there. You simply access this fixed ladder, you
6 go up to the top of this, and as you traverse,
7 you hook up your lanyard to a horizontal life
8 line. And it has been rated, it has been
9 calculated as to how many people can be on it at
10 one time.

11 And then, part of what it is, like, the
12 employer that has the 100% tie-off policy,
13 before you unhook your lanyard, you have to
14 automatically connect your second lanyard, so
15 that you've got both lanyards tied off at the
16 same time. And then, you unhook the one, and
17 then you proceed to traverse on down the runway
18 with your second lanyard. So, we've seen a lot
19 of that with various equipment, but we've also
20 seen places where if you get up to that runway
21 and then you've got to go up onto the bridge of
22 the crane, there will be a fixed ladder on the

1 bridge of the crane that takes you up to the
2 trolley. But that's not, you know, it's less
3 than 24 foot. And what we've seen, where the
4 hazards have been controlled is, there will be a
5 yo-yo there, a self-retractable lifeline, and as
6 you maintain your tie-off point on the
7 horizontal lifeline, they will then hook up to
8 the self-retractable lifeline, and then unhook
9 from the actual horizontal lifeline, and then
10 they will ascend that to a fixed ladder on the
11 side of the trolley. And then there will be
12 tie-off points up at the top.

13 And so, we've seen more and more of
14 that, but we've also seen places where employers
15 are not providing those things, regardless of
16 their 100% tie-off policy. It all sounds good
17 on paper, but always going out and doing that
18 critical risk assessment and looking for those
19 hazards is a key important part. So, at times
20 we see where workers have been set up for
21 success, and then there's times when there's a
22 policy and the systems are simply not there.

1 MS. ZAVISLAN: Understood. Thank you
2 for that explanation. Mr. Conn's comment on
3 behalf of the Petitioner challenged a statement
4 in your comment that ladder safety systems and
5 personal fall arrest systems are safe, pointing
6 to injuries that have resulted because workers
7 were not tied off properly, and suggest that
8 reliance on these systems is not as safe as
9 cages and wells, because of the reliance on PPE
10 and the risk of human error. Do you have a
11 response to that or any additional data on that
12 subject that you would like to share with us?

13 MR. SALLMAN: Sure. There's all kinds
14 of things that we can do from a human factors
15 engineering system. Can we eliminate fall
16 hazards? Can we find better ways to do the job
17 by applying the hierarchy of controls? So,
18 instead of finding fault in the worker, they
19 should look at the worker as part of the
20 solution, instead of part of the problem. And
21 when workers are involved to talk about how
22 hazards can be reduced, you'll find ways to get

1 to a safer way to do the job with an inherently
2 safer design.

3 And I would add that when workers are
4 involved, they will tell you what could be done.

5 Such an example, the remote operated valves,
6 and relocating them. We've also seen where
7 workers have found and made their own tool to
8 have the ability to turn a valve where it is
9 stuck, instead of using like cheater bars and so
10 on. There's now pneumatic winches, where they
11 can turn on the stem. So, there's lots of
12 things that could be done. And to simply point
13 to the person who is at the sharp end of the
14 stick as the problem, as I pointed out in my
15 comments, the act says that you've got to
16 provide a safe and healthy workplace. Can
17 people make mistakes? Sure. We're human.
18 Asking a worker to come to work, be 100%, 100%
19 of the time, is not reality. And that's why we
20 should be future fitting with this standard,
21 rather than trying to retrofit and say well,
22 we'll put ladder safety devices after someone

1 gets killed or seriously injured.

2 And I would add, where our member was
3 killed, in that event on the side of the
4 distillation column, it doesn't just kill one
5 person. In that fatality that I investigated,
6 later on that night, a fellow bargaining
7 committee member drove over to see the widow of
8 his best friend and a family friend. The two
9 families were together. That night, after our
10 bargaining committee member left the widow, he
11 was t-boned in the driver's door and killed, and
12 at 2:00 in the morning, I got a phone call from
13 the local union president that said half my
14 bargaining committee is dead. This doesn't just
15 impact workers, the one that is killed. It
16 impacts families, it impacts communities,
17 coworkers who suffer from PTSD after what
18 they've seen. And communities lose a baseball
19 coach, and so on. Now is the time to make sure
20 that no one ever has to go through that again.

21 MS. ZAVISLAN: Thank you for sharing
22 that information. To follow up on that, would

1 it be your testimony that despite any potential
2 for human error, that used properly, these
3 systems are safer than cages and wells?

4 MR. SALLMAN: Oh, absolutely.
5 Absolutely. Would you rather have someone fall
6 with a personal fall arrest system and ladder
7 safety device, or hope even if they were not
8 100%, because they had been understaffed, jobs
9 had been combined, no days off, certainly
10 someone is going to make a mistake. And I don't
11 know how someone who is so fatigued would try to
12 somehow grab ahold of a cage or well, thinking
13 that you've got enough strength and grip, as
14 you're falling at great speeds and distances, to
15 think that you've got enough strength to grab
16 something, when you're already fatigued to begin
17 with. The chances of success are much better
18 with ladder safety devices and personal fall
19 arrest systems, then trying to rely upon some
20 cage or well.

21 MS. ZAVISLAN: Thank you. My final
22 question is, we've heard testimony that personal

1 fall arrest systems and ladder safety systems
2 often are not compatible or may cause confusion
3 or safety concerns when not used properly. In
4 your experience, do these systems require a lot
5 of different types of training to use, or is it
6 more the case that its fairly standardized once
7 you have training on how to use a harness and
8 how to clip into the harness?

9 MR. SALLMAN: My experience is it's
10 pretty standardized. There might be different
11 manufacturers and things, but anchor points are
12 anchor points. You've certainly got to make
13 sure that there's compatibility, but we've not
14 seen where that issue or concern would cause
15 concern to not move forward with greater
16 protections.

17 MS. ZAVISLAN: Thank you both for your
18 testimony. That's all from the Solicitor.

19 JUDGE MORRIS: Any questions from the
20 public?

21 MS. JOHN: No questions from the
22 public, Your Honor.

1 JUDGE MORRIS: All right. Thank you,
2 gentlemen, for your testimony.

3 MR. SALLMAN: Thank you.

4 MR. ZUNIGA: Thank you.

5 JUDGE MORRIS: My notes reflect that
6 the last group is the Laborers' Health and
7 Safety Fund of North America.

8 MS. JOHN: Yes. I just promoted Travis
9 Parsons. Ryan Papriello, you should have also
10 just gotten a prompt. And I do not see Nate
11 Schrieber.

12 MR. PARSON: Good afternoon. Can you
13 hear me?

14 JUDGE MORRIS: Yes, we do.

15 MR. PARSONS: Yes, sir. It's only
16 going to be Travis Parsons today. So, I'll be
17 within the 10 minutes. So, it's just me. My
18 other colleagues aren't here for this testimony.

19 JUDGE MORRIS: Go ahead.

20 MR. PARSONS: Thank you very much.
21 Good afternoon, Judge Morris, OSHA officials,
22 and members of the public. My name is Travis

1 Parsons, and I serve as the Director of
2 Occupational Safety and Health for the Laborer's
3 Health and Safety Fund of North America. We are
4 dedicated to advancing the safety and health and
5 wellbeing of members of the Laborer's
6 International Union of North America, or LIUNA,
7 its affiliated contractors and its affiliated
8 organizations.

9 LIUNA represents over 540,000 working
10 men and women who build our nation's
11 infrastructure, staff our facilities, and put
12 their lives on the line every day, at extreme
13 heights. Almost every day they're climbing
14 somewhere, have slip, trip, falls, often
15 climbing ladders. I am testifying here today in
16 absolutely opposition of the proposed changes
17 that seek to eliminate the November 18th, 2036
18 deadline for replacing outdated ladder cages and
19 wells with modern personal fall arrest systems
20 or ladder safety systems.

21 Eliminating this deadline is not a
22 regulatory flexibility. It is a dangerous step

1 backwards that puts corporate convenience in
2 front of workers' lives. Fixed ladders are
3 often treated as routine access, but when
4 something, a hazard like a slip, a
5 contamination, fatigue, or rushed movement
6 occurs, a fixed ladder all of a sudden becomes a
7 high-consequence fall hazard. Where cages are
8 relied on for primary control and safety, the
9 worker may still fall, strike the cage
10 structure, or experience a fall arrest device
11 that does not behave as intended inside the
12 cage.

13 In my opinion, OSHA is undermining its
14 own standard. In 2016, following decades of
15 injury data and technical research, OSHA
16 correctly recognized that legacy steel cages and
17 wells are failure at preventing fall related
18 injuries and fatalities. The agency established
19 a very generous 20-year phased out timeline,
20 ending November 18th, 2036, specifically to
21 accommodate capital planning while guaranteeing
22 that every worker will eventually be protected

1 with life-saving active fall arrest systems.
2 Removing this sunset date allows structurally
3 sound yet inherently dangerous cages to remain
4 in service indefinitely. Because having
5 industrial fixed steel ladders can last 50 to 70
6 years or more, OSHA's recent proposal
7 effectively forces ladders to climb under
8 outdated, substandard safety conditions.

9 Traditional ladder cages do not
10 actively protect workers from falling. They
11 only offer a passive containment, meaning they
12 may or may not catch a worker who is falling
13 backwards, but they cannot stop a freefall.
14 Cages do not stop slips, trips, or falls.
15 Workers can slide or drop all the way down
16 through the inside of the cage. Falling workers
17 often strike the metal hoops, which are there
18 for their feet to catch, and bars, and they've
19 been proven not to work, in the previous
20 fatality that was mentioned, causing potentially
21 severe injuries and limb entanglement or worse,
22 like fatalities. OSHA correctly views cages as

1 outdated containment tools, rather than active
2 safety equipment.

3 Now, I want to talk a little bit about
4 fall prevention versus fall containment, and the
5 illusion of cage protection. The physics of a
6 fall on a fixed ladder are clear. Cages offer
7 nothing more than a false sense of security for
8 workers. If anything, they can lean back and
9 rest on them, but they definitely don't provide
10 fall protection. Passive containment or cages,
11 including metal hoops at their feet, do not
12 arrest a fall when it is in progress. There's
13 been landmark drop testing research that's
14 already been mentioned previous today, including
15 the Safety Squared study, proves that the
16 probability of a falling worker successfully
17 catching themselves on a ladder hoop is pretty
18 much near zero. Workers falling inside cages
19 strike their bodies against rigid steel rungs
20 and enclosed hoops, suffering severe blunt
21 traumas, broken limbs, and internal hemorrhaging
22 before hitting the lower deck or sliding

1 entirely off the bottom.

2 Now, let's shift gears to what we know
3 is better, is an active fall arrest. Modern
4 systems, like personal fall arrest systems and
5 ladder safety systems, utilize vertical
6 lifelines, rigid rails, and cable sleeves
7 attached directly to workers' full body
8 harnesses. If a slip does occur, the sleeve
9 locks onto the carrier instantly, arresting the
10 fall within inches, and prevents the high-impact
11 collisions. Furthermore, when a worker suffers
12 an emergency or becomes incapacitated, inside
13 the narrow steel cage, rescue operations become
14 dangerous and are often difficult for emergency
15 personnel to retrieve that worker and save their
16 lives.

17 Now, there was a discussion earlier,
18 and there's been some discussion throughout the
19 day on the hierarchy of controls. One commenter
20 tried to use it to try to justify these cages.
21 So, I want to talk a little bit about my opinion
22 on that.

1 When evaluating safety through the
2 hierarchy of controls, cage ladders historically
3 appeared to sit higher on the spectrum, because
4 they are a passive collective control. They are
5 an engineering control that required no user
6 action or personal equipment. However, modern
7 occupation health and safety research shows that
8 when a control fails to reduce the risk, its
9 position on paper is meaningless. Therefore,
10 the ladder safety systems and personal fall
11 arrest systems are superior options, even though
12 they're lower, as PPE, even when analyzed
13 against the hierarchy of controls framework.

14 Again, cages offer the illusion of
15 passive engineering barrier, but data and
16 research have proven that they are not reliable,
17 and they do not perform a primary function of
18 fall protection, which is just stopping a fall.

19 They simply don't do it. Whereas, the other
20 system mentioned, in the more modern ways of
21 protecting workers' falls, like PFAS or ladder
22 safety systems, combine engineering vertical

1 lifelines with PPE and proper harnesses, and
2 bridges the gap, providing guaranteed mechanical
3 fall arrest that outweighs the theoretical
4 passive benefits of a cage.

5 Lastly, human life must take precedence
6 over capital cost. Industry petitions argue
7 that retrofitting existing ladders imposes an
8 extraordinary financial burden, in billions, and
9 I've even heard trillions of dollars mentioned
10 earlier today. I'm really not sure where those
11 cost estimates came from, and I would really
12 like to see that data behind those numbers. In
13 my research that I did preparing for this
14 testimony, and in just being a safety and health
15 professional, a typical vertical cable lifeline
16 system costs anywhere from 2,000 to 5,000
17 dollars, with an average of about 2,500 dollars.

18 Amortized over the 20-year compliance window
19 established in 2016, this represents a
20 negligible operation cost, in my opinion. And
21 in my opinion also, no cost-benefit analysis can
22 justify risking a worker's life to spare an

1 employer a routine safety operation that is
2 recognized and works.

3 In conclusion, OSHA's core mission
4 under the Occupational Safety Act of 1970 is to
5 ensure a safe and healthful working conditions
6 for working men and women. Cages and wells do
7 not provide equivalent safety outcomes to modern
8 ladder safety systems and personal fall arrest
9 systems. On behalf of the members of LIUNA, we
10 urge OSHA to reconsider this proposed rollback
11 and maintain the November 18th, 2036 deadline,
12 and evolve to modern fall protection standards
13 that workers deserve. Thank you for the
14 opportunity to testify today, and I'm happy to
15 take questions.

16 JUDGE MORRIS: OSHA?

17 MR. CHICCA: Thank you, Your Honor.
18 This is David Chicca with OSHA, and thank you,
19 Mr. Parsons, for your time and testimony today.

20 So, the coalition of petitions who gave their
21 testimony earlier today, they asserted that
22 cages on ladders were the equivalent to personal

1 fall or maybe even better than personal fall
2 arrest systems and ladder safety systems, in
3 part because of the fit of the harness. Do
4 members who use fall protection PPE report that
5 they do not use personal fall arrest systems or
6 ladder safety systems because of the harness fit
7 or any other factors?

8 MR. PARSONS: I've never really heard
9 that. As a matter of fact, we train our workers
10 to put them on correctly, how to test them, how
11 to see if they're viable options, and how to fit
12 properly. And you shouldn't be wearing one if
13 it doesn't fit properly in the first place. So,
14 I would disagree with that statement.

15 MR. CHICCA: Thank you. And as more of
16 a general question, maybe you can't think of it
17 on the fly, but very helpful to supply as post-
18 hearing comments, but if there's any other
19 information that you think would help us
20 evaluate the pros and cons between cages and
21 wells and personal fall arrest systems and
22 ladder safety systems, even just anecdotal

1 discussions with your members, that would be
2 helpful.

3 MR. PARSONS: Absolutely. We're happy
4 to -- we'll definitely provide whatever we can
5 in post-hearing comment on it.

6 MR. CHICCA: So, are you familiar with
7 any of your members that may have fallen on
8 ladders with only cages or wells? And if so,
9 what are the results of those incidents?

10 MR. PARSONS: We've definitely had
11 people fall in them, and get hurt and injured.
12 We don't necessarily track all of that. We have
13 580,000 members, and they don't necessarily
14 report. If anything, there's under reporting
15 rampant, especially in the construction industry
16 and general industry as a whole. So, most
17 workers probably wouldn't report it unless
18 they're injured, but it definitely happens out
19 there, and I'm not sure we track that data.

20 MR. CHICCA: Do your members indicate a
21 preference for using cages and wells or personal
22 fall arrest systems and ladder safety systems

1 when climbing fixed ladders?

2 MR. PARSONS: I would say they want the
3 safest measure, and that would be the personal
4 fall arrest systems combined with these ladder
5 systems as well.

6 MR. CHICCA: Okay. With that, I think
7 I will pass it over to Will Zettler.

8 MR. ZETTLER: Hi. Thank you for your
9 testimony today. This is Will Zettler with
10 OSHA. Do any of your members who climb fixed
11 ladders also wear a harness for fall protection
12 once they're at the top of the fixed ladder over
13 24 feet?

14 MR. PARSON: I would say yes and no.
15 depends on what the requirements are on that
16 site, and what the fall hazards are. And like
17 the previous commenter said, there's a lot of
18 times where we prefer 100% fall protection, zero
19 tolerance, on jobs where you're always tied off.

20 So, yes, unless there's a better, safer way to
21 do it at the top. But we would just follow what
22 the company's procedures are and what the

1 qualifying competent person has set forth.

2 MR. ZETTLER: Okay. And how many of
3 your members, or what percentage of your
4 members, use ladder safety systems or personal
5 fall arrest systems on fixed ladders over 24
6 feet?

7 MR. PARSONS: I don't know the
8 percentage, per se, but we are a very diverse
9 union. Anytime we do demolition or
10 deconstruction operations of existing buildings
11 that have these ladders. We do environmental
12 remediation, hazardous waste, lead removal, dust
13 containment, asbestos abatement, any nuclear
14 facilities that are pretty old. DOE and NRC
15 sites have these fixed ladders. Chemical
16 manufacturing plants. We're in there going
17 remediation, a lot. Shut downs, anytime there's
18 a shutdown, the laborers in the building on the
19 union jobs. And then also, anywhere there's a
20 permanent structure that has these cages on
21 water tanks, industrial towers, and buildings.
22 As far as percentages, I have no idea how to

1 track that, but I know we're on all those
2 different jobs where they exist.

3 MR. ZETTLER: Okay, thank you. And
4 have you received any reports from any members
5 that expressed difficulty in using personal fall
6 arrest systems or ladder safety systems or
7 attaching to them incorrectly?

8 MR. PARSONS: No. From apprenticeship
9 all the way up, they get the training on how to
10 use these systems. And it's engrained in them
11 from day one, once they achieve their
12 apprenticeship, and then they become journeymen
13 and women out there. They're used to using
14 these every day, if it's part of the job.

15 MR. ZETTLER: Okay. And do members
16 indicate any preference toward using cages,
17 wells, ladder safety systems, or personal fall
18 arrest systems while climbing fixed ladders?

19 MR. PARSONS: Yeah, as previously
20 stated, they would want to use the safest
21 method, which would be the PFAS or the ladders
22 safety systems or a combination of, and not rely

1 on the cages that simply aren't fall protection,
2 in my opinion.

3 MR. ZETTLER: Okay, thank you. And on
4 the questions I asked, if you have any survey
5 data you could admit to --

6 MR. PARSONS: Yeah, we'll look into it,
7 see if we can find it, and provide it in the
8 post-hearing comments. No problem.

9 MR. ZETTLER: Okay, perfect. That
10 would be highly appreciated. That is all the
11 questions I have.

12 MR. PARSONS: Thank you.

13 MR. CHICCA: Thank you again, Mr.
14 Parsons. Your Honor, that's all OSHA has.

15 JUDGE MORRIS: Solicitor?

16 MR. PARSONS: Thank you.

17 JUDGE MORRIS: Wait a minute.

18 MS. ZAVISLAN: Thank you for your
19 testimony. This is Tessa Zavislan with the
20 Solicitor. I'd like to ask you the same
21 question I asked of the previous two witnesses
22 about Petitioner's comments that stated that

1 additional reinforcements are needed on fixed
2 ladders or structures to accommodate the forces
3 of arresting a fall. Do you have any data you
4 can provide on how often and when this is
5 required from your members?

6 MR. PARSONS: I don't know if I have
7 data per se, but I know that's a responsibility
8 of the people on the job, like the qualified
9 person and the competent person on the job.
10 That's a requirement on the job, there, and
11 somebody's doing that work on behalf of the
12 employer, to protect the workers across the
13 country. So, they would rely on that data from
14 the employer.

15 MS. ZAVISLAN: Understood. Thank you.
16 And you have discussed that your members work
17 in infrastructure and construction. Could you
18 please expand on the types of industries that
19 your members work in?

20 MR. PARSONS: We work in about every
21 industry. So, anything construction related,
22 anything energy related, heavy highway, and then

1 we also do a lot of remediation work and
2 environmental safety. Any of the energy sector,
3 any shutdown work, laborers are usually there
4 during the remediation, and then also inside
5 plants. We're all over the place. We're a
6 very, very diverse union.

7 MS. ZAVISLAN: Understood. Thank you.

8 Are you able to provide any information about
9 the conditions in which your members climb fixed
10 ladders over 24 feet?

11 MR. PARSONS: I'd have to look into
12 that, and then provide that in post-hearing
13 comments, to be precise.

14 MS. ZAVISLAN: Thank you. We would
15 appreciate that. And then you had previously
16 mentioned the lifespan of a ladder might be
17 about 50 years old. Is that correct across
18 these industries?

19 MR. PARSONS: Oh, yeah. They might
20 even last longer. Who knows. I mean, I don't
21 know if you've ever climbed a ladder, but these
22 ladders in these industries are old and they're

1 substantial. They're not going anywhere. I
2 think they might even last longer.

3 MS. ZAVISLAN: What kind of factors can
4 affect their lifespan across these industries?

5 MR. PARSONS: Oh, exposure to
6 contaminants, use, if there's been somebody fall
7 before, any struck-by incidents that occur with
8 the ladders, how much material is going up and
9 down, the integrity of the rings or rungs.
10 There's a lot over that time span that can
11 affect the integrity.

12 MS. ZAVISLAN: Understood. Thank you.
13 And you discussed injuries that occurred on
14 fixed ladders with cages, can you provide any
15 information about injuries that occur when a
16 fall is arrested by a ladder safety system or a
17 personal fall arrest system?

18 MR. PARSONS: Yeah, like I said, we
19 don't really track that, but I can give you some
20 anecdotal information. I think some previous
21 commenters underestimate the forces involved
22 when you fall. Even though you have a cage

1 behind you that may or may not catch you, you're
2 bouncing off it like a ping pong ball. One of
3 your limbs will get stuck, and your body weight,
4 along with the gravity and however much momentum
5 you've already gotten from however far you're
6 falling in feet, it's going to rip your arms
7 off, or at least break your arm. Anecdotally,
8 these falls that are happening with the cages
9 just cause injuries.

10 MS. ZAVISLAN: Thank you. And when an
11 individual uses one of these fall protection
12 systems, are there any injuries that you're
13 aware of that occur?

14 MR. PARSONS: Not that I'm aware of.
15 Not near the amount of injuries with the cages.

16 Like I said earlier in my testimony, when used
17 correctly with proper training and proper fit,
18 these fall protection systems stop you almost
19 instantaneously, within inches. So, those
20 injuries, if they do happen, are definitely way
21 less.

22 MS. ZAVISLAN: Perfect. Thank you.

1 And if you do have any data about individuals
2 who did report injuries, we would welcome it in
3 your post-hearing comments. That's all from the
4 Solicitor. Thank you, Mr. Parsons.

5 MR. PARSONS: Thank you.

6 JUDGE MORRIS: All right. Wait a
7 minute, one more. Are there any questions from
8 the public?

9 MS. JOHN: No questions from the
10 public, Your Honor.

11 JUDGE MORRIS: All right. Thank you,
12 sir, for your testimony.

13 MR. PARSONS: All right. Thank you.

14 JUDGE MORRIS: It's my understanding
15 that we're now at the end of all scheduled
16 witnesses for today, is that correct?

17 MS. JOHN: That's correct, Your Honor.

18 JUDGE MORRIS: Very well. Following
19 the hearing, there will be two separate periods
20 for submitting additional information. Hearing
21 participants may submit additional evidence or
22 data relevant to the proceedings within 30 days

1 of the end of the hearing. Participants then
2 have until 45 days after the end of the hearing
3 to file any briefs based on the record as a
4 whole. The purpose of having these two periods
5 is to allow for the submission of new data in
6 evidence and to include additional responses to
7 questions posed at the hearing, and then have a
8 period that allows participants to respond to
9 that new evidence. Therefore, new data,
10 studies, or similar evidence may not be added
11 during this second period, and commenters should
12 reference the docket ID number for any evidence
13 they rely on in their briefs. Today is August
14 24th, 2026, so the deadline for submitting
15 additional evidence or data is September 23rd,
16 2026, and the deadline for submitting briefs is
17 October 8th, 2026. At that point, the record
18 for this hearing will close.

19 This public hearing on the proposed
20 rule on OSHA's walking working surfaces standard
21 is concluded. Let the record show that all
22 persons and organizations who filed a timely

1 notice of intention to appear have been extended
2 the opportunity to do so. Let the record also
3 show that in every instance following the
4 presentation of oral comments and testimony, an
5 opportunity has been extended for questioning of
6 the witnesses by notice of intent to appear
7 filers and members of OSHA's panel. On behalf
8 of the Department of Labor, I wish to publicly
9 thank all those who gave of their time and
10 testimony to contribute to this hearing today.
11 To all participants, thank you for your interest
12 in this important matter. This hearing is
13 hereby adjourned. Have a good day.

14 (Whereupon, the above-entitled matter
15 went off the record at 3:40 p.m.)
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22

1 C E R T I F I C A T E

2 This is to certify that the foregoing transcript
3 was duly recorded and accurately transcribed
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	303:20 309:11	88:13,19 89:1,2,9 125:12 198:7 199:7 219:10,13 223:15 244:3,17 245:20 253:9,14 271:4 276:19 277:15 302:17 303:20 309:11
\$	1900s 239:6	21 57:7,12 100:7 109:22
\$1 33:21	1910.27 219:15	219 254:21
\$10,000 48:5 49:1 83:12 228:15	1910.28 252:19	23 18:6
\$15,000 179:2 180:20,22	1911 128:14	23rd 321:15
\$2,000 181:7	1917 67:12	24 16:17 26:19 28:15 33:19 40:19 42:13,22 48:17 53:9 54:4 56:18 64:1,21 66:22 67:11 80:2 82:10 126:16 129:19 180:2 181:14 192:4 194:12 196:1 201:4,20 202:4 203:4 205:6 207:18 208:13 211:13 213:17 218:1,4,7 219:4 224:3 238:15 239:16,22 246:4,11 247:8 250:19 252:7 256:1,7 264:15 271:7 274:6 279:5 295:3 312:13 313:5 317:10
\$20,000 179:2	1926 67:9	24-foot 126:22
\$25,000 180:21,22	1950s 272:20 277:13	24th 321:14
\$3 48:2 80:16,19 81:18 88:21 89:8 155:3	1970 277:9 309:4	25 274:7
\$3,000 181:7	1970s 78:22	25,000 54:4
\$50,000 48:4 83:13	1972 65:7	25- 107:15
\$55,000 33:22	19th 219:8	26 107:22 254:22
	1:00 167:22	28 267:7
1	2	2:00 298:12
1 12:12 13:17,19 45:14	2 13:22 14:8 33:21 46:15	3
1,000 16:8	2,000 308:16	3 14:6,11,15 42:19
1,020 200:16 214:17	2,500 308:17	3- 155:13
1,034 254:16	20 101:19 190:5 194:8 197:6 241:4 244:9 245:9,12,14 252:4	3.1 252:3,6
1.3 265:3	20-foot 45:10 252:16	30 92:4 97:13 106:16 128:5 181:15 182:20 190:22 244:9 245:15 252:7 260:4 320:22
1.4 250:17	20-year 133:11 156:18 244:16 253:13 303:19 308:18	30- 180:20
10 57:8 230:22 233:18 244:9 254:1 301:17	2010 49:13 66:4 68:12 90:8 92:14,16 93:4 108:16,19	30-feet 178:20
100 86:15 149:12,15,20 194:8 220:14 275:19	2016 13:9 16:13 47:17 53:5 63:15 65:4 66:6,19 70:13 80:15 88:11 92:21 95:8 98:19 151:4 201:21 244:12 245:9 251:21 252:10 253:7 254:21 256:3 276:18 303:14 308:19	300 78:7
100% 294:12 295:16 297:18 299:8 312:18	2017 224:4 277:11	300-foot 108:7
12 42:19	2018 219:8 224:7 252:17 253:3	32.2 144:11
120,000 248:13	2020 220:13 254:19,21	328,000 252:6
12:16 167:21	2021 206:11,12	
130,000 257:9	2023 131:19	
14 42:18	2024 254:15	
15 220:1	2026 253:12 321:14,16,17	
150 232:4	2036 21:9 25:8 34:11 39:5 49:2 55:4 70:12,21 79:19 81:7 87:21	
16 144:12 162:13,20 277:5		
161 220:15		
18 271:4		
18th 245:20 252:17 302:17		

35- 108:9**36,000** 128:16**360** 103:10 146:12**360-degree** 103:4**3657** 270:4**389** 254:15**3:40** 322:15

4

4 14:7,12,15**4,000** 42:21**40** 48:13,17 92:4 181:15**40-feet** 180:20 182:20**40-foot** 45:9**400-** 108:6**45** 321:2

5

5 56:7,8,11**5,000** 155:14 308:16**5-** 228:15**50** 16:9 21:5 92:5 106:16 198:20
199:2,10,13 220:15 304:5 317:17**50s** 239:5**540,000** 302:9**55,000** 155:10**55-foot** 108:9**580,000** 311:13

6

6 234:13,16**60** 220:15**600** 28:6**64** 277:5**65-foot** 107:15

7

7,000 274:8**70** 304:5**75** 199:2**75-foot** 107:16

8

816 254:20**8th** 321:17

A

A1048 204:21**A14** 202:17**A14.3** 163:14**abandon** 44:15 63:19**abandonment** 203:2**abatement** 313:13**ability** 179:8 297:8**above-entitled** 167:20 322:14**absence** 78:8,9**absent** 270:15**absolutely** 109:18 140:3 141:19
143:17 144:17 146:10 166:6
207:14 208:8 209:17 237:19
299:4,5 302:16 311:3**absorb** 20:21,22**ACC** 54:3 157:12**acceleration** 148:1 227:16**acceptable** 134:6,10 203:18
205:7 271:12 275:8**accepted** 133:11 168:12 241:22**access** 16:20 18:21 19:4,10
25:19 27:3 45:2 69:17 73:16
84:17 121:5 141:8 170:8,10 174:5
175:4,17 183:2 190:10 191:18
221:9,20 224:13 255:14 262:14
264:9,10 294:5 303:3**accessed** 72:20 173:21**accesses** 19:14**accessing** 69:19 112:4**accident** 134:22**accidentally** 17:20**accidents** 247:12**accommodate** 192:6,9 264:4
292:12 303:21 316:2**accommodates** 46:19**accommodating** 212:13**accompany** 60:4**account** 85:21 134:19 183:16**accounted** 244:15**accounting** 55:15 175:10**accurate** 10:1 12:7 65:5**accurately** 15:9**accustomed** 10:11**achieve** 81:18 89:11 90:5 169:14
314:11**achieved** 90:6 204:14**achievement** 58:22**acid** 239:3**acknowledged** 252:11**acknowledging** 242:12**act** 161:12 173:8 271:14 277:9,19
297:15 309:4**action** 46:16 72:10 219:18
223:18,21 307:6**actions** 46:15 274:20 281:14,16**active** 50:8 68:8,9,16 69:6 72:12,
18 73:8 132:2 150:13 151:1 204:3
205:7 282:14 304:1 305:1 306:3**actively** 50:10 73:1 74:10,20
271:19 304:10**activities** 43:6 47:11 263:1**activity** 173:18 230:19 253:18
276:6**actual** 25:11 39:8 55:7 125:15
138:8 155:6,8 174:9 295:9**adapt** 118:2

add 37:4 76:6 83:19 137:6 140:19 143:5 148:6 150:3 162:4 181:17 185:13 190:6 195:8 232:20 281:7 284:19 297:3 298:2	advise 191:4 218:9 219:1 235:5	airbags 161:22
added 34:4 71:4 118:21 179:16 321:10	advising 235:1	airports 250:22
adding 38:1,3 92:16 175:21 181:2 221:7 233:9,15	advisor 28:3 217:1	alerts 51:19
addition 10:7 13:1 173:10	advocate 250:14 266:2 289:5	align 21:12 138:20
additional 24:10 27:1 33:18 37:12 45:3 47:6 53:19 61:9 62:7 85:13 90:14 121:7 124:10 130:22 136:2 138:11 139:19 157:15 158:7 181:8 184:10,18 185:3 186:6,9 210:5 212:9 226:16,20 233:8 248:20 252:12 264:2 292:10 296:11 316:1 320:20,21 321:6,15	advocating 106:12 266:9 286:5	aligned 152:11
address 34:10 70:13 133:2 147:1 148:22 157:1 171:18 172:16,18 214:15 230:2 237:6 282:15	aerial 61:12 232:10	aligns 204:19
addressed 150:10 174:13 282:12	aerospace 63:6	allowed 19:13 90:7
addresses 152:10 227:5	affect 31:15 201:13 213:22 238:14 318:4,11	allowing 34:7 176:15 204:13 275:4
addressing 132:13 256:9	affected 16:10 63:12 73:15 80:10 261:10	alongside 49:12 81:21 106:18 270:20
adds 170:12	affecting 166:3 213:19	alternative 21:6 45:9 48:16
adequate 163:6 172:2	affiliate 257:8	alternatives 93:8 137:17
adequately 70:13 163:2	affiliated 302:7	aluminum 166:10 238:21 270:10
adjourn 167:16	affiliates 256:21	amazing 206:22
adjourned 322:13	affiliation 15:6	America 200:20 250:18 262:3 270:9 301:7 302:3,6
Administration 242:15	affixed 101:4	America's 28:7
administrative 175:5	AFPM 50:18 52:12,19 54:3 98:7 110:20 118:19 122:11 123:15 157:12	American 27:15 28:4 42:1 128:2, 19 132:13 250:2,15
admit 315:5	AFPM's 53:12	Amortized 308:18
adopt 203:20 205:6	AFSCME 250:14,17 251:12 262:2	amount 133:13 151:15 244:18 319:15
adopted 65:13 133:17 201:13	afternoon 11:9 169:9 188:5 200:12 226:22 242:3 248:1 266:16 301:12,21	ample 254:2
adoption 65:17 134:1	age 272:21	analog 140:15
advance 128:22 153:22 215:18	agencies 128:21	analogies 161:20
advances 130:5,7 133:15	agency 129:13 202:1 205:4 253:8 303:18	analysis 11:8 25:6 39:3 54:14 55:2 69:5 72:16 79:2 125:10 130:2,13,19 131:1 132:1 134:17 136:4,16 139:21 308:21
advancing 302:4	agency's 72:16 129:6	analyzed 158:21 307:12
advantage 69:10	agendas 168:14	analyzing 158:2
advantages 208:21	agility 104:13	anchor 284:11 285:17 300:11,12
advice 107:6 217:3	agree 172:8 225:9	anchorage 178:19 204:16
	agriculture 63:7 84:20	anchorages 202:20
	ahead 97:13 147:14 156:19 157:22 169:7 197:22 234:19 239:19,21 269:22 301:19	and/or 79:20 85:15 212:11
	ahold 299:12	anecdotal 17:6 256:20 310:22 318:20
	airbag 105:18	anecdotally 113:12 150:17 178:1 283:17 319:7

- anecdotes** 260:14 263:5
- annexes** 83:19
- announcements** 14:19
- annual** 162:22 165:5 289:17
- ANSI** 150:12 152:9 163:14 202:16
- ANSI-ACCREDITED** 128:18
- ANSI/ASSP** 127:13 131:17 136:13 204:20
- answering** 10:9
- answers** 23:12 118:10
- antenna** 107:9 207:22 214:8,9,11
- antennas** 212:19
- anticipated** 244:22
- anticipating** 112:13
- Antonio** 270:3
- anymore** 214:10
- anyone's** 269:2
- anytime** 313:9,17
- API** 28:5,6 34:11,18 50:19 54:3 157:12
- API's** 28:8
- apologize** 233:2 260:5
- appeared** 274:17 307:3
- Appendix** 110:4
- application** 230:18
- applications** 150:2
- applied** 166:16 227:11,21
- applies** 218:1
- apply** 141:6 158:12 174:22
- applying** 296:17
- appreciated** 79:16 124:1 183:19 223:10 315:10
- apprenticeship** 314:8,12
- approach** 29:4 48:20 93:8,22 94:1 120:18 155:19 157:7 173:15 174:7 176:13 192:20 193:3 195:15 198:9 203:8,20 204:19 218:16
- approaches** 130:9 133:20
- approvals** 24:22 38:18 54:18 125:4
- approximately** 10:16 47:22 49:1 224:1 252:3
- arbitrary** 21:10 67:19
- area** 33:1 69:17 240:11,18
- areas** 16:22 61:13 173:18 214:4, 13 221:16 241:5 261:19 262:20, 21
- aren't** 301:18 315:1
- argue** 119:14 154:15 156:5 308:6
- argued** 271:17
- argument** 162:2
- arise** 12:11 173:11
- arises** 111:19
- arm** 319:7
- arms** 74:18 79:12 103:7 104:7 161:8,14 275:11 319:6
- arrest** 17:11 18:10 22:6,12 23:4, 16 24:7 29:5,8,20 30:5,21 31:15 32:6,20 33:3 34:2 35:10 36:1,14 37:2,9 42:14 43:17 44:7,18 45:5, 18 46:1,12,18 47:19 48:7 49:10, 12 50:4,9,15 51:9 52:1,14,19,22 53:16 57:20 59:7 63:13 64:6,12, 20 66:12 68:3,16 69:7,14 70:1,5 71:8 72:2,7,8,18 73:9 74:4,11 76:8,21 78:1 80:1 82:1,13 84:4 85:12,19 86:9,13,18,21 88:16 90:10 91:1,11 93:14,21 95:4,15, 19 96:12,20 98:9,18 99:1,5 100:5, 22 101:6,9 102:4 105:3,18,21 106:3,14,19 108:15 112:20 113:9 115:9,13,16 116:9 118:3 120:20 122:19 123:5,16 124:8 129:18 133:19 135:8,13 136:6,9 137:2,7, 14 141:21 142:1,19,20 143:2,16 145:2 146:20 148:4,8,19 149:4, 11,13,14 151:8 152:5,10,22 154:14 157:14 158:3,9 159:21 160:6,10,12,17 161:2,4 177:2 183:14 184:17 185:12,22 186:17, 19 187:2,16 192:10 201:6,9 202:2 203:12,18,22 205:18 206:10,15 207:1 208:22 210:3,9,22 211:14 212:8 224:2 225:20 226:15 228:7 229:4,8 230:16 231:10,16 235:3 236:10 237:18 239:14 246:16 248:6 252:21 253:4 255:6,13,17 256:6 257:5 258:2,8 259:9,19 261:13 264:17 265:10 271:6,18 273:5 275:2,12,16 276:11 277:7 279:11,21 280:12,17 282:2,9,19 283:14 284:5,10 285:16 286:4 287:6 293:5,12,15 296:5 299:6,19 300:1 302:19 303:10 304:1 305:12 306:3,4 307:11 308:3 309:8 310:2,5,21 311:22 312:4 313:5 314:6,18 318:17
- arrested** 102:3,8 105:2 142:11 143:8 278:17 318:16
- arresting** 23:5 36:2 51:10 78:2 85:13 103:19 123:7 142:8 157:15 184:18 185:3 212:9,13 226:16,20 264:4 292:13 306:9 316:3
- arrests** 50:11 101:2 227:14
- arrives** 120:8
- art** 154:1
- articles** 51:14 52:5
- asbestos** 313:13
- ascend** 31:18 295:10
- ascending** 151:19 263:2
- aspect** 172:15 230:10
- aspects** 68:6 156:8 193:21 198:14
- asserted** 309:21
- asserting** 265:6
- assertion** 157:17
- assess** 156:17 292:21
- assessing** 128:6 287:10
- assessment** 61:9 163:6 176:1 192:19 193:2,18 198:9 211:17 266:4 287:9 295:18
- assessments** 139:3 180:1,5 198:6 261:21 266:3 287:14
- assignments** 270:16
- assisted** 80:5
- assisting** 250:9
- association** 15:21 16:2 58:19 114:5 124:22 200:8,16

ASSP 128:3,11,13,14 129:4
130:13,14 131:2,11 132:12
150:11 156:15,21 157:3

ASSP's 131:9

assume 169:4 189:17

assuming 185:7 197:10 198:21
234:7

assumption 104:11 196:12

assurance 71:5

atmospheric 25:1 38:20 54:19
125:5

atomic 270:13

attach 50:11

attached 76:12 101:8 115:12
306:7

attaching 172:7 258:10 282:21
314:7

attachment 46:19 111:14 237:22
238:4

attachments 111:16

attack 67:8 72:4 74:22 274:22
278:12

attempt 277:11

attended 11:4

attending 270:16

attention 113:16 171:5 220:6
244:2 245:4

attributed 51:21,22 57:12

audit 288:7

auditor 250:12

August 321:13

authority 242:16

authorized 281:15

automatic 72:22

automatically 29:11 44:1
271:22 294:14

automobiles 162:1

avail 137:8

average 228:9 308:17

avoid 52:22 98:4 240:9

avoided 154:18

aware 17:7 52:4 86:10 151:4
197:3 278:16,19,22 280:16 282:4
290:18,21 293:8 319:13,14

awareness 196:20

awkward 178:7

Ayala 270:3

B

back 23:18 24:4 25:14,22 38:11
65:7 76:17 93:3 95:5 97:8,10,15
111:7 118:18 147:4 161:5 177:14,
18 184:11 191:12 209:4 238:1
256:17 277:11 305:8

background 158:1

backpack 229:18,20 230:8
237:13

backward 274:19

backwards 303:1 304:13

bad 278:22

balance 170:21 196:22

balanced 132:19 155:22

ball 319:2

ban 64:13

bang 76:10 106:2

banging 76:11,12,13

banning 93:13

Barbarash 250:4,7,8,11 256:16
257:6 258:4,11 259:11 260:3,21
261:8,22 263:11,21 264:8,19
265:3,18,22 267:3,13 268:1,10
269:6

barely 147:8 197:7

bargaining 270:17 298:6,10,14

barrier 307:15

barriers 141:5,7

bars 196:11 297:9 304:18

base 12:8 276:3

baseball 298:18

based 28:11 33:19 34:20 47:21
60:11 79:1 130:12,17 134:11

137:20 138:4,14 144:10 155:2
174:9 175:22 192:19,21 193:2
197:9 248:4 255:16 278:14 284:7
321:3

baseline 25:4 39:1 54:22 125:8
175:3

basic 170:17 259:4

basically 74:1 109:17 194:19
275:8 284:18 291:16 293:22

basis 65:11 84:17 88:8 108:20
131:12 137:10 289:16

bear 24:20 109:1

beauty 92:13

began 196:5

begin 15:17 119:13 169:19 197:5
232:22 242:12 299:16

beginning 10:8

behalf 15:20 28:4 49:8 56:6 63:3
84:7,19 128:12 129:7 157:11
184:15 200:21 212:5 226:12
242:6 296:3 309:9 316:11 322:7

behave 303:11

behavior 143:19 162:7

belief 120:11 275:1

believed 99:2

believes 16:14

belittle 101:17

belts 46:2 161:22

Bench 42:4 110:22 111:5 118:18,
20 119:1,4 122:16,21 123:8,19
124:2,13,17 125:20 126:8,19
127:2,10,11

benchmark 242:22

bends 164:8

beneficial 171:8

benefit 33:9,16 71:10 81:17
119:22 122:8

benefits 21:2 68:21 121:11
156:17 308:4

benefitted 156:10

bet 87:4

big 73:12 83:10 84:22 219:15

biggest 185:16 238:17**billion** 33:21 48:2 80:16 88:21
89:9 155:3**billion-dollar** 80:19 81:19**billions** 63:21 308:8**bin** 83:9**binding** 272:13**bit** 50:16 52:11 77:16 83:16 85:7
86:14 91:6 115:20 141:18 142:21
153:12 163:4 177:12 178:4
184:14 189:10 216:15 218:20
235:4 238:12 240:19 305:3
306:21**bleeding** 260:12**Blicksilver** 11:10 180:14,15,16
181:12,13 182:1,18 183:7,8 184:9
186:13,14 187:14,20 211:10
212:2,4 213:2,4 225:16 226:4,11
228:5 229:1 230:13 231:7,21
233:3 247:19 261:6 262:16,17
263:13 286:13,14 290:9,10 292:1**block** 288:2**BLS** 153:9 254:14,18,19**blue** 92:22**blunt** 274:22 305:20**board** 70:7**Bob** 11:10 180:16 181:12 182:1,
18 183:7 184:9 186:13 211:9,10
212:4 225:15,16 228:5 229:1
230:13 231:7 247:18 261:5,6
262:17 286:13,14 290:9**bodies** 206:21 252:10 305:19**bodily** 274:19**body** 103:10 106:1 135:10 142:6,
11 172:4 190:12 197:4,10,16
210:10,13,15,19 211:3 254:10
268:15 279:8 283:8 284:11
285:17 306:7 319:3**bolted** 20:11**bolting** 24:11**bones** 254:8 259:21**bottom** 15:16 142:9 146:14
172:9 185:20 197:14 198:1
209:18 221:3 289:7 306:1**bouncing** 319:2**brace** 104:21 145:13,16**brackets** 221:2,6**brand** 188:13 246:8**brand-new** 95:14**break** 24:5 37:8 53:14 124:6
226:8 288:9 319:7**breakdown** 183:18 187:11**breaking** 98:10 254:8**bridge** 294:21 295:1**bridges** 243:6,17 248:11 250:22
308:2**briefs** 321:3,13,16**bring** 132:7 220:4 244:5 249:8**bringing** 229:16**brings** 220:6**British** 75:4**broad** 84:9 159:2 228:17**broadcast** 221:17**broader** 204:20 260:15**brochure** 258:20**broken** 259:21 260:10,11 305:21**brother** 270:15**Brotherhood** 241:19 242:6
245:19**brothers** 270:21**brought** 143:9 245:17**BRS** 242:7 245:6**bruises** 75:20**bubble** 101:12**budget** 244:19 253:17 262:6,15**build** 200:19 302:10**building** 183:2 191:1 214:19
215:13 217:3 240:1 267:8 279:12
313:18**buildings** 214:12 216:10,11,21
218:14 240:7 250:21 313:10,21**built** 43:21 121:19 243:16 277:13**bulkier** 186:11**burden** 170:22 218:3 266:12
308:8**Bureau** 220:12**business** 235:15**businesses** 21:4 63:4 200:17
204:8**buy** 182:8**buying** 20:7 172:6**Byrne** 15:11,20

C

cable 217:19 221:7 236:13 238:3,
7 306:6 308:15**cage** 16:15 17:5 30:19 33:1
44:18,21,22 45:5 50:14 57:21
60:1 61:17 64:22 67:1 72:5,12
74:18 75:14,15,21 76:2,3 79:11
88:2,14,17 95:1,6 97:6 100:3,8
102:18 103:3 104:6 109:4 110:2
114:17 118:3 120:14,15 135:8,11
136:22 140:16 141:17 142:9,19
143:11,15 145:8,11,17 146:14,18
147:1,17 151:13,15,18 160:18
161:4,9,11,13 162:19 177:4,6,10,
19 178:3,11 186:15,22 187:9
188:9,16,21,22 189:2,4,5,20
190:16 192:3,14,15 195:5 196:12,
14 197:12,21 201:8 206:22 209:1,
4 210:14,17 217:12 219:10
224:14 228:20 229:15,21 230:4,7,
11,16,22 231:12,19 232:1,21
237:12 238:5 252:18 254:7,10
259:18,22 268:6 271:11 273:1,3
274:15 276:14 277:6 278:13,17
299:12,20 303:9,12 304:16 305:5
306:13 307:2 308:4 318:22**caged** 28:12 43:11,14 46:16 49:4
50:22 51:21 52:20 56:21 127:1**cages** 16:15,19 17:3,9,13 19:7,13
21:7,15 22:5,11,16,20 23:2 25:18
26:16,18 27:5 28:13,18 29:9 31:3,
19 32:4,16,21 34:7,15,22 35:9,15,
21 37:21 40:16,18,22 42:15 43:1,
20 45:7,11 48:12,15 49:11 50:1,3
51:5,7 53:6 56:16 57:9,13,18
59:7,11,16 64:3,13,14 65:9,14
66:2,7,14,16 67:4,11,13,15,19
68:2,11,18,20 69:4,10 70:9,19

71:13 72:1 73:22 74:14 75:18
 76:20 77:11,21 78:12 81:20 82:13
 88:9 90:8 91:6,8 93:13,20 95:14,
 21 96:17 106:12 119:19,22
 121:15 122:18 123:4 126:14
 129:22 130:10 133:21 134:5,8
 136:20 139:22 141:1,13 146:4,12
 147:11,12 148:17 151:6 153:2
 160:1,8 172:8 191:22 192:8
 194:22 201:5 202:3 203:17,21
 204:4 205:6,20 206:8,15 208:14,
 19 210:1,5 212:20 224:6,9 229:5,
 6,12 232:16 240:15 246:5,6,10
 250:20 252:9 253:2,6 255:3,9
 259:7 260:2,8 265:6 266:20
 271:17 273:7 275:10 276:1 277:3
 278:14 283:13 284:3 296:9 299:3
 302:18 303:7,16 304:3,9,14,22
 305:6,10,18 306:20 307:14 309:6,
 22 310:20 311:8,21 313:20
 314:16 315:1 318:14 319:8,15

calculated 294:9

call 156:22 216:16 225:2 278:20,
 22 288:6 298:12

called 15:5 224:22 271:11

calling 222:4 291:5

camera 15:13 27:20 42:6 127:17
 215:19

Candidly 86:7

cantilever 186:4 248:10

cantilevers 243:6,18

can't 262:13 310:16

capabilities 68:3

capability 22:6,12 35:11 50:4
 57:21 72:2 122:19

capable 252:9

capacity 258:12

capital 119:9 303:21 308:6

capture 142:15

captured 151:17

car 76:17

carabiner 46:11,16

card 153:10

cardiac 276:7

career 128:8

careers 120:3

carefully 61:14

Carey 63:2

cargo 18:12

carrier 306:9

carry 19:11,19 121:17

carrying 229:19 293:19

cars 101:8

case 28:19 72:21 74:8 105:6,18
 169:1 211:12 237:17 265:14
 290:17,18 300:6

cases 122:7 172:12 173:2 203:5

casual 140:11

catch 75:2 76:1 79:13 103:4
 104:4,19,22 109:15 161:9 196:10
 304:12,18 319:1

catches 74:19 196:13

catching 75:20 103:8,12,19
 104:20 305:17

categories 261:11

categorizes 25:7 39:3 55:2
 125:10

catwalk 241:6 293:22

caught 50:14 76:2 104:3,4,8
 162:19 197:11 229:20

caused 70:13 251:9 254:22
 267:19,22

causing 277:22 304:20

cautious 203:7

cell 221:16 240:3

cement 270:11

center 45:22 272:4

centers 285:13

central 129:16

century 128:22

certified 128:5 169:11 204:16
 250:11

cetera 82:18

chain 16:5

chain- 285:6

chair 63:1 128:10 131:11,17

challenge 144:20 170:21 179:13
 185:16

challenged 296:3

challenges 60:5 115:7,14 157:1
 171:18 173:12 202:22 204:9
 276:16,22 283:2

challenging 144:16 259:4

chance 19:16 34:17 146:6

chances 299:17

change 13:7 19:17 45:15 53:4
 54:6 169:3 193:18 203:8 219:9
 275:6

change-out 249:7

changed 193:18

changing 240:15

characterize 287:3

cheater 297:9

check 41:5 180:4 264:9,20

checking 163:16

checklist 288:11

chemical 83:4 84:14 119:11
 120:4 274:5,13 280:3 313:15

chemicals 83:6 166:2 167:1
 183:6 270:12

chemistry 84:13

Chicca 10:19,20 11:9 21:19 22:1,
 3,10,21 23:7 24:17 26:3 35:5,19
 36:8 38:9 40:6 49:18,19 51:2 52:7
 54:11 55:21 71:18,19 77:15 79:6
 82:5 87:8 122:14 123:1,10 124:18
 126:1 139:15,16 141:9 142:13
 145:7 147:3 154:8 159:12 176:20,
 21 177:1,20 178:12 180:12
 187:22 206:3,4 207:9,15 208:3,9
 211:8 213:7 223:4,5 225:14
 234:3,4 246:2,12,19 247:1,16,20
 256:11,22 257:19 261:3,4 263:15,
 16 278:6,7 279:2,15 281:17
 286:11 292:5 309:17,18 310:15
 311:6,20 312:6 315:13

choice 70:4,6 90:17 91:3 96:2,5

- 108:1,2,4,8
choose 49:11 121:22
choosing 66:16 116:14
chose 188:15
Chris 242:5
Christopher 241:20
circle 111:7 118:18
circumstance 91:21 116:1,6,7 161:12 170:2 236:7
circumstances 33:2 64:7 70:3 91:9 102:1 224:21 248:21
cited 136:18 138:3 202:18
city 257:8,10 262:21 288:2
clarification 41:3 147:11
clarify 26:14 40:15 46:9 56:14 57:19 87:14 106:11 109:21 126:12 145:8 165:16 180:21 207:17 234:22 262:17
clarifying 57:2 90:14
clarity 205:12
classes 174:8,18
cleaned 20:14 239:1
cleanly 197:22
clear 12:7 89:17 110:7 119:13 130:3 168:13 169:5,7 172:7 173:6 175:8 178:9 179:5 204:22 223:12 267:18 271:8 305:6
clearance 219:22 220:1,2
clearances 163:11 284:16
clearer 176:2
client 97:21 218:3 219:2 237:1
clients 91:5 94:22 97:2 98:2,3 180:5 190:4 191:4 217:2,22 218:6 224:19 225:1 228:6,11 235:1,5
climb 19:12 30:7,8,16 32:5,8 37:22 38:6 41:1 43:4 44:1,3 46:4 68:22 69:2,11,15 97:8,10,14 103:16 105:9 108:7,9 117:21 120:18 173:10 191:14 196:5 200:18 201:15 212:18 230:1 239:10 245:14 246:4,10 270:19 274:3 284:22 285:6 304:7 312:10 317:9
climbed 28:19 105:12 232:4 317:21
climber 30:12 44:1 60:5 73:1 100:3,8 102:17,19 148:20 172:9
climber's 104:12
climbers 75:10
climbing 67:16 74:17 107:7,8 116:15,20 137:16 138:19 148:9 152:10,11,12 158:4,5 163:16,18,19 172:17 174:2 177:9,12,13 178:3,10 185:21 188:8,16,20 189:7,11 190:7,14,20 191:6 195:9 204:1 232:3 244:9 246:15,20 250:20 257:12 259:9 263:2,8 276:5 283:15 302:13,15 312:1 314:18
climbs 28:22 29:11 33:18 68:18 92:3 97:3 118:1 255:22
clip 265:16 272:6,7 287:5 300:8
Clipping 272:4
clock 118:22 277:12
close 14:2 182:9 218:22 246:22 321:18
closely 165:8 257:7
closing 21:14 34:18
coach 217:8 298:19
coalition 62:13 63:4,9 70:11,20 82:9 84:8 309:20
Coast 216:12,13
coastal 164:13
coated 238:22
coatings 166:15
code 218:8 219:14 222:15 227:10
codes 230:3
coffin 277:8
collaborating 140:5
colleague 11:16 12:2 122:16 147:5 154:10 234:22 237:11
colleagues 301:18
collect 256:19
collected 47:21
collective 307:4
collisions 306:11
column 274:15 298:4
columns 274:5
combination 314:22
combine 280:20 307:22
combined 299:9 312:4
combining 44:19
comment 21:17 22:7,13 35:11 50:5,7 56:19 57:6,10,22 72:11 93:10,12 94:16 99:16,19 100:1,11 110:3,6 112:17 153:7 157:11,17 161:10 180:18 184:14,22 208:17 212:5 226:22 227:5 278:10 293:4 296:2,4 311:5
commentary 140:20
commenter 98:7 161:7 306:19 312:17
commenters 22:4,10 35:9 50:2 73:4 122:17 159:20 177:1 229:2 240:14 318:21 321:11
comments 23:13 26:21 27:12 39:22 41:7 53:21 55:12,18 58:3 62:2 67:5 75:4 77:19 80:5 82:9,20 84:2,18 85:5 87:3 98:14 99:18 100:12 122:20 123:22 124:12,14,21 125:19 129:7 130:3,22 136:18 139:18 140:2 141:11 152:21 156:14,16 159:8 160:15 161:4 162:22 178:17 179:1 183:9 187:7 192:18 206:7 207:12,16 208:6 226:5,12 228:6 234:2 248:17 260:19 261:9 263:7 264:2,14 275:8 279:19 284:1 286:16 290:16 291:22 293:3 297:15 310:18 315:8,22 317:13 320:3 322:4
commercial 216:10,17 225:22 238:10 239:17 240:1,7,22 241:8
commercially 137:19
commitment 63:10 129:10 245:8
committee 127:13 128:11 130:14,18 131:3,12,18 132:10,12,14 136:1 137:21 138:4 151:5 152:19 158:19 165:2 204:21 281:10 282:14 284:15 286:18 298:7,10,14

- committee's** 131:21 133:1,5
134:8 136:11 138:14,19 139:12
- committees** 129:9 285:14
287:10 288:3 290:10,16
- commodities** 17:2
- common** 16:19 31:1 63:8 117:5,
16 149:11 164:19 177:20,21
231:6 235:15 238:20
- commonly** 137:4 202:18 252:7
- communications** 200:7,15,19
205:2
- communities** 298:16,18
- community** 78:18 79:3 93:1
- companies** 28:7 117:14 154:18
200:17 201:14
- company** 18:6 61:1 224:2
- company's** 312:22
- compare** 102:6 143:8 145:1
152:21
- compared** 155:7 162:16
- comparison** 136:5 228:19
- compatibility** 300:13
- compatible** 17:15,16 31:5,13
73:10 91:16 98:22 112:11 121:17
300:2
- compelled** 96:8
- competent** 196:19 281:12 313:1
316:9
- complain** 266:7
- complaints** 258:15
- complementary** 132:8
- complete** 12:6,13 13:22 14:9
105:8 150:7 261:20
- completely** 109:10 116:10
150:9,15 161:6 169:18 254:17
- complex** 45:19,21 171:19
- complexity** 121:7
- compliance** 21:9 34:11 47:3
70:12,21 80:15 129:17 133:4,6,11
134:3 175:3 198:7 199:1,6 200:14
201:3,19 203:1,13 205:9,19,21
219:19 223:16 233:1 240:17
245:21 251:5,14 253:18 258:14
271:5 272:14 288:7 308:18
- compliant** 19:14 42:16 64:3 66:8
70:20 81:21 90:9 112:9 119:20
163:13 175:9 191:2 217:15,20
219:21
- complicate** 204:5 208:20
- complicated** 255:10 266:7
- comply** 198:21 201:8
- component** 68:5 285:9
- components** 16:4 17:17,21 20:1
30:11,14,18 31:12 32:2 34:6 38:5
45:4 48:10,11 60:3,4 61:4 121:18
182:6,14
- compounded** 202:19
- comprehensive** 176:11
- comprehensively** 145:21
- compromise** 164:17 277:17
- compromised** 18:2 20:3
- conceivable** 199:14
- concept** 174:10
- concern** 17:18 18:18 20:5 31:14
63:17 71:12 117:17 178:5 203:16
228:1 237:4 243:10 288:21
300:14,15
- concerned** 16:11 18:9 19:18
30:20 171:4
- concerns** 13:7 29:7 71:11
214:15 293:6 300:3
- concluded** 134:14 136:19
141:12 321:21
- concludes** 55:21 87:9 126:2
188:1 292:5
- conclusion** 130:3 137:14 141:15
222:15 225:7 309:3
- concrete** 274:8
- condition** 179:7 220:5 227:8
242:17
- conditions** 48:11 165:20 173:19
174:17 175:12 193:15 240:21
268:2 287:11 290:12 304:8 309:5
317:9
- conducting** 140:12 225:21
- confidential** 180:6
- configuration** 189:4
- configured** 95:17
- confines** 160:7
- confirms** 47:20
- confused** 31:9 34:17
- confusion** 49:6 70:17 121:8
217:11 218:18 222:15 300:2
- congrats** 58:20
- conjunction** 177:10 178:3
- Conn** 62:18,20,22 63:2 71:20
72:14 78:4 80:4 82:19 83:21 84:6
86:6 87:4,7,12,19 89:20 90:1,3,
15,19 91:7 93:6,11 94:9,12,17,20
98:1 99:15 100:13 103:1,3 104:9,
14,17 106:11,17 109:5,8 110:15
111:8 112:16 113:10,16 114:6,9
115:5,18 117:2 118:5,11,16
157:11 184:15 185:9
- connect** 31:20 271:19 294:14
- connected** 18:19 72:20 200:20
- connecting** 44:2 190:10
- connection** 73:9 74:6 149:14,18
172:2 186:2 293:7
- connections** 293:5,14
- connector** 284:11 285:18
- connectors** 17:16
- Conn's** 296:2
- cons** 310:20
- conscious** 147:12 148:2 267:12
- consciously** 196:15 197:13
- consciousness** 75:1 102:21
109:10 116:10 147:18 267:2,12,
19,22
- consensus** 110:10 129:3 130:6
132:19 133:17 140:7 252:15
- consequence** 172:17 203:3
- consequences** 69:8
- conservative** 203:8
- conservatively** 48:2
- considerable** 149:5
- consideration** 146:13 166:5
187:6 194:1,15,16

- considerations** 131:5
- considered** 134:6,17 136:16
138:2 202:1
- considers** 173:16
- consistency** 120:1,14 121:10
122:7 235:11
- consistent** 74:2 91:14 120:12
- consistently** 29:13 44:13 101:16
129:5 136:19 137:13 141:12
- constant** 144:11
- constructed** 277:13
- construction** 47:7 67:10,16
150:2 165:10 171:19 249:6,12
254:14,16 311:15 316:17,21
- consultants** 132:16
- consultation** 82:16
- contact** 76:2 142:2,16 143:4
196:7 203:11 254:11 291:9
- contacted** 164:4
- containment** 304:11 305:1,4,10
313:13
- contaminants** 318:6
- contamination** 99:20 303:5
- context** 101:21 166:2
- context-dependent** 230:20
- contextual** 233:22
- continue** 16:15 21:7 28:13 61:11
64:2 65:20 77:12 119:19 134:20
138:17
- continued** 129:10 134:1,18
176:8 216:3
- continues** 135:22 243:21
- continuing** 139:9
- continuous** 16:6 46:8 81:20
173:7
- contort** 197:11
- contract** 43:3 138:12
- contractor** 15:2 30:21 44:6
98:20 110:22 119:7 173:22
175:14
- contractor's** 119:21
- contractors** 18:9,11 20:19 28:20
31:1,6 34:19 91:22 121:6 122:5
200:7,15 212:17 275:21 302:7
- contrast** 18:3 30:18 48:12 52:4
152:21
- contrasting** 51:15
- contribute** 25:5 39:2 55:1 70:17
125:9 322:10
- contributed** 132:11
- contributes** 165:4
- control** 16:21 22:12 29:13,16
44:11,16 72:2 90:4 122:19 205:17
281:4 303:8 307:4,5,8
- controlled** 22:6 35:10 50:4 57:20
61:14 135:9,13 174:17 276:3
295:4
- controls** 30:3 43:20 49:22 61:10
140:21 175:6 176:6 276:21
284:20 285:13 296:17 306:19
307:2,13
- convenience** 122:7 303:1
- conversely** 64:12
- coordination** 268:18
- copies** 14:4
- copy** 12:15 14:6
- copying** 13:1
- core** 309:3
- corner** 15:16
- coroner's** 274:21
- corporate** 303:1
- correct** 18:16 53:10 59:4 62:15
104:11 121:4 145:15 186:8
247:18,19 249:4 267:21 317:17
320:16,17
- corrective** 281:14,16
- correctly** 17:19 29:17 30:6 44:13
72:20 303:16 304:22 310:10
319:17
- corrode** 164:15
- corroded** 96:10
- corrosion** 18:5 165:21 284:17
- corrosive** 166:13 167:1 239:2
- cost** 20:6,22 25:15 33:9,16,20
47:20 49:1 63:20 71:12 79:18,20
80:7,12,13,19 81:12,16,18 82:9,
15 83:1,12 84:1,3 86:2,17 87:17
88:19 89:9,19,21 90:5 115:22
138:2,11 154:13,22 155:6,8,13,
15,16 156:1,6 171:14 178:18
179:6 180:19,22 181:2,11,13,21
182:19 183:3 186:15,18 187:3,14
204:8 220:21 221:1,4,8,13,18,21
222:1,7,8,16,17,19 225:18 228:9,
19 231:11,14,19,22 232:14 233:3,
8 261:11,21 272:14 308:6,11,20
- cost-benefit** 308:21
- costly** 45:9 71:9
- costs** 16:12 20:5,11,15 21:11
24:21 25:12,22 34:3,8 38:17 39:9
47:14 48:1 54:16 55:8 71:4 83:11
85:10,17 87:15 125:3,16 138:7,8,
13 157:18 170:12 171:17 183:12,
18,22 184:2,16 185:1 211:15,16
212:6,12,14 225:21 226:13 227:1
233:17,18 240:14,15 244:15
261:14 276:17 308:16
- couldn't** 268:14 291:8
- countless** 101:6
- country** 74:3 119:12 216:12
316:13
- County** 250:2,15
- couple** 53:3 54:16 56:13 79:10
97:3 117:8 178:15 217:17 229:10
234:18 263:21
- court** 10:4 15:7
- courtesy** 15:16
- courts** 71:3
- cover** 214:3
- covered** 28:9 205:16
- covers** 287:22
- coworkers** 270:22 298:17
- crane** 47:8 232:6 294:22 295:1
- cranes** 294:1,3
- create** 21:10 48:7 151:22 152:1
161:16 175:15 220:4 223:18
272:16
- created** 156:22

creates 44:19 47:5 73:6 81:14
121:7 172:22

creating 32:10 46:7 47:1 49:6
262:6

creative 237:7

credit 205:20

crew 280:20

criteria 136:8

critical 120:11 163:22 172:19
295:18

critically 69:13

crossing 242:10 243:6,17
248:10

crossings 248:13

cultural 251:2

culture 16:5

current 25:4 27:2 54:22 66:19
87:20 125:8 133:14 134:16 139:7
169:16 194:10 198:7

customary 25:4 39:1 54:22
125:8

customer 120:7

customers 18:12 120:5

cut 111:4

cuts 75:19

Cutting 273:2

cycle 48:8 243:19

cycles 244:16

D

D.C. 221:12

daily 20:2 28:20 43:4 84:17 137:9
174:14 201:16 274:3

damage 164:10 284:17

damaged 258:19

Dan 58:14,15,18 59:19 114:1,3,6
118:11 127:14 131:10,13,17
143:7 144:19 145:1,3 146:8
147:14 157:20 160:4

danger 62:1

dangerous 30:15 46:3 47:4 69:2
145:12 302:22 304:3 306:14

data 47:21 62:3 78:6,11,13,15,19
80:6,12 82:10,15,20 83:15 85:4
86:1,2,16 100:20 113:6,13 134:14
138:12 145:22 153:9,12,13 154:2
157:5,17 158:14,19 160:13 165:3
177:22 184:22 211:11 225:18
227:1 254:14 257:2,17 260:6,16
261:10,11,17 264:5 283:11 287:2
292:13 296:11 303:15 307:15
308:12 311:19 315:5 316:3,7,13
320:1,22 321:5,9,15

data-based 65:10

database 134:22

date 12:14 244:4 245:16 249:3
272:13 304:2

Dave 49:19 87:8 124:18 126:1
139:16 154:8 159:12 176:21
180:16 211:8 213:7 234:4 247:16

David 10:20 22:3 71:19 147:7
206:4 223:5 246:2 261:4 263:15
278:7 286:11 309:18

David's 100:15

davit 149:6

day 34:4 99:17 119:15 122:6
132:6 145:10 266:12 288:22
302:12,13 306:19 314:11,14
322:13

days 239:9 299:9 320:22 321:2

dead 298:14

deadline 21:9,10 24:1 25:8,13
34:11,12,13 37:7 39:4,10 49:2
53:14 55:3,9 70:12,22 79:19
87:22 89:2,18 93:9,19 94:5 124:5
125:11,17 129:17 133:4,6,22
134:3 182:3,10 198:7,12,16
199:2,6,8 201:3,19 203:13 205:19
219:10,13,16,17 223:12,13,16,17,
20 240:17 243:12 244:3,17 245:1,
2,3,21 253:9,14 254:2 256:4
271:5,9 272:10 276:19,21 277:15
302:18,21 309:11 321:14,16

deadlines 174:21 198:8 219:14

deal 104:12 266:11,12

dealing 108:6 224:19

death 222:22 254:13 255:20

273:8 274:9 277:16 278:1

deaths 254:17

decade 253:17 255:15

decades 28:19 34:20 43:2 45:12
48:21 65:13 77:1 78:10 79:5
102:14 130:4 133:10,15 134:11
135:2 138:15 139:10 243:9,21
253:10 276:19 303:14

decelerating 284:12

deceleration 204:1

decide 123:21

decision 116:19 118:7 189:6,18

decisions 117:11

deck 305:22

decline 205:6

deconstruction 313:10

decrease 166:15

dedicated 302:4

deep 63:9

deeply 275:7

defensible 170:3

defer 111:17

deferment 87:17

deferral 87:15 89:21

deferred 277:1

deferring 81:12,16 89:9

defined 136:8 203:1

defines 266:2

definition 256:18

definitive 37:15 40:21

definitively 142:11

degree 140:21 192:13

degrees 103:10 146:12

delay 252:22 272:12 278:2

delaying 156:4 169:16 171:8
255:11

delays 47:1

deleterious 148:11

demarcation 107:20	135:8 145:2,17 150:6 173:3 203:21 227:9	difficult 18:15 137:1 221:20 244:13 255:10 268:6,9 306:14
demolition 313:9		difficulty 151:14,22 258:7 282:19 314:5
demonstrate 50:20 65:12 135:19 154:22	designer 150:22	dig 180:8
demonstrated 193:13	designing 115:21 128:6 150:14	dimensional 170:17,19 198:21
demonstrates 245:2	designs 112:7	dimensions 188:22 189:5,12 191:22 192:3,6
demonstrating 43:16	detail 54:1 83:16 85:7 99:20 111:18 131:1 156:13 180:7 226:5 233:21 268:16	diminishing 170:15
demonstrations 136:3,14 139:20	details 140:2,10 159:7 189:17 208:4 211:15 287:13	dire 69:8
densely 221:12	deterioration 164:15	direct 21:1 143:14 145:18,22 146:21 201:11 255:9
deny 251:7,18	determination 77:8 202:1	directed 171:1
department 268:13 270:6 278:21 289:18 292:20 322:8	determine 157:4 158:11 162:16 163:2	direction 93:2 197:18 283:6
depend 30:3 121:16 182:20 188:22 189:3	determined 77:6 88:20 244:11 245:11	directly 201:13 243:2 306:7
dependent 290:1,5	determines 106:20 139:1	Director 42:8 119:5 200:13 273:21 302:1
depending 120:21 138:9 147:16 174:1 218:16 279:9	develop 132:19 140:6 204:21 261:10	Directorate 10:21 11:2
depends 197:17 230:17 236:7,22 279:13 289:3,11 312:15	developed 210:9	disability 255:20
deregulation 202:8 251:6,17 271:9	developer 128:19	disagree 310:14
deregulations 271:3	developing 134:12 140:4	disagreement 171:14
descend 31:17 46:22 120:19 196:5 209:10	development 130:6 138:16	disagrees 70:11
descending 151:21 263:2	develops 132:12	disappears 244:3
descent 216:20 273:7	deviation 271:13	discernable 71:10
describe 24:21 38:17 54:16 111:10 125:2 151:12 224:20 240:20 247:6 284:2	device 16:21 46:20 174:3 177:11 179:8,9,12,16 185:12 279:9 284:12 299:7 303:10	discipline 149:11
describing 104:12 198:10	devices 149:3 286:4 297:22 299:18	disciplined 280:16
deserve 245:15 309:13	dictate 190:3	disciplines 141:7
deserves 277:14	didn't 260:9 267:3	disconnect 30:10 31:21 50:11
design 44:21 85:21 120:22 132:1,3 139:4 143:15 150:12 180:19 182:19 183:16 205:14 244:11 286:19 297:2	die 260:9 272:7	discovering 279:16
designate 12:12 14:3 56:5 234:10	died 99:6 260:9 267:14 272:6 274:21 278:12	discrepancy 278:13
designated 13:16 14:5,7,11,12 56:9 281:11	diesel 42:20	discrimination 272:21
designed 102:12 103:4 109:14	differ 83:2	discuss 131:12
	difference 51:16 94:13 175:10 181:14 185:7 196:21	discussed 33:12 191:6 228:18 293:4 316:16 318:13
	differently 71:22 174:13	discussing 187:8
	differing 145:9	discussion 39:21 86:7 93:7 157:4 195:2 237:11,15 306:17,18
		discussions 311:1
		displayed 15:1

disproportionate 171:5
dispute 64:19
disruptions 21:11 276:17
dissect 291:19
distance 105:11 203:22 218:19
 219:3 275:17
distances 142:7 299:14
distant 34:13
distillation 274:15 298:4
distinct 86:12,20
distinction 136:11
distinctions 83:15
distinguish 25:3 38:22 54:21
 99:22 121:13 125:7
distraction 271:20
diverse 117:6,13 313:8 317:6
docket 10:15 12:17,19 13:1,2
 99:17 321:12
Doctor 225:13
document 12:17 13:18 56:10
 176:4 234:13,15 252:5
documentation 36:6 251:16
documented 175:4
documents 12:16,18,21 13:2
 14:14 207:10
DOE 313:14
doesn't 248:9 289:8 298:4,14
 310:13
dollar 222:21
dollars 63:21 80:17 115:22
 308:9,17
don 31:20 96:19
donned 72:19
donning 44:2 172:4
don't 246:13 247:17 249:9,10
 257:17 260:5,15 261:16 262:6,14
 264:8,10,20 265:18 267:8,14
 268:3,10,11,15 278:20 279:17,22
 285:3,5 287:1 290:19 291:18
 292:19 299:10 305:9 307:19
 311:12,13 313:7 316:6 317:20
 318:19

door 298:11
dorsal 237:22
double 45:17 293:19
downs 313:17
downtown 214:12
dozens 63:12
draw 159:3
dread 97:15
drive 141:10 181:10 189:6
driver's 298:11
drives 181:11
drop 130:19 135:18 140:15
 304:15 305:13
dropped 75:5
drove 298:7
droves 74:4 78:6
due 164:10 166:22 219:16 220:22
 254:2 270:15
Duffy 269:11 270:15
dummies 75:5
dummy 75:7 140:15
dust 313:12

E

earlier 59:13 65:3 100:14 126:21
 146:11 155:11 156:3,9 306:17
 308:10 309:21 319:16
early 239:6
ears 288:15
easier 177:12 183:2 231:3
easily 91:10 177:8 257:13 273:2
East 216:12
easy 31:19 75:14
economic 80:7 81:17
economies 184:12
economist 11:7
economy 156:8 184:4,7
edge 218:22

edges 174:12
education 270:13
effect 33:14 98:20 153:18
effective 19:8 29:14,16 33:17,22
 44:11,16 48:21 51:1 74:15 133:8
 135:2 138:1 141:7 203:4 205:17
 221:13 251:7,10 253:1,15 255:5,
 14,19,21 256:5
effectively 35:15 43:15 67:15
 77:1 181:19 304:7
effectiveness 278:14
effects 16:12 135:21 141:20
 156:7
efficacy 140:9
effort 176:9 181:8,18 184:1
 250:10
efforts 69:19 251:12 255:10
 290:13
egress 19:10 174:20
either/or 237:3
elaborate 156:13 183:8
elbows 103:8
element 31:7 147:18
elements 17:22 164:12
elevated 47:3,8 149:6 170:8
 243:7 279:7
elevation 202:10
elevator 76:18 170:10
elevators 67:18
eliciting 12:9
eliminate 33:12 34:11 66:7 81:18
 87:21 129:16 133:3 276:22 281:4
 284:21 285:10 296:15 302:17
eliminated 34:14
eliminates 21:9
eliminating 34:12 69:4 70:12,21
 89:2 245:1 291:12 302:21
elimination 79:19,21
Ellie 250:4,8,10
embedded 91:11
emergencies 18:17 19:2 31:16

- emergency** 19:6,7,10,16,21
25:17 31:17 32:1,9 44:4 46:16,21
69:9,12,16,17,18 83:8 115:7
174:20 255:10,11 306:12,14
- emission** 16:21
- emphasize** 32:18
- employed** 149:3 201:14
- employee** 29:10 32:8 44:6 67:7
68:22 74:13 103:2 113:8 244:9
- employees** 16:15 17:3 19:18
20:4,16 21:5,7 28:20 30:7 31:16,
17,19 32:4,13 34:5,16,19 43:3
47:2 63:11,20 64:15 67:15 68:7,
10 71:14 91:15 92:7,19 96:18
108:11 111:22 119:15 120:2
122:5 128:9 242:13 245:13 250:3,
16 253:18 277:20 278:2
- employer** 25:5 27:2 31:4 39:1
54:22 70:8 86:8 96:3,4 98:17
106:20 117:9 118:7 125:8 175:3,
14,18 182:7 252:16 253:20,22
258:14 267:5 281:15 284:7
292:18,21 294:12 309:1 316:12,
14
- employer's** 91:15
- employers** 21:15 28:13 33:5
49:11 62:12 63:3 64:2,8 66:9 70:7
84:8 92:7,18 107:2,21,22 116:14,
18 119:19 122:3 129:21 133:12
176:4,15 201:7 244:18 245:9
251:7,15 252:12,20,22 253:10,16
254:3 255:20 256:5 258:15 259:4
262:8 265:9 271:10 272:12
273:11 275:19 276:10,18 277:19
281:2,7 282:8 285:2 290:22
291:5,16 295:14
- employer's** 256:18
- employment** 277:20,21
- emptied** 20:13
- enable** 62:15
- enabled** 58:15 114:1
- enacted** 219:15
- enclose** 204:1
- enclosed** 305:20
- encloses** 277:7
- enclosure** 201:8
- encounter** 112:1,5,12 117:20
120:9 126:13 198:20
- encountered** 117:19 138:8
234:1 263:9
- encountering** 99:11 117:15
- encourage** 136:14 138:10
- end** 38:14 85:20 88:7,12 89:12,13
93:12 114:14 171:16,21 175:2
182:8 183:14 190:18 191:10
297:13 320:15 321:1,2
- end-to-end** 289:7
- ended** 92:21
- endemic** 257:14
- ending** 303:20
- ends** 234:4
- energy** 42:9 227:17 232:5 270:11
316:22 317:2
- enforceable** 176:2
- engage** 74:12 111:4 141:22
142:7
- engaged** 275:3
- engagement** 142:8 143:2
147:19 152:2 161:17
- engaging** 75:9
- engineer** 128:4 150:14 169:12
- engineered** 43:21 82:12 136:7
152:6 204:15 255:5
- engineering** 24:22 38:19 54:18
82:10 83:2 125:4 135:5 137:11
138:5,9 155:9,15 158:2 168:3,14
169:12 175:13 181:8 183:22
202:21 292:19,20 296:15 307:5,
15,22
- engineers** 132:15
- engrained** 314:10
- enhance** 198:10
- enhanced** 45:12 65:17 172:3
- enormous** 47:14
- ensure** 18:15 149:19 309:5
- entangled** 46:2 151:17 178:6
197:21 255:12
- entanglement** 177:5 178:4
304:21
- entanglements** 177:20
- entangling** 254:9
- entire** 26:17 38:6 40:17 56:17
126:14
- entities** 117:14
- entity** 27:15 41:22 62:11
- entry** 116:21
- environment** 108:5 117:12
166:12,22 167:2 193:14 222:9
223:18 270:6 273:22
- environmental** 102:22 119:5
148:15 165:9 166:21 173:19
183:5 194:18 214:13 250:12
268:2 313:11 317:2
- environments** 17:22 64:10 85:3
92:9 135:19 137:8 164:13 171:20
- envision** 92:2
- equal** 148:17 188:19
- equate** 141:2
- equation** 68:19
- equip** 252:20
- equipment** 17:19,20 18:17
19:19,20 20:2 32:15 44:2,9 58:19
65:1 69:3 73:5 84:16 88:6 99:8
107:9 114:5 120:10,22 121:17
145:5 155:8 164:5,7 202:21
209:14 222:16 229:17 243:20
245:17 252:1 258:17,18 274:6
285:18 289:11 290:1 294:19
305:2 307:6
- equipped** 17:5,9 23:15 28:18
42:13 64:22 65:8 66:22 67:11,13
96:17 177:3 208:13 239:13
250:20 252:8 254:7
- equipping** 211:12
- equivalent** 85:20 136:20 141:14
183:15 205:20 206:9 309:7,22
- era** 244:6
- ERG** 41:14
- Eric** 62:22 114:7
- error** 68:14 70:18 113:4 121:8
296:10 299:2

errors 49:7	eventual 272:13	exists 60:1 76:19
erulemaking 13:4	eventually 89:6 243:14 244:12 245:16 303:22	exit 18:22 47:2 116:21
escape 69:9 204:4 208:19	everyday 45:21	expand 26:20 126:17 165:12 248:20 316:18
ESG 58:11	evidence 33:10 43:15 49:14 64:14 65:1 66:15,16 67:14 70:10 71:13 77:4,10,12,14 108:20 123:9 130:20 153:4 240:14 251:16 260:1 320:21 321:6,9,10,12,15	expanded 150:11
essential 205:15	evolve 309:12	expect 20:15 31:22 107:2 117:10 120:17 141:4 196:15 210:4
essentially 28:16 69:3 87:21 227:20	exacerbate 112:21	expected 14:22 20:19
establish 66:1 174:18 256:4	exacerbates 186:6	expecting 96:19
established 63:14 79:1 160:7 201:21 253:8 303:18 308:19	exact 76:18 165:3 230:8	expense 48:8 273:11
establishing 170:16	examples 222:2 290:17	expensive 48:16 86:1 183:17
estate 216:17 238:10 240:22 241:8	exceed 48:2 126:22	experience 17:7 22:19,22 27:2 34:21 40:22 43:13 47:20 50:18 51:4 53:5 56:20 57:14 59:14 60:19,22 61:1 64:5 91:18 121:10 128:6 130:18 131:22 132:2,10 134:11 135:14 137:13 138:4,15 152:19 171:16 177:10 178:2 181:16 196:8 197:9 198:19 208:12 224:18 232:19 234:1 257:11,17 260:5 280:13 300:4,9 303:10
estimate 48:22 54:3 55:15 84:3 155:3 178:16 182:19 184:7 228:10 248:7	exceeding 201:20 205:6 222:13 271:7	experienced 136:10 230:6
estimated 48:2 79:18,20 80:11 252:3	exceeds 33:21	experiences 22:15 61:20 260:14 263:8 265:12 266:15
estimates 48:4 84:1 138:6 180:19 308:11	excellent 29:22 62:20 222:20	expert 114:20
ethanol 42:19	exceptionally 149:22	expertise 59:10 129:8 130:12,17 132:1,3,10
evacuate 46:17	excess 162:20	experts 110:16 111:17 132:18 217:6
evacuation 32:6,9 46:21 69:16	exclusion 33:6	explain 11:20 59:21 60:17 87:18 141:15,17 189:13,18 196:8 208:19 268:7 293:6
evaluate 92:19 118:7 142:5,6 158:10 176:4 179:10 244:5 310:20	exclusive 118:5	explanation 296:2
evaluated 136:7 162:16 189:8	exclusively 42:14 67:2	explicitly 157:1
evaluates 129:14 131:7	excuse 79:21 120:7	explore 86:6,13 107:19 113:11
evaluating 68:5 136:1 307:1	Executive 146:5	explored 100:20
evaluation 173:16 179:3,6 181:9 192:20 195:7 211:17	exercised 242:16	expose 32:13 285:3,12
evaluations 163:1	exhibit 12:12 13:16,19,22 14:5,7, 8,11,12,15 45:14 46:15 56:7,8,11 234:8,13,16	exposed 17:21 48:11 191:15 256:15 280:7 289:20
Evans 15:11,19,20 21:18 22:2,6, 8,14 23:6,10,17 24:3,13 25:14 26:4,8,9,12,15,22 27:8,11,13	exhibit-related 13:21	exposure 20:3 46:7 174:9,13 175:11,15 176:14 284:8 318:5
Eve 11:15,22 26:10 41:12 56:2 87:19 90:13 93:5 94:8 97:18 99:14 102:15 104:9 106:9 108:22 112:15 113:17 126:6 159:17 188:4 198:4 213:10 238:9	exhibits 14:1,4,9	exposure-based 176:12
event 50:13 172:16 298:3	exist 37:21 93:17 107:20 220:9 314:2	
events 51:19 137:5 208:20,22 276:8	existing 24:8 32:21 37:10 38:5 48:17 53:17 71:1 78:22 93:20 124:9 129:17 130:4,15 133:4,6 134:3 138:17 158:10 159:22 160:8 165:10 176:13 179:4,7,11 181:2,5,9,11 185:11 188:22 201:2 203:9 205:4 218:15,17 219:7,8 229:5 243:12 244:1 245:7 252:18 308:7 313:10	

exposures 47:6 137:9 171:3
expressed 25:16 314:5
extend 16:17 20:18 23:21 26:17
 27:4,5 28:15 36:16 40:17,22
 42:22 48:17 52:16 56:17 80:2
 123:17
extended 322:1,5
extending 42:13 104:7 129:19
extends 65:7
extension 89:19
extensive 42:20 47:7 135:14
 145:5 206:17
extent 86:11
exterior 179:13 185:8,10
extra 29:12
extraordinarily 71:9
extraordinary 78:15 116:1
 244:18 308:8
extrapolate 159:4
extreme 155:14 302:12
extremely 131:6 191:15 243:15
extremities 146:1
extricate 268:15
eyes 288:15

F

face 179:13 275:19
faced 98:8
facilitate 12:6 149:18 152:2
facilitates 255:13
facilitating 173:11
facilities 16:9,22 31:10 34:20
 42:22 43:12 47:8 63:11 70:15
 84:15,22 97:22 119:10 120:5
 121:6 164:6 265:11 272:17,18
 286:21 287:22 288:1 302:11
 313:14
facility 34:15 44:5 45:22 48:3
 83:5 95:15,21 96:16 98:16 120:3,
 16 122:6 123:14 183:4 240:4
 272:21

fact 29:15 33:12 112:21 152:8
 153:16 206:17 210:21 230:8
 271:15 281:8 310:9
factor 117:16 184:8 238:18
factors 68:13,17 117:3 118:6
 148:15 154:15 163:4 165:9,18
 166:1,19 174:1 189:3 194:18
 213:18 238:14 239:3 258:3 282:3
 296:14 310:7 318:3
facts 42:16
faculties 109:18 114:16
fail 20:4 30:18,20 45:19 61:2,15
 275:15 282:8
failing 165:5
fails 307:8
failure 61:5 68:14 69:3 303:17
fair 190:1
fairly 181:6 265:14 300:6
fall 16:16 17:11 18:10 21:16 22:6,
 12 23:3,4,5,16 24:7 28:14 29:5,8,
 20 30:5,21 31:5,14 32:6,20 33:3
 34:2 35:10 36:1,2,14 37:2,9 42:14
 43:17 44:7,18 45:5,18 46:1,5,10,
 12,18 47:19 48:7,19 49:10,12
 50:4,9,11,13,15 51:9,10 52:1,14,
 19,22 53:16 57:20 59:2,7,15
 63:13,22 64:3,6,12,20 65:6,18
 66:10,12,21 67:4,6 68:3,5,6,15,16
 69:7,14,22 70:5,6 71:8 72:2,6,8,
 18 73:8 74:4,11 76:8,9,15,16,20
 78:1,2 79:11,13 80:1 81:22 82:13
 84:4 85:12,19 86:9,12,18,21
 88:16 90:10 91:1,11 93:14,21
 95:4,15,19 96:12,20 98:9,18 99:1,
 2,5,20 100:3,5,17,21,22 101:1,2,
 6,9 102:3,4,7,8 103:20 105:2,3,5,
 7,17 106:3,14,19 108:15 109:3,16
 112:18,20,22 113:9 115:8,13,16
 116:9 118:3 119:14 120:20 122:1,
 19 123:5,6,7,16 124:8 128:7,11
 129:18,22 130:5,14,15 131:2,11,
 18 132:2,4,8,13,14 133:5,9,15,18
 134:7,10,12,19 135:2,7,8,9,13,15
 136:6,22 137:2,6,14 139:9 140:18
 141:6,8,17,21 142:1,3,12,17,18,
 19 143:1,7,16,19,21 145:2,14
 146:16,20,22 147:17 148:1,5,8,
 13,19 149:4,11,12,14 150:5,13
 151:6,8,13 152:5,10,22 154:14
 157:14 158:3,9 159:21 160:6,10,

12,17 161:2,4,9,19 162:9 170:18
 172:21 173:1 177:2 178:8 183:14
 184:17 185:12,22 186:17,19
 187:2,16 190:11 191:15 192:10
 194:6,11,20 195:7,20,21,22
 196:21,22 197:1,2,4,17,19,22
 201:3,6,9,19 202:2,21 203:3,4,18,
 22 204:3,17 205:5,8,18 206:10,15
 207:1,4,5 208:20,22 209:6 210:3,
 8,18,22 211:14 212:8 218:19
 219:1,3 224:2 225:20,21 226:15
 227:14,18,20 228:7 229:4,8
 230:15 231:10,16 232:18 235:3
 236:9 237:18 239:14 240:16
 244:6,10 245:10 246:10,16 248:6
 251:5,8,10,19 252:1,21 253:1,4,
 10,15 254:3,7 255:6,12,16,22
 256:5,12 257:5,22 258:2,8 259:8,
 19 261:13 263:9 264:4,17 265:10,
 19 267:19,20,22 271:5,12,18
 273:5 274:7,13 275:1,2,9,12,16
 276:3,11 277:4,7 278:17,18,20
 279:3,11,21 280:10,12,17 281:3,
 5,13,22 282:1,8,19 283:14 284:4,
 10 285:4,12,16 286:4 287:6,7
 289:20 291:12 292:13 293:5,12,
 15 296:5,15 299:5,6,18 300:1
 302:19 303:7,9,10,17 304:1
 305:4,6,10,12 306:3,4,10 307:10,
 18 308:3 309:8,12 310:1,4,5,21
 311:11,22 312:4,11,16,18 313:5
 314:5,17 315:1 316:3 318:6,16,
 17,22 319:11,18

fall-related 253:19,21

fallen 75:12,21 115:16 144:6
 172:9 178:9 197:8 311:7

falling 72:6 74:21 75:7 102:19
 103:2,7 105:11 106:6 144:7,15
 161:13 162:14 195:1 196:9 197:3,
 6 207:6,7 210:2,14,17,21 220:18
 225:2 254:11 274:20 275:22
 277:4 299:14 304:10,12,16
 305:16,18 319:6

falls 17:5,8 22:16 29:1 43:9,10,11
 49:7 50:21 51:5,20,22 57:3,9,12
 64:18,19,21 75:18 101:7,8 109:11
 113:6 119:16 129:10 130:21
 136:9 137:4 139:21 145:8,11
 166:7 202:10 208:12 210:1,5
 220:10 224:19 247:7 251:9 253:5
 254:13,15,18,20,22 255:4,7,19
 256:14 259:12,22 260:7 266:20
 273:1 275:18 280:7 284:21
 302:14 304:14 307:21 319:8

- false** 305:7
- familiar** 35:8 36:12 52:18,20
57:11 60:21 114:20 120:12 123:2
137:22 182:15 185:18 192:2
311:6
- familiarity** 140:22
- families** 298:9,16
- family** 86:22 91:19 298:8
- farm** 107:9
- fast** 87:21
- fastening** 272:5
- faster** 32:5 197:15 255:14
- fatal** 17:4 29:1 43:9 99:2 101:7,14
143:4 254:15,18 274:13 275:16
- fatalities** 57:18 99:21 129:12
134:21 202:12 220:10,14,16
254:16,20,21 255:4 260:7 266:19
271:14 276:2 277:2 283:19
303:18 304:22
- fatality** 47:18 78:9 203:6 253:19,
21 273:13 274:12 298:5 304:20
- fatigue** 68:15 103:14 137:5 276:6
303:5
- fatigued** 102:22 299:11,16
- fault** 296:18
- favorite** 61:7
- fear** 99:9
- feasibility** 173:18
- feasible** 137:18 255:18
- federal** 13:4 71:3 242:15
- Federation** 250:2,15
- feedback** 33:19 137:21 258:5
- feel** 83:18 87:3 199:4 227:4
- feels** 217:20
- fees** 82:17
- feet** 16:17 26:19 28:15 33:19
40:19 42:13,22 48:18 53:9 54:4
56:18 64:1,21 66:22 67:11 75:22
80:2 82:11 92:4,5 97:13 103:8
106:16 107:16 126:16 129:20
143:21 144:6,11,12 162:12,13,20
170:18 180:2 181:14,15 186:3
190:6,22 192:4 194:8,9,12 197:2,
4,6 201:4,20 202:4 203:4 205:6
207:18 208:13 210:18,20,21
211:13 218:1,4,7 219:1,4 224:3
232:4 238:15 239:16,22 246:4,11
247:8 250:19 252:4,7 256:1,7
264:15 267:7 271:7 274:6,7
277:4,5,6 279:5 288:16 304:18
305:11 312:13 313:6 317:10
319:6
- fell** 72:4 99:6 100:9 110:1 252:10
267:1,2 274:14,19
- fellow** 298:6
- female** 283:7
- femurs** 260:10
- fewer** 84:20
- field** 74:9 130:21 138:5,8 158:21
202:14 228:7 257:9
- fight** 69:21 266:6 277:11
- fighting** 266:1,10
- figure** 259:22
- file** 321:3
- filed** 321:22
- filers** 322:7
- final** 12:8 49:2 60:17 66:6,19,20
70:14 71:2 88:11 151:4 157:10
186:14 253:9 299:21
- finalized** 65:4
- finally** 85:10 138:2 191:10
- financial** 156:11 308:8
- find** 36:5 51:14,18 74:7 100:21
117:6 178:4 183:20 207:17 283:7
285:11 290:20 291:21 296:16,22
315:7
- finding** 117:22 291:13 296:18
- fine** 125:19 226:5
- finish** 49:9 87:2 97:14 108:19
273:15
- fire** 25:2 38:20 54:19 69:21 125:6
268:13,17
- firmlly** 34:21 271:1
- firsthand** 204:8
- fit** 258:3 282:3,10 310:3,6,11,13
319:17
- fits** 70:8 92:11 258:18
- fitting** 286:6 297:20
- five-person** 280:19
- fix** 273:13 283:5
- fixed** 13:8,11 16:16 17:5 18:3,8
19:1 21:16 26:15 27:3 28:9,12,14,
16 29:9 31:18 32:14 35:1 40:16,
18 42:12 43:14 56:15 63:14 64:1,
4,14 65:6,8 66:2,10,22 67:5,6,10,
13 70:2 74:3 80:1 82:10 83:8
84:21 85:12 86:18 90:20 102:17
106:14 107:3 109:4 110:1 119:20
126:12 129:19 130:15 134:18,20
135:1 137:16 138:19 157:13
163:15 166:9 170:5,19 172:11
173:14 174:8 176:9 177:3,6 180:1
184:18 192:4 195:22 196:7
199:15 200:18 201:4,15,20
202:13 203:3,13 205:5,16 207:17
208:13 211:12,22 212:8,19
213:17 220:16 224:3,20 225:21
226:15 238:14 243:3 244:2 246:4
247:7 248:5 250:19 252:4,6,8,13,
17 253:2,6 254:4,6,19 255:3
256:1,7 257:12 258:9 259:9
261:15 263:3 264:3,15 266:20
270:19 271:6 274:3,12,14,18
275:9,22 276:3,10 279:4 280:6
281:6 282:2,20 283:15 284:16,22
285:19 288:13 291:19 292:11
293:21 294:5,22 295:10 303:2,6
304:5 305:6 312:1,10,12 313:5,15
314:18 316:1 317:9 318:14
- fixed-ladder** 133:4
- flammable** 20:9
- flat** 175:6 195:15
- flesh** 233:21
- flexibility** 90:16 92:9 94:14 122:2
204:14 251:15 253:22 302:22
- flexible** 202:22
- flies** 275:18
- floor** 95:2 285:5,8 288:16 291:13
- fly** 310:17
- focus** 128:8 139:3 175:13 205:8
- focused** 86:8
- focuses** 67:2 132:3

folks 86:10 88:20 111:4 117:22 280:21

follow 26:22 53:20 68:14 121:4 165:13 178:22 187:17 237:10 277:18 298:22 312:21

follow- 248:3

follow-on 225:20 231:11 247:6 261:14

follow-up 41:6 58:3 60:11 124:22

foot 74:10 75:21 102:20 103:9 108:7 145:3 163:21 196:1,6 213:17 219:22 220:1 241:4 280:7 295:3

foothold 74:16

footing 203:12 205:16

force 63:18 74:9 85:13 157:15 164:11 184:19 185:3 212:9 226:16,20 227:18 274:9,22

forced 95:7 171:6

forces 136:10 142:5 145:22 204:1 212:13 227:18,21 264:4 275:17 292:12 304:7 316:2 318:21

forcing 244:4

foresee 91:10

forever 271:12

forget 17:19 118:18

form 66:12 122:1 245:10

forms 234:11

forward 300:15

fought 277:9,10

found 32:3 47:17 59:12,18 82:22 172:13 177:11 206:20 217:9 227:7 252:14 297:7

Founded 128:14

fourth 47:14 95:5 273:9

FRA 242:16 248:9

fraction 233:17

framework 175:9 176:2 307:13

frankly 93:16 197:20 199:11 277:8

free 83:18 87:3 196:22 197:1 227:20 277:21

freefall 304:13

frequency 71:6 193:8,11 194:15

frequent 174:19,22 176:6 195:14

frequently 20:1 193:5 202:13 242:21

friend 298:8

front 36:18 216:2 229:22 238:4 260:6 303:2

froze 274:17

Fuel 42:1

full 40:22 157:6,9 172:4 173:8 190:12 210:10 253:10,16 287:7 289:5 306:7

full-time 281:10

fully 39:12,16 91:18 112:9 153:20

fun 214:18

function 160:2 204:2 229:7 243:22 307:17

functionally 30:19

functions 120:15

Fund 301:7 302:3

fundamental 64:11 136:11

fundamentally 135:6

funds 21:1

furnaces 274:4

furnish 277:20

future 286:5 297:20

G

galvanized 18:4 164:14 166:18

gap 308:2

gas 28:8,17 31:2

gate 224:15

gathered 85:3

gave 222:2 244:17 309:20 322:9

gears 306:2

gen 251:2

general 60:18 150:1 195:19 198:8 213:16 288:12 310:16 311:16

generally 98:3 115:3 154:2 242:14 262:22 268:8

generate 274:8

generation 98:16

generically 265:20

generous 253:13 303:19

gentleman 99:6

gentlemen 131:15 159:18 167:9 278:8,16 301:2

geometric 163:9,22

geometry 142:9

giant 73:20 84:13

give 100:10 110:5 147:5 176:1 187:5 213:21 263:12 287:15 293:20 318:19

giving 157:6,7 176:18 253:9 278:15

glad 149:1 208:16 214:20

glass 270:11 274:4 280:4

Glucksman 58:14,17,18 59:9 60:7 114:1,3,4,7,11 115:17 116:12 118:4,8

goal 16:7 139:8

goals 138:19

good 10:20 11:1,14,17 15:19 27:22 40:13 42:7 55:10 62:20 75:10 87:12 108:20 112:11 119:1 126:8 127:18 131:14 147:8 154:3 169:8 188:5 193:10 198:1 200:12 226:11 227:8 228:17 236:11 237:9 242:3 248:1 263:13 264:19, 21 278:21 279:22 286:7 295:16 301:12,21 322:13

gosh 97:5

gov 10:15

government 128:21

government-sponsored 136:17

governmental 132:17 138:12

grab 104:2 147:12,16,20 196:16
217:19 299:12,15

grabbing 104:20

grade 242:10 243:6,17

grain 67:18 76:18 83:9

grandfathered 95:10

grandfathering 277:16

granted 234:14 253:16

granular 153:12

grasp 144:4,14 162:9,11

grasping 143:10

gravitational 144:11

gravity 197:15 319:4

great 58:9 72:14 80:4 85:10
92:17 104:12 105:22 110:11,17
113:10,13,14 114:9 116:12 118:8,
9 151:14,22 168:12 183:21
219:20 299:14

greater 54:4 73:6 121:13 137:3
158:5,9 175:22 194:12 218:1
219:3 245:12 251:14 280:7
300:15

greatest 112:18 119:22 121:11
171:2 175:15 176:15 203:16

greatly 79:15 207:13

grip 203:12 205:16 299:13

grocery 224:11

ground 42:17 95:1 207:8 209:2
220:19 274:20 288:1

group 63:1 78:5 117:14 216:9
301:6

groups 156:22 271:16

gruesome 109:22

guarantee 100:19,20 102:1
161:16

guaranteed 308:2

guaranteeing 303:21

guard 191:1 294:4

guardrails 141:5

guess 22:21 54:2 58:22 114:18
145:7,9 186:20 231:11

guessing 257:7

guests 54:16

Guidance 10:21 11:3 180:17
211:11 225:17 261:7 286:15

guide 172:9

H

half 143:22 144:1,5 155:17 162:8
277:5 298:13

halfway 253:12

hand 23:11 41:16 58:14 62:15
168:20 196:6 241:20 242:1,3,6
246:3,6,18,22 247:9 248:9,18
249:2,5,14,15,21,22 264:10

handhold 74:17 102:20

handing 258:20

handle 125:18,21

handled 292:18

hands 30:13 104:21 269:2

hands-free 271:21

hang 109:15

happen 30:1 74:16,19 88:19
105:2 144:17 162:18 262:3 266:3
281:14 319:20

happened 247:13

happening 92:21 96:7 106:3
162:17 319:8

happy 35:1 40:3 71:15 122:11
139:13 165:18 208:8 211:20
212:1,20,21 213:1,21 214:14,16
218:11 290:20 309:14 311:3

hard 10:5 31:8 87:21 98:3 102:6
174:21 177:21,22 184:7 198:12,
16 248:9 260:12 291:9,20

hardware 172:6 181:6

harm 251:9 278:1

harness 19:15 96:21 97:6,9
98:22 99:3 172:4 190:13 209:8
210:11 258:3 265:16,17 279:3,8
282:3 287:5 300:7,8 310:3,6
312:11

harnesses 17:16 49:5 91:17
111:20 283:8 306:8 308:1

Harrison 15:10 27:17 41:17 42:3
45:13 46:14 58:13 62:7,14 113:22
118:13,20 127:7,14 167:7 200:1
216:6

harsh 17:22 48:11

haste 68:13

haunts 97:2

haven't 260:3 282:7,22

hazard 33:12 61:9 64:19 68:5
141:8 171:3 173:4 195:21 202:19
237:6 266:4 273:14 276:1 284:21
285:11 288:6,8,20 289:3,6 290:14
291:7 303:4,7

hazardous 20:9 83:6 280:2
290:12 313:12

hazards 32:14 45:3,21 64:18
67:4 68:15 120:10 171:7,9 172:11
183:5 202:13 266:5 277:1,16,22
281:3,6,13 289:20 291:12 295:4,
19 296:16,22 312:16

head 10:6

headed 93:4

heading 96:18

headquarters 270:6

health 42:9 63:10 119:5 128:17
146:4 200:14 250:13,14 266:2
270:5 273:21 281:9 286:18
291:17 301:6 302:2,3,4 307:7
308:14

healthcare 270:12

healthful 309:5

healthy 276:6 297:16

hear 38:16 62:18,19 98:13 169:6
214:17 215:20 242:1 269:18,19
273:18 275:7 301:13

heard 35:7,8 48:3 50:2 59:1,12
72:1 75:19 84:11 86:19 98:7
115:6 122:17 145:9 148:16
155:10 171:12 209:22 220:21
224:18 226:21 227:15 229:16
259:16 263:22 265:5 271:16
278:9,13 299:22 308:9 310:8

hearing 10:14,15,16 12:2,4,6,14
13:7 14:1,2,5,6,9,10,12 26:20
41:4 53:21 57:14 65:3 77:3
139:22 167:18 179:1 187:6 208:6

212:21 247:10 284:1 310:18
320:19,20 321:1,2,7,18,19
322:10,12

heart 67:8 72:4 74:22 274:22
278:12

heavily 153:8

heavy 316:22

height 23:20 36:15 52:15 107:17,
19 123:17 128:9 170:18 173:15,
17 190:4 194:2,5,15 199:12
216:18 221:1 232:9 250:19 252:5
256:8 276:16

heights 32:17 61:12 119:15
126:22 266:22 302:13

held 71:3 131:18

helped 263:12

helpful 85:8 135:21,22 183:10
184:12 191:21 192:17 226:9
234:2 249:1 261:19 287:19
310:17 311:2

helping 12:10 286:19

hemorrhaging 305:21

Henn 127:15 131:11,14,17 140:3
141:19 142:15 146:10 147:7,15
149:1 151:9,14 152:8 153:3
154:7,20 157:22 159:13 160:5,11,
19 161:11 167:12

herring 68:1,4 71:21 77:6

Hey 114:7

he'd 274:16

hierarchy 43:20 44:11 49:22
140:20 284:20 285:13 296:17
306:19 307:2,13

high 65:20,22 117:19 155:4
175:11 184:4 191:14 195:8 199:7
232:2,14 240:11 241:6 264:16

high-consequence 303:7

high-impact 306:10

high-level 140:1

high-rise 216:11

higher 20:11 21:10 130:8 133:19
138:7 150:20 169:15 181:11,20
198:16 221:18 238:2 307:3

highest 45:17 46:10 201:10

highlight 131:4

highly 83:6 153:14 280:2 315:10

highway 316:22

highway- 242:9 243:5

highway-rail 243:17

hinder 69:16

hire 18:12

historical 250:21

historically 307:2

history 28:22 35:13

hit 197:14 254:7

hitting 210:20 220:19 305:22

hoist 231:5

hold 144:14 178:7

hole 115:20

home 270:22

honed 237:15

honest 271:2

honestly 258:22 268:3

honor 10:19 11:12,21,22 13:20
14:17 15:22 21:19 24:15 26:5,10
27:17 28:1 35:5 40:6,11 41:12,18
49:18 54:10 55:21 56:2,12 58:8,
13 60:9 62:8 71:19 87:8,11 90:13
110:19 113:17,22 118:14 122:14
126:2,6 127:3,8,19 131:14 139:15
159:15,17 167:8,12 168:17
176:20 188:1,4 199:19 200:2
206:3 213:8,10 215:3,7 223:4
234:4,10,17,18 241:14 242:4
247:20 249:19 263:16 270:1
274:1 278:6 292:6,8 300:22
309:17 315:14 320:10,17

hook 294:7 295:7

hoop 305:17

hoops 304:17 305:11,20

hope 97:11 114:18 196:12 299:7

horizontal 294:7 295:7,9

host 91:15

hot 32:16 47:9 273:3

hours 47:13 78:11 289:1

housekeeping 14:20

HSE 75:5 146:4

huge 33:9 275:17

human 30:4 44:12 68:13 104:17
143:18,19 148:10,14 162:6,7,8
191:12 254:10 296:10,14 297:17
299:2 308:5

humans 29:17

hundred 92:4 107:16 219:1

hundred-foot 118:1

hundreds 63:12 73:17 84:12
134:22 164:20,22 224:5

hung 75:14,15 109:13

hunt 288:8,20 289:7

hunts 288:6 289:3

hurt 105:4,5 225:2 311:11

hypothetical 97:19 98:2

I

ID 321:12

idea 55:14 75:20 76:1 88:11 92:6
95:12 97:3 100:2 104:6 105:9,17
106:5,22 115:19 214:2 313:22

ideal 45:15

Ideally 289:4

identical 44:5 74:2

identifiable 202:9

identification 13:19 14:16 56:11
234:16

identified 37:16 67:6 134:22
154:13 254:18 291:7

identify 10:8 78:19 92:20 262:22

identifying 287:17 290:13

illnesses 71:6

illusion 305:5 307:14

illustrate 140:17

illustrates 45:14

ILTA 16:2,14 21:14 54:3 157:12

ILTA's 16:8

images 195:3	improvements 244:19 251:19	increases 121:8 178:8 222:17
imaginable 116:6	improves 120:11	increasing 34:17 173:4 221:21
imagine 31:8 161:11,13	improving 134:2	incredibly 76:22
imagined 170:1	impulse 97:11	incremental 25:11 39:8 55:7 125:15 170:12
immediately 223:14 260:9	inaccessible 19:3	incumbent 78:19 150:22
impact 135:16,20 158:8 186:6 210:10,12,15,19 211:1,3 218:2 230:5 241:8 298:15	inadequate 66:17 271:11	incurring 89:8
impacted 186:1	inattention 68:13	indefinite 203:15
impacts 298:16	incapacitated 114:15 116:2 204:5 306:12	indefinitely 272:13 304:4
imparted 142:6	incentive 244:7	independent 25:10 39:7 55:6 125:14
impedance 209:13	inches 219:22 220:1 306:10 319:19	index 12:13 13:3,16
impede 204:4 208:19 209:17 230:5 255:9	incident 78:7 134:14	indicating 283:12
impedes 209:5	incidents 43:11 47:13 134:20 135:1 150:21 266:22 268:8 311:9 318:7	indicators 291:1,6,11,18
imperial 235:14	include 24:21 33:18 34:21 38:18 54:17 125:3 131:1 179:3 187:8 236:2 288:11 291:19 321:6	individual 72:4,6 115:4 158:19 168:2 278:10 293:15 319:11
implement 32:12 153:20 156:1 175:19 276:20	included 66:11,14 98:13 181:1 187:10	individuals 117:14 163:2,5 265:15 267:11 276:7,8 320:1
implementable 205:1	includes 42:18 68:10 132:15 233:20	indoor 84:22
implementation 129:2 155:6 156:4,9,18 157:1 169:16 170:22 253:13	including 47:8 48:8 61:11 63:5 68:21 138:11 170:17 172:19 173:8 177:4 178:19 204:14 252:1 275:20 281:6,10 289:17 305:11, 14	indoors 194:17
implemented 61:10 80:20 255:18	incompatibilities 111:11	industrial 119:6,7 164:5 171:19 243:20 270:8 304:5 313:21
implementing 128:7 171:14 172:5	incompatibility 74:7 99:4,12 110:9 161:1 231:9	industries 28:17 31:2,16 32:14 63:5 67:21 70:3 73:14 83:3,11 84:9,11,19 85:6 91:4,13 115:22 157:8 159:5 183:10 185:9 264:16 280:3 316:18 317:18,22 318:4
implied 25:7 39:4 55:3 125:11	incompatible 17:20 73:5 110:13 159:22 229:4	industry 16:3,20 17:14 18:4,12, 19 19:17 28:8 33:21 52:2 54:3 59:10 65:17 80:8,9 81:19 83:13 84:2,5 88:21 94:18 95:18 98:15 117:1 127:22 128:18,21 133:16 137:20 150:1 156:1,10 157:5 162:18 175:16 182:21 205:2 214:3 216:17 242:19,20 243:14 246:7 261:20 262:18 271:16 308:6 311:15,16 316:21
important 69:13 131:6 132:22 133:7 135:3 147:18 242:13,21 243:3 270:16 295:19 322:12	inconsistent 99:8	industry-wide 48:1
importantly 67:9 245:13	inconvenience 71:4	inevitably 34:16
impose 71:4 157:15	incorporate 135:18 244:19	inexpensive 181:7
imposed 186:9	Incorporated 168:3	inflationary 156:7
imposes 308:7	incorporates 13:12	inform 217:14
impossible 109:3,6	incorrectly 258:10 282:21 314:7	information 12:9 23:11 27:1
improperly 202:17	increase 68:15 69:4 70:18 202:8	
improve 139:3 176:9	increased 221:3	
improved 29:3 65:16 154:19 172:13		
improvement 16:6 43:18 170:11		

- 67:3 110:4 123:20 124:6 136:2
138:3,11 139:19 158:22 159:3
184:10,13 187:18 210:6 213:16,
22 214:18 247:10 256:18,20
262:7,19 263:4,5,10 264:7,11
266:21 268:11,20 280:1 287:12
298:22 310:19 317:8 318:15,20
320:20
- informed** 136:4
- infrastructure** 200:7,15,20
205:2 243:16 250:22 257:16
262:5 286:21 302:11 316:17
- infrequent** 174:12 175:1 176:6
195:14
- infrequently** 175:20
- ingrained** 115:9
- inherently** 297:1 304:3
- initial** 143:15 221:1
- inject** 68:17
- injured** 161:18 255:14 273:4
298:1 311:11,18
- injuries** 16:7 17:8 57:5,7,17 71:6
75:17 76:4,5,7,19 99:21 100:6,9,
16,21 101:5,20 102:2,7,8 109:22
129:11 134:21 142:14 143:4
152:21 153:1 154:19 209:22
210:4,6 259:17 260:10 275:13
276:2 277:2 283:19 293:8 296:6
303:18 304:21 318:13,15 319:9,
12,15,20 320:2
- injury** 29:2 43:10 78:8 101:18
106:6 135:12 142:18 143:1
144:19 203:6 222:22 253:19,22
255:19 260:1 262:10 274:9 291:2
303:15
- input** 27:11 129:13
- inquired** 84:2
- inside** 32:20 33:1 88:17 145:8,11
151:13,15 171:19 210:1 273:1
275:9,22 303:11 304:16 305:18
306:12 317:4
- insights** 116:18,22
- insisting** 93:14
- inspect** 18:13 88:8 242:8 274:4
284:13,15 285:16 288:18
- inspected** 20:1 32:1 165:1
- 246:20
- inspecting** 20:16 34:5 44:2
258:16 285:18 286:20
- inspection** 12:22 43:5 61:5
164:3,19 165:5 166:8 202:16
- inspections** 48:8 163:1
- inspectors** 18:13
- install** 32:19 48:5 53:4 79:22
88:15 96:11 98:17 146:19 173:14
180:19 182:2 188:14 218:13
228:7 232:16 242:8
- installation** 82:15 85:21 86:4
138:10 139:4 155:9 157:18
160:16 178:20 180:22 182:20
183:16 184:1 185:1 211:17
212:14 225:19 227:2 230:14
235:22 236:3 261:12
- installations** 138:6
- installed** 19:7 24:8 36:15 37:2,10
52:15 53:2,9,17 60:15,16 81:1
121:3 124:8 150:6 173:3 177:7
192:9 196:4 221:6 224:3,7
246:14,16 248:22 252:16 253:3
255:3
- installer** 236:5
- installing** 20:7 83:7 98:9 217:13
233:13 271:5
- instance** 66:21 284:22 291:1
293:20 322:3
- instances** 75:13 98:6 99:22
100:7 218:8 240:5
- instantaneously** 319:19
- instantly** 306:9
- instinct** 143:9,13
- instinctive** 104:1
- instinctively** 275:11
- institute** 27:16 28:4 94:22 95:4
128:20
- instituting** 81:13
- institutions** 251:2
- instructing** 271:2
- instructions** 68:14
- integrated** 86:18
- integrity** 166:3 318:9,11
- intended** 32:22 110:21 111:1
136:9 179:20 243:22 303:11
- intent** 143:13 322:6
- intention** 322:1
- interact** 72:7 188:11
- interacting** 283:20
- interchangeability** 235:6,9,10
- interest** 201:11 322:11
- interested** 127:21 208:4
- interesting** 52:3 82:22 165:7
- interfere** 45:1 160:2 229:6
- interference** 237:12
- interior** 179:10
- intermediate** 48:19 137:18
174:4
- internal** 260:12 305:21
- International** 15:21 58:18 114:4
302:6
- interpretation** 194:10 219:5
- interrupts** 135:9
- interval** 126:22
- intervening** 290:11
- introduce** 10:17 15:2 45:3 47:11
59:22 60:2,5 140:14
- introduced** 100:1
- introduces** 31:7
- introducing** 108:14
- intuitive** 103:21 140:11
- inventory** 248:12
- inversion** 146:6
- investigate** 271:14
- investigated** 298:5
- investigatory** 260:15
- investment** 222:21
- investments** 272:12
- involve** 69:19 193:4
- involved** 46:13 57:8 101:22

105:15,20 140:12 148:1 240:21
263:1 268:12,17 275:17 286:18
287:9,10,18 296:21 297:4 318:21

involves 140:4

involving 57:3,18 135:1 225:18
261:12 274:12

IOSH 44:10

irrelevant 242:18

issue 57:3 67:2 111:12,19 112:1
135:4 163:17 185:3 224:10 225:5
229:14,19 230:1 232:21 237:20
238:5 280:21 288:21 300:14

issued 66:4

issues 12:10 32:2 60:18 70:13
99:20 102:22 148:12 214:13
220:3 225:1 282:5

item 163:8

items 166:14

it's 248:9 249:5 264:21 265:14
266:7 275:7,8 280:8,9 282:12
290:5 295:2 300:9 301:15,17
314:10,14 319:6 320:14

I'd 264:21 292:9 315:20 317:11

I'll 247:2 260:21 281:18 288:6
293:20 301:16

I'm 187:13 242:6 250:11 257:19
260:4 261:4 269:9 273:17,21
278:19,22 283:16 286:12 290:20
293:17 308:10 309:14 311:19
319:14

I've 258:5 308:9 310:8

J

jerked 106:1

job 49:9 97:14 102:12 161:15
266:4 279:10,13 289:11,15 290:6
296:16 297:1 314:14 316:8,9,10

jobs 280:5,18 299:8 312:19
313:19 314:2

Jody 42:4 110:21 118:20 119:4

JOHN 168:4,8,12,18,22 200:9
215:6,14 241:13,20 249:18 250:4
269:2,9 300:21 301:8 320:9,17

joining 127:22

joint 282:14

Josh 215:14

journal 51:14 52:5

journeymen 314:12

Juan 269:9,10 270:3 278:3 282:5

Judge 11:13,19 13:15 14:8,18
21:18,21 24:16 26:7,13 27:9,14
35:3 40:5,9 41:14,19,22 49:17
55:20 56:1,8 58:10 60:8,13 62:5,
9,19,21 71:17 87:10 111:6 113:20
118:12,15,17 122:13 126:4 127:5,
9,12 139:14 159:16 167:5,9,13
168:1,6,13,20 169:6 176:19 188:3
199:21 200:3,6 206:2 213:9
215:4,8,12,21 222:12 223:3,7
225:13 234:6,14,19 241:15,18
242:2 246:1 247:22 249:16,20
250:1 256:10 263:18 267:17
268:22 269:4,7,15,16,17,19,22
270:2 273:19 278:5 292:7 300:19
301:1,5,14,19,21 309:16 315:15,
17 320:6,11,14,18

jurisdiction 242:14

justification 245:1

justify 251:16 306:20 308:22

Justin 42:3,8 58:18 126:20

K

Kathleen 168:7

Kathy 168:5,8 200:9,13

keen 156:21

Kevin 168:17 169:1,10 218:5
221:10

key 295:19

Khan 212:5 226:12

kill 298:4

killed 298:1,3,11,15

killing 255:8

kind 50:19 51:15 52:5 57:4 61:12
83:3 96:14 110:6 117:12 153:10
160:22 182:13 194:19 197:16
213:18 227:5 228:21 236:15
238:14 240:20 256:20 260:21

287:2 290:1 318:3

kinds 76:4 83:1 84:21 94:2
107:12 280:2 281:5 282:5 284:12
287:21 289:21 296:13

knees 103:8

knowing 281:14

knowledge 18:7 28:21 43:8

Kramer 127:14,18 128:1 143:5
145:15 147:14 148:6 150:3 154:6
156:19 157:20 158:1 159:9,11,13
160:4 162:4 163:8 165:13,16
166:6 167:11

L

labor 128:21 155:15 220:12
232:11 233:12 262:1 322:8

laboratories 132:17

laboratory 130:20 135:17

laborers 301:6 313:18 317:3

Laborer's 302:2,5

lack 51:4 148:3 202:20 264:17
288:6

ladder 17:11,16,21 18:11 19:5,
12,22 20:7 23:3,15 24:6,8 25:5,
10,20 26:17,19 29:5,8,20 30:6,10,
13,15,21 31:15 32:7,20 33:3,22
34:3 35:22 36:13 37:1,8,11 39:2,7
40:18,19 42:14 44:18 45:1,10,16
46:9,12,17,20 47:12 48:5,6 49:1,
12 50:9,14 51:8 52:1,13,18,22
53:4,15,17,18 55:1,6 56:17,22
59:2,8,11 60:16,22 64:13 66:13,
22 67:7 72:9 73:22 74:3,10,14,17
76:11 77:22 79:22 81:10,22
82:12,16 83:8,13 84:3 85:11,16,
18 86:11,19,20 87:22 88:9,12
89:12 90:10 91:1,12,14,19 93:15
96:9,14,15 98:10,17 100:4,17
101:3,4 102:17 103:11,17 105:8,
11 106:13 108:14 109:4 110:1
111:21 112:4,19 113:8 115:8,9,
11,13 116:2,15 117:6,16 120:15,
18,20 121:20 123:5,15 124:7,9
125:9,14 126:14,15 129:18,21
130:10,15 133:18 134:5,8 135:7
136:5,19,21 137:2,15 139:4
141:13,14,20 142:9,20 143:13
146:12,18,19 147:1 148:9,12,18

- 149:4,8,16,17 151:7 152:10,11,
12,22 154:13 155:10 157:14
158:4,13 159:20 160:2,5,16
161:1,11,13 163:3,7,10,12,13,20
164:4,7,14 165:4,10,19,21 166:4,
5,9,16 169:14 170:5,7,19 171:4,
15 172:2,5,7,8,10,12,15,20 173:6,
8,9,12,14,17,20,21 174:2,4,14,16,
18 175:11,16,19,21 176:5,9,16
177:6,9,12,13 178:2,10,20 179:4,
7,10,18,19 180:20 181:5,9,11
182:3,4,6,8,9,10,13 183:1,13
184:3,16,21 185:8,14,19,20,21
186:1,3,5,10,12,16,18,19 187:1,3,
15 188:8,13,14,15,20 189:7,11,19
190:6,9,14,20 191:5,8,14 192:4,7,
20,22 193:1 194:3,4,5,7,16 195:5,
9,22 196:4,7 197:12,14 201:5
202:2,13 203:3,19 204:15 205:16
206:9,16 208:21 209:3,15 210:2
211:13 212:7,20 217:16 218:6,7,
20 219:2,9 220:3,5,7,14,17,22
221:4,11,22 222:19 224:1,11
225:19 226:7,14,19 227:21 228:2,
4,9,14,16,19 229:3,7,13,14,21
230:3,15,19 231:9,12,15 232:2,
17,18 233:4,6,8,9,11,13,16,18
235:3 236:9,17 237:5,13,16
238:7,13,15,21,22 239:14 240:16
243:13 244:5,10 245:7 248:5
252:17,18,20,21 253:5,6 254:12,
20 255:7,8,13,17 256:6 257:4
258:2,8 259:8,14,19 261:13
264:17 271:6,21 273:5 274:12,14,
18 275:2 276:4,11 278:12 279:4,
20 282:2,20 283:13 284:4 285:1,6
286:4 287:5 291:10,15 293:21
294:5,22 295:10 296:4 297:22
299:6,18 300:1 302:18,20 303:6
304:9 305:6,17 306:5 307:10,21
309:8 310:2,6,22 311:22 312:4,12
313:4 314:6,17 317:16,21 318:16
- ladder's** 46:5 165:22 194:8 227:8
- ladder-climbing** 115:1
- ladders** 13:8,12 16:10,16 17:5,8
18:3,8 19:1,8,21 20:6,10,11,12,20
21:13,16 22:16,20 23:14,20,22
24:9 25:17 26:16 27:3 28:9,12,14,
16,22 31:18 32:14,17 33:17,19
34:15 35:1 36:12,15,20 37:1,6,18,
20 40:16 41:1 42:12,21 43:4,12,
14,16 45:10 48:17,18 49:4 50:22
51:20,21 52:12,15,20 53:12 54:4
56:15 57:3 59:3 60:18 63:12,14
64:1,4,15,21 65:7,8 66:2,11 67:5,
10,13,16 69:1 70:2,15 73:14,17
78:12 80:1,10,15,22 81:1,3,6
82:10 84:12,21 85:12,14 88:9,10
89:4,7,11 90:20 91:20 95:16
99:21 106:14 107:3,12,14 116:14
119:20 120:14 123:14,17 124:4
126:13,21 129:19 134:18,19,20
135:1 137:16 138:19 148:7 152:6
157:13,16 158:3,10,16,20 159:22
160:22 163:15 164:22 166:10
171:3 172:11 174:9,19,20,22
175:1,15 176:12,13 177:3 179:14
180:2 181:1,3,14,21 182:20
184:5,18,19 185:4,10,14 191:17
192:8 198:19 199:15 200:18
201:4,15,20 202:18 205:5 207:18
208:2,13 211:13,22 212:8,10
213:14,17,19 216:21 217:12,13,
21 218:3,14 219:7,12,18,21
220:8,11,16 224:3,20 225:6,22
226:15,17 227:9 229:4 231:8
232:15 238:19 239:5,6,12,15
240:3,8 241:1 243:4,12 244:2
245:3 246:4,9,15,20 247:7 248:5,
8 250:19,21 251:4,10,20 252:4,6,
8,13 253:2 254:4,6,19,22 255:3,4
256:1,7 257:12 258:9 259:9
261:15 263:3,8 264:3,15 266:20
270:20 271:7 274:3 275:9,22
276:5,10,15 280:6 281:6 282:3,20
283:15 284:14,16 285:19 286:20
287:8,11 288:12,13 291:20
292:11 302:15 303:2 304:5,7
307:2 308:7 309:22 311:8 312:1,
11 313:5,11,15 314:18,21 316:2
317:10,22 318:8,14
- ladies** 131:15
- lagging** 291:1
- landing** 48:19 137:18
- landlines** 113:2
- landmark** 305:13
- landscape** 287:16
- lanyard** 96:22 97:6,10 99:3
111:15 227:19 272:4 290:4
293:19 294:7,13,14,18
- lanyards** 91:17 294:15
- large** 45:21 47:2 52:21 241:5
287:22
- larger** 57:4 257:17
- largest** 270:8
- lastly** 255:15 308:5
- law** 170:14
- layer** 50:12
- lead** 70:14 172:22 186:10 219:11
313:12
- leadership** 204:21
- leading** 16:2 129:11 202:11
254:13 291:6,11,17
- lean** 177:14,18 305:8
- leaning** 238:1
- learn** 121:12
- lease** 240:11
- leave** 49:3 148:20 244:7 288:16
- leaving** 16:13
- led** 219:11
- left** 47:15 254:1 298:10
- legacy** 130:9 303:16
- legal** 65:5 273:8
- legalized** 271:9
- legitimate** 65:10
- legs** 74:18 79:12 103:7 104:7
161:8,14 275:11
- lends** 190:19
- length** 26:17 40:17 41:1 56:17
105:11 106:15,16 117:21 126:14
170:20 194:4 221:3 227:19
238:13
- lets** 46:17
- letters** 219:5
- let's** 271:2 306:2
- level** 16:18 23:21 28:15 34:9
36:16 52:16 54:1 65:21,22 80:3
81:8 95:2,4 97:7 105:12 123:18
129:20 130:8 133:19 134:15
138:18 139:5 141:3 142:2,17
143:14 145:18 169:15 170:2
171:10 180:7 196:2 198:15,17
203:9 254:16 277:14 280:9
282:13,15 285:5 291:13
- levels** 48:3 69:20 82:11,15 97:3

liability 236:4,5	local 270:4 282:12,15 298:13	loud 169:5,6
life 88:7,13 89:12,13 150:18 175:2 193:1 213:16,19 231:2 238:12 251:18 259:12 266:14 275:4 294:7 308:5,22	locating 121:17	love 264:21
life-altering 277:2	location 121:3 221:8	low 175:11 222:17 224:11 227:19,22
life-saving 255:11 275:5 304:1	locations 111:15 208:1 214:1,4, 15 222:18	lower 16:17 23:21 28:15 36:16 52:16 80:2 82:11 105:12 123:18 129:20 142:2,17 143:14 145:18 146:1 150:20 155:22 171:7,10,16, 21 183:3 195:9 196:1 199:8 254:15 305:22 307:12
lifeline 177:5 178:19 204:15 295:5,7,8,9 308:15	lock 145:2	lowest 58:21
lifelines 148:20 306:6 308:1	locks 306:9	LSS 187:4
lifespan 163:3,6 166:5 239:2,11 317:16 318:4	logic 161:21	luck 197:17
lift 209:16 231:5 232:8	logistical 171:18	luckier 197:21,22
lifting 89:18	logistics 181:19	lurched 106:1
lifts 61:12	logs 78:7	lying 224:11 248:14
likelihood 70:18 178:8 194:20 195:7 238:2	long 17:15 24:20 28:22 44:10 61:18 71:3 93:18 112:10 129:4 153:19 190:21 194:9 199:16 230:4 237:2 238:14 239:10 240:2 243:15,21	
Likewise 114:11	long-term 202:15	M
limb 162:19 304:21	longer 89:10 162:1 181:21 217:14 244:4,21 317:20 318:2	Maciel 63:2
limbs 196:13 254:9 305:21 319:3	longevity 243:16	made 18:4 24:12 37:13 53:20 77:7 96:2 100:13 117:11 124:11 139:9 153:17 166:9 225:8 245:9 280:16 285:2 297:7
limit 143:3 194:10 203:22 218:2 224:12	longstanding 43:9 50:20	magic 74:9
limitation 262:1	looked 38:10 51:13 286:1	magically 65:14
limited 44:22 60:1 69:22 130:20 171:1,7 175:13 177:19	loop 161:5	magnitude 90:6
limiting 136:9	loophole 251:6	maiming 255:8
limits 230:11	lose 74:16,22 102:21 196:6 298:18	main 25:19 241:2
link 45:20	loses 205:15	maintain 88:9 134:15 149:14 200:19 203:10 242:8 245:8 256:19 274:4 291:8 295:6 309:11
liquid 15:21 16:3	loss 196:22 267:18,21 275:6	maintained 46:8 202:18 207:18 239:1
list 12:17 14:1,9 200:11 215:15	lost 109:10 116:10 203:12 254:12 267:1,11 291:3	maintaining 20:17 34:6 89:3 139:7 156:17 250:21 257:15 262:5
listed 12:21 13:2	lot 25:16 51:18 57:22 61:4,9 84:9, 10 85:5 101:21 111:1 117:3 118:6 189:3 199:14 207:20 213:22 214:12 216:19 217:4,11 218:18 219:21 220:3,7,10,21 232:5 235:20 240:1,8 265:13 278:13 280:13,18 281:7 283:1,7 284:6,9, 18 285:12 286:1 287:22 288:14 289:3,20 290:22 292:17 294:18 300:4 312:17 313:17 317:1 318:10	maintains 175:3
LIUNA 302:6,9 309:9	lots 91:18 112:2 195:20 214:3,4, 18 279:6 280:8 285:19 286:1 293:18 297:11	maintenance 43:5 48:10,13 73:21 81:4,9 88:4 112:3 119:8 244:20 249:6 285:22 289:18,21
lives 251:13 253:12 266:8 277:17 302:12 303:2 306:16		major 17:18 18:18 19:17 31:14 43:10 63:17 69:10 128:18 221:4
LJB 168:3,14 169:12		
load 19:3,15 185:13,21,22 186:4 219:14 227:11		
loading 16:21		
loads 85:13 157:15 158:3,7,8,12 179:19 184:19 185:4,15 186:7,9 212:9 226:16 228:3		

- majority** 203:5
- make** 30:1,7 31:19 64:16 71:2
76:1 78:17 96:5 108:1,4,8 110:18
115:4 118:7 133:13 149:18
150:15 151:1 157:5 161:5 174:7
223:14 231:2 238:19 276:12
297:17 298:19 299:10 300:12
- makes** 74:5 112:7 236:19 262:3
- making** 31:9 65:11 70:22 83:1
116:19 150:8 157:7 163:6 203:14
255:10,22 280:22
- man** 67:22 68:4 78:11
- manage** 178:5 203:22
- managed** 151:17
- management's** 262:15
- mandate** 32:13 33:5 43:19 44:15
47:15,19 49:11 63:13,17 64:12,20
68:16 70:1 71:8 205:13
- mandated** 32:7 65:8 77:2,8
- mandating** 33:11 69:7
- mangled** 260:8
- manhole** 290:2
- manipulate** 30:13
- manner** 120:19 135:9 140:16
- manufacturer** 120:22 222:5
246:9
- manufacturers** 42:2 132:16
235:21 283:4 300:11
- manufacturing** 45:22 63:6 83:5
84:14,22 85:1 132:4 145:5 270:13
280:3 313:16
- map** 281:5
- Marie** 26:10 41:12 56:3 126:7
159:18 188:5 213:11
- marine** 18:1 67:12,17
- marked** 13:19 14:15 56:11
234:16
- market** 177:18 185:19 238:11
240:22
- marketplace** 217:11
- master** 12:13 13:16
- match** 57:13 81:13 94:2
- matches** 33:16
- material** 155:16 165:22 166:20
181:21 183:22 238:18 251:9
318:8
- materials** 20:10 79:14 156:6
166:11 221:5 231:3
- matter** 100:17 103:5 105:13
114:20 145:3 167:20 189:12
206:17 222:2 310:9 322:12,14
- matters** 12:11 14:20 243:1
- maximize** 240:10
- Mazzocchi** 272:3
- ma'am** 256:11 269:5
- Mcdonald's** 235:17
- meaning** 149:13 304:11
- meaningful** 78:13,16 282:13
- meaningfully** 29:3
- meaningless** 307:9
- means** 32:5 95:12 135:13 137:15
141:2,5,18 151:6 243:22 259:13
- meant** 185:14 194:13
- meantime** 81:13
- measurable** 43:17
- measure** 170:1 291:17 312:3
- measures** 63:20 275:5
- Mecham** 42:3,7,8 49:20 50:6
51:12 52:17 53:10,22 55:10
56:13,20 57:11 58:4,9 59:6,19
60:20 111:2 126:20
- Mecham's** 56:6
- mechanical** 45:4 60:2 119:9
146:21 308:2
- mechanism** 103:20 115:11
- medical** 137:5 145:20
- meet** 227:10 254:3 258:14,15
259:4 288:3
- meeting** 237:2
- meetings** 288:4
- meets** 78:13
- member** 26:16 27:1 28:6 164:16
201:14 270:3 298:2,7,10
- members** 16:3,8,11 17:4 20:8,21
21:4 25:16 28:8,21 30:2 32:19
33:20 63:9,11,18 71:11 78:8 86:3
97:2 127:21 128:20 129:8 130:12,
18 132:11 138:5 151:5 152:19
158:19 165:1 202:12 204:7
207:17 208:12 213:14,17 214:17
243:5 246:4,20 247:7,12 250:17,
18 251:18 256:15 257:4,9,22
258:7 259:7 260:18 262:2,9 263:6
264:6,16 265:4 266:12 270:2
271:22 272:1,19 274:3,6,13
277:17 278:16 279:3,7,20 280:11
281:21,22 282:10,18 283:8,12,17,
21 284:2,3,9,15 292:15 293:19
301:22 302:5 309:9 310:4 311:1,
7,13,20 312:10 313:3,4 314:4,15
316:5,16,19 317:9 322:7
- members'** 16:22 23:14,22 36:13
37:6 52:12 64:5 79:18,20 97:21
124:4 265:12
- membership** 35:14 36:5,19
37:4,16 53:13 79:15 123:15
261:18
- member's** 275:4
- memo** 254:19
- men** 242:8 302:10 309:6
- mention** 59:1 236:14 270:14
- mentioned** 22:14 24:11,21 25:15
38:18 49:22 51:3 52:11 54:17
55:16 61:22 72:3 77:16 79:11
87:15 99:16 100:2 109:21 125:3
126:21 132:21 143:7 144:19
146:11 165:9 195:18 206:6
213:14 237:13 246:13 256:13
259:20 262:20 266:19 268:5
280:15 291:7 304:20 305:14
307:20 308:9 317:16
- message** 42:11
- messy** 268:15
- met** 116:4 172:1
- metal** 18:5 304:17 305:11
- metals** 270:10 280:4
- method** 63:19 170:10 174:5
191:18 314:21
- methods** 33:6 202:22 205:21
- metric** 235:13

microphone 15:14 27:20 42:6
58:15 62:16 114:2 215:19 250:6

middle 214:12

miles 287:22

million 250:17 252:3,6 265:3

millions 47:13 78:11

mimic 75:10

mind 189:10 197:15 234:9
266:13

minimal 48:13 210:9 241:9

minimize 210:15

minimum 170:20 259:5

mining 270:11

minor 76:4 110:8 191:21 210:1
222:19 259:17

minute 315:17 320:7

minutes 118:22 301:17

mishmash 70:14

mismatch 33:9

missed 289:9

mission 129:4 138:20 309:3

missteps 137:5

mistake 299:10

mistakes 30:2 31:9 34:17 121:14
297:17

misunderstood 90:21

mitigation 171:9

mix 34:14 59:7 81:13 94:1

mix-match 96:8 97:16 98:4

mixed 49:4 60:6

mixing 62:1

mobile 209:14

mobilization 181:18 233:14

Mockler 11:6,11 24:18,19 26:2
38:10,13 39:14,20 40:4 54:12,13
55:19 82:6,7 83:18,22 85:9 87:1,5
124:19,20 125:22 154:10,11
156:12 157:10 159:6,10

models 74:5 112:7

modern 129:22 133:18 134:7,10
135:7 160:5 202:20 244:6 245:18
271:20 272:17 302:19 306:3
307:6,20 309:7,12

modernization 62:12 63:3 84:8
205:8 245:5

Modernize 205:21

modification 38:3 88:1

modifications 48:22

modified 37:21 176:12

moment 36:4 46:10 112:21
290:21

momentum 319:4

money 90:1 156:5 232:5

monitoring 25:1 38:19,20 54:19
125:5

month 288:4 289:2

morning 10:20 11:1,14,17 15:19
27:22 33:13 39:19 40:13 42:7
62:20 87:12 119:1 126:8 127:18
131:14,16 147:8 167:14 209:22
259:16 265:6 298:12

Morris 11:13,19 13:15 14:8,18
21:18,21 24:16 26:7,13 27:9,14
35:3 40:5,9 41:14,19,22 49:17
55:20 56:1,8 58:10 60:8,13 62:5,
9,19,21 71:17 87:10 111:6 113:20
118:12,15,17 122:13 126:4 127:5,
9,12 139:14 159:16 167:5,9,13
168:1,6,13,20 169:6 176:19 188:3
199:21 200:3,6 206:2 213:9
215:4,8,12,21 222:12 223:3,7
225:13 234:6,14,19 241:15,18
242:2 246:1 247:22 249:16,20
250:1 256:10 263:18 267:17
268:22 269:4,7,15,16,17,19,22
270:2 273:19 278:5 292:7 300:19
301:1,5,14,19,21 309:16 315:15,
17 320:6,11,14,18

motion 162:14 230:9

mount 179:10,15 185:11,19

mountains 214:6

mounted 17:17,21 30:11 149:6
179:9,12

mounting 19:22

mourned 270:22

movable 220:14

move 56:4 77:9 120:4 121:6
122:5 197:5 209:19 255:1 291:4
300:15

moved 209:9 285:5

movement 230:5 303:5

moves 73:21

moving 77:11 91:22 99:10
162:12,20 175:16 290:22 291:12

multi 118:1

multi- 46:15

multi-action 46:11

multi-component 45:19

multi-level 194:7

multi-year 202:1

multiple 18:19,22 19:11 30:12
31:3 32:4 46:17 69:11 106:22
108:3,10 152:14 184:5 201:15

multitude 258:16

municipal 250:3,16 251:3
257:15 262:20

muscles 197:5,7

mute 38:11 223:7

muted 36:9

N

naive 142:21

narrow 306:13

Nate 200:14,16,22 201:2,10
202:4 203:19 204:7 205:3,12
206:12 207:17 211:11 221:16
301:10

NATE's 201:10 202:12 203:16
204:20

nation's 16:5 47:22

national 63:1 128:19 132:13
140:7

nation's 302:10

natural 28:7,17 31:1 104:1,18
143:9,13

naturally 197:11
nature 35:17 167:1 180:6 191:13
 195:19 196:8 272:5
near-miss 43:10
necessarily 140:10 143:16
 145:13 160:19 161:15 172:18
 222:8 224:15 246:14 311:12,13
needed 18:7 19:20 20:4 69:18
 188:14 232:22 233:6 252:12,18
 264:3 292:11 316:1
needing 29:12
neglect 202:15
neglected 153:22 208:2
negligence 271:10
negligible 308:20
negotiations 270:17
networks 42:20
neutralize 228:21
newer 272:17
newly 277:12
nice 58:17
night 298:6,9
nightmare 272:22
NIOSH 29:14
nod 10:5
nominal 221:8 233:12,17
non-fatal 43:9
noncompliant 175:9
nonfatal 101:20
normal 43:4 164:2
North 270:8 301:7 302:3,6
Nos 14:15
notably 133:20
noted 141:11
notes 27:14 301:5
notice 92:22 95:9 322:1,6
November 88:22 219:7 224:7
 245:20 251:21 252:17 253:3,9
 271:4 302:17 303:20 309:11

NPRM 66:5,18,19 68:12 87:20
NRC 313:14
nuances 265:19
nuclear 313:13
number 12:19 24:2 36:17,19,20,
 22 37:15 45:16 47:2 52:18,21
 110:11 155:7,10 193:4 321:12
numbers 187:7 208:7 308:12
numerous 16:10 63:5 218:13,14

O

object 142:17 144:8 162:10,14
objective 138:22 141:21 143:2
 147:1 174:18
objectively 65:19
objects 76:10 142:3 272:1
observations 130:18
observed 50:21 154:17 202:14
observer 140:11
observing 287:17
obstacle 152:4
obstruct 46:1
obstructed 151:16
obstruction 151:19 163:18,19
obstructions 172:22
obvious 169:19
occasion 227:6 283:4
occupation 307:7
occupational 42:8 128:16 135:3
 202:11 250:13 302:2 309:4
occur 57:3 100:16 102:3,8
 112:18 142:18 143:1 210:4,7
 256:15 306:8 318:7,15 319:13
occurred 51:20 57:7 67:7 110:1
 113:7 293:9 318:13
occurring 22:19 75:18 194:20
 195:8
occurs 23:5 36:3 51:11 78:3
 79:11 123:7 303:6

ocean 214:5
October 321:17
offense 68:1
offer 112:20 304:11 305:6 307:14
offered 139:19 192:19
office 11:7,20 12:1,3,5 13:1
 26:11 54:14 58:7 60:10 216:10
 240:1,7 248:2
officials 301:21
oftentimes 179:14 181:10 218:5
Ohmstede 119:6 122:9
oil 28:8,17 31:2 221:19 222:6
 270:10 280:3
older 133:20 177:16 182:3
 202:19 245:10 272:18
oldest 128:15
one-off 179:2
one-size-fits-all 176:3
one-third 21:3 47:22
ongoing 48:7
online 258:21
open 237:2
openings 103:12 146:3
operate 16:4,8 228:4 243:18
 291:9
operated 43:14 60:3 160:7
 285:2,7 297:5
operates 19:18
operating 47:7 69:20 70:16 95:2
 96:16
operation 45:1 166:2 308:20
 309:1
operational 21:11 204:9
operations 42:18 43:5 47:9
 122:4 174:14 265:8 306:13
 313:10
opinion 29:18 80:18 107:5
 160:21 194:22 213:20 303:13
 306:21 308:20,21 315:2
opinions 145:10
opportunities 217:17

opportunity 16:1 21:17 28:2
42:10 62:22 92:19 100:10 103:15
110:6,17 119:2 121:14 128:12
129:12 131:9,16,20 139:11 143:1
147:5 153:22 155:21 169:9,13
176:18 200:21 216:2 220:4 242:5
245:22 274:2 278:3 309:14 322:2,
5

oppose 256:2

opposed 52:21 53:6 92:4

opposes 251:12

opposite 33:14 44:8 65:16

opposition 302:16

opt 94:22 95:13,15

option 19:14 34:13,22 45:6 64:3
66:8,14 70:20 81:21 86:9 90:9
91:12 92:5 106:18 107:4,5
108:12,16 170:9 182:15 217:21

options 19:1 42:16 51:16 64:8
66:10,11 81:21 85:18 90:18
92:10,16 93:1,9 94:7,14,21 95:12
106:22 107:20 108:3 118:5
119:20 182:16 183:13 191:5
195:10 205:10 307:11 310:11

oral 322:4

order 14:22 45:10 72:7 158:13
221:18 232:11 234:8 251:14

ordinary 243:19

organization 128:15 212:17
225:3,9 235:12

organizations 132:6 171:6
302:8 321:22

orient 103:6

original 244:14 254:2

originally 13:8 244:22

OSH 271:13 277:9,19

OSHA 10:17 11:11 12:7 13:1
15:22 16:14 21:6,14 22:3 23:7
24:17 25:7,10 26:6 28:1,12 29:14
33:4 35:3 36:8,11 38:9 39:4,7
40:5,7 42:11 44:10 45:7 47:17
48:14 49:9,13,17,19 51:19 52:8,
10 54:11,13 55:3,6,20,22 57:19
62:12,21 63:1,3 64:1,7,16 65:7,9,
22 66:4,20 67:14 68:6,12 70:19
71:3,17,19 77:2,6 78:7,19,22 79:9

84:8 85:18 90:7 92:13 100:20
107:19 108:14,19 110:10 119:18
121:22 122:2,13 123:13 124:19
125:11,14 126:2 127:20 129:16,
20 130:15 131:7 133:3 135:21,22
138:10 139:1,14,16 147:10 150:4
152:13 154:9 157:4,9 159:13,15
163:10,13 169:13 170:15 171:22
173:5 174:6,10,18 175:8 176:1,
10,19,21 180:16 183:13 190:3
193:12,22 194:13 195:12 201:2
203:19 204:12 205:13,14 206:2,4
208:11 211:2,9,10 213:8 216:3
218:8 219:4 223:3,5,9 225:14,16
230:2 234:4 239:8 242:4,16,18
243:1,2,11 244:11,15,22 245:6,8,
11,20 246:1,2,7 247:4,17,21
249:3,8,10 250:9 251:15,21
252:2,10,14,19,22 253:3,13,19
254:13 256:10 258:14 259:4
261:4,7 263:16 271:1,2,11 274:1
277:18 278:5,7 281:21 286:12,15
288:7 291:2 301:21 303:13,15
304:22 309:10,16,18 312:10
315:14

OSHA's 10:20 11:2,7 13:8,9
34:10 43:19 63:21 67:9,12 87:9
129:4,9 130:3 131:22 132:21
133:7 134:22 138:16,20 176:8
182:3 188:2 201:21 202:17 218:2
223:11

OSHA-2005-0072-0025 110:3

OSHA-2025-0072 12:20

OSHA'S 242:19 251:5,12
253:12 256:2 292:6 304:6 309:3
321:20 322:7

outage 289:13

outcome 101:14,15 174:6 198:2
203:2 204:13 205:15 275:6

outcomes 101:15 247:8 272:11
309:7

outdated 271:10 276:14 302:18
304:8 305:1

outdoor 48:11 84:13

outdoors 194:17

outfitted 43:1

outlines 146:5

outlying 221:15

outward 275:11

outweighs 308:3

overhead 174:3 179:11,14
185:11 289:19 290:4 294:1,3

overwhelming 203:5

owner 244:5

owners 217:3,4

owns 120:16

P

p.m. 167:21,22 322:15

pain 105:14,20

painted 166:17

pane 215:15

panel 10:17 11:11 200:10 270:2
322:7

panelist 15:12 27:19 62:17
118:21 168:10 241:22 250:5
269:10,12

panelists 15:4 42:5 127:15

paper 155:12 270:10 280:4
295:17 307:9

Papriello 301:9

parallel 294:1,3

parapet 191:2

PARSON 301:12 312:14

Parsons 301:9,15,16,20 302:1
309:19 310:8 311:3,10 312:2
313:7 314:8,19 315:6,12,14,16
316:6,20 317:11,19 318:5,18
319:14 320:4,5,13

part 12:18 13:9 43:4 46:12 67:9,
12 69:2 97:15 133:7 137:7 140:3
141:15 150:6,18 179:6 196:13,20
201:16 206:14 207:12 236:2
265:7 284:19 294:11 295:19
296:19,20 310:3 314:14

participants 10:11 320:21
321:1,8 322:11

participated 129:6

participating 168:15

- participation** 273:16
- parties** 18:10 20:19 108:10
- partner** 126:20
- partnered** 128:20
- partners** 43:3 217:8
- partnership** 216:3
- parts** 172:19
- pass** 79:7 82:5 123:10 124:19
154:9 178:13 180:13 208:10
211:9 223:6 225:15 247:2 257:20
261:4 281:18 286:12 312:7
- passive** 35:17 43:21 50:1 68:8,
11,21 69:6 72:12 74:15 141:2,4
271:17 272:1 304:11 305:10
307:4,15 308:4
- past** 135:1 139:10
- patchwork** 49:3 94:10,14 96:2
- path** 142:3,17 204:2
- paths** 294:1,3
- patience** 126:9
- pause** 229:9
- paying** 262:5
- peer-reviewed** 78:14 136:17
- peers** 57:15
- pen** 155:12
- penthouse** 218:21 241:3
- people** 17:18 18:16 19:11 30:1
31:8 49:15 50:10,13 69:11 91:2
99:10 110:21 117:8 145:12
196:21 209:2 212:22 217:12
219:11 223:19 224:14 225:1
255:8 258:20 260:8,12 266:15
268:14 278:20 280:5,16 284:13
288:10 289:11 291:3 294:9
297:17 311:11 316:8
- people's** 220:6
- perceive** 25:12 39:9 55:8 125:16
- percent** 86:16 149:12,15,21
233:18 254:22 275:20
- percentage** 36:20 158:16 160:21
231:8 264:15 313:3,8
- percentages** 208:7 313:22
- perfect** 30:3 101:11 102:11
124:15 148:10,13 180:10 315:9
319:22
- perform** 157:5 204:2 243:22
307:17
- performance** 30:4 136:8 148:10,
14
- performance-based** 204:19
205:9
- performed** 130:19 151:12 170:4
- performs** 119:8
- period** 89:10 100:8 101:20
133:12 153:7 156:18 219:16
244:17 253:13 289:1 321:8,11
- periodic** 285:21
- periods** 320:19 321:4
- permanent** 313:20
- permissible** 12:22
- permit** 129:21
- permits** 183:5 273:3
- permitted** 85:18 183:13 252:22
- permitting** 24:22 38:18 54:17
125:4
- perpetuity** 90:9
- person** 19:9 69:15 109:15
114:21,22 115:12 116:10 150:7
152:2,7 158:5 194:6 195:1 196:19
207:3 255:12 258:22 289:21
297:13 298:5 313:1 316:9
- person's** 146:1
- personal** 17:10 23:3,16 24:7
29:5 33:3 36:1,14 37:2,9 42:14
44:9 46:18 51:9 52:14 53:16
63:13 64:5,11,20 66:12 68:15
69:7,14,22 70:5 71:8 72:8,18 73:8
74:3,11 76:8,20 78:1 80:1 81:22
82:13 84:4 85:12,19 86:9,12,17,
21 88:16 90:10 91:1,11 93:14,21
95:4,15,19 96:12,20 98:9,18,21
99:1 100:5,22 101:6,9 102:4
105:17 106:3,13,19 108:15 113:9
115:8,13,16 116:9 118:2 120:20
123:5,16 124:7 129:18 133:18
136:6 137:2,14 141:21 148:8,19
151:8 152:22 154:14 157:14
158:3 159:21 160:10,12,17 161:2
177:2 178:2 183:14 184:17
186:17,19 187:2 192:9 201:6
202:2 203:18 204:17 206:10
208:21 210:3 211:14 212:7 224:2,
18 225:20 226:14 228:7 229:3,8
230:15 231:10,16 232:18 235:3
236:9,12 237:18 239:13 240:16
246:16 248:6 252:1,21 253:4
255:6,12,16 256:5 257:5,17
258:2,8 259:8,19 261:13 263:4
264:17 271:5,18 273:5 275:2
276:11 277:6 279:11,21 280:12,
17 282:1,19 283:14 284:4,10
285:16 286:4 287:6 293:5,11,15
296:5 299:6,18,22 302:19 306:4
307:6,10 309:8,22 310:1,5,21
311:21 312:3 313:4 314:5,17
318:17
- personally** 257:11 258:12
265:18
- personnel** 25:2 38:21 54:20
112:3 125:6 173:22 174:17
306:15
- persons** 281:12 321:22
- perspective** 119:22 122:10
131:9,21 133:1,6 134:8 139:12
155:22 156:11 216:14
- perspectives** 132:8 228:22
- Petitioner** 296:3
- petitioners** 184:15 212:6 226:13
240:19
- Petitioner's** 264:1 315:22
- petitions** 308:6 309:20
- petrochemical** 42:2 63:6 119:10
183:4
- petroleum** 17:1 27:15 28:4 67:17
73:19 80:7 81:2 83:4 84:13 98:15
240:4
- PFAS** 102:9 187:4 307:21 314:21
- phased** 303:19
- phased-in** 93:8 94:6
- phone** 221:16 240:3 298:12
- physical** 76:2 278:1
- physically** 275:16
- physics** 143:20 144:7,10,21
147:22 162:6,13 197:9 305:5

physique 282:10	74:6 84:10 111:14 116:22 117:18, 20 130:3 141:11 148:21 173:9 203:10 204:16 291:9 295:12 300:11,12	311:5 315:8 317:12 320:3
pick 209:6,11		post-hearings 87:2
picked 209:8		post-retrofit 211:18
picture 157:6,9 195:3	policy 28:3 275:20 294:12 295:16,22	post-testimony 153:6
piece 164:5,6	poll 247:12	postponed 277:1
pieces 84:16 243:19	polled 37:15	postpones 276:22
ping 319:2	pollution 239:3	potential 46:7 47:1 113:3 121:8 150:21 164:10 237:20 299:1
pipng 167:17 289:19	pong 319:2	potentially 69:8 135:11 151:18 186:11 238:2 275:16 304:20
place 61:18 66:3 87:22 129:22 134:4 153:17 175:21 190:18 192:4 193:5,21 205:17 207:21 209:9 214:7 225:4 239:7 277:21 280:14 310:13 317:5	populated 221:12	pounds 274:8
places 19:5 258:16 294:20 295:14	population 202:10	power 98:16 251:1
plan 90:3 244:19 253:17 276:20	portable 134:19 288:12	Powerpoint 56:5 234:10,12
plane 146:16,17,22	portal 13:5	PPE 19:11 20:8 29:15,18 31:20 34:16 44:12 97:9 190:13,17 191:3,8,9,12 258:1 282:1 283:2 296:9 307:12 308:1 310:4
planning 303:21	portion 186:5	PPE-BASED 191:19
plans 251:1	portions 12:4	practical 129:2 137:12,22 138:4, 15 170:3,16 175:10 196:14
plant 85:1 120:4 274:14 277:13	pose 64:15	practically 44:5 204:22
plants 42:19,20 119:11 313:16 317:5	posed 321:7	practice 44:19 63:1 107:11 133:16 164:19 231:6 235:16
plastics 270:11	poses 65:2 175:22 209:13	practices 25:5 39:2 55:1 125:8 242:22
platform 46:7 112:19 149:8 174:4 254:12	position 62:4 111:10 147:20 152:1 178:7 260:15 307:9	pre-use 48:8
platforms 33:18 38:1 137:18 232:10	positioned 165:20 229:22	preamble 66:20
play 194:18	positive 22:5,12 35:10,18 50:3 57:20 68:3 72:2 90:17 122:18 142:7 161:16	precedence 308:5
pleased 136:2	positively 135:8 141:22 275:3	precious 273:4
PM 285:20	possibility 76:3 111:3 144:13 177:4 244:1	precise 317:13
pneumatic 297:10	possibly 115:21 143:10,17 144:4 162:19 164:11 275:4	precisely 44:12
point 13:6 30:14 44:17 46:7,20 49:2 66:21 71:2 72:15 73:9 75:15 78:17 79:12 80:6,12,13 93:13 96:19 100:14 107:1 110:18 112:19 113:7,14 131:3 142:10 144:9 169:20 186:2 191:21 197:6, 16 218:8 274:7 282:11 295:6 297:12 321:17	post 26:20 187:6 208:5 212:21 284:1	predict 199:10
pointed 73:5 297:14	post- 178:22 247:9 310:17	predictable 135:13 272:11
pointing 296:5	post-comment 153:6	predicting 281:13
points 25:19 30:16 46:3 61:5	post-hearing 23:13 39:22 41:6 55:12,17 62:2 82:8 83:17 85:7 100:11 123:22 124:12,14 125:19, 21 140:2 152:20 156:13,16 159:7 160:14 178:17 183:9 207:12 208:17 226:4 234:2 248:16 260:19 261:8 263:7 264:13 279:18 290:16 291:22 293:2	predictive 285:21
		prefer 192:14 230:7 236:12,16 238:7 312:18
		preferable 265:7
		preference 192:13 236:8,12,18 259:7,11 283:13 311:21 314:16

preferred 137:15,22	priorities 119:17	prohibited 31:4
prepare 14:1	priority 201:10	prohibits 45:7 48:14
prepared 130:13 131:2	privilege 256:8	project 83:7 155:22 211:16,17 226:6
preparing 308:13	privy 247:11	projected 155:18
presence 148:14	proactive 273:10	projects 21:2 119:9 184:11 211:12 225:18 261:12 290:18
present 82:14 90:1 131:21 139:12 168:17,18 172:11 174:15 195:21 216:5	probability 305:16	promise 262:13
presentation 56:5 216:4 234:11 322:4	problem 64:11 93:16 106:18 202:19 214:19 219:20 243:10 259:1,2,3 264:12 282:11 296:20 297:14 315:8	promote 15:3 169:1 269:10,11 285:15
presented 115:7 134:18 155:2	problematic 59:22 61:6,8 94:4	promoted 27:18 42:4 62:17 118:21 127:15 151:5 168:10 200:10 215:15 250:5 269:12 301:8
presents 29:18	problems 44:20 61:16 81:15 276:18 283:5	promotes 53:5
preserve 90:8 122:2 176:10 201:7 204:12 205:12,14	procedural 12:11 110:18	promoting 51:17
Preserving 273:7	procedures 14:5,10 120:9 121:4 149:13,21 175:4 312:22	promotion 241:22
president 128:2 298:13	proceed 14:21 294:17	prompt 168:9 301:10
pretty 74:20 83:10 155:14 184:4 219:6 227:6 228:16 241:7,8 280:13 300:10 305:17 313:14	proceedings 15:8 320:22	prompted 65:22
prevent 142:1 143:4 144:15 161:17 253:5 255:4,7 271:14 280:10 283:19	process 47:5 129:6 132:19 140:4 203:1 217:9 236:3 276:16 293:7, 9,11	promulgated 13:9
preventable 254:17	processing 32:15	proper 160:2 203:14 229:7 282:8 308:1 319:17
preventative 285:21	produce 43:17	properly 151:2 171:18 228:4 296:7 299:2 300:3 310:12,13
prevented 47:18 220:17	produced 135:17	properties 192:2 225:22 240:21
preventing 23:4 36:2 51:10 78:2 106:6 123:6 129:10 255:19 303:17	product 42:20 202:14 205:13 220:9	property 217:4
prevention 142:16 305:4	production 174:15	proposal 34:10 49:10 63:21 87:20 129:14,15 131:7,22 132:21 136:1 138:3 223:11 251:6 256:2 304:6
prevents 105:10 306:10	productivity 154:19	propose 66:7 167:15
previous 35:7,13 61:1 100:2 292:10 304:19 305:14 312:17 315:21 318:20	products 18:14 20:8 132:5 145:6 172:14 179:17	proposed 13:7 16:11 28:10 49:13 66:8 79:19 80:20 90:7 92:15 95:9 108:21 201:1,12,18 251:5,17 271:4 302:16 309:10 321:19
previously 128:10 162:5 166:16 187:10 314:19 317:15	professional 128:4,5,15 145:20 169:11 199:4 250:11 267:5 308:15	proposes 253:14,20
primarily 172:16 177:13 189:5 216:9	professionals 128:3,17 132:15 150:17 272:2	proposing 92:14
primary 303:8 307:17	profile 261:10,20 262:18 287:2, 16	pros 310:20
primed 166:17	program 285:20 287:7	prospect 203:16
principles 135:5 137:12	programs 244:20 255:16 286:19	protect 17:3 19:8 20:4 34:19 67:15 71:14 101:14,18 129:5 132:20 138:20 195:1 202:4 207:2
prior 110:20 169:17 197:1	progress 139:9 305:12	
	prohibit 67:19	

- 232:9 236:4 253:18,21 254:5
304:10 316:12
- protected** 29:11 69:12 74:11
99:3 149:9 150:16 151:2 191:1
259:12 303:22
- protecting** 63:19 119:16 137:16
195:19 245:17 307:21
- protection** 16:16 21:16 22:18
28:14 31:5 33:7 35:17 43:21 46:5
47:12 48:20 50:12 59:3 63:22
64:4,9 65:6,19,21,22 66:10,17
67:4 68:7,11,17,22 70:6,17 72:22
73:8,11 76:15 100:18 101:11
112:20 116:5 119:14 121:19
122:1 128:7,11 130:1,5,9,14,16
131:2,11,18 132:2,5,8,14 133:5,9,
15,20 134:7,10,12,16 135:3,7
136:20 137:3 138:18 139:6,10
141:2,3,4,6,13 146:12,17,21
148:18 149:5 150:5,13 151:7
170:18,22 173:7 190:11 201:3,19
202:21 203:4,9,14 204:3,17
205:5,8,20,22 206:9 224:16
225:21 232:18 244:6,11 245:11,
12 246:11 251:8,10,19 252:2
253:1,11,15 254:3 255:6,16,22
258:1 261:15 271:12,18 272:15,
18 273:7 278:18 279:3 281:22
305:5,10 307:18 309:12 310:4
312:11,18 315:1 319:11,18
- protections** 277:14 283:18
300:16
- protective** 23:2 35:22 44:9 51:8
67:20 77:22 113:2 123:4 170:1
204:2 252:1
- proud** 270:3
- proven** 29:4 30:2 33:6 48:20
63:19 251:9 253:11,15 255:21
304:19 307:16
- proves** 305:15
- provide** 10:1,3 18:22 22:5,11
23:12 35:10 39:21 40:3 50:3,12
62:3 64:9 65:20 68:2,11,20 72:2
82:9 83:16 86:1,2 101:10 103:15
111:18 116:5 118:19 120:14
122:18 123:22 124:13 129:13
130:8,22 133:19 136:2,20 137:3
139:19 141:3,7,13 146:12 148:17
149:4 152:14 157:17 159:7 170:7
173:7 174:5 178:21 180:8 184:22
196:18 206:9 208:5,16 211:11,15,
20,22 212:22 213:15 216:14
217:21 227:1 245:12 247:9
248:16 251:14 252:12 253:10,14
255:5,21 256:5 261:15 264:5,13
265:2 266:21 278:4 282:8 292:13,
17 293:2 297:16 305:9 309:7
311:4 315:7 316:4 317:8,12
318:14
- provided** 19:5 39:12,18 40:2
45:12 73:7 85:4 133:12 134:16
139:6 175:2 187:11 206:18
244:16 251:11,16 254:9 275:5
- providing** 34:8 61:19 73:11
122:10 129:7 135:12 146:21
253:1 258:17,19 268:20 295:15
308:2
- provisions** 89:3 152:14,15
- prudent** 122:15
- PTSD** 298:17
- public** 12:19 14:21 41:15 58:12
60:11 62:6,8 113:21 118:14
127:6,8,21 167:6,8 199:22 200:2
215:5,7 241:14 249:17,19 269:1,3
300:20,22 301:22 320:8,10
321:19
- publicly** 218:9 322:8
- published** 51:14 52:5 151:4
153:9 251:21
- pull** 36:18 37:4 45:13 46:14 61:3
165:3 236:15
- purchase** 132:6
- pure** 144:21 162:13
- purely** 143:20
- purification** 251:1
- purpose** 106:7 169:21 170:7
244:13 271:13 321:4
- purposes** 262:18
- pursue** 45:8 48:15
- push** 199:8 219:16
- pushing** 93:19
- put** 74:10 84:1 101:11 155:12
163:20 188:16 190:14 207:11,22
214:7,8 219:2 249:11 260:19
297:22 302:11 310:10
- puts** 179:19 303:1
- putting** 88:17 186:4 188:12
221:2
-
- Q**
-
- Q&a** 114:11,15
- qualified** 150:7 152:15 163:1
316:8
- qualifying** 313:1
- qualitative** 290:15
- quality** 150:20
- quantify** 257:2 290:14
- question** 10:6,10 22:4 24:20
26:12 35:7 38:14 39:12,17 40:1,
12 41:3 53:12 54:14,15 55:11
57:2 58:2,16 60:12,21 61:21 68:2
71:21 72:11,15 75:17 77:3,5,9,17
79:17 80:4 83:22 90:14 99:15
101:13 106:15 112:15 113:5,11,
14 114:18 116:8 124:3 125:1,2
126:11 154:12,21 156:15 157:10
160:10 161:3 187:13 188:6 190:2
192:7,12,18 193:10 198:4 208:16
213:13 226:21 231:14,18,20
232:15 233:2 235:9 236:7,12
247:6 248:4,20 251:4 262:12
264:1,20,21 290:8 299:22 310:16
315:21
- questioning** 322:5
- questions** 10:2,4 12:9 21:20
23:8,12 24:15 26:5 27:9 35:2,4
36:11 40:10 41:5,15,17 49:17
56:4,13 58:10,11 60:8 62:6,7
71:16,17 79:10 82:8 87:6,9
100:15 113:18,21 114:12 118:13
122:11,13,15 126:3 127:5,7
129:16 130:11 132:22 139:13
147:4,9 154:4,12 165:14 167:6,7
178:15 183:11 186:14,21 188:2
199:20,21 200:1 211:5 213:5
215:2,4,6 223:2 225:12 229:2,10
233:20 234:5,18 238:9 241:11,13
247:18 249:16,18 261:2 263:17,
22 268:21,22 269:3 281:21 286:9
292:6 300:19,21 309:15 315:4,11
320:7,9 321:7
- quick** 97:14 105:22 198:4 258:21
274:11
- quickly** 31:18 143:7 155:12
204:7 222:3 227:14

R

rabbit 115:20	ready 27:21 42:6 127:17,18	reconfiguring 33:17 38:6 45:9 48:16
rack 19:6	real 32:21 97:14 172:11 216:17 228:1 238:10 240:22 241:8 244:1	reconsider 309:10
racks 16:21 19:3,15 25:21	real-world 138:5	reconvene 167:16
rail 48:5 60:2 76:17 101:8 191:2 210:20 242:10 243:6	realistic 31:21	record 10:1 12:7,13,15 13:11,12 14:4,13 15:6,8 23:2 26:15 28:11 29:3 35:21 36:7 37:4 40:16 43:6,9 50:21 51:7 57:6 58:1 77:21 78:16 79:14 123:3 126:12 167:21 180:1 183:19 202:5 207:12 283:12 321:3,17,21 322:2,15
railroad 241:19 242:7,9,13,15,19 243:10,14,16 244:20 245:19 246:7 248:13	realize 57:16 97:5 207:7	recordable 291:2,3
rails 45:22 196:11 280:10 294:4 306:6	realm 262:12	recording 40:2 287:17
rain 102:22 239:3	reason 75:1,13 77:1 96:6,11 134:2 148:17 173:5 198:22 199:12 224:9	records 33:7 77:18
raise 41:15 62:14 196:20	reasonable 71:5 170:3 204:13 245:13	recovery 276:12
raised 58:14 168:21 269:3	reasons 59:16 135:16 199:15 205:3 245:18 266:15	red 68:1,4 71:21 77:6
raises 129:15 132:22	recall 267:9,11	redesign 80:14
rampant 311:15	receive 185:15 244:2 245:4 284:9 289:14,21	redesigned 280:19
range 84:9 107:15,16 171:17,22 178:21 180:19 187:10 228:15,17 230:9 241:4 287:16	received 37:17 124:21 137:21 206:7 234:12 258:5,6 282:18 314:4	redo 193:19
rapid 273:6	receives 171:4	reduce 33:11 47:16 134:15 170:2,11 173:4 176:14 198:11 203:11 307:8
rare 227:6 241:7	recent 304:6	reduced 71:7 155:7 296:22
rarely 136:21 141:16 224:8 249:6	recently 58:20	reducing 128:9 139:5 203:9
rated 203:21 294:8	recess 167:18	reduction 171:2 272:15 290:14, 15
rates 58:21	recognize 17:10 174:8 266:14	reference 321:12
rationale 202:7	recognized 29:14,15 44:10 68:12 242:20 251:8 253:4 276:1 277:22 303:16 309:2	referenced 75:4
re- 111:3	recognizes 170:15	referred 13:18 14:14 56:10 157:12 184:16 212:6 226:13 234:15
re-engineer 37:22	recognizing 281:13	referring 185:9 293:7,11
reach 88:7 89:13 104:1,5,19 144:4 158:18 192:22 195:3 196:15 197:13,14 204:6 273:2	recommend 107:6 189:1 191:16	refine 169:14
reached 274:16	recommendation 130:16 136:12 176:10	refineries 42:19 48:1 67:18 81:2 84:14 111:1 119:10
reaching 75:8 195:4	recommendations 131:13 132:9 138:21	refinery 73:19 83:4 95:13 120:3 221:19 274:4
react 162:9	recommends 130:14	refining 80:8 88:20 98:15 270:12
reactions 162:7	reconcile 244:13	reflect 130:4 133:14 138:21 301:5
reactive 273:9	reconfiguration 45:14	reflected 136:12 154:2 201:22
reactively 286:2	reconfigure 80:14	reflects 133:8 142:15
read 58:20 234:9	reconfigured 89:5	
readily 221:14		

refresher 289:17	321:13	report 153:10 202:13 206:13 258:1 274:21 282:1 310:4 311:14, 17 320:2
regard 99:21 185:2	relying 244:10	reported 17:4 264:7 288:20
region 221:12	remain 48:12 88:2 134:4 175:1 202:11,18 243:13,20 272:19 304:3	reporter 10:4 15:8
regions 120:6	remained 244:21	reporting 311:14
regular 21:12 88:8 289:16	remaining 153:19	reports 78:7 258:7 282:18 314:4
regularly 19:22	remains 93:12 133:7 135:3 202:7 244:8	represent 50:1 84:9 138:17 262:9
regulated 78:18 79:3 92:22 243:2 249:9	remediation 313:12,17 317:1,4	representative 270:18
regulating 64:17	remember 10:3,7 121:12 268:12	representatives 127:20 132:17 227:15 281:10,11
regulation 139:7 152:13 190:3 194:11 228:8	remind 10:13	representing 12:1,3 270:9
regulations 10:15 163:14 202:17 228:12 252:14	reminder 15:15	represents 28:6 63:4 110:22 128:16 200:16 242:7 250:17 270:19 302:9 308:19
regulatory 11:7 54:14 92:12 171:5 205:12 302:22	remote 297:5	request 21:8
reinforce 157:13 186:10	remoteness 222:18	requested 14:10
reinforced 158:17	removal 160:18 187:8,9 189:1 230:16 277:15 313:12	requests 13:21 21:14 205:4 220:7
reinforcement 85:15 181:10 184:21 212:11 226:18	remove 37:21 78:21 201:18 223:11,13,15 232:12 253:14 285:2	require 17:13 30:11 31:17 32:16 34:7,16 61:5 77:12 85:15 88:1 89:4 147:12 148:13 160:17 169:22 177:14,18 184:20 191:19 212:11 226:18 230:16 245:6 265:13 271:19 300:4
reinforcements 264:2 292:11 316:1	removed 182:17 232:16 272:10	required 22:18 149:14,17 163:11 175:7,18 181:19 187:9 203:2 211:2 217:15 218:10 228:8 235:19 252:19 255:21 264:6 292:14 293:14 307:5 316:5
Reinforcing 135:2	removes 243:11	requirement 42:12 65:11,13 66:1 74:12 78:21 79:1,4,22 150:5 173:13 176:3 201:4 204:10 205:11 218:4 223:14 231:1 316:10
reinstalled 182:17	removing 32:16 38:5 49:2 133:22 186:15,22 203:13 231:11, 19 232:1 271:8 276:21 304:2	requirements 63:22 65:6 85:22 121:1 130:4,16 133:14 138:17 139:8 140:7 142:4 149:12 150:12 153:21 163:10,17,22 169:14,17 170:17,19 172:1 173:6 174:21 183:16 198:22 201:20 202:16 205:5 221:9 222:16 227:11 228:12 242:21 249:8,11 252:13 253:20 254:4 256:4 259:5 279:14 312:15
reinstated 134:9	renewable 42:19	
reiterate 221:11	repair 61:10 81:9 88:2,4 89:5 242:9	
reject 201:5	repeal 42:12 49:10	
related 20:15 154:17 160:15 207:10 220:11 222:7,22 236:5 240:15 303:17 316:21,22	repeat 22:8 131:3	
relates 39:18	replace 18:7 29:4 47:12 80:14 88:13 93:20 96:9 157:13 182:10, 12 186:11 212:19 233:6,10	
relaxing 202:6 205:10	replaced 24:9 37:11 53:18 81:4, 10 124:10 176:11 182:4 243:14 244:12 245:7 252:19	
relevant 320:22	replacement 21:12 85:15 88:5 89:5 108:13 154:15 184:21 192:21 212:12 226:19 243:15,19 244:16	
reliability 29:7	replacing 11:10 20:17 33:17 34:6 43:16 48:10 186:18 187:3,14 231:14 233:4,7 258:18 302:18	
reliable 61:17 307:16		
reliance 296:8,9		
relied 303:8		
relies 29:16 104:12		
relocating 297:6		
rely 30:2 129:21 148:9 153:8 163:5 299:19 314:22 316:13		

requires 44:15 50:10 61:8 72:6 73:1 193:12 265:9 273:3 277:19 280:5	restrict 45:2	revisions 201:12
requiring 20:13 29:18 47:6 49:5 70:6 129:17 232:16	restricting 229:15	revisiting 65:4
requisite 258:19	result 16:12 34:14 94:1 100:6 274:22 275:14	rewarding 273:9
rescind 253:20	resulted 29:1 130:7 171:10 296:6	ribs 260:11
rescue 32:6 69:17,18 137:1 151:12,20,21 152:3,16 172:20 173:11,19 204:5 208:20 209:12 255:9 268:5,8 272:22 276:12 306:13	resulting 43:10 89:19 135:11	rid 88:14
rescued 209:7 275:5	results 99:13 135:16 140:13 311:9	rig 221:19 222:6
rescuer 151:19 152:15	resumed 167:21	right-hand 15:16
rescues 152:7	retail 63:6	rigid 305:19 306:6
research 23:1 35:20 51:6 77:20 123:3 129:2 130:17 134:13 136:18,19 137:12 141:12 206:11 207:10 303:15 305:13 307:7,16 308:13	retain 45:11 48:19 130:15 201:2 205:4,19 245:20	rings 318:9
reserve 13:22 14:8	retained 136:22 141:16 142:14	rip 319:6
resists 18:5	retaining 204:10	risk 29:19 30:17,19 31:8 32:10,21 45:17 46:10 47:15 61:14 64:15 65:2 69:3,5 73:6,12 128:9 134:18 139:3 170:2,11 171:2,8,10 174:15 175:22 176:1,14 180:1,5 191:14 192:19 193:2,18 198:6,9,15 199:7,8 202:9 203:11 211:16 251:9 266:3 276:9 284:8 287:9,14 290:14 291:8 295:18 296:10 307:8
resolve 12:10	retracting 113:2 148:20 179:9	risk-based 173:16 174:7
resources 155:9 171:1,7 175:14	retraining 34:5 48:9 193:13,16	riskier 30:7
respect 185:7 271:20	retrieval 115:10,15	risking 308:22
respectfully 49:9 202:5 205:3 245:19 271:1 277:18	retrieve 306:15	risks 47:11 112:18,22 140:17 198:11 203:13 256:12 266:11
respond 144:2 210:16 321:8	retrieved 114:22	role 11:20 12:5 131:18 258:13
responded 260:7 267:4	retrofit 47:5 48:1 80:13 83:13 174:21 176:3 179:4,18 181:5 182:9 185:13 198:16,22 297:21	roll 277:11
responders 204:6 273:2	retrofits 204:9	rollback 309:10
response 10:6 32:10 40:3,21 69:9 100:15 104:1,18 115:7 143:19 255:11 258:12 296:11	retrofitted 24:1 37:7 48:4 53:3, 14 81:5 82:12 124:5 225:6 286:3	rolling 76:15,16 101:7
responses 10:2,3 37:17 321:6	retrofitting 20:6 26:1 33:16 54:5 219:12 276:15 286:6 308:7	roof 174:12 190:11 191:1 207:21 218:22 241:3 279:13
responsibility 256:19 316:7	return 222:20 274:7	roofs 175:7 195:15 274:5
rest 103:15,17 305:9	returns 170:15	room 151:15
resting 274:18	reuse 182:14	rope 206:12 216:20
restore 42:15 70:19	reveals 140:10	rose 283:4
restraint 132:14 217:16 218:6 219:2 220:7,18,22 221:22 222:20 228:16,20 229:13,14,21 230:3 232:17 233:9,11,16 238:7 279:9 290:5	reverting 169:17	rotating 197:18
	review 24:22 38:19 54:18 125:4 133:2 134:13,21 138:2	roughly 33:22 48:4 85:20 183:15 279:19
	reviewing 39:21 163:21	round 261:20
	reviews 211:18	routine 25:4 39:1 48:9 54:22 125:7 174:13 201:16 303:3 309:1
	revise 201:19	
	revision 251:17 253:8	

routinely 200:18 243:5 250:18

rubber 270:10 280:4

rule 12:8 13:8 16:11,13 28:10
47:17 54:6 60:17 65:4 66:6,19,20
70:14 73:15 80:10,16,20 88:11
95:8 98:19 115:21 133:7 134:16
139:1 151:4 153:16,21 155:6
156:1,4 175:22 176:13 201:1,18,
22 203:8 244:14 271:4 277:10
321:20

rulemaking 12:14,19 13:3,12,13
67:1 78:16 95:9 108:19 116:5
129:6 201:12,22

rules 174:11 175:6 203:10

run 170:20 267:8 294:1,3

rungs 45:2 46:1 75:22 103:11,17
277:8 305:19 318:9

runs 98:10

runway 294:2,17,20

rural 214:1

rushed 303:5

rust 238:21

Ryan 301:9

S

safe 28:22 30:3 33:6 45:6 48:20
49:15 63:19 77:4,7 78:20 79:2
105:9 108:1 120:19 139:4 152:1
169:21 220:5 238:15 239:7
254:11 259:2,3 296:5,8 297:16
309:5

safely 18:10 43:14 136:9,22
141:16 142:13 148:4 160:7 177:6

safer 115:4 137:17 170:6,9
175:16 190:16 276:12 278:2
297:1,2 299:3 312:20

safest 312:3 314:20

safety 16:6,12 17:11 20:7 21:2
23:3,16 24:6 25:6,10 28:11 29:3,
6,8,20 30:6,21,22 31:15 32:7,20
33:4,9,15 34:3,9 35:22 36:13
37:1,9 39:2,7 42:9,15 43:6,18
44:18 45:2,12 46:12,20 47:11
48:6 49:12 50:1,9 51:8 52:1,13,18
53:1,15 55:1,6 58:19,22 59:8
60:16,22 63:10 66:13 68:7,9,10,

21 71:10,13 72:9 77:22 79:22
81:10,22 82:12,17 84:4 85:11,18
86:11,20 90:10 91:1 93:15,16
98:18 100:4 106:13 108:15
111:21 113:8 114:4 115:1,8
116:15,21 119:5 120:11,21
121:11 122:8 123:5,15 124:7
125:9,14 128:3,5,15,16 129:1,18
132:15 133:18 134:2 135:4 136:5,
21 137:2,15 139:4 141:14,20
142:20 146:5,20 148:18 149:16
150:17,21 151:7 152:12,22
154:13 156:17 157:14 159:21
160:3,6,16 161:1 169:11,14,15,22
170:5,11 171:4,15 172:6,12,15
173:6,13 174:6 175:13,19 176:9,
16 180:20 181:1,2 182:2,5,8
183:13 184:17 186:16,19 187:1,
15 188:8 189:11,19 192:7 198:10,
11,17 199:4 200:14 201:6,9,13
202:2,7 203:2,19 204:13,15
205:1,11,15 206:9,13 208:21
210:3 211:13 212:7 217:21
222:21 224:1 225:19 226:14
229:3,7 230:10,15 231:9,16 233:4
235:3 236:9 237:16 239:14
240:16 242:19,22 245:17 246:15
248:6 250:10,13,14 252:11,12,21
253:5,17 254:5 255:7,13,17 256:6
257:4,12 258:2,8 259:5,8,19
261:13 263:9 264:17 265:7,9
266:1 267:4 270:5,21 271:6,21
272:16,20 273:6,10,21 275:2
276:11 277:14 279:20 281:9,11
282:2,14,20 283:13,18 284:4,15
285:14 286:4,17 287:5,7,11 288:3
290:11 291:17 293:6,16 296:4
297:22 299:7,18 300:1,3 301:7
302:2,3,4,20 303:8 304:8 305:2,
15 306:5 307:1,7,10,22 308:14
309:1,4,7,8 310:2,6,22 311:22
313:4 314:6,17,22 317:2 318:16

sake 252:11 253:22

Sallman 269:12,14,16 273:17,18,
20 278:11,19 279:6,22 282:4,22
283:16 284:6 286:10,16,17
287:20 290:19 292:3,16 293:10,
17 296:13 299:4 300:9 301:3

sample 159:3

save 156:5 228:11 251:13 253:11
266:8,14 306:15

saved 275:4

saving 251:18

savings 79:18,20 80:12,19 81:19
87:17 89:19,21 90:5,6 154:13,22

scaffold 216:20

scale 184:4,8,12

scenario 97:1 230:18

schedule 14:6,11 154:16 253:17
276:20

scheduled 62:12 320:15

scheme 92:12

Schrieber 301:11

science-based 65:10

scientific 23:1 35:20 51:6 77:20
78:10,14,20 123:2,9 129:1 144:22
145:22 157:7

scope 140:8 211:21 289:6

scrapes 75:20

screams 274:20

screen 15:2,17

sea 214:5

seat 161:22

seatbelt 272:5

secondary 149:18

seconds 207:6 277:6

section 82:16

sector 228:10 317:2

sectors 80:9 270:14

secure 239:9

security 224:10,15 305:7

seek 302:17

seeking 77:19

seeks 67:3

seemingly 72:6

segment 80:9 96:9,12

segments 28:7 89:12 96:13
98:11

select 64:8 66:9 176:15

selected 173:2 204:17

self- 113:1 148:19 179:8	share 113:6 131:9 187:12,18 225:17 261:22 263:6 274:11 286:22 290:17 296:12	siloed 117:7
self-rescue 230:10 273:6	shared 138:21 139:8 162:5 197:1 198:18 266:15	silos 207:20 274:5
self-retractable 295:5,8	sharing 298:21	similar 19:3 35:12 38:15 51:13 54:15 174:10 183:21 184:1,5 193:17 274:6 321:10
self-retracting 149:3 174:3 177:5,11 178:18 179:12,15 185:12	sharp 297:13	similarly 246:13
self-serving 114:19	shed 97:9	simple 38:3 42:11 174:6 183:1 195:12
SEMC 206:12,16	shelf 179:17	simpler 69:1
send 291:22	shift 306:2	simply 47:15 65:1 70:10 77:13 92:16 143:14 144:7 169:16 245:4 294:5 295:22 297:12 307:19 315:1
senior 28:3 128:2 250:14	shocking 135:17	simulations 135:18
sense 50:9 236:19 305:7	shop 191:12	simultaneous 83:20 239:18
sentence 273:8 274:10	short 151:9 162:2,3 219:16 238:9	simultaneously 47:1
separate 59:8 262:11 320:19	shorter 48:18 181:14 191:17	single 31:6 44:13 47:18 48:6 66:21 91:16,17 120:3 184:3
September 321:15	shotgun 155:19	sir 62:9 154:7 200:3 211:7 213:6 222:14 241:16 249:22 301:15 320:12
sequentially 46:22	shouldn't 310:12	sisters 270:21
seriousness 135:20	show 22:17 78:8,20 216:4 236:1 321:21 322:3	sit 307:3
serve 106:7 109:14 128:1 131:17 250:13 302:1	showing 64:16 210:6	site 18:13,17 31:6 73:21,22 91:22 92:1 98:20 99:10 120:8 232:13 312:16
served 128:10	shown 35:14	site-specific 120:22
service 48:13 81:3 174:19 175:2 213:16,19 217:7 218:11 221:14 222:18 238:13 243:8,21 244:7,21 304:4	shows 17:7 43:13 46:15 307:7	sites 26:16 31:3 59:4 67:16 313:15
serviceable 244:8	shudder 195:3	situated 286:22
serviced 226:1	shut 69:21 313:17	situation 44:4 90:22 97:16,21 98:5,8 109:19 112:6 190:17 199:3 236:19
services 25:6 39:3 55:2 119:6 125:10 156:6 195:13 196:18 215:13 270:13	shutdown 69:19 73:19 289:13 313:18 317:3	situations 17:12 69:12 97:19 190:8 191:16 195:20 290:12
session 167:14	shutdowns 276:20	six-tenths 144:5
set 18:21 19:4 84:13 91:16 173:5 186:14 211:12 229:2 242:21 260:16 272:9 280:22 295:20 313:1	side 25:20,21 163:19 166:20,21 183:1 189:12,14,15 190:22 195:10 218:21 220:2 274:15 279:12 295:11 298:3	size 70:7 92:10 289:4
sets 159:3	sides 254:8	slam 105:3
setting 108:10 251:3	sidestep 46:6	slams 101:2,3
settings 107:7	signal 242:9,13 243:6,7,17 248:10,11,13	sleet 102:22
severe 203:6 304:21 305:20	Signalmen 241:19 242:7 245:19	sleeve 206:13 306:8
severely 161:18	significant 29:2 64:15 65:2 80:10 81:3,16 105:20 135:12 144:19 170:13 181:13,17,22 204:11	sleeves 306:6
severity 71:6 143:3 203:7	significantly 85:22 183:17	
shake 10:5	silence 27:10	

slide 169:3 215:17 216:7,8,22 217:10 220:20 222:11 304:15	sort 24:19 54:5 57:2,19 72:10,12 73:8 86:20 103:4 114:14,19 164:10 166:7 178:6 193:17 195:15 199:1 230:20 232:7 240:4 246:10 261:17 262:22 279:16 287:3,9,13,15 291:13	SRD 237:8,21
slides 215:17 234:7	sound 35:8 36:12 108:20 129:1 204:22 304:3	SRL 217:18 232:17 236:21 237:8, 21
sliding 305:22	sounds 106:12 230:14 295:16	staff 302:11
slightly 71:22 177:14,18 181:20 221:3	space 44:21,22 60:1 74:21 97:4 240:10	stages 211:16
slip 102:19 104:18 148:10 197:17 209:4 277:4 302:14 303:4 306:8	spaces 240:2	stainless 166:18
slippery 268:3	span 318:10	stair 170:8 191:17
slipping 172:17	spare 273:11 308:22	stairs 18:21 19:2,4 25:20 137:17 175:21
slips 102:20,21 196:6 256:14 304:14	speak 15:7 42:10 51:15,19 52:6 97:20 110:16 119:2 146:8 169:10 176:18 200:21 219:5 242:5 270:18	stakeholders 77:18 128:22 140:5
slogan 262:2	speaker 15:3,11 35:13	stand 192:1 291:10
slow 133:22	speaking 14:22 65:19 83:20 119:21 195:18 239:18	stand-alone 178:18 179:1
slowly 15:7	specialist 82:18	standard 13:10 25:11 39:8 55:7 63:16 67:10,12 71:1 116:4 125:15 140:8 152:9 163:14 169:22 176:11 202:6 205:9 210:14 223:16 225:8,10 228:14 245:18 251:13,22 252:10 253:8 256:4 297:20 303:14 321:20
slows 32:9	specialized 19:11	standardization 235:16
small 21:4 33:1 74:20 200:17 204:7	specialty 119:8 250:12	standardized 265:8,15 300:6,10
smaller 98:11	specific 121:4,17 123:2 141:10 183:18 208:4 225:3	standards 10:21 11:3 110:11 128:18,19 129:3,9 130:6 132:13, 20 133:17 134:12 136:13 138:16 140:4 142:5 180:17 204:21 205:1 206:21 210:11 211:1,11 225:17 239:8 242:18,19 246:8 249:3 252:15 261:7 286:15 309:12
smart 108:2	specifically 52:17 57:8 67:3 136:7 154:21 303:20	standards-based 156:22
snipping 222:4	specifications 110:11	standpoint 110:19 144:21,22 162:6 164:2
Society 128:2	specifics 55:16 279:17	start 15:17 21:20 22:3 42:16 144:2 162:8 164:14 291:18
sold 182:16	spectrum 307:3	started 49:10 108:19 215:19
solicitor 11:18 12:1,3,5 26:11 40:9 56:1 58:8 61:22 87:10 126:5 159:16 188:3 213:9 247:22 263:18,20 266:18 292:7,9 300:18 315:15,20 320:4	speed 105:22	starting 291:16
solicitor's 11:20 60:10	speeds 299:14	starts 164:17
Solicitor's 248:2	spend 120:2 171:6 288:22 289:1	state 15:6 154:1 213:14 228:6 250:2,15
solution 93:16 94:4,6 107:12 176:16 190:20 191:19 237:7 296:20	spent 287:4,14	stated 22:4,11 113:1 162:22 207:3 248:4 264:2 274:21 314:20 315:22
solutions 231:4 283:7	split 110:21 174:3	statement 296:3 310:14
solvable 276:17	spoke 92:15 222:6	
solve 172:14	spoken 221:10	
solves 44:20	spreading 89:10	
somebody's 316:11	spring-loaded 45:4 60:3	
someone's 237:12	squared 144:12 305:15	
sooner 154:16		

- statements** 194:22
- states** 16:9 202:12 242:11
- stations** 251:2
- Statistics** 220:13
- stay** 105:8 236:17
- steel** 85:1 166:9,10,18 238:19,21
250:20 252:8 270:9 272:1 303:16
304:5 305:19 306:13
- Steelworkers** 269:8 270:4,7
272:3 273:22
- Steffek** 27:18,22 28:3 35:7,12
36:4,17 37:3,14 39:11,16 40:1,8,
12,20 41:9,20,21
- stem** 297:11
- step** 45:16 46:6 302:22
- steps** 29:12 30:12
- sternal** 238:4
- Steve** 269:11 273:17
- stick** 74:18 79:12 103:7 161:8
275:11 297:14
- sticking** 161:14
- Stieler** 168:5,7,11 200:9,12,13
206:5,14 207:14,19 208:8,15
209:1 210:8 211:7,19 212:3,16
213:3,6,12,21 215:1,10 234:6
- stock** 76:15,16 101:7
- Stocker** 11:13,14,15,19,21,22
13:15,20 14:17 26:10,11,14 27:6
40:11 41:2,11,12 56:2,3,12,21
57:1,16 58:5,6 75:16 87:11 89:14,
22 90:2,12,13,20 93:5 94:8,13,18
97:17,18 99:14 102:15,16 104:9,
10,16 106:9 108:22 109:7,20
112:14,15 113:15,17 114:12
126:6,7,19 127:2 159:17,18
160:9,13,20 162:21 165:6,15,17
167:3 168:16 169:2 188:4,5
189:9,16,22 191:20 192:16
195:17 198:3,5 199:17 213:10,11
214:21 215:2 234:9,17,20 236:6
237:9 238:8,9 239:12,20 240:13
241:10
- stop** 76:9 103:1 105:22 196:9
207:4 276:3 277:3 304:13,14
319:18
- stopped** 142:12
- stopping** 102:18 307:18
- stops** 254:10
- storage** 16:20 20:13
- store** 224:11
- stored** 20:8
- stories** 260:22 263:5
- storing** 17:1
- story-tall** 84:16
- straight** 75:8 207:4 223:6 267:8
- straw** 67:22 68:4
- stream** 161:21
- strength** 164:17 172:2 299:13,15
- strengthened** 132:9
- strenuous** 276:5
- stressed** 35:16
- strike** 303:9 304:17 305:19
- strikes** 135:10
- stripping** 93:1
- strong** 28:11
- stronger** 174:21 176:10 186:12
- strongest** 203:20
- strongly** 191:4 251:12 256:2
- struck** 164:7
- struck-by** 318:7
- structural** 24:10 37:12 53:19
124:11 158:2 164:2,3,16 166:7,8
- structurally** 158:11,13 304:2
- structure** 43:22 47:3 49:6 76:13
101:3 104:8 105:4 121:20 179:11,
15 184:20 185:11 201:15 204:18
209:11 226:18 243:20 244:8
303:10 313:20
- structures** 29:9 85:14 157:16
212:11 243:7,8 244:21 245:14
264:3 292:12 316:2
- struggle** 204:6
- struggling** 208:2
- stuck** 61:6 297:9 319:3
- studies** 130:17 179:22 290:18
292:19 321:10
- study** 75:3 78:10,14,20 305:15
- subject** 114:20 242:14 296:12
- subjected** 146:16
- submission** 131:4 321:5
- submit** 23:1 35:21 36:6 51:7
77:21 79:13 123:3 178:16 179:22
180:2,4,9 279:18 283:11 284:1
320:21
- submits** 202:5
- submitted** 12:16 67:5 82:21 85:5
99:17,18 139:18 141:11 153:4
183:18 206:6 215:16 278:10
- submitting** 320:20 321:14,16
- substances** 166:3
- substandard** 304:8
- substantial** 81:9 88:1,4 89:4
133:12 171:13 201:11 202:9
232:1 318:1
- substantially** 137:3 138:7 155:7
156:10
- substitute** 106:13,17 134:7,10
203:18 205:7 285:11 291:14
- substitutes** 201:5
- substitution** 108:12
- success** 272:9 281:1 295:21
299:17
- successful** 278:20
- successfully** 70:9 275:12
278:17 305:16
- succumbing** 142:2,12 161:18
- sudden** 303:6
- suddenly** 274:19
- suffer** 275:13 298:17
- suffered** 67:8 274:13
- suffering** 305:20
- suffers** 306:11
- suffice** 153:13
- sufficient** 158:12,14
- suggest** 140:22 142:18 147:15

153:4 154:16 155:2,5,20 161:22
296:7

suggested 156:3 159:20 161:7
171:17 177:2 192:19 229:3

suggesting 259:16

suggestive 153:14

suitable 202:20

suite 66:9

summarize 156:16

summary 140:1 176:8 274:11

sunk 222:1

sunset 304:2

super 103:21

superior 307:11

suppliers 221:14

supply 16:5 310:17

support 63:21 77:11 108:17
137:13 138:3 176:8 177:22 179:8
202:6,22 204:10 256:3

supported 70:10 108:16 129:4

supporting 85:14 130:2 157:16
184:20 206:12 212:10 226:17

supports 34:12 49:14 139:8

suppose 75:11 96:7 208:5
246:12

surely 67:14 70:2

surety 148:3

surface 111:11 164:15 170:8
174:11 253:7 256:3

surfaces 13:10,13 63:15 66:5
200:22 201:22 251:22 277:10
321:20

surrounded 96:13

survey 35:14 54:2 261:9,17,18
283:11 287:2 315:4

surveyed 17:4 157:8

susceptible 276:8

suspended 216:20

suspension 135:20

sustained 100:9

swing 76:10,16,17 101:1 105:3
106:2

system 20:7 24:6,7 30:9,18 31:5,
9 37:9 38:4 44:18 45:5 46:6,12,18
47:12 48:6 50:9,10,15 53:15,16
59:11 60:2 63:13 64:12,20 66:13
68:16 69:15 70:1 71:8 72:9,18,21
73:9,10 74:2,11,12,15 75:9,11
76:9 81:11,14 86:4,5,9,11,13,18,
20,22 88:16 91:11,16 95:4,11
96:12,20,21 98:9,18,19,22 99:1
100:4,5,18,22 101:6,9,10,11,13
102:4 105:3,10,13,18 106:3,21
108:11 109:13,14 111:21 112:11
113:8,9 115:2,8,9,13,16 116:9
117:9,10 121:3 124:7,8 141:20,21
142:20 146:20 148:8,9 149:16
150:7,13 151:1 152:16 157:19
160:3,16,17 161:1,2 170:5 172:6,
21 173:3,6 174:2 177:9,12 178:3,
10 180:20 181:6 182:2,5 183:14
185:2,5,6,12,21,22 186:16,17,19,
20 187:15,16 188:8,9,16,21
189:7,11,20 190:7,12,15,20 191:6
192:7,10 195:9 201:9 204:3
205:17 210:9,22 212:15 217:16,
18,19 218:7 219:2 220:18 222:1,
8,20 225:4 227:2,3,13 228:9,16,
20 229:7,14,21 230:4,6,15 231:9,
10 232:17,18,20,21,22 233:9,11,
16 235:14 236:9,10,13 237:21
238:3,7 252:21,22 255:13 265:19
272:17 275:2,3 277:7 279:11
280:9,17 287:6 293:12,16 296:15
299:6 307:20 308:16 318:16,17

system-specific 48:9

systemic 155:13

systems 17:11,14 18:11 20:16,
17 23:3,4,16 29:5,6,8,21 30:5,6,
11,22 31:11,13,15,22 32:7,20,22
33:3,4,11 34:3 35:18,22 36:1,13,
14 37:1,2 42:15 43:17 44:7 45:2,
18,20 46:1 48:7 49:4,13 50:2
51:8,9 52:1,14,19 53:1 59:3,7,8,
15 60:6,16,22 61:17 62:1 64:6
66:13 68:17 69:7 70:4,5 72:13
74:4,7 75:2,6 76:21 77:22 78:1,9
79:2,22 80:1 81:22 82:1,13 84:4
85:11,12,19 90:10,11 91:1,2 92:2
93:15,21 94:2 95:16,19 99:5,11,
12 105:16 106:13,14,19 108:15
110:10,12,13 111:13 112:20
116:16,21 117:15 118:2,3 120:12,
20,21 121:12 122:3 123:5,6,16

128:7 129:18,19 130:1,8 132:2,5
133:5,18,19 134:1,7,11 135:6,7
136:5,6,21 137:2,7,14,15,19
138:13 139:5 140:9 141:14,22
143:3 145:1 148:18,19 150:5
151:7,8 152:6,10,12,22 153:1
154:14 157:14,15 158:4,9 159:21
160:6,10,12 171:15 172:16
173:13 175:19 177:2,13,16 181:1,
2 182:9 184:17,19 185:4,17
187:1,2 201:6 202:2,3,19 203:19
204:16 206:10,17,20 208:21,22
210:3 211:13,14 212:7,8,10
218:13 220:8,22 224:1,2 225:19,
20 226:14,15,17 227:9 228:4,7
229:3,4,8,13 231:13,16 233:5
235:2,3,4,6 237:16,18 239:14
240:16 242:9,10 245:11 246:15,
16 248:6,8,22 252:2 253:1,5,11
255:5,7,17 256:6 257:4,5,12
258:2,3,8,9 259:8,9,19,20 261:13,
14 264:18 265:7,9,11,13 271:6,
19,21 272:8 273:5,6 276:11,12
277:15 279:20,21 280:12 282:2,9,
19,20 283:14 284:4,5,10 285:16
286:5 287:11 293:5 295:22 296:4,
5,8 299:3,19 300:1,4 302:19,20
304:1 306:4,5 307:10,11,22
309:8,9 310:2,5,6,21,22 311:22
312:4,5 313:4,5 314:6,10,17,18,
22 319:12,18

T

t-boned 298:11

T-R-I-R 58:21

table 80:21 92:17

tack 195:16

takes 295:1

talk 59:15 98:7 114:9 145:4
196:21 214:14 230:3 235:2 243:3
288:15 296:21 305:3 306:21

talked 81:12 91:21 109:9 116:13
117:3 217:16 218:19 221:9

talking 84:10 92:11 97:20
107:13,14 108:9 110:9 145:1
146:15 184:2 195:22 210:14
215:22 220:15 221:16 237:17
267:18

tall 18:8 21:16 34:22 41:1 63:14
64:4,14 65:6,8 66:2 67:5,6,13

70:2 83:8 84:21 86:18 107:3
192:5 240:8 251:20 252:7,8,16
253:2 254:4,6 255:3

taller 241:4

tangled 30:8 195:4 260:13
276:13

tank 19:1 20:13 76:12 267:6

tanks 16:21 18:19 19:14 24:11
25:21 27:3 207:20 214:9,10 274:5
313:21

targets 64:21

task 96:19 172:19 279:10 289:15
290:6

teams 276:13

tear 165:19

technical 110:16 111:17 129:7,
13 130:2,13 131:1,5,12,21 132:18
133:1 136:4 138:14 139:21
303:15

technically 204:22

technician 270:5

technicians 200:18

technologies 133:9

technology 66:12 130:5 133:16
199:11 272:20

technology-neutral 201:7

telecommunication 207:22
212:18

telecommunications 52:2 92:3
214:3

telling 260:4

tells 271:10

temperamental 38:14

temperature 25:1 38:19 54:18
125:5 214:4

temporarily 95:11

temporary 174:11,20 175:5
195:14

ten 153:17,19 154:1 210:20

ten-year 100:8 101:20

tend 92:10

tens 28:8 37:17 164:21

tense 197:4,7

tenth 144:3

term 178:4

terminal 16:3,9 20:9 67:12

terminals 15:21 16:4 18:1 42:21
67:17 84:22 119:11

terms 86:16 103:14,19 151:22
203:20 219:18 226:6 231:3 233:7,
9 236:21 263:9 290:15

Tessa 11:16,18 12:2 60:10 61:21
248:2 263:19 266:18 292:9
315:19

test 135:17,18 140:15 310:10

tested 136:7 211:1

testified 50:19 57:17 60:14

testifier 236:14

testify 15:5 16:1 28:2 62:22
111:1 126:10 128:12 216:2
245:22 274:2 309:14

testifying 15:20 28:3 63:2
302:15

testimonials 154:18

testimonies 139:17 145:11
278:4

testimony 10:2,9 11:5 14:21
15:18 22:15 23:10 27:7 35:6,16
38:8 39:13,18 40:14 49:21 52:10
54:8 56:6 58:7 59:13,21 61:4
62:10 71:20 72:3 79:9 84:7,19
87:13 110:20 113:16 115:6
118:19 124:16 127:10 146:11
154:5 155:11 156:3 159:14,19
167:10 171:12 178:15 191:7
197:2 198:18 199:19 200:4 206:6,
8 209:22 211:5 213:13 215:9
223:9 234:21 241:12,16 246:3
247:5 248:3,4 249:14,21 256:12
257:22 259:16 263:21 265:6
268:21 269:5 278:8,11,15 281:20
286:8 293:4 299:1,22 300:18
301:2,18 308:14 309:19,21 312:9
315:19 319:16 320:12 322:4,10

testing 132:4,16 135:14 136:3
139:20 140:6,8,12 145:5 206:13,
16,18 219:14 305:13

tests 130:19

thankfully 178:11

that's 247:10,15,19,21 257:16
258:4,18 263:6,14,16 264:19
267:9 279:4 280:9 282:9 286:3
290:4,7 292:21 295:2 297:19
300:18 305:13 315:14 316:7,10
320:3,17

theoretical 308:3

theory 67:20

there'd 80:22

thereof 51:5

there's 169:21 248:13 259:11
275:17 280:11 285:20 295:21
296:13 297:10,11 300:13 305:12
306:18 310:18 311:14 312:17,20
313:17,19 318:6,10

they'll 275:13 279:7 280:20
288:9,13,22

they're 246:14 249:2 259:2
265:8 279:4,11,14 287:17 290:1
291:5 302:13 307:12 310:11
311:18 312:12 314:13 317:22
318:1

they've 280:22 298:18 304:18

thing 90:17 104:19 105:1,6 110:8
163:12 169:20 194:3 228:18
235:14,18 239:17 265:22

things 10:12 82:21 106:2 114:21
123:10 131:10 154:9 166:4 194:2
206:19 208:10 211:9 213:22
217:5 233:22 239:3 257:20 261:5
278:21,22 281:18 284:13,14
285:22 286:2,12 288:9 295:15
296:14 297:12 300:11

thinking 91:13 165:18 299:12

third-party 73:16 91:22

Thom 127:14 128:1 132:7,21
139:12 147:22

Thom's 131:22

Thomas 269:11

thought 90:21 93:3 165:8 193:10

thoughts 223:11

thousands 28:9 32:17 37:17
73:17 164:21,22 216:18 272:2

three-person 280:20	124:16 127:22 128:13 131:4,10	train 235:6 287:4 310:9
threshold 64:16	139:17 140:20 154:5 159:19	trained 91:18 149:17 174:17
thresholds 170:16	169:10 176:17 178:15 194:21	222:10 265:10 270:20 272:2
throughline 63:8	202:8 206:6 207:16 220:21	281:12
thrown 155:11	223:10 234:21 242:5 247:5 256:9,	trainer 226:8
tie 96:20	12 257:22 266:16 270:15,18	training 20:16,18 29:22 34:4
tie-off 46:8 149:21 275:20 294:12	274:2 275:7 278:4,8,11,15 281:20	48:9 79:14 82:17 135:19 172:3
295:6,12,16	286:8 293:4 301:16 302:15	175:4 193:12 196:19 203:10
tied 76:11 294:15 296:7 312:19	305:14 308:10 309:14,19,21	211:18 226:7 234:22 235:9,18,19,
tied-off 275:21	312:9 320:16 321:13 322:10	21 258:20,21 265:13,15,19 266:6,
tight 227:19	today's 12:14	10 280:21 284:2,3,10,20 285:10,
tighter 219:17	told 37:19 248:14 266:4,5	15 286:19 287:7 289:10,14,16,22
time 10:5 19:12 22:9 27:7 29:22	tolerance 312:19	300:5,7 314:9 319:17
32:5,8,11 37:19 40:14 44:14	Tom 11:6,10 24:17 38:10 54:12,	transcript 10:14 41:4
49:16 54:8 61:18 65:15 69:11,15	13 55:18 82:6,22 86:7 87:7	transfer 182:6
74:13 76:14 82:3 87:14 88:3	124:19 125:20 154:10 159:11	transition 46:3,5 49:7 112:19
89:11 101:19 111:4,5 113:16	270:15	113:3,7 117:18,20 133:8,13
120:7,8 121:20 122:22 124:16	tomorrow 245:7	148:21 149:6,7,19,20 150:9,16,
126:9 133:13 149:15 153:15	Tony 272:3	18,19 151:1 172:20 173:9,17
154:5 156:5,6 159:14,19 175:17	tool 46:2 152:4 297:7	203:1,14 244:17 245:10
176:17 177:15 184:6 199:18	toolkit 137:7	transitioning 30:14 46:9 149:16
207:7 216:1 222:13 223:1 232:5	tools 30:8 229:16,19 237:14	237:4
233:12 236:1 239:1 243:15	305:1	transitions 45:16 69:1 293:14
244:18 249:10 252:2 254:2	top 26:18 34:2 40:19 46:4 56:18,	transportable 220:8
256:12 261:8,18 263:6 267:13	22 107:7,8 119:16 126:15 185:17,	trapped 272:20
273:4 278:8 279:1 282:12 286:8	19 186:1,3 190:9 209:11 214:11	trapping 204:5
287:3,18 288:5 289:2 291:3,10	221:2 274:16 279:4 289:7 294:6	traps 277:16
294:10,16 297:19 298:19 309:19	295:12 312:12,21	trauma 275:1
318:10 322:9	tops 18:20 207:21	traumas 305:21
timeframe 199:16	torches 273:3	travel 271:22
timeline 303:19	total 218:19 220:15	traverse 294:6,17
timely 321:22	totally 116:2 199:14	Travis 301:8,16,22
timer 15:16	touched 165:11 207:15 234:22	treated 203:17 303:3
times 73:17 101:6 155:16 166:17,	tower 107:8 232:3 240:4,6	treatment 251:1
18 186:2 190:21 226:21 230:22	towers 221:17 274:5 313:21	tremendous 155:21
257:13 264:1 279:6 280:8,11	track 217:18 236:13 238:3	trend 283:6
285:20 286:1 287:8,13 288:10,18,	248:10 311:12,19 314:1 318:19	tried-and-true 66:14
19 293:18 295:19,21 312:18	tracked 291:11	trigger 170:18
timing 90:4	trade 16:2	trillions 115:22 308:9
Timothy 27:18 28:2	Traditional 304:9	trip 302:14
title 266:1,2	traditionally 59:6	tripod 290:3
today 10:22 11:4,15 28:2 38:8	tragedy 273:12	
40:14 42:10 52:10 54:9 63:2	tragic 99:1,13 101:7 275:6	
71:15 82:3 84:7,11 91:10 95:10		
96:10 108:17 115:6 117:4 119:3		

trips 304:14
trolley 295:2,11
trouble 259:3 288:17
troubling 275:7
trucks 268:18
true 17:1 21:3 33:8 160:11
trusted 217:1
tunnel 250:22
turn 15:3,13 27:19 42:5 127:16
 131:10 191:11 215:18 250:6
 285:1 291:14 297:8,11
turnarounds 119:8
turns 43:19
twitch 148:11
two-dimensional 146:13
two-part 235:8
two-tier 272:16
type 22:16 29:13 68:17 107:11
 115:1 116:5 140:13,18 166:8,12
 189:6 230:18 258:11,14 265:22
 280:9 284:11,17 287:15 290:4
types 53:7 70:16 74:5,6 76:7,18
 101:5 102:2 107:7 111:15 132:4
 137:4 158:16 166:14,15 201:15
 210:4,6 240:20 265:10 285:22
 287:14 300:5 316:18
typical 84:3 178:18 287:8,13
 308:15
typically 18:18 31:2 46:18 138:7
 141:6 165:4 229:18 235:21 241:3
 279:8 287:4

U

U.k.'s 146:4
U.S. 252:4
ultimate 93:19
ultimately 66:6 81:6,8 88:6
 89:11 93:13 190:18
unacceptable 272:11
unaccustomed 172:4
unavoidable 201:16

unaware 43:15
unchanged 16:13
uncommon 164:6
unconscious 75:12 145:12
 147:19
uncontrolled 135:15 140:16
underestimate 318:21
underlying 135:5 202:7 205:10
undermining 303:13
underneath 166:7 211:2
understaffed 299:8
understand 42:1 50:16 72:15,16
 91:10 94:11 109:2 121:2 138:12
 191:22 204:8 217:22 240:13
 248:15 275:15
understanding 38:2 50:7 65:18
 168:1 320:14
understood 58:2 90:16 161:6,7
 187:20 228:11 255:2 268:19
 293:1 296:1 316:15 317:7 318:12
undertaking 72:17
unexpected 276:7
unfortunate 153:11 161:12
unhook 294:13,16 295:8
uniform 74:1
union 247:11 262:1 267:5 270:4
 273:10 298:13 302:6 313:9,19
 317:6
unions 270:8
unique 64:9 92:8
unit 70:16 82:15 94:3 95:2,13
 96:16 97:4 211:15 274:17
United 202:12 242:11 269:7
 270:4,7 272:3 273:22
units 69:20,21 226:8
universal 65:16
universe 57:4
unlike 73:22 135:7
unmute 127:16
unnecessary 32:13

unrestrained 140:18
unsafe 65:15
update 63:15,22 276:10
upgraded 15:12
uploaded 10:14
upright 146:2
upside 43:20
urban 262:21
urge 64:1 271:1 309:10
urges 203:19
usage 117:6
usefulness 17:10
user 65:17 91:14 113:3 137:20
 156:22 158:6 177:14,18 193:15
 307:5
user-friendly 177:15
users 132:16 152:14
USW 270:7 274:12
utilities 270:12
utilize 20:20 152:15 161:21 306:5
utilizing 100:22 119:19

V

vacuum 102:5
Valcourt 215:13 216:9 217:20
Valero 42:9,18 43:3,8 45:8 48:15
 49:8 52:12 53:2 56:7 58:20 59:4
 60:15
Valero's 43:13
valid 202:8
validate 140:9
valuable 208:7
values 119:17
valve 285:1,7 291:7,9,12,15
 297:8
valves 69:21 285:2,4 297:5
variability 173:20
variables 140:14

variation 121:7 183:21**variations** 183:9**variety** 83:10 119:10 135:16
158:20 166:19**vary** 138:9 220:22**verbal** 10:3**version** 80:16**versus** 68:8 69:6 72:12,13 76:20
86:4 153:1 157:19 181:15 185:2,5
210:20 212:15 218:16 221:15
227:2 236:9,13 238:3 305:4**vertical** 146:16,17,22 204:15
306:5 307:22 308:15**viable** 310:11**Vice** 128:2**victim** 151:13**video** 130:20 235:20**view** 45:5 107:21 129:15 130:10
133:11 136:14 152:3**viewing** 89:17**views** 304:22**violence** 135:15**virtually** 43:1 74:2**viscerally** 135:19**visual** 164:19**vital** 16:4**volume** 85:2**voluntary** 129:3 130:6 133:16
252:14**vulnerable** 148:21 149:20
272:19

W

wait 168:19 180:13 315:17 320:6**waiting** 126:9**walk-in** 195:13**walking** 13:9,13 174:11 200:22
201:21 251:22 288:22 321:20**walking-working** 63:15 66:5
253:7 256:3 277:10**walkways** 18:20,22**wall** 268:6**wanted** 41:5 87:14 89:16 100:10
141:10 161:5 234:21 240:17**warning** 242:10**warrant** 198:16**warranted** 174:2**warrants** 203:7**waste** 250:22 313:12**watch** 25:2 38:20 54:20 125:6**water** 107:8 207:20 214:9 232:3
240:6 251:1 313:21**ways** 61:13 201:7 296:16,22
307:20**weaken** 175:12 251:13**weakening** 205:22**wealth** 78:15**wear** 18:5 19:15 96:21 165:19
279:3 312:11**wearing** 100:4 114:22 210:10
310:12**weather** 20:3 164:12 165:20
166:13,21**weather-related** 166:1**web** 222:3**webcam** 27:20**week** 257:13**weeks** 10:16**weight** 158:6 319:3**welcomed** 159:8**welded** 20:12**welds** 21:8,15 22:17,20**well-implemented** 149:22**wellbeing** 302:5**wells** 16:15,16,19 17:3,9,13 19:7,
13 22:5,11 23:2 25:18 26:18 27:4
28:14,18 29:9 31:3 34:7,22 35:9,
15,21 40:17,18 42:15 43:2,21
45:7,11 48:12,15 49:12 50:1,3
51:5,7 53:6 56:16 59:11,16 64:3,
13,14 65:9,14 66:2,7,15,17 67:4,11,14,15,19 68:2,11,18,20 69:4,
10 70:9,20 71:14 72:1 74:1,14
76:20 77:11,21 78:12 81:20 82:14
88:10 90:8 93:14,20 95:14,22
96:17 119:20 120:1 121:15
122:18 123:4 129:22 130:10
133:21 134:5,9 141:1 148:17
151:6 160:1,8 192:1,8 201:5
202:3 203:17,21 204:4 205:7,20
206:8,15 229:5,6,13 240:15 246:5
250:20 252:9 253:2,6 255:8 259:8
275:10 276:1 277:3 278:14
283:13 296:9 299:3 302:19
303:17 309:6 310:21 311:8,21
314:17**West** 216:12**we'd** 260:19 262:13 265:2**we'll** 263:12 291:21 297:22
311:4 315:6**we're** 259:3 262:4,5,6 266:1,6
267:18 281:5 283:5 297:17 311:3
313:16 314:1 317:5 320:15**we've** 278:9,13 280:15 281:7
283:3,6 284:13 285:1,4 286:5
291:4,10 294:18,19 295:3,13,14
297:6 299:22 300:13 311:10**who've** 225:1**widely** 18:11 110:13 133:10
137:19 242:20 255:18**wider** 260:6**widow** 298:7,10**Wilcox** 168:7,17 169:4,7,8,10
176:22 177:8,21 178:21 180:3,18
181:4,16 182:12,22 183:20 185:5
187:5,17 188:1,5,10 189:14,21
190:1 192:11 193:7 196:11
198:13 199:18 200:5**win** 272:15**winches** 297:10**wind** 107:9**window** 308:18**windscreen** 241:6**Wing** 215:14,20,22 216:8 222:12,
14 223:13,17 224:5,8,22 225:17
226:2,10 227:4 228:13 229:12
230:21 231:18,22 233:7 234:20
235:8 236:11 237:19 238:17

- 239:15,19,22 241:1,17
- Wire** 206:12
- withdraw** 271:3
- withstand** 228:3
- witnesses** 127:13 274:16 315:21 320:16 322:6
- witnessing** 266:19
- women** 242:8 302:10 309:6 314:13
- women's** 283:2
- Wonderful** 169:4
- wondering** 165:7
- word** 58:19 94:10 234:12
- words** 25:9 39:6 55:5 125:13 182:7 288:7
- wordy** 38:16
- work** 17:15 29:21 31:2,6 32:12, 16,22 43:6,22 45:20 47:7,8,9 64:10 72:19 73:1,2 78:11 83:4 84:6 88:18,21 92:8 106:8 107:18, 21 108:5 112:8 115:4 117:12 119:9,15 122:3 129:8 132:11,18 140:12 170:4 171:19 173:18 174:12 177:3 180:6 181:19 195:14 197:15 199:12 201:17 203:10 204:20 207:20,21 209:19 211:22 212:18 213:15 216:10,19 221:9 222:9 227:7 232:10 238:11 240:18 243:5 250:9 257:14 262:4, 19 264:16 273:3 275:19 279:7,12 280:2 285:19 297:18 304:19 316:11,16,19,20 317:1,3
- workable** 174:7
- workday** 291:2
- worked** 65:20 76:22 107:22 257:7 265:12
- worker** 46:19 47:6 82:17 114:16, 17 115:3 116:2 120:8,13 121:12, 16 133:19 134:2,16 136:10 139:6 141:22 142:16 143:14,20 144:2,9, 12 145:18 146:6 147:16,20 148:2, 3 149:7,13,17 170:22 175:12 191:7 203:12 204:6 205:15 209:7 217:22 220:18 221:5 222:22 224:16 226:7 227:14 231:2 236:14 237:1 250:10 251:13 252:11 254:5,21 255:19 261:11
- 272:6,15 273:1 275:15,18 277:12 287:4 290:6 296:18,19 297:18 303:9,22 304:12 305:16 306:11, 15
- worker's** 135:10
- workers** 44:3 46:4,17,22 101:19 120:17 121:2,9 129:5 130:8 132:20 136:21 137:8,16 138:18, 20 141:16 147:12 171:11 172:3 173:20 198:11 201:14 202:4,10 216:18 232:9 235:7,10 236:2 243:1,11 251:7,18 253:11,21 254:6 255:14,22 256:7 259:1 261:9 262:19 263:1 270:9,19 271:19 272:7,17,18 273:4 275:9, 10,20 276:13 277:3 285:12 286:18,22 288:15 295:20 296:6, 21 297:3,7 298:15 303:2 304:10, 15,16 305:8,18 306:7 307:21 309:13 310:9 311:17 316:12
- worker's** 254:11 308:22
- workforce** 73:21 91:17 122:4
- workforces** 73:16
- working** 13:10,13 20:9 35:15 61:12 75:7 83:5 99:11 128:9,17 174:11 182:21 193:15 195:13 200:22 201:21 207:19,22 209:2 216:18 217:2 227:8 232:8 242:17 251:22 276:16 289:19 302:9 309:5,6 321:20
- workplace** 92:20 94:3 129:1,11 242:22 275:22 288:22 289:4,6 297:16
- workplaces** 23:15,22 36:13 37:6 52:13 53:13 117:7 123:15 124:4 278:2 281:9 287:21
- works** 44:12 92:8 103:21 110:22 227:13 259:13 309:2
- worksites** 56:16 57:18 126:13
- world** 199:10
- world's** 128:14
- worn** 18:1
- worry** 10:10
- worse** 171:21 210:2 259:18,21 304:21
- worth** 88:21
- wouldn't** 262:8 291:14 292:16 311:17
- written** 98:14 99:18 112:17 130:22 136:18 142:4 161:3 162:22 192:18 194:22
- wrong** 32:11 77:5 93:2,16 272:21
- www.regulations.gov** 13:4
-
- Y**
-
- year** 73:18 153:9 174:16 182:3 192:21,22 289:8,12
- years** 18:6 48:13 57:8 58:22 70:9 107:22 128:6,10 153:17,20 154:1 182:5,11 198:20 199:2,10,13 216:4 244:9 245:9,12,15 254:1 257:8,11 260:4 304:6 317:17
- yo-yo** 295:5
- York** 257:7,10 262:20
- you'll** 280:19 284:14 293:18 296:22
- you're** 184:5 246:7 248:15 264:13 265:1 267:18 289:18,19 290:13,17,18 292:3 293:1,8 299:14,16 312:19 319:1,5,12
- you've** 269:12 294:15,21 297:15 299:13,15 300:12 317:21 319:5
-
- Z**
-
- Z359** 127:13 128:11 130:14 131:2,11,18 132:12 136:13 206:18
- Z359.16** 152:9
- Z359.6** 150:12
- Zavislan** 11:16,17,18 12:2 60:9, 10,14 61:19,21 248:1,2,15,19 249:4,13 263:19,20 264:12 265:1, 5,21 266:17,18 267:10,16,17,21 268:4,19 292:8,9 293:1,13 296:1 298:21 299:21 300:17 315:18,19 316:15 317:7,14 318:3,12 319:10, 22
- Zettler** 11:1,2 23:8,9,19 24:5,14 36:9,10,11,22 37:5 38:7 52:8,9 53:8,11 54:7 79:7,8,9 82:2 123:11,12,19,21 124:3,15 147:5,

8,10 148:16 151:3,11 152:5,18
154:3 178:13,14 179:21 180:10
208:10,11,18 209:21 211:4 223:6,
8,9,15,22 224:6,17 225:11 233:19
247:3,4,14 257:21 258:6 259:6,15
260:17 261:1 281:19,20 282:17
283:10,22 286:7 312:7,8,9 313:2
314:3,15 315:3,9

zones 150:9,16,18,19 151:2

Zuniga 269:10,13,15,18,20,21
270:1,3 282:7 286:16 301:4